International Wire & Cable Handbook

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The cables you need when you need them

Whether you need standard or specialist cables you're looking in the right place. With a massive range available on short lead-times we can deliver the product you need to wherever you need it.

Many of the products listed on the following pages are manufactured to European standards so you can be confident of the quality and reliability of the product.

Although the range of cables is very large you may need products not shown. Tell us what you require and we will do our best to find it for you on a lead-time that meets your needs.

Cables manufactured to your design are also catered for, often with small minimum order quantities or very fast delivery. Metal armours can also be applied to stock items making the cables suitable for direct burial or resistant to rodent attack. Minimum production quantities for these can be as low as 100m, please see pages 184-185 for more information.

We are sure we will meet your needs and supply you the cables you want.

Product quality and our environmental impact are responsibilities we take seriously. All production facilities are regularly monitored to ensure the cables meet the relevant standards and our impact on the planet is kept to a minimum.

Key

H = LSHF
D = DUCT
A = SWA
L = LSF

Details of cables listed as **DS** are available on a separate datasheet.

LSF versions are available from stock where indicated

In line with the rest of the industry our LSF cables are a modified PVC. If you need halogen free cables please specify LSHF.

We stock a wide range of genuine Belden cables and cost effective alternatives with PVC, Low Smoke Halogen Free and duct grade jackets. Armoured versions are also available from stock.

Many cables listed in this book are available in Low Smoke Halogen Free (LSHF) versions. These are indicated by the LSHF logo.

Tri-Rated Wiring 105°C – BS, UL & CSA standards

Tri-rated panel wires meet the requirements of British Standards (BS), Underwriters Laboratory (UL) and the Canadian Standards Authority (CSA) making them ideal for panel wiring, process control and wiring on internationally approved equipment. The flexible stranded class 5 conductor makes wiring in confined spaces easy whilst the UL rated +105°C insulation allows for heat build up in control circuit bundles and enclosures.

The cables are available in a wide range of colours and conductor sizes. Cables above 120mm² meet UL & BS standards only. Double insulated Tri-rated versions are also available on request.

Construction

Plain copper wire conductors to IEC 60228 class 5. PVC heat resistant & flame retardant thermoplastic insulation.

Technical Information

Voltage Rating: UL & CSA 600V, BS: 0.6/1kV
Conductor Stranding: IEC 60228 / BS EN 60228 class 5, copper
Temperature Rating: UL & CSA +105°C.

British Standard: +90°C (+105°C for 15,000 hours)
Flame Retardant: UL VW-1 vertical flame test
Manufactured To:
0.5mm² to 6.0mm²: UL1015, CSA type TEW and BS 6231 type CK
10mm²: UL1028, CSA type TEW and BS 6231 type CK
16mm² to 35mm²: UL1283, CSA type TEW and BS 6231 type CK
25mm² to 120mm²: UL1284, CSA type TEW and BS 6231 type CK
150mm² to 240mm²: UL1284 and BS 6231 type CK

TRI01503

Part No.	Size mm²	AWG approximately	UL style	Weight kg/km	O/D mm
TRI005xx	0.50	22	1015	13	2.6
TRI007xx	0.75	20	1015	16	2.7
TRI010xx	1.0	18	1015	18	3.0
TRI015xx	1.5	16	1015	24	3.3
TRI025xx	2.5	14	1015	34	3.6
TRI040xx	4.0	12	1015	49	4.3
TRI060xx	6.0	10	1015	68	4.6
TRI100xx	10	8	1028	120	6.4
TRI160xx	16	6	1283	189	8.0
TRI250xx	25	4	1283	292	9.5
TRI350xx	35	2	1283	407	10.5
TRI500xx	50	1	1284	585	13.0
TRI700xx	70	2/0	1284	782	14.6
TRI950xx	95	3/0	1284	1049	16.2
TRI120xx	120	4/0	1284	1173	18.0
TRI150xx	150	250 MCM	1284	1410	21.0
TRI185xx	185	350 MCM	1284	1747	23.0
TRI240xx	240	450 MCM	1284	2320	25.0

Standard pack size for conductor sizes up to and including 25mm² is 100m.
25mm² and above can be cut to customer specific lengths
Not all colours are available in larger sizes

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

H07V-R / 6491X PVC Wiring – 450/750V

Single core PVC insulated fixed wiring and conduit cable for commercial and industrial applications.

Construction

Plain copper wire conductors to IEC 60228 class 2.
PVC thermoplastic insulation to BS 4066.

Versions with individual national approvals including KEMA-KEUR, VDE, SEV etc are available on request.

Technical Information

Voltage Rating: 450/750V
Conductor Stranding: IEC 60228 class 2 circular copper
Temperature Rating: -15°C to +70°C maximum conductor temperature
Flame Retardant: IEC 60332-1
Manufactured To: BS 4066 & H07V-R

Part No.	Size mm²	Strands mm	Weight kg/km	O/D mm
649001Yxx	1.5	7/0.53	22	2.9
649002Yxx	2.5	7/0.67	35	3.8
649004Yxx	4.0	7/0.85	52	4.2
649006Yxx	6.0	7/1.04	70	4.7
649010Yxx	10	7/1.35	122	6.2
649016Yxx	16	7/1.70	179	7.3
649025Yxx	25	7/2.14	286	8.7
649035Yxx	35	7/2.52	382	10.1
649050Yxx	50	19/1.78	515	11.7
649070Yxx	70	19/2.14	714	13.5
649095Yxx	95	19/2.52	988	15.8
649120Yxx	120	37/2.03	1232	17.7
649150Yxx	150	37/2.25	1511	19.5
649185Yxx	185	37/2.52	1898	21.6
649240Yxx	240	61/2.25	2487	24.5
649300Yxx	300	61/2.52	3052	27.4
649400Yxx	400	61/2.85	3902	30.8
649500Yxx	500	61/3.20	4880	34.6
649630Yxx	630	127/2.50	6215	38.7

649002Y01

Standard pack size for conductor sizes up to and including 16mm² is 100m.
25mm² and above can be cut to customer specific lengths
Not all colours are available in larger sizes

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

H07Z-R / 6491B LSHF Wiring – 450/750V

Single core wiring cables for use in conduit, trunking or independent earthing applications.

The Low Smoke Halogen Free properties make H07Z-R cables ideal for public building and safety wiring applications.

Construction

Plain copper wire conductors to IEC 60228 class 2.
Thermosetting Low Smoke Halogen Free insulation to BS 7211.

Technical Information

Voltage Rating: 450/750V
Conductor Stranding: IEC 60228 class 2 circular copper
Temperature Rating: -15°C to +90°C maximum conductor temperature
Flame Retardant: IEC 60332-1, BS EN 50265
Smoke Emission: IEC 61034, BS EN 50268
Halogen Emission: IEC 60754-2, BS EN 50267-2
Manufactured To: BS 7211 / H07Z-R

Versions with individual national approvals including KEMA-KEUR, VDE, SEV etc are available on request.

H07Z-K / 2491B flexible versions are on page 113.

64900402

Part No.	Size mm²	Strands mm	Weight kg/km	O/D mm
649001xx	1.5	7/0.53	22	2.9
649002xx	2.5	7/0.67	35	3.8
649004xx	4.0	7/0.85	52	4.2
649006xx	6.0	7/1.04	70	4.7
649010xx	10	7/1.35	122	6.2
649016xx	16	7/1.70	179	7.3
649025xx	25	7/2.14	286	8.7
649035xx	35	7/2.52	382	10.1
649050xx	50	19/1.78	515	11.7
649070xx	70	19/2.14	714	13.5
649095xx	95	19/2.52	988	15.8
649120xx	120	37/2.03	1232	17.7
649150xx	150	37/2.25	1511	19.5
649185xx	185	37/2.52	1898	21.6
649240xx	240	61/2.25	2487	24.5
649300xx	300	61/2.52	3052	27.4
649400xx	400	61/2.85	3902	30.8
649500xx	500	61/3.20	4880	34.6
649630xx	630	127/2.50	6215	38.7

Standard pack size for conductor sizes up to and including 25mm² is 100m.
25mm² and above can be cut to customer specific lengths
Not all colours are available in larger sizes

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

Single Core Enhanced Circuit Integrity

Designed for fixed installations where circuit integrity is critical in the event of a fire. The Low Smoke Halogen Free insulation also ensures minimal fumes and smoke are given off providing safety for both personnel and property. Maximum fire performance requires installation in either metal conduit or trunking.

Construction

Stranded plain copper conductor to IEC 60228 Class 2, mica glass tape, LSHF insulation.

Technical Information

Voltage Rating: 0.6/1kV
Temperature Rating: -40°C to +90°C
Minimum Bending Radius: 8 x cable dia

Standards

Flame Retardant: IEC 60332-1-2, IEC 60332-3-24C
Smoke Emission: IEC 61034-2
Halogen Emission: IEC 60754-1 & 2, EN 50267-2-1
Fire Resistant: BS 6387 Categories CWZ
(when applied to a single cable appropriately protected in steel conduit)

Part No.	mm²	Stranding & mm	Weight kg/km	Maximum O/D mm	Conductor Res @ 20°C Ohms/km
3871501xx	1.5	7/0.53	33	3.9	12.10
3872501xx	2.5	7/0.67	43	4.6	7.41
3874001xx	4.0	7/0.85	56	5.2	4.61
3876001xx	6.0	7/1.04	87	5.7	3.08
38710001xx	10	7/1.35	150	7.3	1.83
38716001xx	16	7/1.70	201	8.2	1.15
38725001xx	25	7/2.14	323	9.9	0.727
38735001xx	35	7/2.52	415	10.8	0.524
38750001xx	50	19/1.78	553	13.4	0.387
38770001xx	70	19/2.14	776	15.3	0.268
38795001xx	95	19/2.52	1149	17.8	0.193
38712001xx	120	37/2.03	1426	19.3	0.153
38715001xx	150	37/2.25	1731	21.5	0.124
38718501xx	185	37/2.52	2158	23.8	0.0991
38724001xx	240	61/2.25	2931	26.8	0.0754
38730001xx	300	61/2.52	3549	29.8	0.0601

Some sizes and colours are also LPCB approved. If you need this please state at time of enquiry.

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

3871600199

BS 5467 Armoured Power 0.6/1kV

BS 5467 cables are used for mains or low voltage power and control circuits. They offer excellent mechanical protection from damage through the use of a heavy galvanised steel wire armour. The GSWA armour and black UV stable water resistant jacket makes them suitable for use inside and outside buildings or for direct burial in the ground.

Construction

Plain copper conductors to IEC 60228 class 2 (stranded), XLPE insulation, PVC inner sheath, galvanised steel wire armour, PVC sheath – black.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey
	Brown, blue green/yellow – Suffix part no. "PE"
4 Core	Brown, black, grey, blue
5 Core	Brown, black, grey, blue, green/yellow
	Auxiliary number coded – Suffix part no. "AUX"
7 Core and above number coded	

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 class 2 shaped or circular
Temperature Rating:	-15°C to +90°C max conductor temperature
Bending Radius :	1.5mm² to 16mm²: 6 x overall diameter 25mm² and above: 8 x overall diameter
Flame Retardant:	IEC 60332-1-2
Manufactured To:	IEC 60502 & BS 5467

54600103

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
54600102	2 x 1.5*	305	7.7	12.3
54600103	3 x 1.5*	338	8.2	12.8
54600103PE	3 x 1.5*	338	8.2	12.8
54600104	4 x 1.5*	381	8.9	13.5
54600105	5 x 1.5*	426	10.6	15.1
54600105AUX	5 x 1.5*	426	10.6	15.1
54600107	7 x 1.5*	490	10.9	15.9
54600112	12 x 1.5*	817	13.9	19.4
54600119	19 x 1.5*	1225	16.5	22.3
54600127	27 x 1.5*	1553	20.1	26.6
54600137	37 x 1.5*	1859	22.4	29.2
54600202	2 x 2.5*	352	9.0	13.6
54600203	3 x 2.5*	397	9.5	14.1
54600203PE	3 x 2.5*	397	9.5	14.1
54600204	4 x 2.5*	452	10.4	15.0
54600205	5 x 2.5*	549	12.5	17.1
54600205AUX	5 x 2.5*	549	12.5	17.1
54600207	7 x 2.5*	600	12.1	16.3
54600212	12 x 2.5*	910	16.7	22.3
54600219	19 x 2.5*	1500	20.0	26.6
54600227	27 x 2.5*	1928	23.9	30.6
54600237	37 x 2.5*	2360	27.0	33.8
54600402	2 x 4.0*	419	10.1	14.7
54600403	3 x 4.0*	481	10.7	15.3
54600403PE	3 x 4.0*	481	10.7	15.3
54600404	4 x 4.0*	563	11.8	16.4

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
54600405	5 x 4.0*	810	14.2	19.7
54600405AUX	5 x 4.0*	810	14.2	19.7
54600407	7 x 4.0*	950	13.9	19.7
54600412	12 x 4.0*	1400	19.3	25.6
54600419	19 x 4.0*	1852	22.7	29.4
54600427	27 x 4.0*	2630	27.4	34.4
54600437	37 x 4.0*	3470	31.2	39.3
54600602	2 x 6.0*	498	11.3	15.9
54600603	3 x 6.0*	569	11.5	16.6
54600604	4 x 6.0*	795	13.2	18.7
54600605	5 x 6.0*	865	14.0	19.6
54601002	2 x 10*	764	13.2	18.0
54601003	3 x 10*	869	13.9	20.0
54601004	4 x 10*	1064	15.6	21.1
54601005	5 x 10*	1222	17.1	22.5
54601602	2 x 16*	900	14.5	20.0
54601603	3 x 16*	1159	15.8	22.0
54601604	4 x 16*	1410	17.2	22.9
54601605	5 x 16*	1812	19.8	26.5
54602502	2 x 25*	1199	18.4	24.1
54602502	2 x 25†	1000	21.3	20.4
54602503	3 x 25*	1702	20.1	26.7
54602504	4 x 25*	2090	22.3	28.9
54602504	4 x 25†	1950	19.5	26.1
54602505	5 x 25*	2370	24.4	31.0
54603502	2 x 35*	1698	19.0	27.9

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
54603502	2 x 35†	1490	16.8	23.4
54603503	3 x 35*	2240	22.0	28.9
54603504	4 x 35*	2590	25.3	32.1
54603504	4 x 35†	2350	22.0	28.8
54605001	1 x 50#	800	12.7	17.5
54605002	2 x 50#	1750	19.0	25.8
54605003	3 x 50#	2225	21.7	28.5
54605004	4 x 50#	2875	25.0	32.0
54607001	1 x 70	940	14.7	20.2
54607002	2 x 70	2300	22.0	29.0
54607003	3 x 70	3025	25.2	32.2
54607004	4 x 70	4250	29.2	37.7
54609501	1 x 95	1220	16.6	22.3
54609502	2 x 95	3100	25.1	33.1
54609503	3 x 95	4275	28.8	37.0
54609504	4 x 95	5475	33.3	41.7
54612001	1 x 120	1490	18.5	24.2
54612002	2 x 120	3700	27.9	36.1
54612003	3 x 120	5250	32.2	40.4
54612004	4 x 120	7175	37.5	47.1
54615001	1 x 150	1870	20.8	27.4
54615002	2 x 150	4400	30.9	39.3
54615003	3 x 150	6650	35.9	45.5
54615004	4 x 150	8475	41.6	51.4
54618501	1 x 185	2290	23.2	30.0
54618502	2 x 185	5700	34.9	44.7
54618503	3 x 185	8045	40.0	49.8
54618504	4 x 185	10350	46.4	56.6
54624001	1 x 240	2880	26.0	32.8
54624002	2 x 240	7100	39.0	49.0
54624003	3 x 240	10150	44.9	55.1
54624004	4 x 240	13000	52.6	63.0
54630001	1 x 300	3520	28.6	35.6
54630003	3 x 300	12740	52.5	61.5
54630004	4 x 300	1550	58.0	68.8
54640001	1 x 400	4520	32.4	40.4
54640003	3 x 400	15810	59.5	68.0
54640004	4 x 400	21800	69.4	79.0
54650001	1 x 500	5680	36.0	44.2
54663001	1 x 630	7120	40.4	48.8

**Circular or compacted circular stranded conductors (class 2)*
† Shaped stranded conductor (class 2)
 # Cables having conductors of nominal cross-sectional area 50mm² and above have shaped stranded conductors (class 2)

Single core cables are supplied with an aluminium wire armour (AWA) in accordance with BS 5467

Other conductor sizes available upon request

BS 6724 Armoured LSHF Power – 0.6/1kV

BS 6724 low voltage armoured power and control cables are manufactured using Low Smoke Halogen Free compounds. This makes them ideal for use in public buildings, tunnels and areas of increased safety such as refineries and power stations where mechanical damage and fire risk is a concern.

Construction

Plain copper conductors to IEC 60228 class 2, XLPE insulation, LSHF bedding, galvanised steel wire armour, LSHF sheath.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey
	Brown, blue green/yellow – Suffix part no. "PE"
4 Core	Brown, black, grey, blue
5 Core	Brown, black, grey, blue, green/yellow
	Auxiliary number coded – Suffix part no. "AUX"
7 Core and above number coded	

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 class 2 shaped or circular
Temperature Rating:	-15°C to +90°C
Bending Radius:	8 x overall diameter
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 cat C
Smoke Emission:	IEC 61034-2, BS EN 50268
Halogen Emission:	IEC 60754-2, BS EN 50267
Manufactured To:	BS 6724 / IEC 60502

72400604

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
72400102	2 x 1.5*	305	7.7	12.3
72400103	3 x 1.5*	338	8.2	12.8
72400103PE	3 x 1.5*	338	8.2	12.8
72400104	4 x 1.5*	381	8.9	13.5
72400105	5 x 1.5*	426	10.6	15.1
72400105AUX	5 x 1.5*	426	10.6	15.1
72400107	7 x 1.5*	490	10.9	15.9
72400112	12 x 1.5*	817	13.9	19.4
72400119	19 x 1.5*	1225	16.5	22.3
72400127	27 x 1.5*	1553	20.1	26.6
72400137	37 x 1.5*	1859	22.4	29.2
72400202	2 x 2.5*	352	9.0	13.6
72400203	3 x 2.5*	397	9.5	14.1
72400203PE	3 x 2.5*	397	9.5	14.1
72400204	4 x 2.5*	452	10.4	15.0
72400205	5 x 2.5*	549	12.5	17.1
72400205AUX	5 x 2.5*	549	12.5	17.1
72400207	7 x 2.5*	600	12.1	16.3
72400212	12 x 2.5*	910	16.7	22.3
72400219	19 x 2.5*	1500	20.0	26.6
72400227	27 x 2.5*	1928	23.9	30.6
72400237	37 x 2.5*	2360	27.0	33.8
72400402	2 x 4.0*	419	10.1	14.7
72400403	3 x 4.0*	481	10.7	15.3
72400403PE	3 x 4.0*	481	10.7	15.3
72400404	4 x 4.0*	563	11.8	16.4
72400405	5 x 4.0*	810	14.2	19.7

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
72400405AUX	5 x 4.0*	810	14.2	19.7
72400407	7 x 4.0*	950	13.9	19.7
72400412	12 x 4.0*	1400	19.3	25.6
72400419	19 x 4.0*	1852	22.7	29.4
72400427	27 x 4.0*	2630	27.4	34.4
72400437	37 x 4.0*	3470	31.2	39.3
72400602	2 x 6.0*	498	11.3	15.9
72400603	3 x 6.0*	639	12.0	16.6
72400604	4 x 6.0*	795	13.2	18.7
72400605	5 x 6.0*	865	14.0	19.6
72401002	2 x 10*	764	13.2	18.0
72401003	3 x 10*	908	14.0	19.5
72401004	4 x 10*	1064	15.6	21.1
72401005	5 x 10*	1222	17.1	22.5
72401602	2 x 16*	900	14.5	20.0
72401603	3 x 16*	1220	15.5	21.2
72401604	4 x 16*	1410	17.2	22.9
72401605	5 x 16*	1812	19.8	26.5
72402502	2 x 25*	1199	18.4	24.1
72402502	2 x 25†	1000	21.3	20.4
72402503	3 x 25*	1702	20.1	26.7
72402503	3 x 25†	1500	17.0	23.6
72402504	4 x 25*	2090	22.3	28.9
72402504	4 x 25†	1950	19.5	26.1
72403502	2 x 35*	1698	19.0	27.9
72403502	2 x 35†	1490	16.8	23.4
72403503	3 x 35*	2120	22.8	29.6

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
72403503	3 x 35†	1940	19.1	25.9
72403504	4 x 35*	2590	25.3	32.1
72403504	4 x 35†	2350	22.0	28.8
72405001	1 x 50#	800	12.7	17.5
72405002	2 x 50#	1750	19.0	25.8
72405003	3 x 50#	2225	21.7	28.5
72405004	4 x 50#	2875	25.0	32.0
72407001	1 x 70	940	14.7	20.2
72407002	2 x 70	2300	22.0	29.0
72407003	3 x 70	3025	25.2	32.2
72407004	4 x 70	4250	29.2	37.7
72409501	1 x 95	1220	16.6	22.3
72409502	2 x 95	3100	25.1	33.1
72409503	3 x 95	4275	28.8	37.0
72409504	4 x 95	5475	33.3	41.7
72412001	1 x 120	1490	18.5	24.2
72412002	2 x 120	3700	27.9	36.1
72412003	3 x 120	5250	32.2	40.4
72412004	4 x 120	7175	37.5	47.1
72415001	1 x 150	1870	20.8	27.4
72415002	2 x 150	4400	30.9	39.3
72415003	3 x 150	6650	35.9	45.5
72415004	4 x 150	8475	41.6	51.4
72418501	1 x 185	2290	23.2	30.0
72418502	2 x 185	5700	34.9	44.7
72418503	3 x 185	8045	40.0	49.8
72418504	4 x 185	10350	46.4	56.6
72424001	1 x 240	2880	26.0	32.8
72424002	2 x 240	7100	39.0	49.0
72424003	3 x 240	10150	44.9	55.1
72424004	4 x 240	13000	52.6	63.0
72430001	1 x 300	3520	28.6	35.6
72430002	2 x 300	8500	43.3	53.5
72430003	3 x 300	12740	52.5	61.5
72430004	2 x 300	1550	58.0	68.8
72440001	1 x 400	4520	32.4	40.4
72440003	3 x 400	15810	59.5	68.0
72440004	4 x 400	21800	69.4	79.0
72450001	1 x 500	5680	36.0	44.2
72463001	1 x 630	7120	40.4	48.8

**Circular or compacted circular stranded conductors (class 2)*
† Shaped stranded conductor (class 2)
 # Cables having conductors of nominal cross-sectional area 50mm² and above have shaped stranded conductors (class 2)

Single core cables are supplied with an aluminium wire armour (AWA) in accordance with BS 6724

Other conductor sizes available upon request

BS 7846 Armoured Fire Resistant Power – 0.6/1kV

BS 7846 cables provide circuit integrity in the event of a fire, these Low Smoke Halogen Free cables meet the fire resistant requirements of IEC 60331 & BS 6387 CWZ. The design is very similar to BS 6724 with the addition of a mica glass tape under the insulation to provide the fire barrier. They are ideally suited for use in hospitals, tunnels and infrastructure where fire safety is critical. Popular brands of these cables include Draka Firetuf Power and Prysmian FP400.

Construction

Plain copper conductors to IEC 60228 Class 2, mica glass tape, XLPE insulation, LSHF bedding, galvanised steel wire armour, LSHF sheath.

Core Identification

2 Core Brown, blue
3 Core Brown, black, grey
4 Core Brown, black, grey, blue
5 Core and above Brown, black, grey, blue, green/yellow
7 Core and above number coded

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 class 2 shaped or circular
Temperature Rating:	-25°C to +90°C
Bending Radius:	8 x overall diameter
Fire Resistant:	IEC 60331, BS 7846 F2, BS 6387 Categories CWZ
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 cat C, BS EN 50265, BS EN 50266
Smoke Emission:	IEC 61034-2, BS EN 50268
Halogen Emission:	IEC 60754-2, BS EN 50267
Manufactured To:	BS 7846 / IEC 60502

84601604

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
84600102	2 x 1.5*	305	7.7	12.3
84600103	3 x 1.5*	338	8.2	12.8
84600104	4 x 1.5*	381	8.9	13.5
84600105	5 x 1.5*	426	10.6	15.1
84600107	7 x 1.5*	490	10.9	15.9
84600112	12 x 1.5*	817	13.9	19.4
84600119	19 x 1.5*	1225	16.5	22.3
84600127	27 x 1.5*	1553	20.1	26.6
84600137	37 x 1.5*	1859	22.4	29.2
84600202	2 x 2.5*	352	9.0	13.6
84600203	3 x 2.5*	397	9.5	14.1
84600204	4 x 2.5*	452	10.4	15.0
84600205	5 x 2.5*	549	12.1	16.3
84600207	7 x 2.5*	600	12.5	17.1
84600212	12 x 2.5*	910	16.7	22.3
84600219	19 x 2.5*	1500	20.0	26.6
84600227	27 x 2.5*	1928	23.9	30.6
84600237	37 x 2.5*	2360	27.0	33.8
84600402	2 x 4.0*	419	10.1	14.7
84600403	3 x 4.0*	481	10.7	15.3
84600404	4 x 4.0*	563	11.8	16.4
84600405	5 x 4.0*	810	13.9	19.7
84600407	7 x 4.0*	950	14.2	21.0
84600412	12 x 4.0*	1400	19.3	25.6
84600419	19 x 4.0*	1852	22.7	29.4
84600427	27 x 4.0*	2630	27.4	34.4

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
84600437	37 x 4.0*	3470	31.2	39.3
84600602	2 x 6.0*	498	11.3	15.9
84600603	3 x 6.0*	639	12.0	16.6
84600604	4 x 6.0*	795	13.2	18.7
84600605	5 x 6.0*	865	14.0	19.6
84601002	2 x 10*	764	13.2	18.0
84601003	3 x 10*	908	14.0	19.5
84601004	4 x 10*	1064	15.6	21.1
84601005	5 x 10*	1222	17.1	22.5
84601602	2 x 16*	900	14.5	20.0
84601603	3 x 16*	1220	15.5	21.2
84601604	4 x 16*	1410	17.2	22.9
84601605	5 x 16*	1812	19.8	26.5
84602502	2 x 25*	1199	18.4	24.1
84602502	2 x 25†	1000	21.3	20.4
84602503	3 x 25*	1702	20.1	26.7
84602503	3 x 25†	1500	17.0	23.6
84602504	4 x 25*	2090	22.3	28.9
84602504	4 x 25†	1950	19.5	26.1
84603502	2 x 35†	1490	16.8	23.4
84603502	2 x 35*	1698	19.0	27.9
84603503	3 x 35†	1940	19.1	25.9
84603503	3 x 35*	2120	22.8	29.6
84603504	4 x 35†	2350	22.0	28.8
84603504	4 x 35*	2590	25.3	32.1
84605001	1 x 50#	800	12.7	17.5

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
84605002	2 x 50#	1750	19.0	25.8
84605003	3 x 50#	2225	21.7	28.5
84605004	4 x 50#	2875	25.0	32.0
84607001	1 x 70	940	14.7	20.2
84607002	2 x 70	2300	22.0	29.0
84607003	3 x 70	3025	25.2	32.2
84607004	4 x 70	4250	29.2	37.7
84609501	1 x 95	1220	16.6	22.3
84609502	2 x 95	3100	25.1	33.1
84609503	3 x 95	4275	28.8	37.0
84609504	4 x 95	5475	33.3	41.7
84612001	1 x 120	1490	18.5	24.2
84612002	2 x 120	3700	27.9	36.1
84612003	3 x 120	5250	32.2	40.4
84612004	4 x 120	7175	37.5	47.1
84615001	1 x 150	1870	20.8	27.4
84615002	2 x 150	4400	30.9	39.3
84615003	3 x 150	6650	35.9	45.5
84615004	4 x 150	8475	41.6	51.4
84618501	1 x 185	2290	23.2	30.0
84618502	2 x 185	5700	34.9	44.7
84618503	3 x 185	8045	40.0	49.8
84618504	4 x 185	10350	46.4	56.6
84624001	1 x 240	2880	26.0	32.8
84624002	2 x 240	7100	39.0	49.0
84624003	3 x 240	10150	44.9	55.1
84624004	4 x 240	13000	52.6	63.0
84630001	1 x 300	3520	28.6	35.6
84630002	2 x 300	8500	43.3	53.5
84630003	3 x 300	12740	52.5	61.5
84630004	2 x 300	15750	58.0	68.8
84640001	1 x 400	4520	32.4	40.4
84640003	3 x 400	15810	59.5	68.0
84640004	4 x 400	21800	69.4	79.0
84650001	1 x 500	5680	36.0	44.2
84660001	1 x 630	7120	40.4	48.8

**Circular or compacted circular stranded conductors (class 2)*
† Shaped stranded conductor (class 2)
 # Cables having conductors of nominal cross-sectional area 50mm² and above have shaped stranded conductors (class 2)

Single core cables are supplied with an aluminium wire armour (AWA) in accordance with BS 7846

Other conductor sizes available upon request

BS 6622 Armoured Power – 6.35/11kV

Power distribution medium voltage cables for supply networks and energy feeds in direct burial, underground/outdoor and cable ducting installations.

Construction

Plain copper conductors to IEC 60228 class 2, XLPE (or EPR) insulation, Semi conductive tape, copper tape screen over each core, PVC bedding, galvanised steel wire armour*, PVC Sheath – red or black

Core Identification

Single core	Brown
Three core	Brown, black, grey or numbered

Technical Information

Voltage Rating:	6.35/11kV (Max 12kV)
Conductor Stranding:	IEC 60228 class 2 compacted circular copper
Temperature Rating:	+90°C maximum conductor temperature
Bending Radius:	Single core 15 x overall diameter Three core 12 x overall diameter
Flame Retardant:	BS 4066 Pt 1 & IEC 60332-1-2
Manufactured To:	BS 6622

Higher voltage versions are also available on request including 8.7/15kV, 12.7/22kV & 19/33kV

62209503

Part No.	Size mm²	Dia over Copper Screen mm	Weight kg/km	Dia over bedding mm	O/D mm
Single Core					
62207001	70	20.1	1520	23.5	30.2
62209501	95	22.4	1630	24.5	32.4
62212001	120	23.5	2130	27.2	34.9
62215001	150	25.2	2545	27.6	36.1
62218501	185	26.7	2940	29.7	38.4
62224001	240	29.0	3620	31.7	40.6
62230001	300	31.5	4310	34.2	43.3
62240001	400	34.5	5230	37.5	47.7
62250001	500	37.6	6500	41.1	51.1
62263001	630	41.6	8025	45.0	55.5
Three Core					
62202503	25	16.9	4290	38.6	48.8
62203503	35	17.8	4620	41.0	51.2
62205003	50	18.9	5445	43.2	53.7
62207003	70	20.7	6275	46.9	57.4
62209503	95	22.3	7565	50.9	61.5
62212003	120	23.8	8710	54.3	65.3
62215003	150	25.2	9680	56.9	68.5
62218503	185	26.9	11420	61.0	72.8
62224003	240	28.7	14290	65.7	78.8
62230003	300	31.2	16665	71.0	84.6
62240003	400	34.3	20035	78.1	92.1

Part codes above are for cables with a **red** sheath.
For a **black** sheath suffix the part code with "00"

**Single core cables are supplied with an aluminium wire armour (AWA)*

BS 7835 Armoured LSHF - 6.35/11kV

Low Smoke Halogen Free medium voltage power & distribution cables for supply networks and energy feeds in underground, outdoor and in cable ducting installations. The LSHF (Low Smoke Halogen Free) construction makes them suitable for use in public buildings and tunnel applications.

Construction

Plain copper conductors to IEC 60228 class 2, XLPE (or EPR) insulation, semi conductive tape, copper tape screen over each core, LSHF bedding, galvanised steel wire armour*, LSHF Sheath – red or black.

Core Identification

Single core	Brown
Three core	Brown, black, grey or numbered

Technical Information

Voltage Rating:	6.35/11kV (Max 12kV)
Conductor Stranding:	IEC 60228 class 2 compacted or circular copper
Temperature Rating:	+90°C maximum conductor temperature
Bending Radius:	Single core 15 x overall diameter, Three core 12 x overall diameter
Flame Retardant:	IEC 60332-1-2 & IEC 60332-3-24 Cat C
Smoke Emission:	IEC 61034-2, BS EN 50268
Halogen Emission:	IEC 60754-2, BS EN 50267-2
Manufactured To:	BS 7835

Higher voltage versions are also available on request including 8.7/15kV, 12.7/22kV & 19/33kV

Part No.	Size mm²	Dia over Copper Screen mm	Weight kg/km	Dia over bedding mm	O/D mm
Single Core					
83507001	70	20.1	1520	23.5	30.2
83509501	95	22.4	1630	24.5	32.4
83512001	120	23.5	2130	27.2	34.9
83515001	150	25.2	2545	27.6	36.1
83518501	185	26.7	2940	29.7	38.4
83524001	240	29.1	3620	31.7	40.6
83530001	300	31.5	4310	34.2	43.3
83540001	400	34.5	5230	37.5	47.7
83550001	500	37.6	6500	41.1	51.1
83563001	630	41.6	8025	45.0	55.5
Three Core					
83502503	25	16.9	4290	38.6	48.8
83503503	35	17.8	4620	41.0	51.2
83505003	50	18.9	5445	43.2	53.7
83507003	70	20.7	6275	46.9	57.4
83509503	95	22.3	7565	50.9	61.5
83512003	120	23.8	8710	54.3	65.3
83515003	150	25.2	9680	56.9	68.5
83518503	185	26.9	11420	61.0	72.8
83524003	240	28.7	14290	65.7	78.8
83530003	300	31.2	16665	71.0	84.6
83540003	400	34.3	20035	78.1	92.1

Part codes above are for cables with a **red** sheath.
For a **black** sheath suffix the part code with "00"

**Single core cables are supplied with an aluminium wire armour (AWA)*

83512003

Safe-T-Shield

Safe-T-Shield Low Smoke Halogen Free cable offers substantial advantages over conventional wiring methods. It is ideal for fixed wiring in hospitals, airports, computer rooms and other sensitive environments. The high level of screening ensures substantially reduced levels of electromagnetic interference (EMI) making it the right choice where electromagnetic capability (EMC) is a priority.

Safe-T-Shield is manufactured and tested to the performance criteria of BS 8436. Because it is faster to install and lighter than small armoured cables or conduit, cost savings of up to 40% can be achieved. If the cable is pierced or accidentally cut the aluminium screen and CPC minimise the chance of personal injury.

This cable is an alternative to Multi-Plus and we are also able to supply Prysmian LSX® Brand.

Construction

Plain copper wire strands to IEC 60228 class 2, Halogen Free XLPE insulation to BS 6899, full size tinned copper earth conductor to IEC 60228 class 2, longitudinal aluminium tape, Low Smoke Halogen Free sheath to BS EN 50267-2-1 & BS EN 61034-2.

Technical Information

Voltage Rating:	0.6/1kV
Temperature Rating:	-10°C to +90°C
Sheath Colour:	White, other colours on request
	All cables have a full size bare earth or CPC.
Current Rating:	Refer to IEE Regs table 4E2A
Flame Retardant:	IEC 60332-1-2
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-1 & 2

38802502E

Part No.	Core x Size mm²	Conductor Stranding/mm	Weight kg/km	O/D mm
38801502E	2 E 1.5	7/0.53	105	9.8
38801503E	3 E 1.5	7/0.53	140	10.3
38801504E	4 E 1.5	7/0.53	160	11.2
38802502E	2 E 2.5	7/0.67	137	10.6
38802503E	3 E 2.5	7/0.67	184	11.1
38802504E	4 E 2.5	7/0.67	258	12.9
38804002E	2 E 4.0	7/0.85	209	11.3
38804003E	3 E 4.0	7/0.85	267	13.1
38804004E	4 E 4.0	7/0.85	320	14.2
38806002E	2 E 6.0	7/1.04	260	13.2
38806003E	3 E 6.0	7/1.04	330	14.2
38806004E	4 E 6.0	7/1.04	455	14.9

Standard pack size 100m or 500m. Large sizes can be cut to the length required.
Available in black in some sizes, please put B after the part number when ordering.
A 300/500V grade, Safe-T-Shield Lite is also available.

Photovoltaic Cables

With the growth in renewable energy sources the demand for specialist cables to meet specific needs has also increased. While the cables used to link solar panels to each other or to a regulator are relatively simple, the environments they operate in can be very hostile. Ultraviolet (UV) can be extremely damaging to conventional cable, breaking down standard insulation within a matter of months in some cases. Heat and weather can also be very destructive.

The range of solar panel or PV cables shown are designed to work in extreme conditions with a temperature range up to 120ºC and excellent UV stability.

Construction

Tinned copper class 5 conductors, cross linked polyolefin insulation, cross linked polyolefin sheath.

Technical Information

Voltage Rating:	Working	600/1000V
	Test	3000V AC
Temperature Rating:	Static	-40ºC to + 120ºC
	Flexing	-40ºC to + 90ºC
Minimum Bending Radius:	4 x cable diameter	

Part No.	Conductor Size mm²	Stranding & mm	Electrical Resistance ohm/km	Weight kg/km	O/D mm
PV02501xx	2.5	50 x 0.26	7.98	47	5.5
PV04001xx	4	56 x 0.31	4.95	76	6.1
PV06001xx	6	84 x 0.31	3.30	105	7.5
PV10001xx	10	80 x 0.41	1.91	151	8.9
PV16001xx	16	128 x 0.41	1.21	232	10.0
PV25001xx	25	200 x 0.41	0.780	342	11.4
PV35001xx	35	280 x 0.41	0.554	473	12.9
PV50001xx	50	400 x 0.41	0.386	648	15.3
PV70001xx	70	356 x 0.51	0.272	861	17.5
PV95001xx	95	485 x 0.51	0.206	1126	20.1

PV0400100

To show the colour required please replace xx in the part number with:

00 Black 03 Red

Cables with different insulation materials and jacket materials may be offered. If you require the cable to have specific approvals please state at time of enquiry.

NYY: PVC/PVC Unarmoured Power – 0.6/1kV

NYY cables are an economical form of power and control wiring where mechanical protection is not required. Used both indoors and outdoors these cables are suitable for direct burial or through ducts - local regulations permitting. Originating in Germany they are now popular in many parts of the world where cost, weight and size savings through not having an armour can be very attractive. They are also easy to gland and terminate.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, PVC insulation, bedding compound, PVC sheath – black. NYY can be supplied with a green/yellow earth conductor - reference NYY-J or without an earth conductor – reference NYY-O.

Technical Information

Voltage Rating: 0.6/1kV

Conductor Stranding: ≤ 16 mm² solid. IEC 60228 class 1
≥ 25 mm² stranded. IEC 60228 class 2

Temperature Rating: -30°C to +70°C fixed
-5°C to +70°C for installation

Bending Radius: Single core 15 x overall diameter
Multi core 12 x overall diameter

Flame Retardant: VDE 0472 test B, IEC 60332-1-2, EN 50265-2-1

Manufactured To: VDE 0276 pt 603 up to 5 core, pt 627 for 7 core & above, IEC 60502

Alternative References: E-YY, TT, XVB, PVILD, BS 7889

Core Identification

Type	NYY-J with protective earth	NYY-O without protective earth
1 Core	Green/yellow	Black
2 Core	-	Brown, blue
3 Core	Brown, blue, G/Y earth	Brown, black, grey
4 Core	Brown, black, grey, G/Y earth	Brown, black, grey, blue
5 Core	Brown, black, grey, blue, G/Y earth	Black, blue, brown, grey, black
7 Core and above	Number coded with a G/Y earth	Number coded

For type NYY-J (with green/yellow earth) suffix part code "E"

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0100102	2 x 1.5	165	11.0
N0100103	3 x 1.5	185	12.5
N0100104	4 x 1.5	220	13.0
N0100105	5 x 1.5	275	13.5
N0100107	7 x 1.5	355	15.0
N0100110	10 x 1.5	525	18.5
N0100112	12 x 1.5	565	19.0
N0100114	14 x 1.5	615	20.5
N0100116	16 x 1.5	695	20.5
N0100121	21 x 1.5	825	21.5
N0100124	24 x 1.5	945	24.5
N0100130	30 x 1.5	1105	25.5

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0100140	40 x 1.5	1355	28.0
N0100152	52 x 1.5	1445	31.5
N0100161	61 x 1.5	1680	32.5
N0100202	2 x 2.5	210	12.0
N0100203	3 x 2.5	235	13.0
N0100204	4 x 2.5	285	13.5
N0100205	5 x 2.5	350	14.5
N0100207	7 x 2.5	445	16.0
N0100210	10 x 2.5	625	20.0
N0100212	12 x 2.5	675	20.5
N0100214	14 x 2.5	785	21.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0100216	16 x 2.5	865	22.5
N0100221	21 x 2.5	1045	23.5
N0100224	24 x 2.5	1395	26.0
N0100230	30 x 2.5	1445	28.5
N0100240	40 x 2.5	1805	31.0
N0100252	52 x 2.5	2255	35.0
N0100402	2 x 4.0	295	14.0
N0100403	3 x 4.0	325	16.0
N0100404	4 x 4.0	395	17.0
N0100405	5 x 4.0	475	18.0
N0100601	1 x 6.0	125	9.5
N0100602	2 x 6.0	355	15.5
N0100603	3 x 6.0	420	16.0
N0100604	4 x 6.0	515	18.5
N0100605	5 x 6.0	615	19.5
N0101001	1 x 10	185	9.5
N0101002	2 x 10	490	16.5
N0101003	3 x 10	585	18.0
N0101004	4 x 10	725	20.0
N0101005	5 x 10	885	21.5
N0101601	1 x 16	245	10.0
N0101602	2 x 16	665	19.0
N0101603	3 x 16	810	20.5
N0101604	4 x 16	1055	22.0
N0101605	5 x 16	1250	24.0
N0102501	1 x 25	350	13.0
N0102502	2 x 25	935	23.0
N0102503	3 x 25	1305	26.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0102504	4 x 25	1605	27.5
N0102505	5 x 25	1545	30.0
N0103501	1 x 35	470	13.0
N0103503	3 x 35	1400	24.5
N0103504	4 x 35	1760	27.0
N0103505	5 x 35	2400	34.0
N0105001	1 x 50	621	15.0
N0105003	3 x 50	1800	26.0
N0105004	4 x 50	2343	29.5
N0105005	5 x 50	3500	40.0
N0107001	1 x 70	800	16.0
N0107003	3 x 70	2400	30.0
N0107004	4 x 70	3050	31.5
N0109501	1 x 95	1111	19.5
N0109503	3 x 95	3300	34.0
N0109504	4 x 95	4134	39.0
N0112001	1 x 120	1350	20.0
N0112003	3 x 120	4100	36.0
N0112004	4 x 120	5300	42.0
N0115001	1 x 150	1689	22.0
N0115003	3 x 150	4980	40.0
N0115004	4 x 150	6435	47.5
N0118501	1 x 185	2000	25.0
N0118503	3 x 185	6545	46.5
N0118504	4 x 185	8456	52.0
N0124001	1 x 240	2598	27.5
N0124003	3 x 240	8321	51.0
N0124004	4 x 240	11100	59.0

N0100604E

N2XY: XLPE/PVC Unarmoured Power – 0.6/1kV

Suitable for low voltage power, control and auxiliary applications where mechanical protection or an armour is not required. These cables can be installed on cable tray, ladder and in single, bunched and trefoil configurations where their small outer diameters and reduced weight can offer significant benefits over conventional armoured cables.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, XLPE insulation, filler, PVC sheath – grey or black.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey or brown, blue, green/yellow
4 Core	Brown, black, grey, blue or brown, blue, black, green/yellow
5 Core	Brown, black, grey, blue, green/yellow

7 Core and above number coded with a green/yellow earth

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 6 mm² solid. IEC 60228 class 1, ≥ 10 mm² stranded. IEC 60228 class 2
Temperature Rating:	-30°C to +70°C fixed, -5°C to +70°C for installation
Max Conductor Temp:	+90°C
Bending Radius:	Single core 15 x overall diameter Multicore 12 x overall diameter
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C / EN 50266-2-4
Manufactured To:	IEC 60502

N0201004

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200102	2 x 1.5	115	9.1
N0200103E	3 G 1.5	135	9.5
N0200103	3 x 1.5	135	9.5
N0200104E	4 G 1.5	160	10.3
N0200104	4 x 1.5	160	10.3
N0200105E	5 G 1.5	190	11.0
N0200106E	6 G 1.5	195	11.8
N0200107E	7 G 1.5	205	11.9
N0200108E	8 G 1.5	240	12.9
N0200110E	10 G 1.5	285	14.6
N0200112E	12 G 1.5	315	15.1
N0200114E	14 G 1.5	365	15.8

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200116E	16 G 1.5	410	16.6
N0200119E	19 G 1.5	465	17.2
N0200124E	24 G 1.5	575	19.9
N0200130E	30 G 1.5	675	21.2
N0200137E	37 G 1.5	815	22.8
N0200202	2 x 2.5	155	9.7
N0200203E	3 G 2.5	165	10.2
N0200203	3 x 2.5	165	10.2
N0200204E	4 G 2.5	205	11.2
N0200204	4 x 2.5	205	11.2
N0200205E	5 G 2.5	250	12.1

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200206E	6 G 2.5	270	12.9
N0200207E	7 G 2.5	275	13.1
N0200208E	8 G 2.5	315	14.1
N0200210E	10 G 2.5	380	16.1
N0200212E	12 G 2.5	445	16.6
N0200214E	14 G 2.5	505	17.4
N0200216E	16 G 2.5	565	18.2
N0200219E	19 G 2.5	645	19.1
N0200224E	24 G 2.5	810	22.3
N0200230E	30 G 2.5	965	23.6
N0200237E	37 G 2.5	1175	25.2
N0200402	2 x 4.0	200	11.3
N0200403E	3 G 4.0	240	11.8
N0200404E	4 G 4.0	300	12.8
N0200404	4 x 4.0	300	12.8
N0200405E	5 G 4.0	345	13.6
N0200601	1 x 6.0	100	6.7
N0200602	2 x 6.0	255	12.0
N0200603E	3 G 6.0	215	8.6
N0200604E	4 G 6.0	385	13.7

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200604	4 x 6.0	385	13.7
N0200605E	5 G 6.0	465	15.1
N0201001	1 x 10	145	8.2
N0201002	2 x 10	405	14.7
N0201003	3 x 10	295	15.4
N0201004E	4 G 10	610	16.8
N0201004	4 x 10	610	16.8
N0201005E	5 G 10	730	18.5
N0201601	1 x 16	210	9.3
N0201602	2 x 16	575	16.8
N0201603	3 x 16	710	17.6
N0201604E	4 G 16	875	19.6
N0201604	4 x 16	875	19.6
N0201605E	5 G 16	1070	21.4
N0202501	1 x 25	300	10.8
N0202502	2 x 25	850	20.3
N0202503	3 x 25	1070	21.7
N0202504E	4 G 25	1335	23.5
N0202504	4 x 25	1335	23.5
N0202505E	5 G 25	1645	25.8

N2XH: XLPE/LSHF Unarmoured LSHF Power – 0.6/1kV

Suitable for low voltage power and mains, control and auxiliary applications where mechanical protection is not required. The Low Smoke Halogen Free properties of N2XH make it ideal for wiring public buildings, tunnels and electronic equipment rooms.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, XLPE insulation, LSHF filler, LSHF sheath – black or grey.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey or brown, blue, green/yellow
4 Core	Brown, black, grey, blue or brown, blue, black, green/yellow
5 Core	Brown, black, grey, blue, green/yellow
7 Core and above	number coded with a green/yellow earth

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 6 mm² solid. IEC 60228 class 1 ≥ 10 mm² stranded. IEC 60228 class 2
Temperature Rating:	-30°C to +70°C fixed -5°C to +70°C for installation
Max Conductor Temp:	+90°C
Bending Radius:	Single core 15 x overall diameter Multicore 12 x overall diameter
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C / EN 50266-2-4
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60502

N0201004HE

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200102H	2 x 1.5	115	9.1
N0200103HE	3 G 1.5	135	9.5
N0200103H	3 x 1.5	135	9.5
N0200104HE	4 G 1.5	160	10.3
N0200104H	4 x 1.5	160	10.3
N0200105HE	5 G 1.5	190	11.0
N0200106HE	6 G 1.5	195	11.8
N0200107HE	7 G 1.5	205	11.9
N0200108HE	8 G 1.5	240	12.9
N0200110HE	10 G 1.5	285	14.6
N0200112HE	12 G 1.5	315	15.1
N0200114HE	14 G 1.5	365	15.8

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200116HE	16 G 1.5	410	16.6
N0200119HE	19 G 1.5	465	17.2
N0200124HE	24 G 1.5	575	19.9
N0200130HE	30 G 1.5	675	21.2
N0200137HE	37 G 1.5	815	22.8
N0200202H	2 x 2.5	155	9.7
N0200203HE	3 G 2.5	165	10.2
N0200203H	3 x 2.5	165	10.2
N0200204HE	4 G 2.5	205	11.2
N0200204H	4 x 2.5	205	11.2
N0200205HE	5 G 2.5	250	12.1

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200206HE	6 G 2.5	270	12.9
N0200207HE	7 G 2.5	275	13.1
N0200208HE	8 G 2.5	315	14.1
N0200210HE	10 G 2.5	380	16.1
N0200212HE	12 G 2.5	445	16.6
N0200214HE	14 G 2.5	505	17.4
N0200216HE	16 G 2.5	565	18.2
N0200219HE	19 G 2.5	645	19.1
N0200224HE	24 G 2.5	810	22.3
N0200230HE	30 G 2.5	965	23.6
N0200237HE	37 G 2.5	1175	25.2
N0200402H	2 x 4.0	200	11.3
N0200403HE	3 G 4.0	240	11.8
N0200404HE	4 G 4.0	300	12.8
N0200404H	4 x 4.0	300	12.8
N0200405HE	5 G 4.0	345	13.6
N0200601H	1 x 6.0	100	6.7
N0200602H	2 x 6.0	255	12.0
N0200603HE	3 G 6.0	215	8.6
N0200604HE	4 G 6.0	385	13.7

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0200604H	4 x 6.0	385	13.7
N0200605HE	5 G 6.0	465	15.1
N0201001H	1 x 10	145	8.2
N0201002H	2 x 10	295	14.7
N0201003H	3 x 10	405	15.4
N0201004HE	4 G 10	610	16.8
N0201004H	4 x 10	610	16.8
N0201005HE	5 G 10	730	18.5
N0201601H	1 x 16	210	9.3
N0201602H	2 x 16	575	16.8
N0201603H	3 x 16	710	17.6
N0201604HE	4 G 16	875	19.6
N0201604H	4 x 16	875	19.6
N0201605HE	5 G 16	1070	21.4
N0202501H	1 x 25	300	10.8
N0202502H	2 x 25	850	20.3
N0202503H	3 x 25	1070	21.7
N0202504HE	4 G 25	1335	23.5
N0202504H	4 x 25	1335	23.5
N0202505HE	5 G 25	1645	25.8

N2XH-FE180/E90: XLPE/LSHF Unarmoured, Fire Resistant (IEC 60331) LSHF Power – 0.6/1kV

These unarmoured power cables are designed to keep working in the event of a fire making them ideal for powering emergency evacuation and fire suppression equipment such as fire doors, smoke fans and sprinkler systems.

N2XH-FE180/E90 cables meet the requirements of IEC 60331 to provide circuit integrity for 3 hours at 750°C. Applications include tunnels, hospitals and public buildings where evacuation can be slow and services must be maintained. For armoured versions please see page 14.

E30 System integrity cables to DIN 4102 part 12 are also available on request.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, Mica tape, XLPE insulation, LSHF filler, LSHF sheath – orange.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey or Brown, blue, green/yellow
4 Core	Brown, black, grey, blue or Brown, blue, black, green/yellow
5 Core	Brown, black, grey, blue, green/yellow

7 Core and above number coded with a green/yellow

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 6 mm² solid. IEC 60228 class 1 ≥ 10 mm² stranded. IEC 60228 class 2
Temperature Rating:	-30°C to +70°C fixed -5°C to +70°C for installation
Max Conductor Temp:	+90°C
Bending Radius:	Single core 15 x overall diameter Multicore 12 x overall diameter
Fire Resistant:	IEC 60331
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C / EN 50266-2-4
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60502

N0801004GE

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0800102	2 x 1.5	29	11.5
N0800103E	3 G 1.5	43	12.0
N0800104E	4 G 1.5	58	12.1
N0800105E	5 G 1.5	72	12.5
N0800107E	7 G 1.5	101	13.0
N0800112E	12 G 1.5	173	16.5
N0800202	2 x 2.5	48	12.0
N0800203E	3 G 2.5	72	12.5
N0800204E	4 G 2.5	96	13.0
N0800205E	5 G 2.5	120	13.5
N0800402	2 x 4.0	77	13.0
N0800403E	3 G 4.0	115	13.5
N0800404E	4 G 4.0	154	13.0
N0800405E	5 G 4.0	192	14.5
N0800601	1 x 6.0	58	9.0
N0800602	2 x 6.0	115	14.0
N0800603E	3 G 6.0	173	14.5
N0800604E	4 G 6.0	230	15.0
N0800605E	5 G 6.0	288	15.5

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0801001	1 x 10	96	10.0
N0801002	2 x 10	192	15.5
N0801003E	3 G 10	288	16.0
N0801004E	4 G 10	384	16.5
N0801005E	5 G 10	480	18.0
N0801601	1 x 16	154	10.5
N0801602	2 x 16	307	17.5
N0801603E	3 G 16	461	18.0
N0801604E	4 G 16	614	18.5
N0801605E	5 G 16	768	20.0
N0802501	1 x 25	240	13.0
N0802502	2 x 25	480	22.0
N0802503	3 x 25	720	23.5
N0802504	4 x 25	960	23.6
N0802505	5 x 25	1200	24.5
N0803501	1 x 35	336	14.0
N0803503	3 x 35	1080	26.0
N0803504	4 x 35	1344	26.4
N0803505	5 x 35	1680	33.5
N0805001	1 x 50	480	15.5
N0805003	3 x 50	1440	29.0
N0805004	4 x 50	1920	29.5
N0807001	1 x 70	672	17.5
N0807003	3 x 70	2016	34.0
N0807004	4 x 70	2688	34.6
N0809501	1 x 95	912	19.5
N0809503	3 x 95	3216	40.0
N0809504	4 x 95	3648	39.0
N0812001	1 x 120	1152	21.0
N0812003	3 x 120	4128	45.0
N0812004	4 x 120	4608	43.5
N0815003	3 x 150	4992	48.5
N0818503	3 x 185	6240	54.0

NYCY / NYCWY: PVC/Cu/PVC Screened Power – 0.6/1kV

This screened power range is ideal for use in applications where there is a need to reduce EMI and limit interference with more delicate cabling and equipment. The outer screen can also be used as a concentric neutral conductor or protective earth where local regulations allow. These cables are designed for fixed installation inside, outside and in cable ducts.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, PVC insulation, bedding compound, uniform round copper wires wrapped in a helical copper tape, PVC sheath – black.

NYCWY is available from 10mm² the copper screen is applied in a sinusoidal wave form to allow for easier jointing of conductors without cutting the outer screen.

The cross sectional area (mm²) of the screen is shown after the conductor size in the table below.

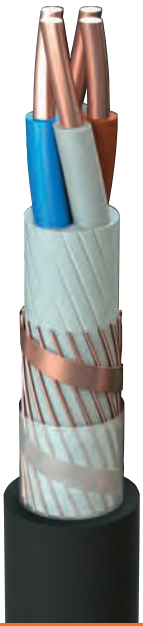
Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 16 mm² solid. IEC 60228 class 1, ≥ 25 mm² stranded. IEC 60228 class 2
Temperature Rating:	-30°C to +70°C fixed -5°C to +70°C for installation
Bending Radius:	12 x overall diameter
Flame Retardant:	VDE 0472 test B, IEC 60332-1-2, EN 50265-2-1
Manufactured To:	VDE 0276, IEC 60502

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey
4 Core	Brown, black, grey, blue
5 Core	Black, blue, brown, grey, black
7 Core and above number coded	

N0301604



Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0300102	2 x 1.5/1.5	205	13.0
N0300103	3 x 1.5/1.5	225	14.0
N0300104	4 x 1.5/1.5	260	15.0
N0300105	5 x 1.5/1.5	330	15.5
N0300107	7 x 1.5/1.5	320	16.0
N0300108	8 x 1.5/1.5	380	17.0
N0300110	10 x 1.5/2.5	440	19.0
N0300112	12 x 1.5/2.5	500	20.0
N0300114	14 x 1.5/2.5	540	21.0
N0300116	16 x 1.5/4	600	22.0
N0300121	21 x 1.5/6	810	24.0
N0300124	24 x 1.5/6	860	24.0
N0300130	30 x 1.5/6	1230	27.0
N0300140	40 x 1.5 /10	1590	30.0
N0300152	52 x 1.5/10	1820	32.0
N0300161	61 x 1.5/10	2000	33.0
N0300202	2 x 2.5/2.5	270	14.0
N0300203	3 x 2.5/2.5	290	15.0
N0300204	4 x 2.5/2.5	350	16.0
N0300205	5 x 2.5/2.5	400	16.5
N0300207	7 x 2.5/2.5	450	17.0
N0300208	8 x 2.5/2.5	510	18.0
N0300210	10 x 2.5/4	600	21.0
N0300212	12 x 2.5/4	660	21.5
N0300214	14 x 2.5/4	760	22.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0300216	16 x 2.5/6	910	24.0
N0300221	21 x 2.5/6	1100	26.0
N0300224	24 x 2.5/10	1300	29.0
N0300230	30 x 2.5/10	1610	31.0
N0300240	40 x 2.5/10	2100	35.0
N0300252	52 x 2.5/10	2500	38.0
N0300402	2 x 4.0/4	360	16.0
N0300403	3 x 4.0/4	400	17.0
N0300404	4 x 4.0/4	470	18.0
N0300405	5 x 4.0/4	560	19.0
N0300602	2 x 6.0/6	435	18.0
N0300603	3 x 6.0/6	510	18.0
N0300604	4 x 6.0/6	590	19.0
N0300605	5 x 6.0/6	710	21.0
N0301002	2 x 10/10	590	20.0
N0301003	3 x 10/10	850	21.0
N0301004	4 x 10/10	900	21.0
N0301005	5 x 10/10	1000	23.0
N0301601	1 x 16/16	440	12.0
N0301602	2 x 16/16	820	20.0
N0301603	3 x 16/16	1080	22.0
N0301604	4 x 16/16	1250	23.0
N0302502	2 x 25/25	1210	24.0
N0302503	3 x 25/16	1550	26.0
N0302504	4 x 25/16	1800	28.0
N0303503	3 x 35/35	1750	28.0
N0303504	4 x 35/16	2050	30.0
N0305003	3 x 50/50	2250	30.0
N0305004	4 x 50/25	2700	34.0
N0307003	3 x 70/70	2950	34.0
N0307004	4 x 70/35	3750	38.0
N0309503	3 x 95/95	4100	41.0
N0309504	4 x 95/50	5000	43.0
N0312003	3 x 120/120	5550	43.0
N0312004	4 x 120/70	6350	47.0
N0315003	3 x 150/150	6900	45.0
N0315004	4 x 150/70	7650	52.0
N0318503	3 x 185/185	8500	51.0
N0318504	4 x 185/95	9350	57.0

N2XCH: XLPE/Cu/LSHF Screened Power – 0.6/1kV

N2XCH screened power cables are designed for use in applications where there is a need to reduce fire, smoke and fume spread in the event of an emergency while limiting electrical interference during operation. The outer screen can also be used as a concentric neutral conductor or protective earth where local regulations allow. These cables are designed for fixed installation indoors and in dry cable ducts.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, XLPE insulation, LSHF bedding compound, uniform round copper wires wrapped in a helical copper tape, LSHF sheath – black.

The cross sectional area (mm²) of the screen is shown after the conductor size in the table below.

Core Identification

2 Core	Brown, blue
3 Core	Brown, black, grey
4 Core	Brown, black, grey, blue
5 Core	Black, blue, brown, grey, black

7 Core and above number coded

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 16 mm² solid. IEC 60228 class 1 ≥ 25 mm² stranded. IEC 60228 class 2
Temperature Rating:	-30°C to +70°C fixed -5°C to +70°C for installation
Max Conductor Temp:	+90°C
Bending Radius:	12 x overall diameter
Flame Retardant:	VDE 0482-266-2-4, IEC 60332-1-2, IEC 60332-3-24 cat C
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-2
Manufactured To:	VDE 0276, IEC 60502

N0301604H

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0300102H	2 x 1.5/1.5	205	13.0
N0300103H	3 x 1.5/1.5	230	13.5
N0300104H	4 x 1.5/1.5	255	14.5
N0300105H	5 x 1.5/1.5	325	15.0
N0300107H	7 x 1.5/1.5	335	16.5
N0300108H	8 x 1.5/1.5	385	17.0
N0300110H	10 x 1.5/2.5	445	19.0
N0300112H	12 x 1.5/2.5	505	20.0
N0300114H	14 x 1.5/2.5	535	20.5
N0300116H	16 x 1.5/4	600	22.0
N0300121H	21 x 1.5/6	805	23.0
N0300124H	24 x 1.5/6	855	26.0
N0300130H	30 x 1.5/6	1235	27.0
N0300140H	40 x 1.5/10	1595	30.0
N0300152H	52 x 1.5/10	1815	32.0
N0300161H	61 x 1.5/10	1995	33.0
N0300202H	2 x 2.5/2.5	265	13.5
N0300203H	3 x 2.5/2.5	295	14.5
N0300204H	4 x 2.5/2.5	355	15.5
N0300205H	5 x 2.5/2.5	405	16.0
N0300207H	7 x 2.5/2.5	445	17.5
N0300208H	8 x 2.5/2.5	515	18.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0300210H	10 x 2.5/4	605	20.5
N0300212H	12 x 2.5/4	665	21.0
N0300214H	14 x 2.5/4	760	22.0
N0300216H	16 x 2.5/6	910	23.0
N0300221H	21 x 2.5/10	1105	26.0
N0300224H	24 x 2.5/10	1310	28.0
N0300230H	30 x 2.5/10	1615	30.0
N0300240H	40 x 2.5/10	1804	35.0
N0300252H	52 x 2.5/10	2495	38.0
N0300402H	2 x 4.0/4	255	15.5
N0300403H	3 x 4.0/4	405	16.5
N0300404H	4 x 4.0/4	475	17.0
N0300405H	5 x 4.0/6	565	19.0
N0300602H	2 x 6.0/6	435	17.0
N0300603H	3 x 6.0/6	505	17.5
N0300604H	4 x 6.0/6	585	18.5
N0300605H	5 x 6.0/6	715	21.0
N0301002H	2 x 10/10	590	19.5
N0301003H	3 x 10/10	845	20.0
N0301004H	4 x 10/10	895	21.0
N0301005H	5 x 10/10	1005	23.0
N0301601H	1 x 16/16	445	12.0
N0301602H	2 x 16/16	820	20.5
N0301603H	3 x 16/16	1085	22.0
N0301604H	4 x 16/16	1245	23.0
N0302503H	3 x 25/16	1605	24.0
N0302504H	4 x 25/16	1630	27.0
N0303503H	3 x 35/16	1895	27.0
N0303504H	4 x 35/16	2085	29.0
N0305003H	3 x 50/25	2405	30.0
N0305004H	4 x 50/25	2795	33.0
N0307003H	3 x 70/35	2620	34.0
N0307004H	4 x 70/35	3555	41.0
N0309504H	4 x 95/50	4800	46.0
N0312004H	4 x 120/70	6550	50.0
N0315004H	4 x 150/70	7905	55.0
N0318503H	3 x 185/95	6685	50.0
N0318504H	4 x 185/95	9945	62.0
N0324004H	4 x 240/120	12915	68.0

N2XCH-FE180/E90: XLPE/Cu/LSHF Screened, Fire Resistant (IEC 60331) LSHF Power – 0.6/1kV

Fire resistant screened power cables provide EMI screening and circuit integrity in the event of a fire. They are ideal for applications such as fire pumps and ventilation systems in office blocks where electrical interference must be kept to a minimum during normal operation and services must be maintained for evacuation during a fire situation. The cables meet IEC 60331 and are fire resistant for 3 hours at 750°C.

E30 System integrity cables to DIN 4102 part 12 are also available on request.

Construction

Plain copper wire conductors to IEC 60228 class 1 or 2, Mica tape, XLPE insulation, LSHF filler, uniform round copper wires wrapped in a helical copper tape, LSHF sheath – orange.

The cross sectional area (mm²) of the screen is shown after the conductor size in the table below.

Core Identification

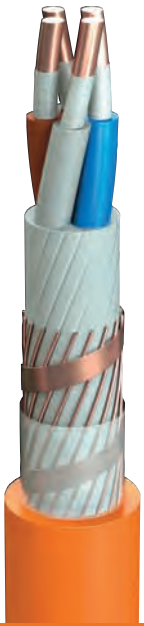
2 Core	Brown, blue
3 Core	Brown, black, grey
4 Core	Brown, black, grey, blue
5 Core	Black, blue, brown, grey, black

7 Core and above number coded with a green/yellow

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	≤ 6 mm² solid. IEC 60228 class 1 ≥ 10 mm² stranded. IEC 60228 class 2
Temperature Rating:	-40°C to +90°C max conductor temperature
Bending Radius:	Single core 15 x overall diameter Multicore 12 x overall diameter
Fire Resistant:	IEC 60331, VDE 0472 pt 814 - FE180, DIN 4102 pt 12 E90 functionality
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C / EN 50266-2-4
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60502

N0901004



Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0900102	2 x 1.5/1.5	52	13.0
N0900103	3 x 1.5/1.5	66	14.0
N0900104	4 x 1.5/1.5	81	15.0
N0900107	7 x 1.5/1.5	133	16.5
N0900202	2 x 2.5/2.5	80	14.0
N0900203	3 x 2.5/2.5	104	14.5
N0900204	4 x 2.5/2.5	128	16.0
N0900402	2 x 4.0/4	123	15.0
N0900403	3 x 4.0/4	161	15.5
N0900404	4 x 4.0/4	200	17.0
N0900602	2 x 6.0/6	182	16.0
N0900603	3 x 6.0/6	470	16.5
N0900604	4 x 6.0/6	297	18.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
N0901002	2 x 10/10	312	17.5
N0901003	3 x 10/10	408	18.5
N0901004	4 x 10/10	504	20.0
N0901603	3 x 16/16	643	21.0
N0901604	4 x 16/16	796	22.5
N0902503	3 x 25/16	902	25.5
N0902504	4 x 25/16	1142	28.0
N0903503	3 x 35/16	1190	29.0
N0903504	4 x 35/16	1526	30.5
N0905003	3 x 50/25	1723	31.5
N0905004	4 x 50/25	2203	32.0
N0907003	3 x 70/35	2410	36.5
N0907004	4 x 70/35	3082	39.5
N0909504	4 x 95/50	4208	43.5
N0912004	4 x 120/70	5388	49.5
N0915004	4 x 150/70	6558	55.5
N0918503	3 x 185/95	6383	55.0
N0918504	4 x 185/95	8159	60.0
N0924004	4 x 240/120	10546	68.0

High Voltage Unarmoured Power & Distribution – 6/10kV, 12/20kV and 18/30kV

Power supply and energy distribution cables for use in cable ducts, outdoors and underground, subject to local regulations. Each conductor is screened with semi-conductive layers and copper shielding.

Low Smoke Halogen Free versions can be supplied upon request.

Construction

Plain copper wire conductors to IEC 60228 class 2, semi-conductive tape, XLPE or EPR insulation, semi-conductive tape, copper wires wrapped around each core and covered with an open helix copper tape, PVC outer sheath, available in red or black. The conductors of multicore cables are number printed for identification.

Technical Information

Voltage Rating:	6/10kV (max 12kV), 12/20kV (max 24kV) & 18/30kV (max 36kV)
Conductor Stranding:	IEC 60228 class 2
Temperature Rating:	-30°C to +90°C. Minimum installation -5°C
Short Circuit Rating:	+250°C x 5 seconds
Bending Radius:	15 x overall diameter
Flame Retardant:	IEC 60332-1-2
Manufactured To:	IEC 60502
Sheath Colour:	Red or black

N0418503

Part No.	Core x Size mm²	Screen cross section mm²	Weight kg/km	O/D mm
6/10kV				
N0403501	1 x 35/16	16	910	26.0
N0405001	1 x 50/16	16	990	27.0
N0407001	1 x 70/16	16	1205	29.0
N0409501	1 x 95/16	16	1520	30.0
N0412001	1 x 120/16	16	1760	31.0
N0415001/16	1 x 150/16	16	2020	32.0
N0415001/25	1 x 150/25	25	2130	32.0
N0418501/16	1 x 185/16	16	2360	34.0
N0418501/25	1 x 185/25	25	2470	34.0
N0424001/16	1 x 240/16	16	2960	36.0
N0424001/25	1 x 240/25	25	3020	36.0
N0430001	1 x 300/25	25	3630	38.0
N0440001	1 x 400/35	35	4560	43.0
N0450001	1 x 500/35	35	5580	46.0
N0401003	3 x 10/10	10	1898	36.8
N0401603	3 x 16/16	16	2243	39.2
N0402503	3 x 25/16	16	2849	43.1
N0403503	3 x 35/16	16	3299	47.9
N0405003	3 x 50/16	16	3753	49.9
N0407003	3 x 70/16	16	4652	54.2
N0409503	3 x 95/16	16	5701	58.1
N0412003	3 x 120/16	16	6702	60.9
N0415003	3 x 150/25	25	7899	54.9
N0418503	3 x 185/25	25	9198	68.1
N0424003	3 x 240/25	25	11450	74.2
N0430003	3 x 300/25	25	14448	79.0
N0440003	3 x 400/35	35	17154	83.2
N0450003	3 x 500/35	35	20964	91.6

Part No.	Core x Size mm²	Screen cross section mm²	Weight kg/km	O/D mm
12/20kV				
N0503501	1 x 35/16	16	960	30.0
N0505001	1 x 50/16	16	1160	31.0
N0507001	1 x 70/16	16	1410	32.0
N0509501	1 x 95/16	16	1670	34.0
N0512001	1 x 120/16	16	1960	36.0
N0515001/16	1 x 150/16	16	2220	37.0
N0515001/25	1 x 150/25	25	2310	37.0
N0518501/16	1 x 185/16	16	2620	38.0
N0518501/25	1 x 185/25	25	2670	38.0
N0524001/16	1 x 240/16	16	3160	41.0
N0524001/25	1 x 240/25	25	3270	41.0
N0530001	1 x 300/25	25	3880	44.0
N0540001	1 x 400/35	35	4820	46.0
N0550001	1 x 500/35	35	5860	50.0
N0502503	3 x 25/16	16	3483	51.4
N0503503	3 x 35/16	16	4100	54.6
N0505003	3 x 50/16	16	4800	57.2
N0507003	3 x 70/16	16	5710	61.4
N0509503	3 x 95/16	16	6669	64.8
N0512003	3 x 120/16	16	7889	68.2
N0515003	3 x 150/25	16	8975	71.0
N0518503	3 x 185/25	16	10444	75.6
N0524003	3 x 240/25	25	12509	80.4
N0530003	3 x 300/25	25	14976	87.5
18/30kV				
N0605001	1 x 50/16	16	1410	35.0
N0607001	1 x 70/16	16	1660	36.0
N0609501	1 x 95/16	16	1970	37.0
N0612001	1 x 120/16	16	2220	38.0
N0615001	1 x 150/25	25	2650	40.0
N0618501	1 x 185/25	25	2980	42.0
N0624001	1 x 240/25	25	3570	45.0
N0630001	1 x 300/25	25	4220	47.0
N0640001	1 x 400/35	35	5170	51.0
N0650001	1 x 500/35	35	6260	55.0
N0603503	3 x 35/16	16	5472	65.7
N0605003	3 x 50/16	16	6415	68.8
N0607003	3 x 70/16	16	7423	72.6
N0609503	3 x 95/16	16	8610	76.4
N0612003	3 x 120/16	16	9737	80.1
N0615003	3 x 150/25	16	10956	82.8
N0618503	3 x 185/25	16	12549	87.2
N0624003	3 x 240/25	25	14723	91.5
N0630003	3 x 300/25	25	17131	98.2

Part codes above are for cables with a **red** sheath.
For a **black** sheath suffix the part code with "00"

BS 6883 0.6/1kV Shipwiring Power

Originally designed for wiring ships, BS 6883 cables have been widely adopted in other marine installations including oil rigs and platforms. They are available in single and multi core versions both unarmoured (type 657 SW4) and with a galvanized steel wire braid armour (type 658 SW4) for mechanical protection.

Construction

657 SW4 Unarmoured

Tinned stranded copper conductor, EPR insulation, SW4 LSHF elastomeric outer sheath – black.

Single core cables are also available in green/yellow for earthing applications. See page 72.

658 SW4 Armoured

Tinned stranded copper conductor, EPR insulation, Halogen Free elastomeric bedding, galvanized steel wire braid armour, SW4 LSHF elastomeric outer sheath - black.

Core Identification

White cores with black numbers. Colour coded cores available to order.

Technical Information

Voltage Rating:	0.6/1kV	
Conductor Stranding:	IEC 60228 Class 2, tinned copper	
Temperature Rating:	-30°C to +85°C	
Bending Radius Static:	**657 SW4**	**658 SW4**
≤ 10mm	3 x cable OD	4 x cable OD
>10mm to 25mm	4 x cable OD	4 x cable OD
> 25mm	6 x cable OD	6 x cable OD
Oxygen Index of Sheath:	>31%	
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A	
Smoke Emission:	IEC 61034-1 & 2, BS 7622	
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1	
Manufactured To:	BS 6883/UKOOA	

65702512H

Part No.	Core x mm²	Weight kg/km	O/D mm
BS6883 657 SW4 Unarmoured			
65701501H	1 x 1.5	42	6.0
65701502H	2 x 1.5	105	8.5
65701503H	3 x 1.5	130	9.0
65701504H	4 x 1.5	155	10.0
65701507H	7 x 1.5	260	12.0
65701512H	12 x 1.5	405	15.5
65701519H	19 x 1.5	590	19.0
65701527H	27 x 1.5	820	22.0
65702501H	1 x 2.5	57	6.0
65702502H	2 x 2.5	145	9.5
65702503H	3 x 2.5	180	10.0
65702504H	4 x 2.5	215	11.0
65702507H	7 x 2.5	365	13.0
65702512H	12 x 2.5	585	18.0
65702519H	19 x 2.5	860	21.0
65704001H	1 x 4.0	82	7.0
65704002H	2 x 4.0	225	11.5
65704003H	3 x 40	270	12.0
65704004H	4 x 4.0	355	13.0
65706001H	1 x 6.0	105	7.0
65706002H	2 x 6.0	285	13.0
65706003H	3 x 6.0	350	13.5
65706004H	4 x 6.0	445	14.5
65710001H	1 x 10	165	8.0
65710002H	2 x 10	445	14.5
65710003H	3 x 10	565	15.5
65710004H	4 x 10	700	17.0

Part No.	Core x mm²	Weight kg/km	O/D mm
65716001H	1 x 16	230	9.5
65716002H	2 x 16	630	17.0
65716003H	3 x 16	795	18.0
65716004H	4 x 16	1010	20.0
65725001H	1 x 25	360	12.0
65725002H	2 x 25	965	21.0
65725003H	3 x 25	1240	22.0
65725004H	4 x 25	1570	25.5
65735001H	1 x 35	425	12.5
65735002H	2 x 35	1140	23.0
65735003H	3 x 35	1480	25.0
65735004H	4 x 35	1880	27.0
65750001H	1 x 50	570	14.0
65750002H	2 x 50	1520	26.0
65750003H	3 x 50	1960	28.5
65750004H	4 x 50	2510	32.0
65770001H	1 x 70	785	16.0
65770002H	2 x 70	2070	31.0
65770003H	3 x 70	2700	33.0
65770004H	4 x 70	3490	36.0
65795001H	1 x 95	1060	18.0
65795003H	3 x 95	3680	37.0
65795004H	4 x 95	4780	42.0
65712001H	1 x 120	1300	21.0
65712003H	3 x 120	4490	42.0
65712004H	4 x 120	5830	46.0

Part No.	Core x mm²	Weight kg/km	Dia over Bedding mm	O/D mm
BS6883 658 SW4 Armoured				
65801502H	2 x 1.5	280	10.0	13.5
65801503H	3 x 1.5	310	10.5	14.5
65801504H	4 x 1.5	390	11.5	16.5
65801507H	7 x 1.5	570	14.0	18.0
65801512H	12 x 1.5	780	18.5	23.5
65801519H	19 x 1.5	1080	22.0	27.5
65801527H	27 x 1.5	1430	26.5	32.0
65802502H	2 x 2.5	320	11.0	14.5
65802503H	3 x 2.5	400	11.5	16.0
65802504H	4 x 2.5	460	12.5	17.0
65802507H	7 x 2.5	650	15.0	20.0
65802512H	12 x 2.5	980	20.0	25.0
65802519H	19 x 2.5	1350	24.0	29.0
65802527H	27 x 2.5	1810	29.5	34.5
65804002H	2 x 4.0	420	12.0	16.5
65804003H	3 x 4.0	505	13.0	17.0
65804004H	4 x 4.0	590	14.0	19.0
65806002H	2 x 6.0	510	13.0	18.0
65806003H	3 x 6.0	595	14.0	18.5
65806004H	4 x 6.0	700	15.5	20.0
65810002H	2 x 10	680	15.0	20.0
65810003H	3 x 10	780	16.0	20.5
65810004H	4 x 10	935	18.0	23.0
65816002H	2 x 16	960	17.5	23.0
65816003H	3 x 16	1120	18.5	24.0
65816004H	4 x 16	1370	20.5	26.0
65825002H	2 x 25	1250	21.0	26.0
65825003H	3 x 25	1500	22.5	27.5
65825004H	4 x 25	1850	25.0	30.0
65835002H	2 x 35	1455	23.5	28.0
65835003H	3 x 35	1950	25.0	30.0
65835004H	4 x 35	2380	28.0	33.5
65850002H	2 x 50	2160	27.0	32.5
65850003H	3 x 50	2640	29.0	34.0
65850004H	4 x 50	3300	32.5	38.5
65870002H	2 x 70	2930	31.0	37.0
65870003H	3 x 70	3630	33.0	39.0
65870004H	4 x 70	4340	37.0	43.0
65895003H	3 x 95	4720	38.0	44.0
65895004H	4 x 95	5830	42.5	49.0
65812003H	3 x 120	5820	41.0	48.5
65812004H	4 x 120	7180	46.0	54.0

65802512H

BS 6883 657-SW4 Unarmoured Shipwiring Instrumentation

Manufactured in both pairs and triples these 150/250V marine instrumentation cables provide collective or individual screening through the use of metallic foils and drain wires. Offering good flexibility for installation in confined spaces or where difficult routing is necessary these cables are ideal where no additional mechanical protection is required. Using SW4 Low Smoke Halogen Free sheathing compounds ensures that in the event of a fire the cable offers excellent protection to both people and property by not emitting toxic or corrosive gases.

Construction

Collectively Screened

Tinned copper wire conductors to IEC 60228 class 2, EPR insulation, cores twisted into pairs or triples, overall foil screen and drain wire, SW4 oil resistant LSHF sheath - grey, blue or black.

Individually Screened

Tinned copper wire conductors to IEC 60228 class 2, EPR insulation, cores twisted into pairs or triples, each pair aluminum foil screened with a drain wire, SW4 oil resistant LSHF sheath – grey, blue or black.

Class 5 conductors to IEC 60228 can be supplied on request.

Core Identification

Pairs - Black & white
Triples - Black, white & red

Each pair is identified by a numbered tape or printed numbers on the cores.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<24.5 Ohms/km	<12.1 Ohms/km
Insulation Resistance:	940 MOhm x km	730 MOhm x km
Mutual Capacitance @ 800Hz:		
Individual Screen:	90nF/km	110nF/km
Collective Screen:	80nF/km	90nF/km

Technical Information

Voltage Rating:	150/250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper conductors
Temperature Rating:	-30°C to +85°C
Bending Radius Static:	8 x overall diameter
Oxygen Index of Sheath:	>31%
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A, BS 4066-3
Smoke Emission:	IEC 61034-1 & 2, BS 7622
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1
Oil Resistant:	BS 7655 SW4 section 2.6
Manufactured To:	BS 6883/UKOOA

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
Pairs Collective				
657C0702PHxx	2	0.75	180	12.5
657C0703PHxx	3	0.75	210	13.0
657C0707PHxx	7	0.75	380	18.0
657C0712PHxx	12	0.75	610	23.5
657C0719PHxx	19	0.75	875	27.0
657C0720PHxx	20	0.75	975	28.5
657C0727PHxx	27	0.75	1210	32.5
657C1502PHxx	2	1.5	271	14.0
657C1503PHxx	3	1.5	310	15.8
657C1507PHxx	7	1.5	601	20.0
657C1512PHxx	12	1.5	900	26.0
657C1520PHxx	20	1.5	1310	30.5
657C1527PHxx	27	1.5	1780	32.5

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
Pairs Individual				
657I0701PHxx	1	0.75	95	8.1
657I0702PHxx	2	0.75	165	12.0
657I0703PHxx	3	0.75	260	13.0
657I0707PHxx	7	0.75	480	18.5
657I0712PHxx	12	0.75	750	22.5
657I0720PHxx	20	0.75	1150	28.0
657I0727PHxx	27	0.75	1600	31.5
658I1501PHxx	1	1.5	135	16.5
658I1502PHxx	2	1.5	254	14.3
657I1503PHxx	3	1.5	300	15.0
657I1507PHxx	7	1.5	690	21.0
657I1512PHxx	12	1.5	1110	27.0
657I1520PHxx	20	1.5	1850	34.5

Part No.	No. of Triples	Size mm²	Weight kg/km	O/D mm
Triples Collective				
657C0703THxx	3	0.75	260	15.0
657C0707THxx	7	0.75	501	20.5
657C0712THxx	12	0.75	805	25.0
657C1503THxx	3	1.5	350	15.5
657C1507THxx	7	1.5	790	23.4
657C1512THxx	12	1.5	1250	28.5
Triples Individual				
657I0701THxx	1	0.75	110	8.5
657I0703THxx	3	0.75	300	15.0
657I0707THxx	7	0.75	580	19.5
657I0712THxx	12	0.75	971	25.0
657I1501THxx	1	1.5	165	9.5
657I1503THxx	3	1.5	410	17.5
657I1507THxx	7	1.5	900	25.0
657I1512THxx	12	1.5	1500	28.5

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request

657C0707PH00

BS 6883 658-SW4 Armoured Shipwiring Instrumentation

Similar in construction to the BS 6883 657 SW4 instrumentation types, these cables have an additional steel wire braid armour for mechanical protection. Manufactured in both pairs and triples these 150/250V marine instrumentation cables provide collective or individual screening through the use of metallic foils and drain wires. They maintain good flexibility for installation on ships and oil rigs. The SW4 Low Smoke Halogen Free sheathing is oil resistant and ensures that in the event of a fire the cable will offer excellent protection to both people and property by not emitting toxic or corrosive gases.

Construction

Collectively Screened

Tinned copper wire conductors to IEC 60228 class 2, EPR insulation, cores twisted into pairs or triples, overall foil screen and drain wire, LSHF bedding, galvanised steel wire braid, SW4 oil resistant LSHF sheath - grey, blue or black.

Class 5 conductors to IEC 60228 can be supplied on request.

Individually Screened

Tinned copper wire conductors to IEC 60228 class 2, EPR insulation, cores twisted into pairs or triples, each pair aluminum foil screened with a drain wire, LSHF bedding, galvanised steel wire braid, SW4 oil resistant LSHF sheath – grey, blue or black.

Core Identification

Pairs - Black & white
Triples - Black, white & red

Each pair is identified by a numbered tape or printed numbers on the cores.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<24.5 Ohms/km	<12.1 Ohms/km
Insulation Resistance:	940 MOhm x km	730 MOhm x km
Mutual Capacitance @ 800Hz:		
Individual Screen:	90nF/km	110nF/km
Collective Screen:	80nF/km	90nF/km

Technical Information

Voltage Rating:	150/250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper conductors
Temperature Rating:	-30°C to +85°C
Bending Radius Static:	8 x overall diameter
Oxygen Index of Sheath:	>31%
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2, BS 7622
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1
Oil Resistant:	BS 7655 SW4 section 2.6
Manufactured To:	BS 6883/UKOOA

Part No.	No. of Pairs	Core x mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Collective					
658C0702PHxx	2	0.75	379	13.5	15.5
658C0703PHxx	3	0.75	420	12.0	16.5
658C0707PHxx	7	0.75	660	16.5	21.0
658C0712PHxx	12	0.75	1010	21.5	26.0
658C0719PHxx	19	0.75	1460	24.5	29.5
658C0720PHxx	20	0.75	1570	25.5	31.5
658C0727PHxx	27	0.75	1980	29.0	35.5
658C1502PHxx	2	1.5	477	14.0	17.5
658C1503PHxx	3	1.5	520	15.0	18.5
658C1507PHxx	7	1.5	821	18.5	23.0
658C1512PHxx	12	1.5	1291	24.5	30.0
658C1520PHxx	20	1.5	2130	29.0	35.5
658C1527PHxx	27	1.5	2650	33.5	40.0

Part No.	No. of Pairs	Core x mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Individual					
658I0701PHxx	1	0.75	230	7.5	11.5
658I0702PHxx	2	0.75	420	11.0	17.0
658I0703PHxx	3	0.75	530	12.0	18.5
658I0707PHxx	7	0.75	721	16.5	21.0
658I0712PHxx	12	0.75	1111	22.0	27.0
658I0720PHxx	20	0.75	1701	26.0	34.5
658I1501PHxx	1	1.5	290	8.5	12.5
658I1502PHxx	2	1.5	511	13.0	18.0
658I1503PHxx	3	1.5	560	14.0	19.0
658I1507PHxx	7	1.5	980	20.0	26.0
658I1512PHxx	12	1.5	1670	25.0	32.0
658I1520PHxx	20	1.5	2430	31.5	38.0

Part No.	No. of Triples	Core x mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Triples Collective					
658C0703THxx	3	0.75	510	13.5	18.0
658C0707THxx	7	0.75	820	18.0	22.5
658C0712THxx	12	0.75	1290	24.0	29.0
658C1503THxx	3	1.5	520	14.5	19.5
658C1507THxx	7	1.5	1280	20.5	26.5
658C1512THxx	12	1.5	1840	27.5	33.5
Triples Individual					
658I0701THxx	1	0.75	245	8.0	12.0
658I0703THxx	3	0.75	530	14.0	18.5
658I0707THxx	7	0.75	898	18.5	23.5
658I0712THxx	12	0.75	1530	25.0	31.0
658I1501THxx	1	1.5	320	9.0	13.0
658I1503THxx	3	1.5	690	15.5	20.5
658I1507THxx	7	1.5	1390	23.0	27.5
658I1512THxx	12	1.5	2105	29.5	34.5

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request

658C0707PH05

BS 7917 0.6/1kV Shipwiring Power – Fire Resistant

Used widely on ships, oil rigs, platforms and refineries where fire resistance to IEC 60331 is vital. BS 7917 cables provide circuit integrity to maintain essential services in the event of a fire.

The 657M SW4 unarmoured versions are ideal for applications where small bending radii are required. When mechanical protection is needed the 658M SW4 steel braid armour (GSWB) version provides the solution whilst maintaining good flexibility for installation in restricted areas.

Construction

657M SW4 Unarmoured

Stranded tinned copper conductor, Mica glass tape fire barrier, EPR insulation, SW4 LSHF elastomeric outer sheath – black. Single core cables are available in green/yellow for earthing applications.

658M SW4 Armoured

Stranded tinned copper conductor, Mica glass tape fire barrier, EPR insulation, halogen free thermoplastic elastomeric bedding, galvanized steel wire braid armour, SW4 LSHF elastomeric outer sheath - black.

Core Identification

White cores with black numbers. Colour coded cores available to order.

Technical Information

Voltage Rating:	0.6/1kV	
Conductor Stranding:	IEC 60228 Class 2, tinned copper	
Temperature Rating:	-30°C to +85°C	
Bending Radius Static:	**657M SW4**	**658M SW4**
≤ 10mm	3 x cable OD	4 x cable OD
>10mm to 25mm	4 x cable OD	4 x cable OD
> 25mm	6 x cable OD	6 x cable OD
Oxygen Index of Sheath:	>31%	
Fire Resistant:	IEC 60331-21	
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A	
Smoke Emission:	IEC 61034-1 & 2, BS 7622	
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1	
Manufactured To:	BS 7917 / BS 6883	

65701512HM

Part No.	Core x Size mm²	Weight kg/km	O/D mm
BS 7917 657M SW4 Unarmoured			
65701501HM	1 x 1.5	42	6.0
65701502HM	2 x 1.5	105	8.5
65701503HM	3 x 1.5	130	9.0
65701504HM	4 x 1.5	155	10.0
65701507HM	7 x 1.5	260	12.0
65701512HM	12 x 1.5	405	15.5
65701519HM	19 x 1.5	590	19.0
65701527HM	27 x 1.5	820	22.0
65702501HM	1 x 2.5	57	6.0
65702502HM	2 x 2.5	145	9.5
65702503HM	3 x 2.5	180	10.0
65702504HM	4 x 2.5	215	11.0
65702507HM	7 x 2.5	365	13.0
65702512HM	12 x 2.5	585	18.0
65702519HM	19 x 2.5	860	21.0
65704001HM	1 x 4.0	82	7.0
65704002HM	2 x 4.0	225	11.5
65704003HM	3 x 4.0	270	12.0
65704004HM	4 x 4.0	355	13.0
65706001HM	1 x 6.0	105	7.0
65706002HM	2 x 6.0	285	13.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
65706003HM	3 x 6.0	350	13.5
65706004HM	4 x 6.0	445	14.5
65710001HM	1 x 10	165	8.0
65710002HM	2 x 10	445	14.5
65710003HM	3 x 10	565	15.5
65710004HM	4 x 10	700	17.0
65716001HM	1 x 16	230	9.5
65716002HM	2 x 16	630	17.0
65716003HM	3 x 16	795	18.0
65716004HM	4 x 16	1010	20.0
65725001HM	1 x 25	360	12.0
65725002HM	2 x 25	965	21.0
65725003HM	3 x 25	1240	22.0
65725004HM	4 x 25	1570	25.5
65735001HM	1 x 35	425	12.5
65735002HM	2 x 35	1140	23.0
65735003HM	3 x 35	1480	25.0
65735004HM	4 x 35	1880	27.0
65750001HM	1 x 50	570	14.0
65750002HM	2 x 50	1520	26.0
65750003HM	3 x 50	1960	28.5
65750004HM	4 x 50	2510	32.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
65770001HM	1 x 70	785	16.0
65770002HM	2 x 70	2070	31.0
65770003HM	3 x 70	2700	33.0
65770004HM	4 x 70	3490	36.0
65795001HM	1 x 95	1060	18.0

Part No.	Core x Size mm²	Weight kg/km	O/D mm
65795003HM	3 x 95	3680	37.0
65795004HM	4 x 95	4780	42.0
65712001HM	1 x 120	1300	21.0
65712003HM	3 x 120	4490	42.0
65712004HM	4 x 120	5830	46.0

For green/yellow single cores suffix the part code "E"

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
BS 7917 658M SW4 Armoured				
65801502HM	2 x 1.5	280	10.0	13.5
65801503HM	3 x 1.5	310	10.5	14.5
65801504HM	4 x 1.5	390	11.5	16.5
65801507HM	7 x 1.5	570	14.0	18.0
65801512HM	12 x 1.5	780	18.5	23.5
65801519HM	19 x 1.5	1080	22.0	27.5
65801527HM	27 x 1.5	1430	26.5	32.0
65802502HM	2 x 2.5	320	11.0	14.5
65802503HM	3 x 2.5	400	11.5	16.0
65802504HM	4 x 2.5	460	12.5	17.0
65802507HM	7 x 2.5	650	15.0	20.0
65802512HM	12 x 2.5	980	20.0	25.0
65802519HM	19 x 2.5	1350	24.0	29.0
65802527HM	27 x 2.5	1810	29.5	34.5
65804002HM	2 x 4.0	420	12.0	16.5
65804003HM	3 x 4.0	505	13.0	17.0
65804004HM	4 x 4.0	590	14.0	19.0
65806002HM	2 x 6.0	510	13.0	18.0
65806003HM	3 x 6.0	595	14.0	18.5
65806004HM	4 x 6.0	700	15.5	20.0
65810002HM	2 x 10	680	15.0	20.0
65810003HM	3 x 10	780	16.0	20.5
65810004HM	4 x 10	935	18.0	23.0
65816002HM	2 x 16	960	17.5	23.0
65816003HM	3 x 16	1120	18.5	24.0
65816004HM	4 x 16	1370	20.5	26.0
65825002HM	2 x 25	1250	21.0	26.0
65825003HM	3 x 25	1500	22.5	27.5
65825004HM	4 x 25	1850	25.0	30.0
65835002HM	2 x 35	1455	23.5	28.0
65835003HM	3 x 35	1950	25.0	30.0
65835004HM	4 x 35	2380	28.0	33.5
65850002HM	2 x 50	2160	27.0	32.5
65850003HM	3 x 50	2640	29.0	34.0
65850004HM	4 x 50	3300	32.5	38.5
65870002HM	2 x 70	2930	31.0	37.0
65870003HM	3 x 70	3630	33.0	39.0
65870004HM	4 x 70	4340	37.0	43.0
65895003HM	3 x 95	4720	38.0	44.0
65895004HM	4 x 95	5830	42.5	49.0
65812003HM	3 x 120	5820	41.0	48.5
65812004HM	4 x 120	7180	46.0	54.0

65801512HM

BS 7917 657M-SW4 Fire Resistant Unarmoured Shipwiring Instrumentation

Fire resistant instrumentation cables provide collective or individual screening through the use of metallic foils and drain wires. Mica glass tape fire barriers provide circuit integrity whilst the oil resistant SW4 Low Smoke Halogen Free sheathing compound ensures protection to both people and property during a fire.

Construction

Collectively Screened

Tinned copper wire conductors to IEC 60228 class 2, Mica glass tape fire barrier EPR insulation, cores twisted into pairs or triples, overall foil screen and drain wire, SW4 oil resistant LSHF sheath - grey, blue or black.

Individually Screened

Tinned copper wire conductors to IEC 60228 class 2, Mica glass tape fire barrier, EPR insulation, cores twisted into pairs or triples, each pair aluminum foil screened with a drain wire, SW4 oil resistant LSHF sheath – grey, blue or black.

Class 5 conductors to IEC 60228 can be supplied on request.

Core Identification

Pairs - Black & white
Triples - Black, white & red

Each pair is identified by a numbered tape or printed numbers on the cores.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<24.5 Ohms/km	<12.1 Ohms/km
Insulation Resistance:	940 MOhm x km	730 MOhm x km
Mutual Capacitance @ 800Hz:		
Collective Screen:	80nF/km	90nF/km
Individual Screen:	90nF/km	110nF/km

Technical Information

Voltage Rating:	150/250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Temperature Rating:	-30°C to +85°C
Bending Radius Static:	8 x overall diameter
Oxygen Index of Sheath:	>31%
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2, BS 7622
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1
Oil Resistant:	BS 7655 SW4 section 2.6
Manufactured To:	BS 7917/UKOOA

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
Pairs Collective				
657C0702PHMxx	2	0.75	180	12.5
657C0703PHMxx	3	0.75	230	14.0
657C0707PHMxx	7	0.75	410	19.0
657C0712PHMxx	12	0.75	620	24.5
657C0719PHMxx	19	0.75	900	28.5
657C0720PHMxx	20	0.75	990	30.0
657C0727PHMxx	27	0.75	1290	33.0
657C1502PHMxx	2	1.5	271	14.0
657C1503PHMxx	3	1.5	410	16.5
657C1507PHMxx	7	1.5	680	21.0
657C1512PHMxx	12	1.5	1050	27.5
657C1520PHMxx	20	1.5	1480	31.5
657C1527PHMxx	27	1.5	1860	33.0

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
Pairs Individual				
657I0701PHMxx	1	0.75	120	9.5
657I0702PHMxx	2	0.75	165	12.0
657I0703PHMxx	3	0.75	280	14.0
657I0707PHMxx	7	0.75	510	19.5
657I0712PHMxx	12	0.75	850	23.5
657I0720PHMxx	20	0.75	1300	29.0
657I0727PHMxx	27	0.75	1710	33.0
658I1501PHMxx	1	1.5	145	17.5
658I1502PHMxx	2	1.5	254	14.3
657I1503PHMxx	3	1.5	350	16.5
657I1507PHMxx	7	1.5	760	23.0
657I1512PHMxx	12	1.5	1210	29.0
657I1520PHMxx	20	1.5	1990	35.5

Part No.	No. of Triples	Size mm²	Weight kg/km	O/D mm
Triples Collective				
657C0703THMxx	3	0.75	280	16.0
657C0707THMxx	7	0.75	530	22.0
657C0712THMxx	12	0.75	820	26.5
657C1503THMxx	3	1.5	375	16.5
657C1507THMxx	7	1.5	815	24.8
657C1512THMxx	12	1.5	1300	30.0
Triples Individual				
657I0701THMxx	1	0.75	135	10.0
657I0703THMxx	3	0.75	325	16.5
657I0707THMxx	7	0.75	595	21.0
657I0712THMxx	12	0.75	990	26.0
657I1501THMxx	1	1.5	187	11.0
657I1503THMxx	3	1.5	450	18.5
657I1507THMxx	7	1.5	960	26.0
657I1512THMxx	12	1.5	1610	30.5

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request

657C0707PHM00

BS 7917 658M-SW4 Fire Resistant Armoured Shipwiring Instrumentation

Manufactured with a galvanised steel wire braid for mechanical protection these fire resistant cables are available in both pairs and triples to provide collective or individual screening through the use of metallic foils and drain wires. Offering good flexibility and circuit integrity their use has spread from ships to rigs and many onshore/offshore applications.

The oil resistant SW4 Low Smoke Halogen Free sheathing compounds ensure that in the event of a fire the cables offer excellent protection to both people and property by not emitting toxic or corrosive gases whilst keeping emergency circuits operating.

Construction

Collectively Screened

Tinned copper wire conductors to IEC 60228 class 2, Mica glass tape fire barrier, EPR insulation, cores twisted into pairs or triples, overall foil screen and drain wire, LSHF bedding, galvanised steel wire braid armour, SW4 oil resistant LSHF sheath - grey, blue or black.

Individually Screened

Tinned copper wire conductors to IEC 60228 class 2, Mica glass tape fire barrier, EPR insulation, cores twisted into pairs or triples, each pair aluminum foil screened with a drain wire, LSHF bedding, galvanised steel wire braid armour, SW4 oil resistant LSHF sheath – grey, blue or black.

Class 5 conductors to IEC 60228 can be supplied on request.

Core Identification

Pairs - Black & white
Triples - Black, white & red

Each pair is identified by a numbered tape or printed numbers on the cores.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<24.5 Ohms/km	<12.1 Ohms/km
Insulation Resistance:	940 MOhm x km	730 MOhm x km
Mutual Capacitance @ 800Hz:		
Collective Screen:	80nF/km	90nF/km
Individual Screen:	90nF/km	110nF/km

Technical Information

Voltage Rating:	150/250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Temperature Rating:	-30°C to +85°C
Bending Radius Static:	8 x overall diameter
Oxygen Index of Sheath:	>31%
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2, BS 7622
Halogen Emission:	IEC 60754-1 & 2, BS 6425-1
Oil Resistant:	BS 7655 SW4 section 2.6
Manufactured To:	BS 7917/BS 6883

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Collective					
658C0702PHMxx	2	0.75	379	13.5	15.5
658C0703PHMxx	3	0.75	460	13.0	17.5
658C0707PHMxx	7	0.75	741	17.5	21.5
658C0712PHMxx	12	0.75	1120	22.5	27.5
658C0719PHMxx	19	0.75	1600	26.0	32.0
658C0720PHMxx	20	0.75	1720	27.0	33.0
658C0727PHMxx	27	0.75	2190	31.0	37.5
658C1502PHMxx	2	1.5	477	13.5	17.5
658C1503PHMxx	3	1.5	570	14.5	19.0
658C1507PHMxx	7	1.5	920	19.5	24.0
658C1512PHMxx	12	1.5	1560	26.0	31.5
658C1520PHMxx	20	1.5	2260	31.0	37.5
658C1527PHMxx	27	1.5	2820	35.5	42.0

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Individual					
658I0701PHMxx	1	0.75	260	8.0	12.0
658I0702PHMxx	2	0.75	420	11.0	17.0
658I0703PHMxx	3	0.75	480	13.5	17.5
658I0707PHMxx	7	0.75	795	20.0	22.0
658I0712PHMxx	12	0.75	1225	24.0	28.5
658I0720PHMxx	20	0.75	2050	30.0	36.5
658I0727PHMxx	27	0.75	2410	35.0	41.0
658I1501PHMxx	1	1.5	300	9.5	13.0
658I1502PHMxx	2	1.5	511	13.0	18.0
658I1503PHMxx	3	1.5	650	15.0	21.0
658I1507PHMxx	7	1.5	1030	20.5	25.0
658I1512PHMxx	12	1.5	1650	27.5	32.0
658I1520PHMxx	20	1.5	2690	34.0	41.0

Part No.	No. of Triples	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Triples Collective					
658C0703THMxx	3	0.75	550	15.0	19.0
658C0707THMxx	7	0.75	930	19.5	24.5
658C0712THMxx	12	0.75	1450	26.0	31.5
658C1503THMxx	3	1.5	515	15.5	18.0
658C1507THMxx	7	1.5	1010	22.0	25.0
658C1512THMxx	12	1.5	1560	26.0	29.0
Triples Individual					
658I0701THMxx	1	0.75	280	8.5	12.5
658I0703THMxx	3	0.75	590	14.5	19.0
658I0707THMxx	7	0.75	990	20.0	24.5
658I0712THMxx	12	0.75	1650	26.5	32.5
658I1501THMxx	1	1.5	330	10.0	14.0
658I1503THMxx	3	1.5	850	16.5	19.0
658I1507THMxx	7	1.5	1180	20.0	25.0
658I1512THMxx	12	1.5	1740	32.5	38.0

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request

658C0707P05HM

RFOU Power to IEC 60092-353

Designed to NEK 606 and IEC 60092-353 for use within the oil and gas industry. RFOU cable meets the most stringent flame retardant and low smoke emission tests making them the ideal choice for low voltage power and control applications where the safety of people and equipment is paramount.

Due to the copper braid armour reducing Electro Magnetic Interference (EMI), RFOU can also be used for installations requiring high levels of electrical screening.

Construction

Tinned stranded copper conductor, EPR insulation, halogen free thermoplastic elastomeric bedding, tinned copper wire braid armour, MUD resistant LSHF elastomeric outer sheath.

The cross sectional area (mm²) of the screen is shown after the conductor size in the table below.

Core Identification

1 Core	Black
2 Cores	Light grey, black
3 Cores	Light grey, black, red
4 Cores	Light grey, black, red, blue

5 Cores and above number coded

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Current Rating:	FEA-M clause 1881.5 – 11 or IEE regs. table 4H2A+B depending on application
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Oxygen Index of Sheath:	>31%
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
MUD Resistant:	NEK 606 P1/P8
Manufactured To:	IEC 60092-353, NEK 606
3rd Party Approval:	DNV, approvals may vary between manufacture brands.

RFO16004

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
RFOU Power				
RFO01502	2 x 1.5/4	260	9.5	13.0
RFO01503	3 x 1.5/4	290	10.0	13.5
RFO01504	4 x 1.5/4	350	11.0	15.0
RFO01507	7 x 1.5/6	490	13.0	17.0
RFO01512	12 x 1.5/10	720	17.5	22.0
RFO01519	19 x 1.5/10	990	20.5	25.5
RFO01527	27 x 1.5/10	1320	24.5	30.0
RFO02502	2 x 2.5/4	300	10.5	13.5
RFO02503	3 x 2.5/6	370	11.0	15.0
RFO02504	4 x 2.5/6	445	12.0	15.5
RFO02507	7 x 2.5/6	610	14.5	19.0
RFO02512	12 x 2.5/10	900	19.5	24.0
RFO02519	19 x 2.5/10	1260	23.0	28.0
RFO02527	27 x 2.5/16	1680	27.0	32.5
RFO04002	2 x 4/6	400	11.5	15.0
RFO04003	3 x 4/6	465	12.0	16.0
RFO04004	4 x 4/6	540	13.5	17.5
RFO06002	2 x 6/6	490	12.5	16.5
RFO06003	3 x 6/6	570	13.5	18.0
RFO06004	4 x 6/6	670	15.0	19.0

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
RFO10002	2 x 10/10	640	14.5	18.5
RFO10003	3 x 10/10	740	15.5	19.5
RFO10004	4 x 10/10	910	17.0	21.0
RFO16002	2 x 16/16	915	9.5	22.0
RFO16003	3 x 16/16	1050	18.0	22.5
RFO16004	4 x 16/16	1300	20.0	25.0
RFO25001	1 x 25/4	470	11.5	15.0
RFO25002	2 x 25/16	1140	20.5	24.0
RFO25003	3 x 25/16	1520	22.0	26.5
RFO25004	4 x 25/16	1800	24.0	30.0
RFO35001	1 x 35/6	640	12.5	16.0
RFO35002	2 x 35/16	1790	23.0	28.0
RFO35003	3 x 35/16	1900	24.5	30.5
RFO35004	4 x 35/16	2340	27.0	32.0
RFO50001	1 x 50/6	820	14.5	19.0
RFO50002	2 x 50/25	2100	24.0	31.0
RFO50003	3 x 50/25	2600	28.5	34.0
RFO50004	4 x 50/25	3200	32.0	38.0
RFO70001	1 x 70/6	1080	16.5	21.0
RFO70002	2 x 70/35	2930	30.5	32.0
RFO70003	3 x 70/35	3630	33.0	34.0
RFO70004	4 x 70/35	4360	36.5	43.0
RFO95001	1 x 95/10	1380	18.5	23.0
RFO95003	3 x 95/50	4600	37.5	43.0
RFO95004	4 x 95/50	5750	41.5	48.0
RFO12001	1 x 120/10	1680	20.5	25.0
RFO12003	3 x 120/60	5750	41.0	48.5
RFO12004	4 x 120/60	6990	42.5	52.0
RFO15001	1 x 150/10	2000	22.5	27.0
RFO18501	1 x 185/10	2430	24.5	29.5
RFO24001	1 x 240/16	3090	27.5	32.0
RFO30001	1 x 300/16	3790	27.5	36.0

RFOU Instrumentation to IEC 60092-376

Designed for use in petrochemical and offshore instrumentation applications RFOU is available in collectively or individually screened options for optimum EMI suppression. The NEK 606 rated Low Smoke Halogen Free sheath offers resistance to MUD and drilling oils and meets the flame retardance requirements of IEC 60332-3-22 Cat A. This makes RFOU the ideal choice for safe areas and where personnel or equipment may be at risk from smoke damage in the event of a fire.

Construction

Tinned stranded copper conductor, EPR insulation, overall screen of copper backed polyester tape with a stranded copper drain wire, inner sheath of halogen free thermoplastic elastomeric, tinned copper wire braid armour, MUD resistant LSHF elastomeric sheath. The individually screened version has a copper backed polyester tape with a stranded copper drain wire around each pair or triple.

Core Identification

Pairs - Light blue, black and numbered
Triples – Light blue, black, brown and numbered

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<26.7 Ohms/km	<13.7 Ohms/km
L/R Ratio:	12.7mH/Ohm	26.6mH/Ohm
Mutual Capacitance @ 800Hz:		
Collective Screen:	100nF/km	110nF/km
Individual Screen:	110nF/km	125nF/km

Technical Information

Voltage Rating:	250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Oxygen Index of Sheath:	>31%
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
MUD Resistant:	NEK 606 Collective Screen S2/S6, Individual Screen S1/S5
Manufactured To:	IEC 60092-376, NEK 606
3rd Party Approval:	DNV, approvals may vary between manufacture brands.

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Collective					
RFC00702xx	2	0.75	280	10.0	13.0
RFC00703xx	3	0.75	399	11.0	14.5
RFC00704xx	4	0.75	400	11.5	15.5
RFC00708xx	8	0.75	621	15.0	19.5
RFC00712xx	12	0.75	800	18.0	22.0
RFC00716xx	16	0.75	960	19.5	23.5
RFC00724xx	24	0.75	1375	24.0	28.0
RFC01502xx	2	1.5	423	12.0	16.0
RFC01503xx	3	1.5	521	13.5	17.5
RFC01504xx	4	1.5	575	14.0	18.0
RFC01508xx	8	1.5	931	18.5	23.5
RFC01512xx	12	1.5	1195	22.0	27.0
RFC01516xx	16	1.5	1500	24.0	29.0
RFC01524xx	24	1.5	2201	30.0	36.0

RFC0070801

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Individual					
RFI00701xx	1	0.75	185	7.0	10.0
RFI00702xx	2	0.75	295	10.0	13.0
RFI00703xx	3	0.75	440	10.5	14.5
RFI00704xx	4	0.75	450	11.5	15.0
RFI00708xx	8	0.75	720	15.5	19.5
RFI00712xx	12	0.75	941	18.5	22.0
RFI00716xx	16	0.75	1190	20.5	25.0
RFI00724xx	24	0.75	1649	25.5	30.5
RFI01501xx	1	1.5	241	8.0	11.5
RFI01502xx	2	1.5	441	12.0	16.0
RFI01503xx	3	1.5	549	13.0	17.0
RFI01504xx	4	1.5	630	14.0	18.0
RFI01508xx	8	1.5	1025	19.0	23.5
RFI01512xx	12	1.5	1365	23.0	28.0
RFI01516xx	16	1.5	1723	25.5	31.0
RFI01524xx	24	1.5	2654	32.0	39.0

Part No.	No. of Triples	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Triples Collective					
RFC00702Txx	2	0.75	365	11.0	14.5
RFC00703Txx	3	0.75	401	11.5	15.0
RFC00704Txx	4	0.75	487	12.5	16.5
RFC00708Txx	8	0.75	780	17.0	21.0
RFC00712Txx	12	0.75	999	20.0	24.0
RFC00716Txx	16	0.75	1241	21.5	26.0
RFC00724Txx	24	0.75	1800	27.0	32.0
RFC01502Txx	2	1.5	505	13.0	18.0
RFC01503Txx	3	1.5	555	14.0	18.5
RFC01504Txx	4	1.5	695	15.5	19.5
RFC01508Txx	8	1.5	1189	21.0	25.5
RFC01512Txx	12	1.5	1560	24.5	29.5
RFC01516Txx	16	1.5	1940	26.5	32.0
RFC01524Txx	24	1.5	2900	33.5	40.0
Triples Individual					
RFI00701Txx	1	0.75	205	7.0	10.5
RFI00702Txx	2	0.75	385	11.0	14.5
RFI00703Txx	3	0.75	455	12.0	15.0
RFI00704Txx	4	0.75	530	12.5	16.5
RFI00708Txx	8	0.75	875	17.0	21.5
RFI00712Txx	12	0.75	1169	20.5	25.0
RFI00716Txx	16	0.75	1456	23.0	28.0
RFI00724Txx	24	0.75	2100	29.0	35.0
RFI01501Txx	1	1.5	275	8.5	12.0
RFI01502Txx	2	1.5	531	13.5	18.0
RFI01503Txx	3	1.5	602	14.6	19.2
RFI01504Txx	4	1.5	776	15.5	20.0
RFI01508Txx	8	1.5	1287	21.5	25.5
RFI01512Txx	12	1.5	1740	26.0	31.0
RFI01516Txx	16	1.5	2270	29.5	35.0
RFI01524Txx	24	1.5	3400	36.5	43.0

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request

BFOU Power to IEC 60092-353

BFOU is similar to RFOU but has the benefit of mica tape around the conductor to maintain circuit integrity for 3 hours when exposed to fire in accordance with IEC 60331-21. Designed to NEK606 and IEC 60092-353 BFOU meets the most stringent fire resistant, flame retardant and low smoke emission tests making it the ideal choice for low voltage power and control applications on FPSO, ship and platform applications.

Construction

Tinned stranded copper conductor, Mica glass tape fire barrier, EPR insulation, halogen free thermoplastic elastomeric bedding, tinned copper wire braid armour, MUD resistant LSHF elastomeric outer sheath.

The cross sectional area (mm^2) of the screen is shown after the conductor size in the table below.

Core Construction

1 Core	Black
2 Cores	Light grey, black
3 Cores	Light grey, black, red
4 Cores	Light grey, black, red, blue

5 Cores and above number coded

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Current Rating:	FEA-M clause 1881.5 – 11 or IEE regs. table 4H2A+B depending on application
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Oxygen Index of Sheath:	>31%
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
MUD Resistant:	NEK 606 P5/P12
Manufactured To:	IEC 60092-353, NEK 606
3rd Party Approval:	DNV, approvals may vary between manufacture brands.

BFO06004

Part No.	Core x Size mm^2	Weight kg/km	Dia over Bedding mm	O/D mm
BFOU Power				
BFO01502	2 x 1.5/4	280	10.0	13.5
BFO01503	3 x 1.5/4	310	10.5	14.5
BFO01504	4 x 1.5/4	390	11.5	16.5
BFO01507	7 x 1.5/6	570	14.0	18.0
BFO01512	12 x 1.5/10	780	18.5	23.5
BFO01519	19 x 1.5/10	1080	22.0	27.5
BFO01527	27 x 1.5/10	1430	26.5	32.0
BFO02502	2 x 2.5/4	320	11.0	14.5
BFO02503	3 x 2.5/6	400	11.5	16.0
BFO02504	4 x 2.5/6	460	12.5	17.0
BFO02507	7 x 2.5/6	650	15.0	20.0
BFO02512	12 x 2.5/10	980	20.0	25.0
BFO02519	19 x 2.5/10	1350	24.0	29.0
BFO02527	27 x 2.5/16	1810	29.5	34.5
BFO04002	2 x 4/6	420	12.0	16.5
BFO04003	3 x 4/6	505	13.0	17.0
BFO04004	4 x 4/6	590	14.0	19.0
BFO06002	2 x 6/6	510	13.0	18.0
BFO06003	3 x 6/6	595	14.0	18.5
BFO06004	4 x 6/6	700	15.5	20.0

Part No.	Core x Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
BFO10002	2 x 10/10	680	15.0	20.0
BFO10003	3 x 10/10	780	16.0	20.5
BFO10004	4 x 10/10	935	18.0	23.0
BFO16002	2 x 16/16	960	17.5	23.0
BFO16003	3 x 16/16	1120	18.5	24.0
BFO16004	4 x 16/16	1370	20.5	26.0
BFO25001	1 x 25/4	480	11.5	15.5
BFO25002	2 x 25/16	1250	21.0	26.0
BFO25003	3 x 25/16	1500	22.5	27.5
BFO25004	4 x 25/16	1850	25.0	30.0
BFO35001	1 x 35/6	640	13.5	17.0
BFO35002	2 x 35/16	1455	23.5	28.0
BFO35003	3 x 35/16	1950	25.0	30.0
BFO35004	4 x 35/16	2380	28.0	33.5
BFO50001	1 x 50/6	820	15.0	19.5
BFO50002	2 x 50/25	2160	27.0	32.5
BFO50003	3 x 50/25	2640	29.0	34.0
BFO50004	4 x 50/25	3300	32.5	38.5
BFO70001	1 x 70/6	1080	16.5	21.0
BFO70002	2 x 70/35	2930	31.0	37.0
BFO70003	3 x 70/35	3630	33.0	39.0
BFO70004	4 x 70/35	4340	37.0	43.0
BFO95001	1 x 95/10	1380	18.5	23.0
BFO95003	3 x 95/50	4720	38.0	44.0
BFO95004	4 x 95/50	5830	42.5	49.0
BFO12001	1 x 120/10	1710	20.5	25.5
BFO12003	3 x 120/60	5820	41.0	48.5
BFO12004	4 x 120/60	7180	46.0	54.0
BFO15001	1 x 150/10	2030	23.0	28.0
BFO18501	1 x 185/10	2510	25.0	30.0
BFO24001	1 x 240/16	3130	28.0	34.0
BFO30001	1 x 300/16	3820	31.0	37.0

BFOU Instrumentation to IEC 60092-376

BFOU instrumentation cables are designed to meet the needs of circuit integrity installations within the offshore industry. They are available as collectively or individually screened options for optimum EMI screening. Fire barrier tapes are combined with a Low Smoke Halogen Free sheath to provide uninterrupted signals during a fire situation. BFOU cables are also resistant to MUD and drilling oils and meet the flame retardance requirements of IEC 60332-3-22 Cat A.

Construction

Tinned stranded copper conductor, Mica tape, EPR insulation, overall screen of copper backed polyester tape with a stranded copper drain wire, inner sheath of halogen free elastomeric, tinned copper wire braid armour, MUD resistant - LSHF elastomeric sheath. The individually screened version has a copper backed polyester tape with a stranded copper drain wire around each pair or triple.

Core Identification

Pairs - Light blue, black and numbered
Triples – Light blue, black, brown and numbered

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<26.7 Ohms/km	<13.7 Ohms/km
L/R Ratio:	12.7mH/Ohm	26.6mH/Ohm
Mutual Capacitance @ 800Hz:		
Collective Screen:	100nF/km	110nF/km
Individual Screen:	110nF/km	125nF/km

Technical Information

Voltage Rating:	250V
Conductor Stranding:	IEC 60228 Class 2, tinned copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Oxygen Index Of Sheath:	>31%
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
MUD Resistant:	NEK606 Collective Screen S4/S8, Individual Screen S3/S7
Manufactured To:	IEC 60092-376, NEK606
3rd Party Approval:	DNV, approvals may vary between manufacture brands.

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Collective					
BFC00702xx	2	0.75	340	10.5	14.5
BFC00703xx	3	0.75	421	12.0	15.5
BFC00704xx	4	0.75	450	12.5	16.0
BFC00708xx	8	0.75	700	16.5	21.0
BFC00712xx	12	0.75	915	19.5	23.5
BFC00716xx	16	0.75	1100	21.0	25.5
BFC00724xx	24	0.75	1600	26.5	31.5
BFC01502xx	2	1.5	450	13.0	16.5
BFC01503xx	3	1.5	521	14.0	18.4
BFC01504xx	4	1.5	600	15.0	19.0
BFC01508xx	8	1.5	1020	20.0	25.0
BFC01512xx	12	1.5	1330	23.5	28.5
BFC01516xx	16	1.5	1620	26.0	30.5
BFC01524xx	24	1.5	2450	32.0	38.5

Part No.	No. of Pairs	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Pairs Individual					
BFI00701xx	1	0.75	200	7.5	11.0
BFI00702xx	2	0.75	370	11.0	14.5
BFI00703xx	3	0.75	500	12.5	16.5
BFI00704xx	4	0.75	519	15.0	18.5
BFI00708xx	8	0.75	820	17.0	21.5
BFI00712xx	12	0.75	1075	20.5	25.0
BFI00716xx	16	0.75	1320	23.0	27.5
BFI00724xx	24	0.75	2050	29.0	34.5
BFI01501xx	1	1.5	260	9.0	12.0
BFI01502xx	2	1.5	490	13.0	17.0
BFI01503xx	3	1.5	601	15.5	19.5
BFI01504xx	4	1.5	650	15.5	19.5
BFI01508xx	8	1.5	1140	21.0	25.0
BFI01512xx	12	1.5	1520	25.0	30.0
BFI01516xx	16	1.5	1950	29.0	34.0
BFI01524xx	24	1.5	2900	35.5	42.0

Part No.	No. of Triples	Size mm²	Weight kg/km	Dia over Bedding mm	O/D mm
Triples Collective					
BFC00702Txx	2	0.75	415	12.0	15.5
BFC00704Txx	4	0.75	550	14.0	18.0
BFC00708Txx	8	0.75	880	18.5	23.0
BFC00712Txx	12	0.75	1180	22.0	26.5
BFC00716Txx	16	0.75	1400	24.0	29.0
BFC00724Txx	24	0.75	2150	30.0	35.0
BFC01502Txx	2	1.5	550	14.5	18.0
BFC01504Txx	4	1.5	770	17.0	21.0
BFC01508Txx	8	1.5	1270	22.5	27.0
BFC01512Txx	12	1.5	1720	27.0	32.0
BFC01516Txx	16	1.5	2330	30.0	35.0
BFC01524Txx	24	1.5	3350	37.0	43.5
Triples Individual					
BFI00701Txx	1	0.75	220	8.0	11.0
BFI00702Txx	2	0.75	420	12.0	15.0
BFI00703Txx	3	0.75	580	14.0	17.0
BFI00704Txx	4	0.75	591	14.5	20.0
BFI00708Txx	8	0.75	980	18.5	23.0
BFI00712Txx	12	0.75	1320	22.5	27.0
BFI00716Txx	16	0.75	1650	25.5	30.0
BFI00724Txx	24	0.75	2520	31.5	37.5
BFI01501Txx	1	1.5	290	9.5	12.5
BFI01502Txx	2	1.5	570	14.5	18.5
BFI01503Txx	3	1.5	730	17.5	20.5
BFI01504Txx	4	1.5	825	17.0	21.0
BFI01508Txx	8	1.5	1410	22.5	27.0
BFI01512Txx	12	1.5	1980	28.5	33.0
BFI01516Txx	16	1.5	2620	31.5	37.5
BFI01524Txx	24	1.5	3790	39.5	46.5

To show the colour required please replace xx in the part number with:

05 Grey 01 Blue 00 Black

Other pair and triple configurations available on request.
2.5mm² conductor sizes are available in some sizes, please contact us for more information.

BFC0070805

XT Power to IEC 60092-350

XT unarmoured power cables offer a lightweight method of wiring in marine applications where there is no risk of mechanical damage. They are ideal for routing in restricted areas and on tray. Manufactured in accordance with European standard IEC 60092-353.

Construction

Copper conductors, XLPE insulation, SHF 1 Low Smoke Halogen Free sheath - black.

Core Identification

Manufacturers discretion in accordance with IEC 60092-353.

Generally colour coded up to 5 core and numbered cores above 5 core. Cables including a green/yellow earth core are available on request. Please check at time of enquiry if you have a specific preference.

Technical Information

Voltage Rating: 0.6/1kV
Conductor Stranding: IEC 60228 Class 2, plain copper
Temperature Rating: -40°C to +85°C
Bending Radius Static: 6 x overall diameter
Flame Retardant: IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission: IEC 61034-1 & 2
Halogen Emission: IEC 60754-1 & 2
Manufactured To: IEC 60092 series
3rd Party Approvals: Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XT001512

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XT-Power				
XT001502	2	1.5	80	8.5
XT001503	3	1.5	95	9.0
XT001504	4	1.5	125	10.0
XT001505	5	1.5	145	11.0
XT001507	7	1.5	195	11.5
XT001512	12	1.5	310	16.5
XT001519	19	1.5	460	18.5
XT001527	27	1.5	665	23.0
XT001537	37	1.5	865	24.5
XT002502	2	2.5	115	10.0
XT002503	3	2.5	145	11.0
XT002504	4	2.5	165	12.0
XT002505	5	2.5	205	13.0
XT002507	7	2.5	265	13.5
XT002512	12	2.5	440	16.5
XT002519	19	2.5	670	21.0
XT004002	2	4.0	150	11.5
XT004003	3	4.0	200	12.0
XT004004	4	4.0	250	12.5
XT004005	5	4.0	305	13.0
XT006001	1	6.0	90	6.0
XT006002	2	6.0	190	12.0

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XT006003	3	6.0	260	12.5
XT006004	4	6.0	335	14.0
XT006005	5	6.0	415	15.5
XT010001	1	10	140	7.0
XT010003	3	10	395	15.5
XT010004	4	10	520	16.5
XT010005	5	10	635	17.5
XT016001	1	16	190	8.5
XT016003	3	16	590	18.5
XT016004	4	16	765	21.0
XT016005	5	16	950	21.5
XT025001	1	25	310	10.5
XT025003	3	25	940	22.0
XT025004	4	25	1195	24.0
XT035001	1	35	435	13.5
XT035003	3	35	1300	25.5
XT035004	4	35	1695	27.0
XT050001	1	50	570	14.5
XT050003	3	50	1710	28.5
XT050004	4	50	2335	31.5
XT070001	1	70	800	17.0
XT070003	3	70	2490	33.0
XT070004	4	70	3295	37.5
XT095001	1	95	1055	19.0
XT095003	3	95	3295	36.5
XT120001	1	120	1320	19.5
XT120003	3	120	4165	40.5
XT150001	1	150	1620	23.5
XT150003	3	150	5130	45.5
XT185001	1	185	2020	25.5
XT240001	1	240	2660	30.0
XT300001	1	300	3275	32.0

XT Instrumentation to IEC 60092-376

XT Instrumentation marine cables were originally designed as a lightweight ship wiring cable. They have become popular throughout the petrochemical and process control industries due to their low smoke, low gas generation and increased flame retardant properties. XT-C offers collective foil screening whilst XT-I includes an additional foil screen around each pair to prevent crosstalk.

Construction

XT-C: Copper conductors, XLPE insulation, aluminium/polyester foil screen and drain wire, SHF 1 Low Smoke Halogen Free sheath – Grey.

XT-I: Copper conductors, XLPE insulation, each pair aluminium/polyester foil screened with a drain wire, pairs laid up, collective aluminium foil screen and drain wire, SHF 1 Low Smoke Halogen Free sheath – Grey.

Core Identification

Pairs - Blue, white and numbered.

This can vary depending on the manufacturer, please specify if you have a preference

Electrical Characteristics

Conductor Size:	0.5mm²	0.75mm²
Conductor Resistance:	<36.0 Ohms/km	<26.7 Ohms/km
Pair Capacitance @ 800Hz:		
Collective Screen:	55nF/km	50nF/km
Individual Screen:	55nF/km	70nF/km

Technical Information

Voltage Rating:	250V (300V)
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XTC0501P00

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XT-C Collectively Screened Pairs				
XTC0501P	1	0.5	40	6.5
XTC0502P	2*	0.5	70	7.5
XTC0504P	4	0.5	115	11.5
XTC0505P	5	0.5	150	11.8
XTC0507P	7	0.5	175	12.0
XTC0508P	8	0.5	205	13.5
XTC0510P	10	0.5	260	15.5
XTC0512P	12	0.5	290	16.5
XTC0514P	14	0.5	335	17.0
XTC0519P	19	0.5	430	19.5
XTC0524P	24	0.5	540	23.0
XTC0537P	37	0.5	875	27.5
XTC0701P	1	0.75	55	6.5
XTC0702P	2*	0.75	85	9.0

** 2 Pairs laid up as a quad*

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XTC0704P	4	0.75	145	11.5
XTC0707P	7	0.75	220	13.0
XTC0708P	8	0.75	255	15.5
XTC0710P	10	0.75	315	17.5
XTC0712P	12	0.75	360	18.0
XTC0714P	14	0.75	420	19.5
XTC0719P	19	0.75	555	21.0
XTC0724P	24	0.75	675	24.5

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XT-I Individually Screened Pairs				
XTI0502P	2	0.5	95	9.5
XTI0504P	4	0.5	145	10.0
XTI0505P	5	0.5	183	11.5
XTI0507P	7	0.5	220	12.5
XTI0508P	8	0.5	245	14.0
XTI0510P	10	0.5	300	16.5
XTI0512P	12	0.5	335	17.5
XTI0514P	14	0.5	400	18.0
XTI0519P	19	0.5	535	20.5
XTI0524P	24	0.5	650	22.5
XTI0702P	2	0.75	115	10.0
XTI0704P	4	0.75	175	11.5
XTI0707P	7	0.75	270	13.5
XTI0708P	8	0.75	315	15.0
XTI0710P	10	0.75	385	16.5
XTI0712P	12	0.75	445	19.0
XTI0714P	14	0.75	525	20.5
XTI0719P	19	0.75	675	22.5
XTI0724P	24	0.75	835	25.5

Part codes above are for cables with a **Grey** sheath.
For a **blue** sheath suffix the part code with "01" after the "P" in the part code
For a **black** sheath suffix the part code with "00" after the "P" in the part code

XTI0705P

XT-331 Fire Resistant Power to IEC 60092-350 & IEC 60331-21

XT-331 Fire resistant, unarmoured marine power cables offer a lightweight method of wiring in marine applications where there is no risk of mechanical damage and circuit integrity is required. They are ideal for routing in restricted areas and on cable tray. Manufactured in accordance with European standards IEC 60092-353 & IEC 60331-21.

Construction

Copper conductors, Mica glass tape, XLPE insulation, SHF 1 Low Smoke Halogen Free sheath – orange or black.

Core Identification

Manufacturers discretion in accordance with IEC 60092-353.

Generally colour coded up to 5 core and numbered cores above 5 core. Cables including a green/yellow earth core are available on request. Please check at time of enquiry if you have a specific preference.

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific preference.

XT001512M

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XT-331 Power				
XT001502M	2	1.5	80	8.5
XT001503M	3	1.5	95	9.0
XT001504M	4	1.5	125	10.0
XT001505M	5	1.5	145	11.0
XT001507M	7	1.5	195	11.5
XT001512M	12	1.5	310	16.5
XT001519M	19	1.5	460	18.5
XT001527M	27	1.5	665	23.0
XT001537M	37	1.5	865	24.5
XT002502M	2	2.5	115	10.0
XT002503M	3	2.5	145	11.0
XT002504M	4	2.5	165	12.0
XT002505M	5	2.5	205	13.0
XT002507M	7	2.5	265	13.5
XT002512M	12	2.5	440	16.5
XT002519M	19	2.5	670	21.0
XT004002M	2	4.0	150	11.5
XT004003M	3	4.0	200	12.0
XT004004M	4	4.0	250	12.5
XT004005M	5	4.0	305	13.0
XT006001M	1	6.0	90	6.0

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XT006002M	2	6.0	190	12.0
XT006003M	3	6.0	260	12.5
XT006004M	4	6.0	335	14.0
XT006005M	5	6.0	415	15.5
XT010001M	1	10	140	7.0
XT010003M	3	10	395	15.5
XT010004M	4	10	520	16.5
XT010005M	5	10	635	17.5
XT016001M	1	16	190	8.5
XT016003M	3	16	590	18.5
XT016004M	4	16	765	21.0
XT016005M	5	16	950	21.5
XT025001M	1	25	310	10.5
XT025003M	3	25	940	22.0
XT025004M	4	25	1195	24.0
XT035001M	1	35	435	13.5
XT035003M	3	35	1300	25.5
XT035004M	4	35	1695	27.0
XT050001M	1	50	570	14.5
XT050003M	3	50	1710	28.5
XT050004M	4	50	2335	31.5
XT070001M	1	70	800	17.0
XT070003M	3	70	2490	33.0
XT070004M	4	70	3295	37.5
XT095001M	1	95	1055	19.0
XT095003M	3	95	3295	36.5
XT120001M	1	120	1320	19.5
XT120003M	3	120	4165	40.5
XT150001M	1	150	1620	23.5
XT150003M	3	150	5130	45.5
XT185001M	1	185	2020	25.5
XT240001M	1	240	2660	30.0
XT300001M	1	300	3275	32.0

XT-331 Fire Resistant Instrumentation to IEC 60092-376 & IEC 60331-21

XT-331 Fire resistant instrumentation cables provide circuit integrity and weight savings for ship wiring. Due to their increased safety performance XT-331 cables have been widely adopted by the petrochemical and process control industries. XT-C-331 offers collective foil screening whilst XT-I-331 includes an additional foil screen around each pair to prevent crosstalk.

Construction

XT-C-331: Copper conductors, Mica glass tape, XLPE insulation, aluminium/polyester foil screen and drain wire, SHF 1 Low Smoke Halogen Free sheath.

XT-I-331: Copper conductors, Mica glass tape, XLPE insulation, each pair aluminium/polyester foil screened with a drain wire, pairs laid up, collective aluminium foil screen and drain wire, SHF 1 Low Smoke Halogen Free sheath.

Core Identification

Pairs - Blue, white and numbered.

This can vary depending on the manufacturer, please specify if you have a preference.

Electrical Characteristics

Conductor Size:	0.5mm²	0.75mm²
Conductor Resistance:	<36.0 Ohms/km	<26.7 Ohms/km
Pair Capacitance @ 800Hz:		
Collective Screen:	55nF/km	50nF/km
Individual Screen:	55nF/km	70nF/km

Technical Information

Voltage Rating:	250V (300V)
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina. Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XTC0701P00M

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XT-C-331 Collectively Screened Pairs				
XTC0501PM	1	0.5	40	6.5
XTC0502PM	2*	0.5	70	7.5
XTC0504PM	4	0.5	115	11.5
XTC0505PM	5	0.5	150	11.8
XTC0507PM	7	0.5	175	12.0
XTC0508PM	8	0.5	205	13.5
XTC0510PM	10	0.5	260	15.5
XTC0512PM	12	0.5	290	16.5
XTC0514PM	14	0.5	335	17.0
XTC0519PM	19	0.5	430	19.5
XTC0524PM	24	0.5	540	23.0
XTC0537PM	37	0.5	875	27.5
XTC0701PM	1	0.75	55	6.5
XTC0702PM	2*	0.75	85	9.0

** 2 Pairs laid up as a quad*

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XTC0704PM	4	0.75	145	11.5
XTC0707PM	7	0.75	220	13.0
XTC0708PM	8	0.75	255	15.5
XTC0710PM	10	0.75	315	17.5
XTC0712PM	12	0.75	360	18.0
XTC0714PM	14	0.75	420	19.5
XTC0719PM	19	0.75	555	21.0
XTC0724PM	24	0.75	675	24.5

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XT-I-331 Individually Screened Pairs				
XTI0502PM	2	0.5	95	9.5
XTI0504PM	4	0.5	145	10.0
XTI0505PM	5	0.5	183	11.5
XTI0507PM	7	0.5	220	12.5
XTI0508PM	8	0.5	245	14.0
XTI0510PM	10	0.5	300	16.5
XTI0512PM	12	0.5	335	17.5
XTI0514PM	14	0.5	400	18.0
XTI0519PM	19	0.5	535	20.5
XTI0524PM	24	0.5	650	22.5
XTI0702PM	2	0.75	115	10.0
XTI0704PM	4	0.75	175	11.5
XTI0707PM	7	0.75	270	13.5
XTI0708PM	8	0.75	315	15.0
XTI0710PM	10	0.75	385	16.5
XTI0712PM	12	0.75	445	19.0
XTI0714PM	14	0.75	525	20.5
XTI0719PM	19	0.75	675	22.5
XTI0724PM	24	0.75	835	25.5

Part codes above are for cables with a **Grey** sheath.
For a **blue** sheath suffix the part code with "01" after the "P" in the part code
For a **black** sheath suffix the part code with "00" after the "P" in the part code
For a **Orange** sheath suffix the part code with "08" after the "P" in the part code

XTI0505P00M

XAT Power to IEC 60092-350

XAT power cables provide lightweight wiring in marine applications where mechanical protection is required and personnel safety in the event of a fire is important. Manufactured in accordance with European standard IEC 60092-353.

Construction

Copper conductors, XLPE insulation, bedding, copper wire braid armour, SHF 1 Low Smoke Halogen Free sheath - black.

Core Identification

Manufacturers discretion in accordance with IEC 60092-353.

Generally colour coded up to 5 core and numbered cores above 5 core. Cables including a green/yellow earth core are available on request. Please check at time of enquiry if you have a specific preference.

Technical Information

Voltage Rating: 0.6/1kV
Conductor Stranding: IEC 60228 Class 2, plain copper
Temperature Rating: -40°C to +85°C
Bending Radius Static: 6 x overall diameter
Flame Retardant: IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission: IEC 61034-1 & 2
Halogen Emission: IEC 60754-1 & 2
Manufactured To: IEC 60092 series
3rd Party Approvals: Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XAT025004

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XAT Power				
XAT001502	2	1.5	140	10.5
XAT001503	3	1.5	160	11.5
XAT001504	4	1.5	195	11.5
XAT001505	5	1.5	220	12.1
XAT001507	7	1.5	275	13.5
XAT001512	12	1.5	445	17.5
XAT001519	19	1.5	595	20.0
XAT001527	27	1.5	825	23.5
XAT001537	37	1.5	1070	27.5
XAT002502	2	2.5	165	11.0
XAT002503	3	2.5	200	12.5
XAT002504	4	2.5	260	12.0
XAT002505	5	2.5	286	13.2
XAT002507	7	2.5	420	15.5
XAT002512	12	2.5	590	19.5
XAT002519	19	2.5	830	23.0
XAT004002	2	4.0	205	11.5
XAT004003	3	4.0	265	14.0
XAT004004	4	4.0	320	14.5
XAT004005	5	4.0	411	14.9
XAT006001	1	6.0	125	7.5

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XAT006002	2	6.0	260	14.5
XAT006003	3	6.0	215	14.5
XAT006004	4	6.0	325	16.5
XAT006005	5	6.0	535	17.0
XAT010001	1	10	180	9.5
XAT010003	3	10	345	16.5
XAT010004	4	10	625	18.5
XAT010005	5	10	796	19.5
XAT016001	1	16	260	11.0
XAT016003	3	16	720	20.0
XAT016004	4	16	915	22.0
XAT016005	5	16	1151	24.2
XAT025001	1	25	385	14.0
XAT025003	3	25	1085	23.5
XAT025004	4	25	1375	26.0
XAT035001	1	35	510	14.5
XAT035003	3	35	1490	27.0
XAT035004	4	35	1875	28.0
XAT050001	1	50	675	17.5
XAT050003	3	50	1935	29.5
XAT050004	4	50	2465	32.5
XAT070001	1	70	920	18.0
XAT070003	3	70	2715	27.5
XAT070004	4	70	3535	34.0
XAT095001	1	95	1200	19.0
XAT095003	3	95	3640	38.5
XAT120001	1	120	1470	21.5
XAT120003	3	120	4560	44.5
XAT150001	1	150	1795	24.5
XAT150003	3	150	5565	47.5
XAT185001	1	185	2215	27.0
XAT240001	1	240	2855	29.5
XAT300001	1	300	3510	32.5

XAT Instrumentation to IEC 60092-376

XAT armoured Instrumentation marine cables are manufactured in accordance with IEC 60092. Originally designed for ship wiring, they have become popular throughout the petrochemical and process control industries due to their low smoke, low gas generation and increased flame retardant properties. XAT-U offers a combined braid screen copper armour whilst XAT-I includes an additional foil screen around each pair to prevent crosstalk.

Construction

XAT-U: Copper conductors, XLPE insulation, pairs laid up, bedding filler tape, copper wire braid screen & armour, SHF 1 Low Smoke Halogen Free sheath – grey or blue.

XAT-I: Copper conductors, XLPE insulation, each pair aluminium/polyester foil screened with a drain wire, bedding filler tape, copper wire braid screen & armour, SHF 1 Low Smoke Halogen Free sheath – grey or blue.

Core Identification

Pairs - Blue, white and numbered or black, white and numbered. This can vary depending on the manufacturer, please specify if you have a preference.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<26.7 Ohms/km	<13.7 Ohms/km
Pair Capacitance @ 800Hz:		
Collective Screen:	50nF/km	60nF/km
Individual Screen:	70nF/km	90nF/km

Technical Information

Voltage Rating:	250V (300V)
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XATU0724P

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XAT-U Unscreened Pair				
XATU0701P	1	0.75	105	8.5
XATU0702P	2*	0.75	147	10.0
XATU0704P	4	0.75	253	14.3
XATU0705P	5	0.75	330	15.5
XATU0707P	7	0.75	372	17.6
XATU0708P	8	0.75	418	19.8
XATU0710P	10	0.75	498	23.5
XATU0712P	12	0.75	565	24.6
XATU0714P	14	0.75	639	25.2
XATU0719P	19	0.75	794	29.5
XATU0724P	24	0.75	959	32.5
XATU1501P	1	1.5	138	10.8
XATU1502P	2*	1.5	175	12.5
XATU1504P	4	1.5	338	17.8
XATU1507P	7	1.5	546	22.8

** 2 Pairs laid up as a quad*

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XATU1508P	8	1.5	578	24.1
XATU1510P	10	1.5	709	26.2
XATU1512P	12	1.5	826	26.5
XATU1514P	14	1.5	925	28.6
XATU1519P	19	1.5	1189	33.6

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XAT-I Individually Screened Pair				
XATI0702P	2	0.75	195	12.5
XATI0704P	4	0.75	280	14.5
XATI0705P	5	0.75	337	16.5
XATI0707P	7	0.75	435	18.5
XATI0708P	8	0.75	475	19.0
XATI0710P	10	0.75	590	21.5
XATI0712P	12	0.75	655	22.5
XATI0714P	14	0.75	740	25.5
XATI0719P	19	0.75	960	28.5
XATI0724P	24	0.75	1165	30.5
XATI1502P	2	1.5	265	14.5
XATI1504P	4	1.5	395	18.5
XATI1507P	7	1.5	630	22.0
XATI1508P	8	1.5	705	22.5
XATI1510P	10	1.5	870	25.5
XATI1512P	12	1.5	1995	26.5
XATI1514P	14	1.5	1125	30.5
XATI1519P	19	1.5	1490	32.0

Part codes above are for cables with a **Grey** sheath.
For a **blue** sheath suffix the part code with "01" after the "P" in the part code
For a **black** sheath suffix the part code with "00" after the "P" in the part code

XATI1505P01

XAT-331 Fire Resistant Power Cables to IEC 60092-350 & IEC60331-21

XAT-331 Fire resistant marine power cables offer a lightweight method of wiring in applications where mechanical protection is required and circuit integrity is critical whilst remaining sufficiently flexible for installation in confined spaces or through difficult routes. Manufactured in accordance with European standards IEC 60092-353 and fire resistant to IEC 60331-21.

Construction

Plain copper conductors, Mica glass tape, XLPE insulation, bedding tape, plain copper wire braid armour, SHF 1 Low Smoke Halogen Free sheath - orange or black.

Core Identification

Manufacturers discretion in accordance with IEC 60092-353. Generally colour coded up to 5 core and numbered cores above 5 core. Cables including a green/yellow earth core are available on request. Please check at time of enquiry if you have a specific preference.

Technical Information

Voltage Rating:	0.6/1kV
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XAT001512M

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XAT-331 Power				
XAT001502M	2	1.5	140	10.5
XAT001503M	3	1.5	160	11.5
XAT001504M	4	1.5	195	11.5
XAT001505M	5	1.5	220	12.1
XAT001507M	7	1.5	275	13.5
XAT001512M	12	1.5	445	17.5
XAT001519M	19	1.5	595	20.0
XAT001527M	27	1.5	825	23.5
XAT001537M	37	1.5	1070	27.5
XAT002502M	2	2.5	165	11.0
XAT002503M	3	2.5	200	12.0
XAT002504M	4	2.5	260	12.5
XAT002505M	5	2.5	286	13.2
XAT002507M	7	2.5	420	15.5
XAT002512M	12	2.5	590	19.5
XAT002519M	19	2.5	830	23.0
XAT004002M	2	4.0	205	11.5
XAT004003M	3	4.0	265	14.0
XAT004004M	4	4.0	320	14.5
XAT004005M	5	4.0	411	14.9
XAT006001M	1	6.0	125	7.5

Part No.	No. of Cores	Size mm²	Weight kg/km	O/D mm
XAT006002M	2	6.0	260	14.5
XAT006003M	3	6.0	215	14.5
XAT006004M	4	6.0	325	17.0
XAT006005M	5	6.0	535	16.5
XAT010001M	1	10	180	9.5
XAT010003M	3	10	345	16.5
XAT010004M	4	10	625	18.5
XAT010005M	5	10	796	19.5
XAT016001M	1	16	260	11.0
XAT016003M	3	16	720	20.0
XAT016004M	4	16	915	22.0
XAT016005M	5	16	1151	24.2
XAT025001M	1	25	385	14.0
XAT025003M	3	25	1085	23.5
XAT025004M	4	25	1375	26.0
XAT035001M	1	35	510	14.5
XAT035003M	3	35	1490	27.0
XAT035004M	4	35	1875	28.0
XAT050001M	1	50	675	17.5
XAT050003M	3	50	1935	29.5
XAT050004M	4	50	2465	32.5
XAT070001M	1	70	920	18.0
XAT070003M	3	70	2715	27.5
XAT070004M	4	70	3535	34.0
XAT095001M	1	95	1200	19.0
XAT095003M	3	95	3640	38.5
XAT120001M	1	120	1470	21.5
XAT120003M	3	120	4560	44.5
XAT150001M	1	150	1795	24.5
XAT150003M	3	150	5565	47.5
XAT185001M	1	185	2215	27.0
XAT240001M	1	240	2855	29.5
XAT300001M	1	300	3510	32.5

XAT-331 Instrumentation to IEC 60092-376

XAT-331 armoured instrumentation marine cables are manufactured in accordance with IEC 60092 and IEC 60331-21 providing circuit integrity to critical circuits on ships and rigs. XAT-U-331 offers a combined braid screen copper armour whilst XAT-I includes an additional foil screen around each pair to prevent crosstalk. The cable is remarkably flexible resulting in easy installation in confined spaces and through difficult routes.

Construction

XAT-U-331: Copper conductors, Mica glass tape, XLPE insulation, bedding filler tape, copper wire braid screen & armour, SHF 1 Low Smoke Halogen Free sheath.

XAT-I-331: Copper conductors, Mica glass tape, XLPE insulation, each pair aluminium/polyester foil screened with a drain wire, bedding filler tape, copper wire braid screen & armour, SHF 1 Low Smoke Halogen Free sheath.

Core Identification

Pairs - Blue, white and numbered.

This can vary depending on the manufacturer, please specify if you have a preference.

Electrical Characteristics

Conductor Size:	0.75mm²	1.5mm²
Conductor Resistance:	<26.7 Ohms/km	<13.7 Ohms/km
Pair Capacitance @ 800Hz:		
Collective Screen:	50nF/km	60nF/km
Individual Screen:	70nF/km	90nF/km

Technical Information

Voltage Rating:	250V (300V)
Conductor Stranding:	IEC 60228 Class 2, plain copper
Temperature Rating:	-40°C to +85°C
Bending Radius Static:	6 x overall diameter
Fire Resistant:	IEC 60331-21
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	IEC 60092 series
3rd Party Approvals:	Lloyds, DNV, ABS, BV and Rina.

Approvals may vary between manufacture brands. Please tell us at time of enquiry if you have a specific requirement.

XATU1504P08M

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XAT-U-331 Unscreened Pairs				
XATU0701PM	1	0.75	115	9.0
XATU0702PM	2*	0.75	165	11.5
XATU0704PM	4	0.75	325	15.5
XATU0705PM	5	0.75	330	16.5
XATU0707PM	7	0.75	455	20.0
XATU0708PM	8	0.75	500	21.0
XATU0710PM	10	0.75	625	23.5
XATU0712PM	12	0.75	710	25.5
XATU0714PM	14	0.75	795	27.0
XATU0719PM	19	0.75	1020	32.0
XATU0724PM	24	0.75	1250	34.5
XATU1501PM	1	1.5	150	11.5
XATU1502PM	2*	1.5	225	13.0
XATU1504PM	4	1.5	435	17.5
XATU1507PM	7	1.5	645	22.5

** 2 Pairs laid up as a quad*

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XATU1508PM	8	1.5	720	24.5
XATU1510PM	10	1.5	870	26.5
XATU1512PM	12	1.5	995	30.0
XATU1514PM	14	1.5	1120	31.5
XATU1519PM	19	1.5	1460	35.0

Part No.	No. of Pairs	Size mm²	Weight kg/km	O/D mm
XAT-I-331 Individually Screened Pairs				
XATI0702PM	2	0.75	220	15.5
XATI0704PM	4	0.75	320	16.5
XATI0705PM	5	0.75	337	17.0
XATI0707PM	7	0.75	530	21.5
XATI0708PM	8	0.75	585	22.5
XATI0710PM	10	0.75	705	24.5
XATI0712PM	12	0.75	800	25.5
XATI0714PM	14	0.75	910	28.0
XATI0719PM	19	0.75	1165	32.0
XATI0724PM	24	0.75	1415	36.5
XATI1502PM	2	1.5	315	16.0
XATI1504PM	4	1.5	470	18.5
XATI1507PM	7	1.5	725	23.5
XATI1508PM	8	1.5	815	24.0
XATI1510PM	10	1.5	980	27.5
XATI1512PM	12	1.5	1140	30.0
XATI1514PM	14	1.5	1295	31.5
XATI1519PM	19	1.5	1670	34.5

Part codes above are for cables with a **Grey** sheath.
For a **blue** sheath suffix the part code with "01" after the "P" in the part code
For a **black** sheath suffix the part code with "00" after the "P" in the part code
For a **Orange** sheath suffix the part code with "08" after the "P" in the part code

XATI1505P01M

Marine Single Core Earthing Cable

Designed for use on earthing circuits within the ship wiring and marine industry 657 SW4 earthing cables are manufactured to BS 6883 and are double insulated for electrical safety.

The outer sheath is coloured green/yellow for identification.

Construction

657 SW4: Tinned stranded copper conductor, EPR insulation, SW4 LSHF elastomeric outer sheath – green/yellow.

Black sheathed versions are also available on request.

We are also able to supply earthing braids made from tinned copper with or without an insulated covering. Please send us your specification including maximum current rating to receive more information.

Technical Information

Voltage Rating:	0.6/1kV	
Conductor Stranding:	IEC 60228 Class 2, tinned copper	
Temperature Rating:	-30°C to +85°C	
Bending Radius Static:	≤ 10mm²	3 x OD
	>10mm² to 25mm²	4 x OD
	> 25mm²	6 x OD
Oxygen Index Of Sheath:	>31%	
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat A	
Smoke Emission:	IEC 61034-1 & 2	
Halogen Emission:	IEC 60754-1 & 2	
Manufactured To:	BS 6883 / UKOOA	

6570250199H

Part No.	Core x Size mm²	Weight kg/km	O/D mm
Earthing Cable			
6570150199H	1.5	42	6.0
6570250199H	2.5	57	6.0
6570400199H	4.0	82	7.0
6570600199H	6.0	105	7.0
6571000199H	10	165	8.0
6571600199H	16	230	9.5
6572500199H	25	360	12.0
6573500199H	35	425	12.5
6575000199H	50	570	14.0
6577000199H	70	785	16.0
6579500199H	95	1060	18.0
6571200199H	120	1300	21.0
6571500199H	150	1600	24.0
6571850199H	185	1991	26.0
6572400199H	240	2600	29.2
6573000199H	300	3205	33.0

Flare Stack Ignition and Monitoring Cables

Cabling flare stacks presents huge challenges due to the extreme environmental conditions. Many factors need taking into consideration including high temperatures, flame exposure, salt water spray, chemical vapour, extreme UV exposure and high voltages.

A Full range of flare stack cables are available to meet these demands including:

Flare ignition cables -55°C to +260°C

Ignition voltage options range between 4kV - 25kV and utilise a wide range of high performance materials including mica glass and fluoropolymers to meet temperature and ignition peak demands.

Most designs are single conductor, additional electrical screens can be incorporated to prevent electrical interference corrupting other data monitoring on the stack. For increased safety two conductor versions can be produced incorporating an exciter wire and clean earth return. Where mechanical damage is a risk stainless steel braids can be applied to armour the cable whilst maintaining flexibility. When temperatures exceed +260°C Inconel® sheathed cables can be supplied.

To obtain a quote for the ignition cable you require, please send us a specification or supply us the following information.

- Conductor size & stranding
- Screening required
- Operating temperature
- Quantity required
- Voltage rating
- Armour/mechanical protection
- Wet or dry environment
- Date required

Please provide us with a brief description of the application and environment.

Thermocouple cables

Temperature control plays an important function in controlling flare emissions so accurate data feedback is essential. Thermocouple cables are used to carry the data from the probe to the monitoring point. Whilst Kx thermocouple cables remain most popular for this application there are many other types available. To meet the demands of this specialist application the cables can be designed using fluoropolymer insulation and sheathing for high temperature applications up to +260°C. When Low Smoke Halogen Free properties are required or there is risk of MUD contamination the cables can be supplied with NEK606 sheathing. Braid armoured options are also available.

For highly aggressive applications and temperature ranges above +260°C Inconel® sheathed thermocouple cables can be supplied.

For more information on thermocouple cables see pages 96-97.

Data & Bus flow meter cables

Data and Bus protocols including RS-485, Cat 5E & Cat 6, Profibus, Fieldbus and Modbus commonly found in onshore applications are now being used by the offshore industry for process control and data transfer. Due to extreme environments the cables are often required with enhanced performance.

The range of data and bus cables are available with mechanical armouring and chemical/MUD resistant jackets to NEK606. Fluoropolymer versions are also available for high temperature applications.

Call us now to discuss your requirements.

S0000353

Marine Approved Data, Bus, Coax & Fibre Optic cables

A wide range of data, bus, coax & fibre optic cables with third party marine approval are available. The range covers communications, system automation and video integration for use on rigs, ships, platforms and other installations within the offshore industries.

All the cables are Low Smoke Halogen Free throughout to maintain the highest levels of safety. MUD resistant versions are also available on request.

If you cannot see the type that you need please ask, we are constantly expanding the range.

Data & Bus Cable

Part No.	Description	Size	Stranding mm	Ins.	Screen	Armour	Weight kg/km	O/D mm	Flame Retardance	Temperature Rating	Approval
SM000001	Profibus DP	1 x 2 x 0.35mm²	7/0.35	FPE	Foil & TCu braid	TCWB	190	13.5	IEC 60332-1-2	-40°C to +70°C	DNV, Lloyds
SM000002	Profibus DP	1 x 2 x 22AWG	7/0.35	FPE	Foil & TCu braid	PBWB	194	11.9	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000003	Fieldbus	1 x 2 x 18AWG	7/0.40	FPE	Foil screened	PBWB	214	12.5	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000004	Devicenet	1P 16AWG & 1P 18AWG	19/0.28 & 19/0.25	PO	Foil & TCu braid	PBWB	214	12.5	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000005	RS485	1 x 2 x 24AWG	7/0.20	PE	Foil & TCu braid	PBWB	183	11.7	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000006	RS422	2 x 2 x 24AWG	7/0.20	PE	Foil screened	PBWB	175	10.0	IEC 60332-3-22 A	-30°C to +75°C	ABS

LAN Cable

Part No.	Description	Size	Stranding mm	Ins.	Screen	Armour	Weight kg/km	O/D mm	Flame Retardance	Temperature Rating	Approval
SM000007	Cat 5E/Cat 7 class F	4 x 2 x 24AWG	7/0.20	FPE	Ind foil & O/A TCu braid	N/A	44	7.8	IEC 60332-3-24 C	-20 °C to +85°C	DNV*
SM000008	Cat 5E UTP	4 x 2 x 24AWG	1/0.51	PE	Unscreened	PBWB	156	10.3	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000009	Cat 6 UTP	4 x 2 x 24AWG	1/0.51	PE	Unscreened	PBWB	166	11.6	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000010	Cat 7 S/FTP	4 x 2 x 24AWG	1/0.51	FPE	Ind foil & O/A TCu braid	PBWB	187	11.8	IEC 60332-3-22 A	-30°C to +75°C	ABS

** Also available with MUD resistant sheath.*

Coax Cable

Part No.	Description	Imp. Ohms	Stranding mm	Ins.	Screen	Armour	Weight kg/km	O/D mm	Flame Retardance	Temperature Rating	Approval
SM000011	RG6	75	1/1.00	FPE	Foil/80 % TCu braid/foil	N/A	48	7.0	IEC 60332-3-22 A	-40 °C to +85°C	BV
SM000012	RG6	75	1/1.00	PE	Foil & 95 % TCu braid	PBWB	196	10.8	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000013	RG11	75	1/1.60	FPE	Foil/80 % TCu braid/foil	N/A	121	10.3	IEC 60332-3-22 A	-40 °C to +85°C	BV
SM000014	RG11	75	1/1.62	FPE	Foil & 95 % TCu braid	PBWB	353	15.0	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000015	RG58	50	19/0.18	PE	85% TCu braid	N/A	41	5.0	IEC 60332-3-24 C	-30°C to +75°C	BV
SM000016	RG58	50	19/0.18	PE	88% TCu braid	PBWB	149	8.6	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000017	RG59	75	1/0.57	PE	Foil/90 % TCu braid/foil	N/A	45	6.1	IEC 60332-3-22 A	-40 °C to +85°C	BV
SM000018	RG59	75	1/0.81	PE	Foil & 95 % TCu braid	PBWB	178	10.0	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000019	RG174	50	7/0.16	PE	85% TCu braid	N/A	12.5	2.8	IEC 60332-3-24 C	-30°C to +75°C	BV
SM000020	RG213	50	7/0.75	PE	95% copper braid	PBWB	381	15.0	IEC 60332-3-22 A	-30°C to +75°C	ABS
SM000021	RG214	50	7/0.75	PE	85% TCu braid	N/A	198	10.8	IEC 60332-3-24 C	-30°C to +75°C	BV

Fibre Optic Cable

Part No.	Size Micron	Description	Armour	Flame Retardance	Approval
SMF9**LUHSB331	9/125	Singlemode loose tube/gel filled, fire resistant to IEC 60331-25, armoured	GSWB	IEC 60332-3-22 A	DNV, ABS, Lloyds
SMF5**LUHSB331	50/125	Multimode loose tube/gel filled, fire resistant to IEC 60331-25, armoured	GSWB	IEC 60332-3-22 A	DNV, ABS, Lloyds
SMF6**LUHSB331	62.5/125	Multimode loose tube/gel filled, fire resistant to IEC 60331-25, armoured	GSWB	IEC 60332-3-22 A	DNV, ABS, Lloyds
SMF8**TIH	8.3/125	Singlemode tight buffered fibres in breakout tubes, chemical resistant sheath	-	IEC 60332-1-25	DNV, ABS, Lloyds
SMF5**TIH	50/125	Multimode tight buffered fibres in breakout tubes, chemical resistant sheath	-	IEC 60332-1-25	DNV, ABS, Lloyds
SMF6**TIH	62.5/125	Multimode tight buffered fibres in breakout breakout tubes, chemical resistant sheath	-	IEC 60332-1-25	DNV, ABS, Lloyds
SMF8**TIHBB	8.3/125	Singlemode tight buffered, breakout, chemical resistant, armoured	PBWB	IEC 60332-1-25	DNV, ABS, Lloyds
SMF5**TIHBB	50/125	Multimode tight buffered, breakout, chemical resistant, armoured	PBWB	IEC 60332-1-25	DNV, ABS, Lloyds
SMF6**TIHBB	62.5/125	Multimode tight buffered, breakout, chemical resistant, armoured	PBWB	IEC 60332-1-25	DNV, ABS, Lloyds
SMF9**TUHSB	9/125	Singlemode tight buffered, weather & chemical resistant, armoured	GSWB	IEC 60332-3-22 A	DNV
SMF5**TUHSB	50/125	Multimode tight buffered, weather & chemical resistant, armoured	GSWB	IEC 60332-3-22 A	DNV
SMF6**TUHSB	62.5/125	Multimode tight buffered, weather & chemical resistant, armoured	GSWB	IEC 60332-3-22 A	DNV

*Replace ** with the number of fibre cores required : 4, 8, 12, 24, 36, 48*
All fibre optic cables are -40°C to +70°C rated
MUD resistant sheath versions are also availiable

Armour Types

TCWB	Tinned Copper Wire Braid
GSWB	Galvanised Steel Wire Braid
PBWB	Phospher Bronze Wire Braid

SM000001

SM000021

EN 50288-7 Unarmoured PVC Instrumentation Cables

Low capacitance paired cables for use in instrumentation applications. Options include collective aluminium foil screen to prevent outside interference and individual & collective aluminium foil screen to prevent crosstalk between the pairs.

The EN 50288-7 standard allows for many variations including different voltage & temperature ratings, mechanical armours and fire barriers. If you cannot see the type required please call us, we will be able to help.

Construction

Type: RE-2Y(st)Y – Collective aluminium tape screen.
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PVC sheath – black or blue.

Type: RE-2Y(st)Y-PiMF – Individual & collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair or triple aluminium/polyester foil screened and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PVC sheath – black or blue.

Pair Identification: Black/white and numbered.

Triple Identification: Black/white/red and numbered.

Technical Information

Voltage Rating:	300V
Mutual Capacitance:	< 150nF/km
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.3mm² = 40 µH/Ohm
Temperature Rating:	-30°C to +70°C fixed (minimum -5°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
Flame Retardant:	IEC 60332-1-2
Manufactured To:	EN 50288-7

This is the European alternative to the traditional BS 5308 group of cables shown on pages 84-85.

RE-2Y(st)Y

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)Y Collective Screen						
E311O0501P0	1 x 2 x 0.5	7/0.30	Black	55	6.0	36.0
E311O0701P0	1 x 2 x 0.75	7/0.37	Black	70	6.5	24.5
E311O1301P0	1 x 2 x 1.3	7/0.44	Black	75	7.0	14.2
E311O0502P0	2 x 2 x 0.5	7/0.30	Black	70	9.0	36.0
E311O0702P0	2 x 2 x 0.75	7/0.37	Black	90	9.5	24.5
E311O1302P0	2 x 2 x 1.3	7/0.44	Black	125	10.5	14.2
E311O0504P0	4 x 2 x 0.5	7/0.30	Black	110	10.0	36.0
E311O0704P0	4 x 2 x 0.75	7/0.37	Black	135	10.5	24.5
E311O1304P0	4 x 2 x 1.3	7/0.44	Black	185	12.0	14.2
E311O0508P0	8 x 2 x 0.5	7/0.30	Black	165	12.5	36.0
E311O0708P0	8 x 2 x 0.75	7/0.37	Black	225	13.5	24.5
E311O1308P0	8 x 2 x 1.3	7/0.44	Black	340	15.5	14.2
E311O0512P0	12 x 2 x 0.5	7/0.30	Black	240	14.0	36.0
E311O0712P0	12 x 2 x 0.75	7/0.37	Black	320	16.0	24.5
E311O1312P0	12 x 2 x1.3	7/0.44	Black	490	18.5	14.2
E311O0524P0	24 x 2 x 0.5	7/0.30	Black	435	19.5	36.0
E311O0724P0	24 x 2 x 0.75	7/0.37	Black	575	21.5	24.5
E311O1324P0	24 x 2 x 1.3	7/0.44	Black	910	26.0	14.2

RE-2Y(st)Y-PiMF

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)Y-PiMF	**Individual & Collective Screen**					
E311I0502P0	2 x 2 x 0.5	7/0.30	Black	105	9.5	36.0
E311I0702P0	2 x 2 x 0.75	7/0.37	Black	120	10.0	24.5
E311I1302P0	2 x 2 x 1.3	7/0.44	Black	150	11.0	14.2
E311I0504P0	4 x 2 x 0.5	7/0.30	Black	155	11.0	36.0
E311I0704P0	4 x 2 x 0.75	7/0.37	Black	185	12.5	24.5
E311I1304P0	4 x 2 x 1.3	7/0.44	Black	250	14.0	14.2
E311I0508P0	8 x 2 x 0.5	7/0.30	Black	240	13.5	36.0
E311I0708P0	8 x 2 x 0.75	7/0.37	Black	305	16.0	24.5
E311I1308P0	8 x 2 x 1.3	7/0.44	Black	415	18.5	14.2
E311I0512P0	12 x 2 x 0.5	7/0.30	Black	320	15.5	36.0
E311I0712P0	12 x 2 x 0.75	7/0.37	Black	415	19.0	24.5
E311I1312P0	12 x 2 x1.3	7/0.44	Black	580	21.5	14.2
E311I0524P0	24 x 2 x 0.5	7/0.30	Black	555	20.0	36.0
E311I0724P0	24 x 2 x 0.75	7/0.37	Black	750	25.0	24.5
E311I1324P0	24 x 2 x1.3	7/0.44	Black	1045	29.0	14.2

1.5mm² conductor sizes are also available on request. These cables have a slightly larger outer diameter.

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request as are other voltage ratings

EN 50288-7 Unarmoured LSHF Instrumentation Cables

Paired LSHF instrumentation and digital signalling cables for use in public buildings and sensitive environments. Options include collective aluminium foil to prevent outside interference and individual & collective aluminium foil to prevent crosstalk between the pairs.

The EN 50288-7 standard allows for many variations including different voltage & temperature ratings, mechanical armours & fire barriers. If you cannot see the type required please call us, we will be able to help.

Construction

Type: RE-2Y(st)H – Collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² drain wire, LSHF sheath – black or blue.

Type: RE-2Y(st)H-PiMF – Individual & collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² drain wire, LSHF sheath – black or blue.

Pair Identification: Black/white and numbered.

Triple Identification: Black/white/red and numbered.

Technical Information

Voltage Rating:	300V
Mutual Capacitance:	< 150nF/km
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.3mm² = 40 µH/Ohm
Temperature Rating:	-30°C to +70°C fixed (minimum -5°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	EN 50288-7

This is the European alternative to the traditional BS 5308 group of cables shown on pages 86-87.

RE-2Y(st)H

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)H Collective Screen						
E311O0501P0H	1 x 2 x 0.5	7/0.30	Black	55	6.0	36.0
E311O0701P0H	1 x 2 x 0.75	7/0.37	Black	70	6.5	24.5
E311O1301P0H	1 x 2 x 1.3	7/0.44	Black	75	7.0	14.2
E311O0502P0H	2 x 2 x 0.5	7/0.30	Black	70	9.0	36.0
E311O0702P0H	2 x 2 x 0.75	7/0.37	Black	90	9.5	24.5
E311O1302P0H	2 x 2 x 1.3	7/0.44	Black	125	10.5	14.2
E311O0504P0H	4 x 2 x 0.5	7/0.30	Black	110	10.0	36.0
E311O0704P0H	4 x 2 x 0.75	7/0.37	Black	135	10.5	24.5
E311O1304P0H	4 x 2 x 1.3	7/0.44	Black	185	12.0	14.2
E311O0508P0H	8 x 2 x 0.5	7/0.30	Black	165	12.5	36.0
E311O0708P0H	8 x 2 x 0.75	7/0.37	Black	225	13.5	24.5
E311O1308P0H	8 x 2 x 1.3	7/0.44	Black	340	15.5	14.2
E311O0512P0H	12 x 2 x 0.5	7/0.30	Black	240	14.0	36.0
E311O0712P0H	12 x 2 x 0.75	7/0.37	Black	320	16.0	24.5
E311O1312P0H	12 x 2 x1.3	7/0.44	Black	490	18.5	14.2
E311O0524P0H	24 x 2 x 0.5	7/0.30	Black	435	19.5	36.0
E311O0724P0H	24 x 2 x 0.75	7/0.37	Black	575	21.5	24.5
E311O1324P0H	24 x 2 x1.3	7/0.44	Black	910	26.0	14.2

RE-2Y(st)H-PiMF

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)H-PiMF Individual & Collective Screen						
E311I0502P0H	2 x 2 x 0.5	7/0.30	Black	105	9.5	36.0
E311I0702P0H	2 x 2 x 0.75	7/0.37	Black	120	10.0	24.5
E311I1302P0H	2 x 2 x 1.3	7/0.44	Black	150	11.0	14.2
E311I0504P0H	4 x 2 x 0.5	7/0.30	Black	155	11.0	36.0
E311I0704P0H	4 x 2 x 0.75	7/0.37	Black	185	12.5	24.5
E311I1304P0H	4 x 2 x 1.3	7/0.44	Black	250	14.0	14.2
E311I0508P0H	8 x 2 x 0.5	7/0.30	Black	240	13.5	36.0
E311I0708P0H	8 x 2 x 0.75	7/0.37	Black	305	16.0	24.5
E311I1308P0H	8 x 2 x 1.3	7/0.44	Black	415	18.5	14.2
E311I0512P0H	12 x 2 x 0.5	7/0.30	Black	320	15.5	36.0
E311I0712P0H	12 x 2 x 0.75	7/0.37	Black	415	19.0	24.5
E311I1312P0H	12 x 2 x1.3	7/0.44	Black	580	21.5	14.2
E311I0524P0H	24 x 2 x 0.5	7/0.30	Black	555	20.0	36.0
E311I0724P0H	24 x 2 x 0.75	7/0.37	Black	750	25.0	24.5
E311I1324P0H	24 x 2 x1.3	7/0.44	Black	1045	29.0	14.2

1.5mm² conductor sizes are also available on request. These cables have a slightly larger outer diameter.

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request as are alternative voltages

EN 50288-7 Armoured PVC Instrumentation Cables

Paired instrumentation cables for use in harsh environments, these cables can be direct buried or used outside. Options include collective aluminium foil screen to prevent outside interference and individual & collective aluminium foil screens to prevent interference between the pairs.

EN 50288-7 allows for many variations including different voltage & temperature ratings, braid armours, fire barriers and chemical resistant beddings. If you cannot see the type required please call us, we will be able to help.

Construction

Type: RE-2Y(st)YSWAY – Collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PVC bedding, GSWA armour, PVC sheath – black or blue.

Type: RE-2Y(st)YSWAY-PiMF – Individual & collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screened and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PVC bedding, GSWA armour, PVC sheath – black or blue.

Pair Identification: Black/white and numbered.

Triple Identification: Black/white/red and numbered.

Technical Information

Voltage Rating:	300V
Mutual Capacitance:	< 150nF/km
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.3mm² = 40 µH/Ohm
Temperature Rating:	-30°C to +70°C fixed (minimum -5°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
Flame Retardant:	IEC 60332-1-2
Manufactured To:	EN 50288-7

Versions including an aluminium/LDPE/nylon chemical and moisture barrier are also available on request.

This is the European alternative to the traditional BS 5308 group of cables shown on pages 88-89.

RE-2Y(st)YSWAY

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)YSWAY Collective Screen							
E312O0501P0	1 x 2 x 0.5	7/0.30	Black	175	5.2	9.5	36.0
E312O0701P0	1 x 2 x 0.75	7/0.37	Black	195	5.6	10.0	24.5
E312O1301P0	1 x 2 x 1.3	7/0.44	Black	240	6.8	11.0	14.2
E312O0502P0	2 x 2 x 0.5	7/0.30	Black	250	7.6	12.0	36.0
E312O0702P0	2 x 2 x 0.75	7/0.37	Black	300	8.5	13.0	24.5
E312O1302P0	2 x 2 x 1.3	7/0.44	Black	385	10.4	15.0	14.2
E312O0504P0	4 x 2 x 0.5	7/0.30	Black	315	8.8	13.5	36.0
E312O0704P0	4 x 2 x 0.75	7/0.37	Black	370	10.9	14.5	24.5
E312O1304P0	4 x 2 x 1.3	7/0.44	Black	480	12.0	16.5	14.2
E312O0508P0	8 x 2 x 0.5	7/0.30	Black	440	11.3	16.0	36.0
E312O0708P0	8 x 2 x 0.75	7/0.37	Black	535	12.8	17.5	24.5
E312O1308P0	8 x 2 x 1.3	7/0.44	Black	720	15.7	20.5	14.2
E312O0512P0	12 x 2 x 0.5	7/0.30	Black	565	13.5	18.0	36.0
E312O0712P0	12 x 2 x 0.75	7/0.37	Black	670	15.1	20.0	24.5
E312O1312P0	12 x 2 x1.3	7/0.44	Black	1095	18.9	24.5	14.2
E312O0524P0	24 x 2 x 0.5	7/0.30	Black	1000	18.3	24.0	36.0
E312O0724P0	24 x 2 x 0.75	7/0.37	Black	1230	20.8	27.0	24.5
E312O1324P0	24 x 2 x1.3	7/0.44	Black	1780	25.9	32.0	14.2

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)YSWAY-PiMF Individual & Collective Screen							
E312I0502P0	2 x 2 x 0.5	7/0.30	Black	310	8.7	13.5	36.0
E312I0702P0	2 x 2 x 0.75	7/0.37	Black	345	9.7	14.5	24.5
E312I1302P0	2 x 2 x 1.3	7/0.44	Black	435	11.4	16.0	14.2
E312I0504P0	4 x 2 x 0.5	7/0.30	Black	375	10.2	15.0	36.0
E312I0704P0	4 x 2 x 0.75	7/0.37	Black	430	11.2	16.0	24.5
E312I1304P0	4 x 2 x 1.3	7/0.44	Black	550	13.4	18.0	14.2
E312I0508P0	8 x 2 x 0.5	7/0.30	Black	540	13.1	18.0	36.0
E312I0708P0	8 x 2 x 0.75	7/0.37	Black	620	14.4	19.0	24.5
E312I1308P0	8 x 2 x 1.3	7/0.44	Black	970	17.6	23.0	14.2
E312I0512P0	12 x 2 x 0.5	7/0.30	Black	685	15.7	20.5	36.0
E312I0712P0	12 x 2 x 0.75	7/0.37	Black	930	17.4	23.0	24.5
E312I1312P0	12 x 2 x1.3	7/0.44	Black	1250	21.1	27.0	14.2
E312I0524P0	24 x 2 x 0.5	7/0.30	Black	1255	21.5	27.5	36.0
E312I0724P0	24 x 2 x 0.75	7/0.37	Black	1495	24.0	30.0	24.5
E312I1324P0	24 x 2 x1.3	7/0.44	Black	2265	29.2	36.5	14.2

1.5mm² conductor sizes are also available on request. These cables have a slightly larger outer diameter.

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request as are alternative voltage ratings

RE-2Y(st)YSWAY-PiMF

EN 50288-7 Armoured LSHF Instrumentation Cables

Low Smoke Halogen Free paired instrumentation cables with mechanical protection for use in harsh environments, these cables can be used outside in process control applications including power generation, oil, gas, food and chemical works, in fact anywhere you want to run instrumentation cables where there is a risk of mechanical damage. Options include collective aluminium foil screen to prevent outside interference and individual & collective aluminium foil screens to prevent interference between the pairs.

EN 50288-7 allows for many variations including different voltage & temperature ratings, braid armours, fire barriers and chemical resistant beddings. If you cannot see the type required please call us, we will be able to help.

Construction

Type: RE-2Y(st)HSWAH – Collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, LSHF bedding, GSWA armour, LSHF sheath – black or blue.

Type: RE-2Y(st)HSWAH-PiMF – Individual & collective aluminium tape screen. Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, LSHF bedding, GSWA armour, LSHF sheath – black or blue.

Pair Identification: Black/white and numbered.

Triple Identification: Black/white/red and numbered.

Technical Information

Voltage Rating:	300V
Mutual Capacitance:	< 150nF/km
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.3mm² = 40 µH/Ohm
Temperature Rating:	-30°C to +70°C fixed (minimum -5°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured To:	EN 50288-7

Versions including an aluminium/LDPE/nylon chemical and moisture barrier are also available on request.

This is the European alternative to the traditional BS 5308 group of cables shown on pages 90-91.

RE-2Y(st)HSWAH

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)HSWAH Collective Screen							
E312O0501P0H	1 x 2 x 0.5	7/0.30	Black	175	5.2	9.5	36.0
E312O0701P0H	1 x 2 x 0.75	7/0.37	Black	195	5.6	10.0	24.5
E312O1301P0H	1 x 2 x 1.3	7/0.44	Black	240	6.8	11.0	14.2
E312O0502P0H	2 x 2 x 0.5	7/0.30	Black	250	7.6	12.0	36.0
E312O0702P0H	2 x 2 x 0.75	7/0.37	Black	300	8.5	13.0	24.5
E312O1302P0H	2 x 2 x 1.3	7/0.44	Black	385	10.4	15.0	14.2
E312O0504P0H	4 x 2 x 0.5	7/0.30	Black	315	8.8	13.5	36.0
E312O0704P0H	4 x 2 x 0.75	7/0.37	Black	370	10.9	14.5	24.5
E312O1304P0H	4 x 2 x 1.3	7/0.44	Black	480	12.0	16.5	14.2
E312O0508P0H	8 x 2 x 0.5	7/0.30	Black	440	11.3	16.0	36.0
E312O0708P0H	8 x 2 x 0.75	7/0.37	Black	535	12.8	17.5	24.5
E312O1308P0H	8 x 2 x 1.3	7/0.44	Black	720	15.7	20.5	14.2
E312O0512P0H	12 x 2 x 0.5	7/0.30	Black	565	13.5	18.0	36.0
E312O0712P0H	12 x 2 x 0.75	7/0.37	Black	670	15.1	20.0	24.5
E312O1312P0H	12 x 2 x1.3	7/0.44	Black	1095	18.9	24.5	14.2
E312O0524P0H	24 x 2 x 0.5	7/0.30	Black	1000	18.3	24.0	36.0
E312O0724P0H	24 x 2 x 0.75	7/0.37	Black	1230	20.8	27.0	24.5
E312O1324P0H	24 x 2 x1.3	7/0.44	Black	1780	25.9	32.0	14.2

Part No.	Pairs x mm²	Conductor Stranding mm	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Conductor Resistance Ohms/Km
RE-2Y(st)HSWAH-PiMF Individual & Collective Screen							
E312I0502P0H	2 x 2 x 0.5	7/0.30	Black	310	8.7	13.5	36.0
E312I0702P0H	2 x 2 x 0.75	7/0.37	Black	345	9.7	14.5	24.5
E312I1302P0H	2 x 2 x 1.3	7/0.44	Black	435	11.4	16.0	14.2
E312I0504P0H	4 x 2 x 0.5	7/0.30	Black	375	10.2	15.0	36.0
E312I0704P0H	4 x 2 x 0.75	7/0.37	Black	430	11.2	16.0	24.5
E312I1304P0H	4 x 2 x 1.3	7/0.44	Black	550	13.4	18.0	14.2
E312I0508P0H	8 x 2 x 0.5	7/0.30	Black	540	13.1	18.0	36.0
E312I0708P0H	8 x 2 x 0.75	7/0.37	Black	620	14.4	19.0	24.5
E312I1308P0H	8 x 2 x 1.3	7/0.44	Black	970	17.6	23.0	14.2
E312I0512P0H	12 x 2 x 0.5	7/0.30	Black	685	15.7	20.5	36.0
E312I0712P0H	12 x 2 x 0.75	7/0.37	Black	930	17.4	23.0	24.5
E312I1312P0H	12 x 2 x1.3	7/0.44	Black	1250	21.1	27.0	14.2
E312I0524P0H	24 x 2 x 0.5	7/0.30	Black	1255	21.5	27.5	36.0
E312I0724P0H	24 x 2 x 0.75	7/0.37	Black	1495	24.0	30.0	24.5
E312I1324P0H	24 x 2 x1.3	7/0.44	Black	2265	29.2	36.5	14.2

1.5mm² conductor sizes are also available on request. These cables have a slightly larger outer diameter.

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request as are other voltage ratings

RE-2Y(st)HSWAH-PiMF

BS 5308 Part 1 Type 1 Unarmoured PVC Instrumentation Cable

Originally developed for process control and communications within the petrochemical industry, BS 5308 is now widely used in other industrial and commercial applications. Available with collective aluminium tape (CAT) screening or individual and collective aluminium tape (ICAT) screens to prevent electrical interference and crosstalk. These cables are suitable for fixed installation where risk of mechanical damage is minimal.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, RP-PVC sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/ polyester foil screen and 0.5mm² tinned copper drain wire, RP-PVC sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 1, appendix A, see page 194. Two pair cables are twisted as a quad and coloured black, blue, green, brown.

ICAT: Each pair black, blue and numbered.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2
Manufactured Generally To:	BS 5308 Part 1

0.6/1kV versions can be made to order.

RP-PVC is a reduced propagation version of PVC producing no more than 15% HCl emissions if burnt. It is not Low Smoke Halogen Free.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 1 - PE Insulation, Collective Aluminium Tape Screen, RP-PVC Sheath								
5311O05010	1 x 2 x 0.5	16/0.2	CAT	Black	54	6.8	115	39.7
5311O07010	1 x 2 x 0.75	24/0.2	CAT	Black	73	7.0	115	26.5
5311O15010	1 x 2 x 1.5	7/0.53	CAT	Black	84	7.8	120	12.3
5311O05020	2 x 2 x 0.5	16/0.2	CAT	Black	75	7.7	115	39.7
5311O07020	2 x 2 x 0.75	24/0.2	CAT	Black	105	8.0	115	26.5
5311O15020	2 x 2 x 1.5	7/0.53	CAT	Black	129	9.1	120	12.3
5311O05050	5 x 2 x 0.5	16/0.2	CAT	Black	187	12.9	75	39.7
5311O07050	5 x 2 x 0.75	24/0.2	CAT	Black	255	14.0	75	26.5
5311O15050	5 x 2 x 1.5	7/0.53	CAT	Black	310	15.5	85	12.3
5311O05100	10 x 2 x 0.5	16/0.2	CAT	Black	310	17.0	75	39.7
5311O07100	10 x 2 x 0.75	24/0.2	CAT	Black	430	18.4	75	26.5
5311O15100	10 x 2 x 1.5	7/0.53	CAT	Black	570	20.3	85	12.3
5311O05200	20 x 2 x 0.5	16/0.2	CAT	Black	527	22.1	75	39.7
5311O07200	20 x 2 x 0.75	24/0.2	CAT	Black	740	24.2	75	26.5
5311O15200	20 x 2 x 1.5	7/0.53	CAT	Black	1043	26.9	85	12.3

5311O15100

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 1 - PE Insulation, Unarmoured, Individual & Collective Aluminium Tape Screen, RP-PVC Sheath								
5311I05020	2 x 2 x 0.5	16/0.2	ICAT	Black	130	11.7	115	39.7
5311I07020	2 x 2 x 0.75	24/0.2	ICAT	Black	190	12.5	115	26.5
5311I15020	2 x 2 x 1.5	7/0.53	ICAT	Black	230	14.4	120	12.3
5311I05050	5 x 2 x 0.5	16/0.2	ICAT	Black	217	14.3	115	39.7
5311I07050	5 x 2 x 0.75	24/0.2	ICAT	Black	300	16.0	115	26.5
5311I15050	5 x 2 x 1.5	7/0.53	ICAT	Black	410	18.5	120	12.3
5311I05100	10 x 2 x 0.5	16/0.2	ICAT	Black	403	19.6	115	39.7
5311I07100	10 x 2 x 0.75	24/0.2	ICAT	Black	530	22.3	115	26.5
5311I15100	10 x 2 x 1.5	7/0.53	ICAT	Black	730	26.1	120	12.3
5311I05200	20 x 2 x 0.5	16/0.2	ICAT	Black	667	25.4	115	39.7
5311I07200	20 x 2 x 0.75	24/0.2	ICAT	Black	930	29.2	115	26.5
5311I15200	20 x 2 x 1.5	7/0.53	ICAT	Black	1283	34.2	120	12.3

Capacitance figures are mutual @1kHz

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

BS 5308 Part 1 Type 1 Unarmoured LSHF Instrumentation Cable

Low Smoke Halogen Free versions of BS 5308 have been widely adopted in commercial building management and industrial applications where fire safety is paramount. Available with collective aluminium tape (CAT) screening or individual and collective aluminium tape (ICAT) screens to prevent electrical interference.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, LSHF sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, LSHF sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 1, appendix A, see page 194. Two pair cables are twisted as a quad and coloured black, blue, green, brown.

ICAT: Each pair black, blue and numbered.

Technical Information

Voltage Rating:	300/500V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured Generally To:	BS 5308 Part 1

Increased flame retardant versions to IEC 60332-3-24 Cat C and fire resistant versions to IEC 60331-21 are available on request.

0.6/1kV versions can be manufactured to order.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 1 - PE Insulation, Collective Aluminium Tape Screen, LSHF Sheath								
5311O05010H	1 x 2 x 0.5	16/0.2	CAT	Black	54	6.8	115	39.7
5311O07010H	1 x 2 x 0.75	24/0.2	CAT	Black	73	7.0	115	26.5
5311O15010H	1 x 2 x 1.5	7/0.53	CAT	Black	84	7.8	120	12.3
5311O05020H	2 x 2 x 0.5	16/0.2	CAT	Black	75	7.7	115	39.7
5311O07020H	2 x 2 x 0.75	24/0.2	CAT	Black	105	8.0	115	26.5
5311O15020H	2 x 2 x 1.5	7/0.53	CAT	Black	129	9.1	120	12.3
5311O05050H	5 x 2 x 0.5	16/0.2	CAT	Black	187	12.9	75	39.7
5311O07050H	5 x 2 x 0.75	24/0.2	CAT	Black	255	14.0	75	26.5
5311O15050H	5 x 2 x 1.5	7/0.53	CAT	Black	310	15.5	85	12.3
5311O05100H	10 x 2 x 0.5	16/0.2	CAT	Black	310	17.0	75	39.7
5311O07100H	10 x 2 x 0.75	24/0.2	CAT	Black	430	18.4	75	26.5
5311O15100H	10 x 2 x 1.5	7/0.53	CAT	Black	570	20.3	85	12.3
5311O05200H	20 x 2 x 0.5	16/0.2	CAT	Black	527	22.1	75	39.7
5311O07200H	20 x 2 x 0.75	24/0.2	CAT	Black	740	24.2	75	26.5
5311O15200H	20 x 2 x 1.5	7/0.53	CAT	Black	1043	26.9	85	12.3

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 1 - PE Insulation, Unarmoured, Individual & Collective Aluminium Tape Screen, LSHF Sheath								
5311I05020H	2 x 2 x 0.5	16/0.2	ICAT	Black	130	11.7	115	39.7
5311I07020H	2 x 2 x 0.75	24/0.2	ICAT	Black	190	12.5	115	26.5
5311I15020H	2 x 2 x 1.5	7/0.53	ICAT	Black	230	14.4	120	12.3
5311I05050H	5 x 2 x 0.5	16/0.2	ICAT	Black	217	14.3	115	39.7
5311I07050H	5 x 2 x 0.75	24/0.2	ICAT	Black	300	16.0	115	26.5
5311I15050H	5 x 2 x 1.5	7/0.53	ICAT	Black	410	18.5	120	12.3
5311I05100H	10 x 2 x 0.5	16/0.2	ICAT	Black	403	19.6	115	39.7
5311I07100H	10 x 2 x 0.75	24/0.2	ICAT	Black	530	22.3	115	26.5
5311I15100H	10 x 2 x 1.5	7/0.53	ICAT	Black	730	26.1	120	12.3
5311I05200H	20 x 2 x 0.5	16/0.2	ICAT	Black	667	25.4	115	39.7
5311I07200H	20 x 2 x 0.75	24/0.2	ICAT	Black	930	29.2	115	26.5
5311I15200H	20 x 2 x 1.5	7/0.53	ICAT	Black	1283	34.2	120	12.3

Capacitance figures are mutual @1kHz

For a Blue sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

5311O15100H

BS 5308 Part 1 Type 2 Armoured Instrumentation Cable

BS 5308 part 1 type 2 cables incorporate a SWA style armour for use in aggressive process control and instrumentation applications where mechanical damage is a danger. Like the unarmoured versions, they are available with collective aluminium tape (CAT) screening or individual and collective aluminium tape (ICAT) screens.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding GSWA armour, RP-PVC sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding, GSWA armour, RP-PVC sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 1, appendix A, see page 194. Two pair cables are twisted as a quad and coloured black, blue, green, brown.

ICAT: Each pair black, blue and numbered.

Technical Information

Voltage Rating:	300/500V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2
Manufactured Generally To:	BS 5308 Part 1

0.6/1kV versions can be manufactured to order.

RP-PVC is a reduced propagation version of PVC producing no more than 15% HCl emissions if burnt. It is not Low Smoke Halogen Free.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 2 - PE Insulation, Collective Aluminium Tape Screen, PE, GSWA, RP-PVC Sheath									
5312O05010	1 x 2 x 0.5	16/0.2	CAT	Black	237	6.2	11.2	115	39.7
5312O07010	1 x 2 x 0.75	24/0.2	CAT	Black	260	6.7	11.4	115	26.5
5312O15010	1 x 2 x 1.5	7/0.53	CAT	Black	320	7.5	12.7	120	12.3
5312O05020	2 x 2 x 0.5	16/0.2	CAT	Black	287	7.6	12.1	115	39.7
5312O07020	2 x 2 x 0.75	24/0.2	CAT	Black	310	8.4	12.6	115	26.5
5312O15020	2 x 2 x 1.5	7/0.53	CAT	Black	413	9.3	14.1	120	12.3
5312O05050	5 x 2 x 0.5	16/0.2	CAT	Black	530	12.4	17.7	75	39.7
5312O07050	5 x 2 x 0.75	24/0.2	CAT	Black	675	13.8	19.0	75	26.5
5312O15050	5 x 2 x 1.5	7/0.53	CAT	Black	910	15.6	21.9	85	12.3
5312O05100	10 x 2 x 0.5	16/0.2	CAT	Black	917	16.5	22.7	75	39.7
5312O07100	10 x 2 x 0.75	24/0.2	CAT	Black	1170	18.4	25.0	75	26.5
5312O15100	10 x 2 x 1.5	7/0.53	CAT	Black	1383	20.9	28.2	85	12.3
5312O05200	20 x 2 x 0.5	16/0.2	CAT	Black	1550	21.7	28.9	75	39.7
5312O07200	20 x 2 x 0.75	24/0.2	CAT	Black	1725	24.4	31.0	75	26.5
5312O15200	20 x 2 x 1.5	7/0.53	CAT	Black	2400	27.8	35.8	85	12.3

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 2 - PE Insulation, Individual & Collective Aluminium Tape Screen, PE, GSWA, RP-PVC Sheath									
5312I05020	2 x 2 x 0.5	16/0.2	ICAT	Black	457	11.2	16.8	115	39.7
5312I07020	2 x 2 x 0.75	24/0.2	ICAT	Black	500	12.1	17.6	115	26.5
5312I15020	2 x 2 x 1.5	7/0.53	ICAT	Black	737	13.6	20.4	120	12.3
5312I05050	5 x 2 x 0.5	16/0.2	ICAT	Black	757	14.5	20.9	115	39.7
5312I07050	5 x 2 x 0.75	24/0.2	ICAT	Black	935	15.7	22.0	115	26.5
5312I15050	5 x 2 x 1.5	7/0.53	ICAT	Black	1187	17.7	25.4	120	12.3
5312I05100	10 x 2 x 0.5	16/0.2	ICAT	Black	1293	19.3	27.9	115	39.7
5312I07100	10 x 2 x 0.75	24/0.2	ICAT	Black	1630	20.9	29.5	115	26.5
5312I15100	10 x 2 x 1.5	7/0.53	ICAT	Black	1847	23.9	33.5	120	12.3
5312I05200	20 x 2 x 0.5	16/0.2	ICAT	Black	2237	25.7	34.3	115	39.7
5312I07200	20 x 2 x 0.75	24/0.2	ICAT	Black	2410	27.9	37.8	115	26.5
5312I15200	20 x 2 x 1.5	7/0.53	ICAT	Black	3053	31.7	42.6	120	12.3

Capacitance figures are mutual @1kHz

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

5312I07051

BS 5308 Part 1 Type 2 Armoured LSHF Instrumentation Cable

These cables are ideal for use in industrial and commercial applications where smoke/toxic gas release is a problem in the event of a fire and mechanical damage is a threat. Although they were originally conceived for industrial instrumentation applications BS 5308 cables are now used within a wide variety of industries including commercial building management control.

BS 5308 cables are available with collective aluminium tape (CAT) screening or individual and collective aluminium tape (ICAT) screens to ensure correct signal transmission in noisy electrical environments.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding, GSWA armour, LSHF sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PE insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding, GSWA armour, LSHF sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 1, appendix A, see page 194. Two pair cables are twisted as a quad and coloured black, blue, green, brown.

ICAT: Each pair black, blue and numbered.

Technical Information

Voltage Rating:	300/500V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24 Cat C
Smoke Emission:	IEC 61034-1 & 2
Halogen Emission:	IEC 60754-1 & 2
Manufactured Generally To:	BS 5308 Part 1

Increased flame retardant versions to IEC 60332-3-24 Cat C and fire resistant versions to IEC 60331-21 are available on request.

0.6/1kV versions can be manufactured to order.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 2 - PE Insulation, Collective Aluminium Tape Screen, PE, GSWA, LSHF sheath									
5312O05010H	1 x 2 x 0.5	16/0.2	CAT	Black	237	6.2	11.2	115	39.7
5312O07010H	1 x 2 x 0.75	24/0.2	CAT	Black	260	6.7	11.4	115	26.5
5312O15010H	1 x 2 x 1.5	7/0.53	CAT	Black	320	7.5	12.7	120	12.3
5312O05020H	2 x 2 x 0.5	16/0.2	CAT	Black	287	7.6	12.1	115	39.7
5312O07020H	2 x 2 x 0.75	24/0.2	CAT	Black	310	8.4	12.6	115	26.5
5312O15020H	2 x 2 x 1.5	7/0.53	CAT	Black	413	9.3	14.1	120	12.3
5312O05050H	5 x 2 x 0.5	16/0.2	CAT	Black	530	12.4	17.7	75	39.7
5312O07050H	5 x 2 x 0.75	24/0.2	CAT	Black	675	13.8	19.0	75	26.5
5312O15050H	5 x 2 x 1.5	7/0.53	CAT	Black	910	15.6	21.9	85	12.3
5312O05100H	10 x 2 x 0.5	16/0.2	CAT	Black	917	16.5	22.7	75	39.7
5312O07100H	10 x 2 x 0.75	24/0.2	CAT	Black	1170	18.4	25.0	75	26.5
5312O15100H	10 x 2 x 1.5	7/0.53	CAT	Black	1383	20.9	28.2	85	12.3
5312O05200H	20 x 2 x 0.5	16/0.2	CAT	Black	1550	21.7	28.9	75	39.7
5312O07200H	20 x 2 x 0.75	24/0.2	CAT	Black	1725	24.4	31.0	75	26.5
5312O15200H	20 x 2 x 1.5	7/0.53	CAT	Black	2400	27.8	35.8	85	12.3

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 1, Type 2 - PE Insulation, Individual & Collective Aluminium Tape Screen, PE, GSWA, LSHF Sheath									
5312I05020H	2 x 2 x 0.5	16/0.2	ICAT	Black	457	11.2	16.8	115	39.7
5312I07020H	2 x 2 x 0.75	24/0.2	ICAT	Black	500	12.1	17.6	115	26.5
5312I15020H	2 x 2 x 1.5	7/0.53	ICAT	Black	737	13.6	20.4	120	12.3
5312I05050H	5 x 2 x 0.5	16/0.2	ICAT	Black	757	14.5	20.9	115	39.7
5312I07050H	5 x 2 x 0.75	24/0.2	ICAT	Black	935	15.7	22.0	115	26.5
5312I15050H	5 x 2 x 1.5	7/0.53	ICAT	Black	1187	17.7	25.4	120	12.3
5312I05100H	10 x 2 x 0.5	16/0.2	ICAT	Black	1293	19.3	27.9	115	39.7
5312I07100H	10 x 2 x 0.75	24/0.2	ICAT	Black	1630	20.9	29.5	115	26.5
5312I15100H	10 x 2 x 1.5	7/0.53	ICAT	Black	1847	23.9	33.5	120	12.3
5312I05200H	20 x 2 x 0.5	16/0.2	ICAT	Black	2237	25.7	34.3	115	39.7
5312I07200H	20 x 2 x 0.75	24/0.2	ICAT	Black	2410	27.9	37.8	115	26.5
5312I15200H	20 x 2 x 1.5	7/0.53	ICAT	Black	3053	31.7	42.6	120	12.3

Capacitance figures are mutual @1kHz

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

5312O15051H

BS 5308 Part 2 Type 1 Unarmoured Instrumentation Cable

Originally developed for communications and signalling within the process control industry BS 5308 part 2 cables are now widely used in other industrial applications. The screening combination offers excellent protection from electromagnetic interference. These cables are suitable for fixed installation when there is no risk of mechanical damage.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PVC insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, RP-PVC sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PVC insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, RP-PVC sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 2, appendix A, see page 194. Two pair cables are twisted as a quad and coloured blue, green, orange, brown.

ICAT: Each pair white, blue and numbered.

Technical Information

Voltage Rating:	300/500V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2
Manufactured Generally To:	BS 5308 Part 2

0.6/1kV versions can be made to order.

RP-PVC is a reduced propagation version of PVC producing no more than 15% HCl emissions if burnt. It is not Low Smoke Halogen Free.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 2, Type 1 - PVC Insulation, Collective Aluminium Tape Screen, RP-PVC Sheath								
5321O05010	1 x 2 x 0.5	16/0.2	CAT	Black	54	6.8	250	39.7
5321O07010	1 x 2 x 0.75	24/0.2	CAT	Black	73	7.0	250	26.5
5321O15010	1 x 2 x 1.5	7/0.53	CAT	Black	84	7.8	250	12.3
5321O05020	2 x 2 x 0.5	16/0.2	CAT	Black	75	7.7	250	39.7
5321O07020	2 x 2 x 0.75	24/0.2	CAT	Black	105	8.0	250	26.5
5321O15020	2 x 2 x 1.5	7/0.53	CAT	Black	129	9.1	250	12.3
5321O05050	5 x 2 x 0.5	16/0.2	CAT	Black	187	12.9	250	39.7
5321O07050	5 x 2 x 0.75	24/0.2	CAT	Black	255	14.0	250	26.5
5321O15050	5 x 2 x 1.5	7/0.53	CAT	Black	310	15.5	250	12.3
5321O05100	10 x 2 x 0.5	16/0.2	CAT	Black	310	17.0	250	39.7
5321O07100	10 x 2 x 0.75	24/0.2	CAT	Black	430	18.4	250	26.5
5321O15100	10 x 2 x 1.5	7/0.53	CAT	Black	570	20.3	250	12.3
5321O05200	20 x 2 x 0.5	16/0.2	CAT	Black	527	22.1	250	39.7
5321O07200	20 x 2 x 0.75	24/0.2	CAT	Black	740	24.2	250	26.5
5321O15200	20 x 2 x1.5	7/0.53	CAT	Black	1043	26.9	250	12.3

5321O15010

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 2, Type 1 - PE Insulation, Unarmoured, Individual & Collective Aluminium Tape Screen, RP-PVC sheath								
5321I05020	2 x 2 x 0.5	16/0.2	ICAT	Black	130	11.7	250	39.7
5321I07020	2 x 2 x 0.75	24/0.2	ICAT	Black	190	12.5	250	26.5
5321I15020	2 x 2 x 1.5	7/0.53	ICAT	Black	230	14.4	250	12.3
5321I05050	5 x 2 x 0.5	16/0.2	ICAT	Black	217	14.3	250	39.7
5321I07050	5 x 2 x 0.75	24/0.2	ICAT	Black	300	16.0	250	26.5
5321I15050	5 x 2 x 1.5	7/0.53	ICAT	Black	410	18.5	250	12.3
5321I05100	10 x 2 x 0.5	16/0.2	ICAT	Black	403	19.6	250	39.7
5321I07100	10 x 2 x 0.75	24/0.2	ICAT	Black	530	22.3	250	26.5
5321I15100	10 x 2 x 1.5	7/0.53	ICAT	Black	730	26.1	250	12.3
5321I05200	20 x 2 x 0.5	16/0.2	ICAT	Black	667	25.4	250	39.7
5321I07200	20 x 2 x 0.75	24/0.2	ICAT	Black	930	29.2	250	26.5
5321I15200	20 x 2 x1.5	7/0.53	ICAT	Black	1283	34.2	250	12.3

Capacitance figures are mutual @1kHz

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

BS 5308 Part 2 Type 2 Armoured PVC Instrumentation Cable

Designed for use in harsh environments within the process control and refinery industries, BS 5308 cables incorporate GSWA armour for mechanical protection. The screening options ensure that interference and crosstalk is prevented when installed in an electrostatic noisy application. They can be used for indoor, outdoor and direct burial applications.

Construction

Type: CAT – Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PVC insulation, laid up as cores or twisted into pairs or triples, overall aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding, GSWA armour, RP-PVC sheath – black or blue.

Type: ICAT – Individual & Collective Aluminium Tape Screen
Plain annealed copper wire conductors to IEC 60228, class 1, 2 or 5, PVC insulation, cores twisted into pairs or triples, each pair aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, units laid up, collective aluminium/polyester foil screen and 0.5mm² tinned copper drain wire, PE bedding, GSWA armour, RP-PVC sheath – black or blue.

Pair Identification:

CAT: Cables up to 50 pair are colour coded in accordance with BS 5308 pt 2, appendix A, see page 194. Two pair cables are twisted as a quad and coloured blue, green, orange, brown.

ICAT: Each pair white, blue and numbered.

Technical Information

Voltage Rating:	300/500V
Temperature Rating:	+65°C (minimum 0°C for installation)
Conductor Stranding:	IEC 60228 Class 1, 2 or 5 plain copper conductors
L/R Ratio:	0.5mm² & 0.75mm² = 25 µH/Ohm 1.5mm² = 40 µH/Ohm
Flame Retardant:	IEC 60332-1-2
Manufactured Generally To:	BS 5308 Part 2

0.6/1kV versions can be made to order.

RP-PVC is a reduced propagation version of PVC producing no more than 15% HCl emissions if burnt. It is not Low Smoke Halogen Free.

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 2, Type 2 - PVC Insulation, Collective Aluminium Tape Screen, PE, GSWA, RP-PVC Sheath									
5322O05010	1 x 2 x 0.5	16/0.2	CAT	Black	237	6.2	11.2	250	39.7
5322O07010	1 x 2 x 0.75	24/0.2	CAT	Black	260	6.7	11.4	250	26.5
5322O15010	1 x 2 x 1.5	7/0.53	CAT	Black	320	7.5	12.7	250	12.3
5322O05020	2 x 2 x 0.5	16/0.2	CAT	Black	287	7.1	12.1	250	39.7
5322O07020	2 x 2 x 0.75	24/0.2	CAT	Black	310	7.7	12.6	250	26.5
5322O15020	2 x 2 x 1.5	7/0.53	CAT	Black	413	8.8	14.1	250	12.3
5322O05050	5 x 2 x 0.5	16/0.2	CAT	Black	530	12.4	17.7	250	39.7
5322O07050	5 x 2 x 0.75	24/0.2	CAT	Black	675	13.8	19.0	250	26.5
5322O15050	5 x 2 x 1.5	7/0.53	CAT	Black	910	15.6	21.9	250	12.3
5322O05100	10 x 2 x 0.5	16/0.2	CAT	Black	917	16.5	22.7	250	39.7
5322O07100	10 x 2 x 0.75	24/0.2	CAT	Black	1170	18.4	25.0	250	26.5
5322O15100	10 x 2 x 1.5	7/0.53	CAT	Black	1383	20.9	28.2	250	12.3
5322O05200	20 x 2 x 0.5	16/0.2	CAT	Black	1550	21.7	28.9	250	39.7
5322O07200	20 x 2 x 0.75	24/0.2	CAT	Black	1725	24.4	31.0	250	26.5
5322O15200	20 x 2 x 1.5	7/0.53	CAT	Black	2400	27.8	35.8	250	12.3

Part No.	Pairs x mm²	Conductor Stranding mm	Screen Type	Colour	Weight Kg/Km	Dia over Bedding mm	O/D mm	Cap. pF/m	Conductor Resistance Ohms/Km
Part 2, Type 2 - PVC Insulation, Individual & Collective Aluminium Tape Screen, PE, GSWA, RP-PVC Sheath									
5322I05020	2 x 2 x 0.5	16/0.2	ICAT	Black	457	10.6	16.8	250	39.7
5322I07020	2 x 2 x 0.75	24/0.2	ICAT	Black	500	11.5	17.6	250	26.5
5322I15020	2 x 2 x 1.5	7/0.53	ICAT	Black	737	13	20.4	250	12.3
5322I05050	5 x 2 x 0.5	16/0.2	ICAT	Black	757	14.3	20.9	250	39.7
5322I07050	5 x 2 x 0.75	24/0.2	ICAT	Black	935	15.7	22.0	250	26.5
5322I15050	5 x 2 x 1.5	7/0.53	ICAT	Black	1187	17.5	25.4	250	12.3
5322I05100	10 x 2 x 0.5	16/0.2	ICAT	Black	1293	19.1	27.9	250	39.7
5322I07100	10 x 2 x 0.75	24/0.2	ICAT	Black	1630	20.9	29.5	250	26.5
5322I15100	10 x 2 x 1.5	7/0.53	ICAT	Black	1847	23.5	33.5	250	12.3
5322I05200	20 x 2 x 0.5	16/0.2	ICAT	Black	2237	25.3	34.3	250	39.7
5322I07200	20 x 2 x 0.75	24/0.2	ICAT	Black	2410	27.9	37.8	250	26.5
5322I15200	20 x 2 x 1.5	7/0.53	ICAT	Black	3053	31.3	42.6	250	12.3

Capacitance figures are mutual @1kHz

For a **Blue** sheath change the last character of the part number (0) to 1

Larger pair counts and triple configurations are available on request

5322O15051

Thermocouple and Compensating Cables

A thermocouple cable is usually a pair of insulated conductors made from two different metals with the same or similar properties to the thermocouple probe. They carry the signal from the probe back to the measuring unit. To transmit the signal there must be positive (+) and negative (-) conductor. These conductors are often referred to as legs. Two legs make a pair and you must have a pair for a thermocouple to operate. Multiple pair cables are also used where a number of sensors or probes in one area link back to a control panel. Cables can be supplied as standard measurement industry designs or to specific standards including BS 5308, IEC 60092 and EN 50288-7. RTD (PT-100) cables can also be supplied in three core versions.

Selecting your thermocouple cable:

To choose a suitable cable please view the following sections and ☑ the appropriate materials to meet your needs. When you have chosen your thermocouple cable please fax or email this completed page and we will contact you with a quote and lead time.

Number of Pairs _____ **Quantity Required (m)** _____

Thermocouple types and colour codes:

Select the type of thermocouple cable and colour code you require from the list below ☑

International Colour Codes for Thermocouple Cable Insulation

Cable Type		EUROPEAN BS 4937 Part 30 IEC 60584	BRITISH BS 1843	AMERICAN ANSI MC96.1	GERMAN DIN 43710.4
Extension Cables					
KX	Nicro / Nial	☐	☐	☐	☐
JX	Iron / Constantan	☐	☐	☐	☐
TX	Copper / Constanan	☐	☐	☐	☐
EX	Nicro / Constantan	☐	☐	☐	☐
NX	Nicrosil / Nisil	☐	☐	☐	☐
Compensating Cables					
KCB (Compensation for Type K (was Vx))	Copper / Constantan	☐	☐	☐	☐
RCA/SCA (Compensation for Type R or S)	Copper / Cupronic	☐	☐	☐	☐

Insulation material options ☑

Material	Operating Temperature	Properties
☐ PVC	-30°C to +70°C	General usage
☐ PVC-HT	-20°C to +105°C	High temperature applications
☐ XLPE	-30°C to +90°C	Low Smoke Halogen Free
☐ XLPE + Mica	-30°C to +90°C	Fire resistant barrier (IEC 60331-21)
☐ Silicone	-60°C to +180°C	High temperature applications
☐ FEP	-100°C to +205°C	Chemical & heat resistant
☐ PFA	-190°C to +260°C	Chemical & heat resistant
☐ PTFE	-190°C to +260°C	Chemical & heat resistant
☐ Glass	-50°C to +600°C	Dry environments only

Screening options ☑

Collective Screen Options	Individual Screen Options
☐ Aluminium/polyester foil & drain wire	☐ Individual & collective aluminium/polyester foil & drain wires
☐ Tinned copper braid	☐ Individual aluminium/polyester & drain wire, each pair jacketed
☐ Silver plated copper braid	☐ Ind & collective aluminium/polyester foil & drain wires + TCu braid
☐ Nickel plated copper braid	☐ Individual tinned copper braids
	☐ Individual silver plated copper braids
	☐ Individual nickel plated copper braids

Sheathing and bedding materials ☑

Sheathing	Bedding	Material	Operating Temperature	Properties
☐	☐	PVC	-30°C to +70°C	General usage
☐	☐	PVC-HT	-20°C to +105°C	High temperature applications
☐	☐	LDPE	-50°C to +70°C	Water resistant
☐	☐	LSHF	-30°C to +90°C	Low Smoke Halogen Free
☐	☐	Tri-Barrier (Ali/HDPE/PA)	-50°C to +70°C	Hydrocarbon resistant barrier
☐	☐	Silicone	-60°C to +180°C	High Temperature applications
☐	☐	FEP	-100°C to +205°C	Chemical & heat resistant
☐	☐	PFA	-190°C to +260°C	Chemical & heat resistant
☐	☐	PTFE	-190°C to +260°C	Chemical & heat resistant
☐	☐	Glass	-50°C to +600°C	Dry environments only

Armour protection ☑

Armour Option	Construction	Application
☐ GSWA	Galvanised Steel Wire Armour	Mechanical protection
☐ GSWB	Galvanised Steel Wire Braid	Flexibility for installation in confined areas
☐ GSTA	Galvanised Steel Tape Armour	Mechanical protection
☐ CWB	Copper Wire Braid armour	Mechanical protection (mainly offshore)
☐ SSWB	Stainless Steel Wire Braid	Armouring for very high temperature cables

Conductor size & stranding options ☑

Size mm²	Strands mm	Strands mm	Strands mm	AWG/Strands
0.22	☐ 1/0.51	☐ 7/0.20	-	☐ 24/7
0.44	☐ 1/0.37	☐ 7/0.28	☐ 13/0.20	☐ 22/7
0.50	☐ 1/0.80	☐ 7/0.30	☐ 16/0.2.0	☐ 20/7
0.75	☐ 1/0.97	☐ 7/0.37	☐ 24/0.2.0	☐ 18/16
1.0	☐ 1/1.13	☐ 7/0.43	☐ 32/0.2.0	☐ 18/7
1.5	☐ 1/1.38	☐ 7/0.53	☐ 30/0.25	☐ 16/19

YY PVC Multicore

Flexibility is ensured through the use of fine copper wire stranding and pliable PVC compounds. This makes the cable ideal for use on portable or movable equipment or where flexibility will make installation considerably easier. A 600/1000V grade is now available in sizes above 0.75mm² as are American UL listed versions. Where resistance to water or many oils is required, polyurethane (PUR) jackets offer excellent protection and are available on short lead times.

Construction

Fine copper wire strands to IEC 60228 class 5 or class 6 depending on cross section. PVC insulation with either number or colour coding. A green/yellow earth core is normally included in cables with more than 2 cores in 0.5mm² and above. Cores twisted together, grey PVC sheath.

Technical Information

Voltage Rating: 0.14mm² - 0.34mm²: Working 250V Test 1200V; 0.5mm² and above: Working 300/500V Test 3000V

Temperature Rating: Static -20°C to +80°C; Flexing -5°C to +70°C

Minimum Bending Radius: Fixed 6 x cable diameter; Flexing 15 x cable diameter

Current Rating: Refer to IEE Regs Table 4F3A&B

30000325

LiYY Miniature Signal Cable with DIN 47100 Colour Code

Part No.	Core & mm²	Weight kg/km	O/D mm
30000102	2 x 0.14	12	3.3
30000103	3 x 0.14	15	3.5
30000104	4 x 0.14	17	3.7
30000105	5 x 0.14	22	4.0
30000107	7 x 0.14	26	4.7
30000112	12 x 0.14	43	5.7
30000118	18 x 0.14	65	7.2
30000121	21 x 0.14	79	7.5
30000125	25 x 0.14	93	8.1
30000132	32 x 0.14	112	8.8
30000140	40 x 0.14	132	9.6
30000152	52 x 0.14	177	10.9
30000161	61 x 0.14	204	11.6
30000202	2 x 0.25	25	3.7
30000203	3 x 0.25	29	3.9
30000204	4 x 0.25	31	4.2
30000205	5 x 0.25	38	4.6
30000207	7 x 0.25	48	5.3
30000212	12 x 0.25	75	7.1
30000218	18 x 0.25	110	8.2
30000221	21 x 0.25	128	8.5
30000225	25 x 0.25	146	9.8
30000232	32 x 0.25	186	10.7
30000240	40 x 0.25	207	11.5
30000252	52 x 0.25	258	12.8
30000261	61 x 0.25	324	13.9

Part No.	Core x mm²	Weight kg/km	O/D mm
30000302	2 x 0.34	28	4.4
30000303	3 x 0.34	30	4.6
30000304	4 x 0.34	40	4.9
30000305	5 x 0.34	44	5.6
30000307	7 x 0.34	60	6.2
30000312	12 x 0.34	88	8.1
30000318	18 x 0.34	135	9.7
30000321	21 x 0.34	151	10.4
30000325	25 x 0.34	181	11.5
30000332	32 x 0.34	223	12.4
30000340	40 x 0.34	266	13.5
30000352	52 x 0.34	337	15.5
30000361	61 x 0.34	392	16.5
30000502	2 x 0.5	31	4.9
30000503	3 x 0.5	35	5.2
30000504	4 x 0.5	42	5.7
30000505	5 x 0.5	49	6.2
30000507	7 x 0.5	73	7.2
30000512	12 x 0.5	130	9.2
30000518	18 x 0.5	166	11.3
30000521	21 x 0.5	185	13.1
30000525	25 x 0.5	250	13.4
30000532	32 x 0.5	291	14.7
30000540	40 x 0.5	345	16.1
30000552	52 x 0.5	454	19.7
30000561	61 x 0.5	536	20.4

The cables above are colour coded to DIN 47100. This colour code can be found on page 196. Other core counts and sizes are available please ask for more details. Overall diameters (O/D) are approximate and for guidance only and will vary from one manufacture to another. If the O/D is critical please check at time of order and we will measure it.

Part No.	Core & mm²	Weight kg/km	O/D mm
YY Multicore Cable			
10000502	2 x 0.5	33	4.9
10000503	3 x 0.5	43	5.2
10000504	4 x 0.5	46	5.7
10000505	5 x 0.5	53	6.4
10000507	7 x 0.5	75	6.6
10000512	12 x 0.5	113	8.9
10000518	18 x 0.5	167	10.7
10000521	21 x 0.5	194	11.7
10000540	40 x 0.5	347	15.5
10000702	2 x 0.75	41	5.2
10000703	3 x 0.75	54	5.7
10000704	4 x 0.75	58	6.1
10000705	5 x 0.75	69	6.7
10000707	7 x 0.75	97	7.2
10000708	8 x 0.75	109	8.6
10000710	10 x 0.75	133	9.3
10000712	12 x 0.75	151	9.9
10000718	18 x 0.75	216	11.5
10000721	21 x 0.75	263	13.8
10000725	25 x 0.75	296	14.1
10000734	34 x 0.75	392	15.9
10000741	41 x 0.75	466	16.9
10000742	42 x 0.75	496	17.6
10000750	50 x 0.75	585	19.3
10000761	61 x 0.75	693	20.9
10001002	2 x 1.0	50	5.5
10001003	3 x 1.0	60	5.9
10001004	4 x 1.0	63	6.6
10001005	5 x 1.0	81	7.1
10001007	7 x 1.0	126	7.6
10001010	10 x 1.0	157	9.9
10001012	12 x 1.0	183	10.5
10001018	18 x 1.0	266	12.4
10001021	21 x 1.0	313	14.2
10001025	25 x 1.0	356	14.7
10001034	34 x 1.0	469	16.6
10001041	41 x 1.0	588	18.3
10001042	42 x 1.0	601	18.5
10001050	50 x 1.0	691	19.9
10001080	80 x 1.0	1099	24.6
10001502	2 x 1.5	64	6.2
10001503	3 x 1.5	80	6.6
10001504	4 x 1.5	99	7.3
10001505	5 x 1.5	112	7.9
10001507	7 x 1.5	150	8.9
10001510	10 x 1.5	212	11.2
10001512	12 x 1.5	250	11.7
10001514	14 x 1.5	289	12.8
10001518	18 x 1.5	362	13.9
10001521	21 x 1.5	426	15.5
10001525	25 x 1.5	515	17.2
10001532	32 x 1.5	634	18.7
10001534	34 x 1.5	671	19.3
10001542	42 x 1.5	836	20.4
10001550	50 x 1.5	973	22.6
10001561	61 x 1.5	1181	25.2
10001565	65 x 1.5	1359	26.8
10001580	80 x 1.5	1554	29.5
100015100	100 x 1.5	1909	31.2
10002502	2 x 2.5	96	7.6
10002503	3 x 2.5	125	8.0
10002504	4 x 2.5	152	8.8
10002505	5 x 2.5	173	9.8
10002507	7 x 2.5	238	11.9
10002512	12 x 2.5	384	14.5
10002518	18 x 2.5	559	17.4
10002521	21 x 2.5	737	21.5
10002525	25 x 2.5	793	22.1
10002534	34 x 2.5	1086	23.8
10002550	50 x 2.5	1579	28.9
10004003	3 x 4.0	182	9.7
10004004	4 x 4.0	235	10.6
10004005	5 x 4.0	276	11.8
10004007	7 x 4.0	358	13.0
10006003	3 x 6.0	273	11.9
10006004	4 x 6.0	337	12.8
10006005	5 x 6.0	407	14.3
10006007	7 x 6.0	498	16.7
10010004	4 x 10	532	15.8
10010005	5 x 10	675	17.9
10010007	7 x 10	894	19.5
10016004	4 x 16	849	19.2
10016005	5 x 16	1053	21.7
10016007	7 x 16	1389	23.8
10025004	4 x 25	1275	23.3
10025005	5 x 25	1580	25.9
10025007	7 x 25	2109	28.5
10035004	4 x 35	1686	27.3
10035005	5 x 35	2106	29.6
10050004	4 x 50	2534	32.1
10070004	4 x 70	3365	36.3
10095004	4 x 95	4535	41.4
10120004	4 x 120	5486	45.3

10002507

Niltox® LF-319 LSHF Multicore

Developed to meet the need for Low Smoke Halogen Free control cables, the Niltox LF-319 range covers all the popular sizes. Applications include airports, hospitals, lift shafts, tunnels, heating and ventilating controls, in fact anywhere that conventional PVC YY cables were previously used. In addition to its LSHF properties this cable offers a high degree of flame retardance thereby reducing the risk of spreading fire. Stocked on bulk reels, Niltox LF-319 cables can be cut to the length you require.

Construction

Fine copper wire strands to IEC 60228 class 5, Low Smoke Halogen Free insulation, black cores with white number coding, a green/yellow earth core is included in cables with more than 2 cores, grey Low Smoke Halogen Free outer sheath.

Technical Information

Voltage Rating: 300/500V Test 2000V
Temperature Rating: Flexing +5°C to +70°C
Static -20°C to +90°C
Bending Radius: Flexing 15 x cable dia
Static 7.5 x cable dia
Current Rating: Refer to IEE Regs Table 4F3A&B
Flame Retardant: IEC 60332-1-2, IEC 60332-3-24C, UL 1685
Smoke Emission: IEC 61034-2, UL 1685
Halogen Emission: IEC 60754-1 & 2

31901507

Part No.	Core x Size mm²	Weight kg/km	O/D mm
31900702	2 x 0.75	45	5.2
31900703	3 x 0.75	55	5.7
31900704	4 x 0.75	65	6.2
31900705	5 x 0.75	80	6.8
31900707	7 x 0.75	110	7.3
31900712	12 x 0.75	180	9.8
31900718	18 x 0.75	265	11.9
31900725	25 x 0.75	375	13.6
31901002	2 x 1.0	60	5.5
31901003	3 x 1.0	75	6.0
31901004	4 x 1.0	90	6.6
31901005	5 x 1.0	110	7.2
31901007	7 x 1.0	150	7.8
31901012	12 x 1.0	240	10.5
31901018	18 x 1.0	360	12.0
31901025	25 x 1.0	500	14.9
31901502	2 x 1.5	70	6.7
31901503	3 x 1.5	95	6.9
31901504	4 x 1.5	115	7.8
31901505	5 x 1.5	140	8.7
31901507	7 x 1.5	195	9.5
31901512	12 x 1.5	310	12.8
31901518	18 x 1.5	455	15.4
31901525	25 x 1.5	640	17.5

Part No.	Core x Size mm²	Weight kg/km	O/D mm
31902502	2 x 2.5	120	7.5
31902503	3 x 2.5	150	8.2
31902504	4 x 2.5	185	9.0
31902505	5 x 2.5	230	10.0
31902507	7 x 2.5	320	10.9
31902512	12 x 2.5	500	14.7
31902518	18 x 2.5	770	18.2
31902525	25 x 2.5	1070	23.2
31904002	2 x 4.0	187	9.9
31904003	3 x 4.0	250	10.2
31904004	4 x 4.0	300	11.0
31904005	5 x 4.0	375	12.1
31906002	2 x 6.0	266	10.8
31906003	3 x 6.0	365	11.7
31906004	4 x 6.0	435	13.0
31906005	5 x 6.0	535	14.5
31910002	2 x 10	560	14.0
31910003	3 x 10	715	15.0
31910004	4 x 10	880	16.8
31910005	5 x 10	998	18.7
31916002	2 x 16	650	16.5
31916003	3 x 16	835	17.6
31916004	4 x 16	1070	19.7
31916005	5 x 16	1280	21.9

Also available with a black sheath in some sizes. Other sizes are available on short lead times.

Niltox® LF-318 LSHF Colour Coded Multicore

Low Smoke Halogen Free compounds are used to produce this high quality flexible cable that meets the requirements of 318* B and HO5ZZ-F. Niltox LF-318 is ideal for applications where the cable will be visible. Examples include: lighting pendant drops, supply leads and general wiring in public areas.

As an option these cables can be oversheathed in a wide variety of colours in Low Smoke Halogen Free compounds. This is particularly useful when quantities are small or cables are needed quickly.

Construction

Fine copper wire strands to IEC 60228 class 5, Halogen Free insulation, colour coded to BS 7671 HD 308 S2. White or black Low Smoke Halogen Free outer sheath.

Technical Information

Voltage Rating: 300/500V Test 3000V
Temperature Rating: Flexing +5°C to +70°C
Static -20°C to +90°C
Bending Radius: Flexing 15 x cable dia
Static 7.5 x cable dia
Current Rating: Refer to IEE Regs Table 4F3A&B
Flame Retardant: IEC 60332-1-2
Smoke Emission: IEC 61034-2
Halogen Emission: IEC 60754-1 & 2

Part No.	Cores & mm²	Weight kg/km	O/D mm
31800702xx	2 x 0.75	60	6.3
31800703xx	3 x 0.75	70	6.7
31800704xx	4 x 0.75	88	7.1
31800705xx	5 x 0.75	112	7.8
31801002xx	2 x 1.0	71	6.7
31801003xx	3 x 1.0	84	7.1
31801004xx	4 x 1.0	106	7.9
31801005xx	5 x 1.0	134	8.7
31801006xx	6 x 1.0	163	9.8
31801502xx	2 x 1.5	97	7.7
31801503xx	3 x 1.5	120	8.3
31801504xx	4 x 1.5	152	9.4
31801505xx	5 x 1.5	183	10.4

Part No.	Cores & mm²	Weight kg/km	O/D mm
31801506xx	6 x 1.5	201	10.1
31802502xx	2 x 2.5	150	9.1
31802503xx	3 x 2.5	184	9.8
31802504xx	4 x 2.5	228	10.9
31802505xx	5 x 2.5	270	11.9
31804003xx	3 x 4	216	14.0
31804004xx	4 x 4	286	15.1
31804005xx	5 x 4	342	15.4
31806004xx	4 x 6	338	15.2
31806005xx	5 x 6	422	17.5
31810004xx	4 x 10	690	22.1
31810005xx	5 x 10	884	24.9

To show the colour required please replace xx in the part number with:

04 White 00 Black

3180150300

3180150404

LiYCY PVC Screened Multicore

LiYCY has a tinned copper wire braid screen, providing protection from electromagnetic interference (EMI) and reducing electromagnetic radiation (EMR). This can be important when trying to ensure electromagnetic compatibility (EMC). The braid screened LiYCY miniature signal and data cable range is available colour coded to DIN 47100. Larger core sizes over 0.5mm² are also available number coded or colour coded to BS 7671 HD 308 S2.

These cables are also available unscreened type LiYY with part numbers starting 300, please see page 98; or with the cores twisted into pairs and overall screens known as LiYCY-TP, part numbers starting 325; or twisted pairs without a screen LiYY-TP - part numbers starting 305.

For Low Smoke Halogen Free types, please see the LF-315 & LF 329 range, pages 104-105.

Construction

Fine copper wire strands to IEC 60228. PVC insulation colour or number coded. Cores twisted together with overall polyester tape and tinned copper wire braid. Grey PVC outer sheath.

Core Identification

0.14mm² - 0.34mm². Colour Coded to DIN 47100. Part numbers end F.

0.5mm² - 35mm². Black cores with white numbers + G/Y. Part numbers have no suffix.

0.5mm² - 35mm² BS 7671 HD 308 S2 code ends C.

Conductor Stranding: Flexible to IEC 60228 Class 5 on 0.5mm² and above.

32000325F

Technical Information

Voltage Rating:	0.14mm² - 0.34mm²:	Working 250V	Test 1000V
	0.5mm² - 1.5mm²:	Working 300V	Test 2000V
	2.5mm² - 6mm²:	Working 500V	Test 2000V
Temperature Rating:	Static -20°C to +80°C	Flexing -5°C to +70°C	
Minimum Bending Radius:	Fixed 6 x cable diameter	Flexing 15 x cable diameter	

DIN 47100 European Colour Codes

The DIN 47100 standard specifies the core colour for up to 44 cores. Above this it is usual practice to repeat the colours. The first colour is the colour of the base insulation and the second colour is that of either a longitudinal stripe or printed rings.

1	White	16	Yellow/Brown	31	Green/Blue
2	Brown	17	White/Grey	32	Yellow/Blue
3	Green	18	Grey/Brown	33	Green/Red
4	Yellow	19	White/Pink	34	Yellow/Red
5	Grey	20	Pink/Brown	35	Green/Black
6	Pink	21	White/Blue	36	Yellow/Black
7	Blue	22	Brown/Blue	37	Grey/Blue
8	Red	23	White/Red	38	Pink/Blue
9	Black	24	Brown/Red	39	Grey/Red
10	Violet	25	White/Black	40	Pink/Red
11	Grey/Pink	26	Brown/Black	41	Grey/Black
12	Red/Blue	27	Grey/Green	42	Pink/Black
13	White/Green	28	Yellow/Grey	43	Blue/Black
14	Brown/Green	29	Pink/Green	44	Red/Black
15	White/Yellow	30	Yellow/Pink		

LiYCY PVC Screened Multicore

Part No.	Core & mm²	Weight kg/km	O/D mm
32000101F	1 x 0.14	16	3.6
32000102F	2 x 0.14	20	3.8
32000103F	3 x 0.14	25	4.0
32000104F	4 x 0.14	30	4.3
32000105F	5 x 0.14	36	4.6
32000106F	6 x 0.14	40	5.0
32000107F	7 x 0.14	41	5.2
32000108F	8 x 0.14	44	5.6
32000110F	10 x 0.14	56	6.3
32000112F	12 x 0.14	60	6.4
32000114F	14 x 0.14	65	6.7
32000116F	16 x 0.14	81	7.2
32000118F	18 x 0.14	93	7.6
32000121F	21 x 0.14	103	8.3
32000124F	24 x 0.14	117	9.0
32000125F	25 x 0.14	120	9.0
32000127F	27 x 0.14	124	9.1
32000130F	30 x 0.14	136	9.4
32000136F	36 x 0.14	160	10.0
32000140F	40 x 0.14	170	10.3
32000144F	44 x 0.14	186	11.1
32000152F	52 x 0.14	200	11.5
32000161F	61 x 0.14	250	12.1
32000201F	1 x 0.25	17	3.7
32000202F	2 x 0.25	30	4.5
32000203F	3 x 0.25	37	5.1
32000204F	4 x 0.25	44	5.2
32000205F	5 x 0.25	51	5.7
32000206F	6 x 0.25	55	6.1
32000207F	7 x 0.25	60	6.4
32000208F	8 x 0.25	77	7.1
32000210F	10 x 0.25	93	8.1
32000212F	12 x 0.25	104	8.4
32000214F	14 x 0.25	115	8.7
32000216F	16 x 0.25	132	8.9
32000218F	18 x 0.25	137	9.4
32000221F	21 x 0.25	173	10.4
32000224F	24 x 0.25	184	11.4
32000225F	25 x 0.25	190	11.5
32000227F	27 x 0.25	198	11.6
32000230F	30 x 0.25	212	11.9
32000236F	36 x 0.25	238	12.7
32000240F	40 x 0.25	260	13.1
32000244F	44 x 0.25	290	14.3
32000252F	52 x 0.25	333	14.9
32000261F	61 x 0.25	382	15.8
32000302F	2 x 0.34	33	5.0
32000303F	3 x 0.34	42	5.4
32000304F	4 x 0.34	49	5.8
32000305F	5 x 0.34	59	6.1
32000306F	6 x 0.34	64	6.6
32000307F	7 x 0.34	69	6.7
32000308F	8 x 0.34	84	7.4
32000310F	10 x 0.34	106	8.5
32000312F	12 x 0.34	119	8.7
32000314F	14 x 0.34	132	9.1
32000316F	16 x 0.34	146	9.6
32000318F	18 x 0.34	188	10.1
32000321F	21 x 0.34	193	10.9
32000325F	25 x 0.34	213	12.0
32000327F	27 x 0.34	232	12.3
32000330F	30 x 0.34	253	12.7
32000336F	36 x 0.34	292	13.6
32000340F	40 x 0.34	318	14.0
32000352F	52 x 0.34	400	15.8
32000361F	61 x 0.34	454	16.6
32000502	2 x 0.5	42	5.4
32000503	3 x 0.5	51	5.8
32000504	4 x 0.5	61	6.5
32000507	7 x 0.5	98	7.8
32000512	12 x 0.5	156	10.1
32000518	18 x 0.5	215	11.8
32000525	25 x 0.5	314	14.4
32000702	2 x 0.75	56	6.7
32000703	3 x 0.75	70	7.1
32000704	4 x 0.75	95	7.6
32000705	5 x 0.75	130	8.2
32000707	7 x 0.75	168	8.9
32000712	12 x 0.75	232	12.0
32000718	18 x 0.75	315	13.9
32000725	25 x 0.75	418	16.5
32000730	30 x 0.75	500	18.0
32001002	2 x 1	84	7.7
32001003	3 x 1	110	8.5
32001004	4 x 1	130	9.2
32001005	5 x 1	156	9.9
32001007	7 x 1	192	10.7
32001012	12 x 1	265	13.7
32001018	18 x 1	380	15.9
32001025	25 x 1	475	17.5
32001034	34 x 1	629	21.5
32001502	2 x 1.5	97	8.1
32001503	3 x 1.5	125	8.9
32001504	4 x 1.5	165	9.7
32001505	5 x 1.5	193	10.5
32001507	7 x 1.5	245	11.3
32001512	12 x 1.5	365	14.5
32001518	18 x 1.5	553	16.9
32001525	25 x 1.5	720	20.1
32001530	30 x 1.5	776	20.7
32001542	42 x 1.5	1140	25.5
32002502	2 x 2.5	148	10.1
32002503	3 x 2.5	188	10.6
32002504	4 x 2.5	236	11.6
32002505	5 x 2.5	270	12.6
32002507	7 x 2.5	340	13.7
32002512	12 x 2.5	585	18.5
32002518	18 x 2.5	725	19.7
32004003	3 x 4	250	12.4
32004004	4 x 4	302	13.5
32004005	5 x 4	370	14.8
32004007	7 x 4	473	16.1
32006003	3 x 6	285	13.9
32006004	4 x 6	412	15.2
32006005	5 x 6	505	16.7
32010004	4 x 10	620	20.8
32010005	5 x 10	796	22.9
32016004	4 x 16	1090	23.2
32016005	5 x 16	2070	25.6
32025004	4 x 25	1787	28.2
32025005	5 x 25	2047	31.1
32035004	4 x 35	2142	31.5

32001503C

Niltox® LF-315 Screened LSHF Multicore

Developed for signal and control applications in sensitive areas, the Niltox LF-315 range offers excellent flame retardance while emitting no halogens or other corrosive gases when exposed to fire. These cables are colour coded to the DIN 47100 standard and offer excellent flexibility and durability.

Construction

Fine copper wire strands to IEC 60228. Low Smoke Halogen Free insulation, colour coded cores twisted together with overall PETP tape and tinned copper wire braid. Flame retardant halogen free light grey sheath.

Technical Information

Voltage Rating:	0.14mm²:	
	Working 300V	Test 800V
	0.25mm² to 1.5mm²:	
	Working 300/500V	Test 1200V
Temperature Rating:	Flexing -5°C to +70°C	Static -40°C to +80°C
Bending Radius:	Flexing 15 x cable dia	Static 7.5 x cable dia
Flame Retardant:	IEC 60332-1-2	
Smoke Emission:	IEC 61034-2	
Halogen Emission:	IEC 60754-1 & 2	
Colour Code:	DIN 47100 see page 196.	

31500712

Part No.	Cores x mm²	Weight kg/km	O/D mm
31500102	2 x 0.14	18	3.9
31500103	3 x 0.14	22	4.1
31500104	4 x 0.14	24	4.3
31500105	5 x 0.14	29	4.7
31500107	7 x 0.14	32	5.2
31500110	10 x 0.14	46	6.5
31500112	12 x 0.14	53	6.9
31500118	18 x 0.14	72	7.8
31500202	2 x 0.25	21	4.3
31500203	3 x 0.25	23	4.4
31500204	4 x 0.25	27	4.7
31500205	5 x 0.25	34	5.3
31500207	7 x 0.25	41	5.7
31500210	10 x 0.25	55	7.3
31500212	12 x 0.25	64	7.5
31500218	18 x 0.25	89	9.0
31500302	2 x 0.34	25	5.0
31500303	3 x 0.34	30	5.2
31500304	4 x 0.34	36	5.6
31500305	5 x 0.34	44	6.3
31500307	7 x 0.34	54	6.9
31500310	10 x 0.34	76	8.9
31500312	12 x 0.34	86	9.1

Part No.	Cores x mm²	Weight kg/km	O/D mm
31500502	2 x 0.5	42	5.3
31500503	3 x 0.5	49	5.6
31500504	4 x 0.5	64	6.2
31500505	5 x 0.5	79	6.9
31500507	7 x 0.5	99	7.4
31500512	12 x 0.5	142	9.8
31500702	2 x 0.75	49	5.9
31500703	3 x 0.75	64	6.4
31500704	4 x 0.75	81	7.1
31500705	5 x 0.75	106	7.7
31500707	7 x 0.75	122	8.7
31500712	12 x 0.75	187	11.0
31501002	2 x 1.0	61	6.1
31501003	3 x 1.0	82	6.8
31501004	4 x 1.0	102	7.2
31501005	5 x 1.0	119	8.4
31501007	7 x 1.0	149	9.1
31501502	2 x 1.5	76	7.1
31501503	3 x 1.5	104	7.9
31501504	4 x 1.5	117	8.4
31501505	5 x 1.5	149	9.3
31501507	7 x 1.5	188	10.4

Other sizes and numbers of cores are often available on short delivery times, please ask for details.
For a twisted pair version please see page 109.

Niltox® LF-329 Dual Screened LSHF Multicore

Niltox LF-329 is a Low Smoke Halogen Free alternative to the popular PVC LiYCY screened signal, control & power cable. Available from 0.75mm² to 16mm² these cables are LSHF throughout. Flexibility is excellent making installation easy. Core identification is straightforward with cores being clearly number coded and a green/yellow earth core included in cables with more than 2 cores. Applications include hospitals, airports, computer suites and control rooms, in fact anywhere where power or signals need to be protected from electromagnetic radiation or from corrupting other cables or equipment. The LSHF properties protect both people and equipment.

Construction

Fine copper wire strands to IEC 60228 class 5, Low Smoke Halogen Free insulation, cores twisted together, polyester tape, overall foil & tinned copper wire braid, grey Low Smoke Halogen Free sheath.

Cores are black with white numbers, a green/yellow earth core is included in cables with more than 2 cores.

Technical Information

Voltage Rating:	Working 300/500V	Test 2000V
Temperature Rating:	Flexing +5°C to +70°C	Static -20°C to +90°C
Bending Radius:	Flexing 10 x cable dia	Static 7.5 x cable dia
Flame Retardant:	IEC 60332-1-2, IEC 60332-3-24C, UL 1685	
Smoke Emission:	IEC 61034-2, UL 1685	
Halogen Emission:	IEC 60754-1 & 2	

Part No.	Cores x mm²	Weight kg/km	O/D mm
32900702	2 x 0.75	60	6.0
32900703	3 x 0.75	68	6.5
32900704	4 x 0.75	78	6.8
32900705	5 x 0.75	95	7.6
32900707	7 x 0.75	130	8.5
32900712	12 x 0.75	203	10.4
32900718	18 x 0.75	291	12.4
32900725	25 x 0.75	413	14.8
32901002	2 x 1.0	67	6.3
32901003	3 x 1.0	80	6.6
32901004	4 x 1.0	101	7.3
32901005	5 x 1.0	130	7.9
32901007	7 x 1.0	160	8.7
32901012	12 x 1.0	259	11.2
32901018	18 x 1.0	381	13.2
32901025	25 x 1.0	539	15.8
32901502	2 x 1.5	88	7.6
32901503	3 x 1.5	101	8.0
32901504	4 x 1.5	125	8.9
32901505	5 x 1.5	159	8.4
32901507	7 x 1.5	209	10.0
32901512	12 x 1.5	340	12.5
32901518	18 x 1.5	479	14.6
32901525	25 x 1.5	702	17.6

Part No.	Cores x mm²	Weight kg/km	O/D mm
32902502	2 x 2.5	132	8.3
32902503	3 x 2.5	168	9.2
32902504	4 x 2.5	195	10.9
32902505	5 x 2.5	256	10.9
32902507	7 x 2.5	395	12.0
32902512	12 x 2.5	571	15.9
32902518	18 x 2.5	725	19.7
32904002	2 x 4.0	221	9.9
32904003	3 x 4.0	251	11.5
32904004	4 x 4.0	305	12.7
32904005	5 x 4.0	388	14.0
32906002	2 x 6.0	270	11.5
32906003	3 x 6.0	351	12.4
32906004	4 x 6.0	464	13.9
32906005	5 x 6.0	546	16.0
32910002	2 x 10	460	14.6
32910003	3 x 10	572	16.3
32910004	4 x 10	784	17.8
32910005	5 x 10	914	20.0
32916002	2 x 16	670	17.2
32916003	3 x 16	910	19.5
32916004	4 x 16	1105	20.8
32916005	5 x 16	1299	22.9

32900707

Def-Standard PVC Multicore

Originally developed for military use, these cables are now widely used within industry. They offer compact sizing, high working voltage and a large range of sizes to suit most applications.

A robust and economical choice which can also be oversheathed or armoured for duct installation or direct burial. These cables should not be used as mains connection cables. Applications include data processing, information transfer, process control and security as well as many industrial applications.

Construction

Unscreened type 'A' has fine tinned copper wire strands, colour coded PVC insulation, cores twisted together, PVC outer sheath.
Screened type 'C' has an overall polyester tape with tinned copper wire braid screen.
Screened type 'S' has an overall aluminium/polyester foil screen and tinned copper drain wire.
Individually Screened type 'D' has a tinned copper wire braid screen around each core.
Duct grade versions have a heavy duty black LDPE sheath over the standard PVC sheath.
Type 'R' uses 37 x 0.315mm stranding (2.9mm²) and has a overall tinned copper wire braid like type C.
Normally packed on 100m, 500m or 1000m spools, cables can also be cut to length when required.

For colour codes up to 36 cores see page 197.

39300212

Part No.	Size	No. of Cores	Weight kg/km	O/D mm
Unscreened 7/0.1mm - 0.055mm²				
39200102	7-1-2A	2	7	2.5
39200103	7-1-3A	3	8	2.6
39200104	7-1-4A	4	10	2.8
39200106	7-1-6A	6	14	3.3
39200109	7-1-9A	9	18	3.9
39200112	7-1-12A	12	24	4.3
39200115	7-1-15A	15	27	4.5
39200118	7-1-18A	18	32	5.4
39200125	7-1-25A	25	42	5.8
39200136	7-1-36A	36	63	6.4
39200150	7-1-50A	50	76	7.3
Braid Screen 7/0.1mm - 0.055mm²				
39300102	7-1-2C	2	9	3.0
39300103	7-1-3C	3	11	3.2
39300104	7-1-4C	4	17	3.4
39300106	7-1-6C	6	22	3.8
39300108	7-1-8C	8	25	4.2
39300109	7-1-9C	9	27	4.4
39300112	7-1-12C	12	44	4.6
39300115	7-1-15C	15	46	5.4
39300118	7-1-18C	18	54	5.8
39300125	7-1-25C	25	64	6.6
39300136	7-1-36C	36	83	7.2
39300150	7-1-50C	50	114	8.3
Unscreened 7/0.2mm - 0.22mm²				
39200202	7-2-2A	2	14	3.4
39200203	7-2-3A	3	17	3.5
39200204	7-2-4A	4	22	3.8
39200206	7-2-6A	6	32	4.8
39200208	7-2-8A	8	47	5.6
39200212	7-2-12A	12	56	6.4
39200218	7-2-18A	18	82	7.4
39200220	7-2-20A	20	90	7.8
39200225	7-2-25A	25	100	8.7
39200236	7-2-36A	36	146	9.8

Technical Information

Voltage Rating:	0.055mm²	250V Rms up to 1600Hz	
	0.22mm² & 0.5mm²	440V Rms up to 1600Hz	
Temperature Rating:	0°C to +70°C		
Bend Radius:	7.5 x Cable OD static		
Current Rating:	0.055mm² 0.25 amps	0.22mm² 1 amp	0.5mm² 2.5 amps
Nominal Conductor Max. Resistance @ 20°C:	0.055mm² 348 ohm/km	0.22mm² 92 ohm/km	0.5mm² 40.1ohm/km

39400508

Part No.	Size	No. of Cores	Weight kg/km	O/D mm
Unscreened Duct 7/0.2mm - 0.22mm²				
39200206D	7-2-6A	6	52	6.8
39200208D	7-2-8A	8	56	7.1
39200212D	7-2-12A	12	68	8.4
Foil Screened Duct 7/0.2mm - 0.22mm²				
39400206D	7-2-6S	6	53	7.1
39400208D	7-2-8S	8	58	7.6
39400212D	7-2-12S	12	72	9.0
Braid Screen 7/0.2mm - 0.22mm²				
39300202	7-2-2C	2	25	3.8
39300203	7-2-3C	3	29	4.0
39300204	7-2-4C	4	33	4.3
39300206	7-2-6C	6	57	5.6
39300208	7-2-8C	8	66	6.2
39300212	7-2-12C	12	87	6.9
39300215	7-2-15C	15	105	7.6
39300218	7-2-18C	18	115	8.4
39300220	7-2-20C	20	124	8.6
39300225	7-2-25C	25	153	9.5
39300236	7-2-36C	36	207	10.7
Foil Screened 7/0.2mm - 0.22mm²				
39400202	7-2-2S	2	23	3.7
39400203	7-2-3S	3	28	4.0
39400204	7-2-4S	4	31	4.1
39400206	7-2-6S	6	52	4.8
39400208	7-2-8S	8	60	5.7
39400212	7-2-12S	12	79	6.2
39400218	7-2-18S	18	103	7.9
39400225	7-2-25S	25	141	8.8
Ind. Braid Screen Cores 7/0.2mm - 0.22mm²				
39600202	7-2-2D	2	21	4.3
39600203	7-2-3D	3	28	4.6
39600204	7-2-4D	4	38	5.1
39600206	7-2-6D	6	56	6.0
39600212	7-2-12D	12	112	8.2
39600218	7-2-18D	18	151	9.5

Part No.	Size	No. of Cores	Weight kg/km	O/D mm
Unscreened 16/0.2mm - 0.5mm²				
39200502	16-2-2A	2	35	5.5
39200503	16-2-3A	3	42	5.8
39200504	16-2-4A	4	54	6.3
39200506	16-2-6A	6	76	7.3
39200508	16-2-8A	8	88	8.6
39200512	16-2-12A	12	120	9.5
39200518	16-2-18A	18	180	11.0
Braid Screen 16/0.2mm - 0.5mm²				
39300502	16-2-2C	2	71	6.5
39300503	16-2-3C	3	82	6.8
39300504	16-2-4C	4	97	7.3
39300506	16-2-6C	6	130	8.3
39300508	16-2-8C	8	152	8.8
39300512	16-2-12C	12	202	10.5
39300518	16-2-18C	18	270	12.0
39300525	16-2-25C	25	350	14.1
39300536	16-2-36C	36	475	16.1
Ind. Braid Screen Cores 16/0.2mm - 0.5mm²				
39600504	16-2-4D	4	93	7.5
39600506	16-2-6D	6	121	8.8
39600507	16-2-7D	7	134	8.9
39600512	16-2-12D	12	188	11.1
Foil Screen Cored or Paired 16/0.2mm - 0.5mm²				
39400501P	16-2-1PS	1 Pair	38	5.2
39400502P	16-2-2PS	2 Pair	79	7.9
39400502	16-2-2S	2	47	5.0
39400503	16-2-3S	3	56	6.0
39400504	16-2-4S	4	61	6.8
39400506	16-2-6S	6	75	7.6
39400508	16-2-8S	8	89	8.2
39400512	16-2-12S	12	132	9.7
39400518	16-2-18S	18	198	12.6
Braid Screen 37/0.315mm - 2.9mm²				
39302902	37-3-2R	2	150	6.8
39302903	37-3-3R	3	200	10.5
39302904	37-3-4R	4	250	11.0

Def-Standard LSHF Multicore

For installations that call for Low Smoke Halogen Free signal cables the Niltox range of LSHF miniature multicores are the ideal solution. Manufactured in the style of the Def Style PVC multicores on pages 106-107, these cables are suitable for use in public buildings & sensitive areas as they contain no Halogen emitting compounds. Screened and unscreened options are held in stock. This cable is not suitable for direct connection to the mains.

Construction

Fine tinned copper wire strands, colour coded Low Smoke Halogen Free insulation, cores laid-up with a Low Smoke Halogen Free outer sheath. Screened type 'C' has a polyester tape with a tinned copper braid screen. Screened type 'S' has an aluminium foil screen and tinned copper drain wire.

Technical Information

Voltage Rating:	Working 440V RMS up to 1600Hz
Temperature Rating:	0ºC to +70ºC
Current Rating:	0.22mm² 1amp 0.5mm² 2.5amps
Nominal Conductor	
Max. Resistance @ 20ºC:	0.22mm² - 92 ohms per km
	0.5mm² - 40.1 ohms per km
Bending Radius:	Static 7.5 x cable diameter.
Flame Retardant:	IEC 60332-1-2
Smoke Emission:	IEC 61034-2
Halogen Emission:	IEC 60754-1 & 2

39200206H

Part No.	Size	No. of Cores	Weight kg/km	O/D mm
LSHF Unscreened 7/0.2mm - 0.22mm²				
39200202H	7-2-2A	2	14	3.4
39200203H	7-2-3A	3	17	3.5
39200204H	7-2-4A	4	22	3.8
39200206H	7-2-6A	6	32	4.8
39200208H	7-2-8A	8	47	5.6
39200212H	7-2-12A	12	56	6.4
39200218H	7-2-18A	18	82	7.4
39200225H	7-2-25A	25	100	8.7
39200236H	7-2-36A	36	146	9.8
LSHF Screened 7/0.2mm - 0.22mm²				
39300202H	7-2-2C	2	25	3.8
39300203H	7-2-3C	3	29	4.0
39300204H	7-2-4C	4	33	4.3
39300206H	7-2-6C	6	57	5.6
39300208H	7-2-8C	8	66	6.2
39300212H	7-2-12C	12	87	6.9
39300218H	7-2-18C	18	115	8.4
39300225H	7-2-25C	25	153	9.5
39300236H	7-2-36C	36	207	10.7
LSHF Foil Screened 7/0.2mm - 0.22mm²				
39400202H	7-2-2S	2	23	3.7
39400203H	7-2-3S	3	28	4.0
39400204H	7-2-4S	4	31	4.1
39400206H	7-2-6S	6	52	4.8
39400208H	7-2-8S	8	60	5.7
39400212H	7-2-12S	12	79	6.2
39400218H	7-2-18S	18	103	7.9
39400225H	7-2-25S	25	141	8.8

Part No.	Size	No. of Cores	Weight kg/km	O/D mm
LSHF Unscreened 16/0.2mm - 0.5mm²				
39200502H	16-2-2A	2	35	5.5
39200503H	16-2-3A	3	42	5.8
39200504H	16-2-4A	4	54	6.3
39200506H	16-2-6A	6	76	7.3
39200508H	16-2-8A	8	96	8.6
39200512H	16-2-12A	12	120	9.5
39200518H	16-2-18A	18	180	11.0
39200525H	16-2-25A	25	274	14.1
LSHF Screened 16/0.2mm - 0.5mm²				
39300502H	16-2-2C	2	71	6.5
39300503H	16-2-3C	3	82	6.8
39300504H	16-2-4C	4	97	7.3
39300506H	16-2-6C	6	130	8.3
39300508H	16-2-8C	8	152	8.8
39300512H	16-2-12C	12	202	10.5
39300518H	16-2-18C	18	270	12.0
39300525H	16-2-25C	25	350	14.1
39300536H	16-2-36C	36	475	16.1
LSHF Foil Screened 16/0.2mm - 0.5mm²				
39400501PH	16-2-1PS	1 Pair	47	5.2
39400502PH	16-2-2PS	2 Pair	68	7.6
39400502H	16-2-2S	2	47	5.0
39400503H	16-2-3S	3	56	6.0
39400504H	16-2-4S	4	61	6.8
39400506H	16-2-6S	6	75	7.6
39400508H	16-2-8S	8	89	8.2
39400512H	16-2-12S	12	132	9.7
39400518H	16-2-18S	18	198	12.6

Niltox® LF-316 LSHF Multipair

The Niltox LF-316 paired and screened range of Low Smoke Halogen Free data cables offer excellent flexibility and durability. Identification of the cores is made easy due to the DIN 47100 colour code. The cable is screened with an overall tinned copper wire braid offering excellent protection from electromagnetic interference.

Construction

Fine copper wire strands to IEC 60228. Low Smoke Halogen Free insulation, colour coded, two cores twisted together to form a pair, pairs then twisted together to form multipair cables, overall PETP tape and overall tinned copper wire braid. Flame retardant halogen free grey sheath.

Technical Information

Voltage Rating: 0.14mm²
Working 350V Test 800V
0.25mm² to 0.75mm²
Working 500V Test 1200V

Temperature Rating: Flexing +5°C to +70°C
Static -40°C to +70°C

Bending Radius: 7.5 x cable diameter
Flame Retardant: IEC 60332-1-2
Smoke Emission: IEC 61034-2
Halogen Emission: IEC 60754-1 & 2

Colour Code to DIN 47100 see page 196.

Part No.	Cores mm²	Weight kg/km	O/D mm
31600102	2 x 2 x 0.14	36	5.3
31600103	3 x 2 x 0.14	47	6.2
31600104	4 x 2 x 0.14	65	7.4
31600106	6 x 2 x 0.14	86	8.1
31600107	7 x 2 x 0.14	94	8.7
31600112	12 x 2 x 0.14	134	10.7
31600201	1 x 2 x 0.25	21	4.5
31600202	2 x 2 x 0.25	44	5.9
31600203	3 x 2 x 0.25	65	7.1
31600204	4 x 2 x 0.25	80	8.0
31600206	6 x 2 x 0.25	114	9.0
31600207	7 x 2 x 0.25	121	9.4
31600212	12 x 2 x 0.25	173	11.0
31600302	2 x 2 x 0.34	67	7.3
31600303	3 x 2 x 0.34	91	8.5
31600304	4 x 2 x 0.34	109	9.5
31600306	6 x 2 x 0.34	140	10.0

Part No.	Cores mm²	Weight kg/km	O/D mm
31600307	7 x 2 x 0.34	155	11.0
31600312	12 x 2 x 0.34	246	14.5
31600501	1 x 2 x 0.5	42	5.5
31600502	2 x 2 x 0.5	76	7.6
31600503	3 x 2 x 0.5	108	8.9
31600504	4 x 2 x 0.5	135	10.3
31600505	5 x 2 x 0.5	152	11.5
31600506	6 x 2 x 0.5	168	11.7
31600507	7 x 2 x 0.5	186	11.9
31600512	12 x 2 x 0.5	331	16.0
31600702	2 x 2 x 0.75	106	9.1
31600703	3 x 2 x 0.75	138	10.0
31600704	4 x 2 x 0.75	165	11.6
31600705	5 x 2 x 0.75	234	13.5
31600707	7 x 2 x 0.75	259	13.8
31600712	12 x 2 x 0.75	439	18.4

Other sizes and pair counts are often available on short delivery times, please ask for details.

31600506

SY PVC Steel Braided Multicore

Where mechanical protection is called for on a flexible cable, SY is a popular choice. The tough, flexible, clear outer sheath provides excellent abrasion and oil resistance. Suitable as a supply or control cable for motors, plant, machinery and many other applications.

Construction

Fine copper wire strands to IEC 60228 Class 5. Black PVC insulation with white numbers or colour coded. Cables with more than 2 cores include a green/yellow earth, cores twisted together. Grey PVC inner sheath, steel wire braid, clear PVC outer sheath.

Technical Information

Voltage Rating: Working 300/500V Test 3000V
Temperature Rating: Static -20°C to +80°C
Flexing -5°C to +70°C
Bending Radius: Fixed 10 x cable diameter
Flexing 20 x cable diameter
Current Rating: Refer to IEE Regs Table 4F3A&B

11001504

Part No.	Cores & mm²	Weight kg/km	O/D mm
11000502	2 x 0.5	73	7.1
11000503	3 x 0.5	86	7.6
11000504	4 x 0.5	96	8.0
11000505	5 x 0.5	107	8.5
11000507	7 x 0.5	132	9.3
11000512	12 x 0.5	211	11.5
11000518	18 x 0.5	261	13.4
11000525	25 x 0.5	374	15.8
11000534	34 x 0.5	498	17.4
11000550	50 x 0.5	665	20.9
11000702	2 x 0.75	91	7.6
11000703	3 x 0.75	93	7.8
11000704	4 x 0.75	106	8.3
11000705	5 x 0.75	119	8.9
11000707	7 x 0.75	158	9.7
11000712	12 x 0.75	221	12.2
11000718	18 x 0.75	279	13.6
11000725	25 x 0.75	397	16.7
11000734	34 x 0.75	510	18.9
11000750	50 x 0.75	755	23.1
11001002	2 x 1.0	96	8.2
11001003	3 x 1.0	104	8.4
11001004	4 x 1.0	109	8.8
11001005	5 x 1.0	127	9.3
11001007	7 x 1.0	152	9.9
11001012	12 x 1.0	238	12.5
11001018	18 x 1.0	326	14.5
11001025	25 x 1.0	479	17.9
11001034	34 x 1.0	579	19.3
11001050	50 x 1.0	848	22.1
11001503	3 x 1.5	122	8.7

Part No.	Cores & mm²	Weight kg/km	O/D mm
11001504	4 x 1.5	146	9.3
11001505	5 x 1.5	158	9.9
11001507	7 x 1.5	214	12.4
11001512	12 x 1.5	321	13.7
11001518	18 x 1.5	464	16.8
11001525	25 x 1.5	625	19.8
11001542	42 x 1.5	959	23.4
11002503	3 x 2.5	169	10.1
11002504	4 x 2.5	212	10.9
11002505	5 x 2.5	223	11.8
11002507	7 x 2.5	295	13.0
11002512	12 x 2.5	499	17.3
11002518	18 x 2.5	685	19.8
11004003	3 x 4.0	241	11.7
11004004	4 x 4.0	286	12.6
11004005	5 x 4.0	342	13.9
11004007	7 x 4.0	460	15.7
11006004	4 x 6.0	397	14.8
11006005	5 x 6.0	496	16.9
11006007	7 x 6.0	613	18.4
11010004	4 x 10	638	18.2
11010005	5 x 10	766	19.8
11010007	7 x 10	979	22.2
11016004	4 x 16	996	21.8
11016005	5 x 16	1159	23.5
11025004	4 x 25	1383	25.3
11025005	5 x 25	1758	28.9
11035004	4 x 35	1938	29.7
11050004	4 x 50	2689	34.9
11070004	4 x 70	3583	44.8
11095004	4 x 95	4935	47.8

CY PVC Bedded Screened Multicore

Protecting signals from electromagnetic interference (EMI) or reducing electromagnetic radiation (EMR) from supply cables has substantially increased the need for screened multicore cables. Fine copper wire strands insulated with PVC and combined with pliable oil resistant PVC inner and outer sheaths ensure excellent flexibility, while the tinned copper wire braid forms an effective screen.

Clear white numbering on black cores enable fast 'right first time' termination, vital when working with large numbers of cores or under artificial lighting which may distort core colours. CY has many uses including general wiring in machine tool applications especially in conjunction with PLC or microprocessor controlled manufacturing operations where signal interference could cause major problems.

Also used as a supply cable where circumstances result in power and data cables being run in close proximity to each other. In these cases EMR can be significantly reduced.

Construction

Fine copper wire strands to IEC 60228 Class 5. Black PVC insulation with white numbers, a green/yellow earth conductor in cables with more than 2 cores. (Colour coded versions also available). Cores twisted together. Grey PVC inner sheath, tinned copper wire braid, clear PVC outer sheath.

Technical Information

Voltage Rating:	Working 300/500V Test 3000V
Temperature Rating:	Static -20°C to +80°C
	Flexing -5°C to +70°C
Bending Radius:	Fixed 10 x cable diameter
	Flexing 20 x cable diameter
Current Rating:	Refer to IEE Regs Table 4F3A&B

Part No.	Cores & mm²	Weight kg/km	O/D mm
12000502	2 x 0.5	91	6.8
12000503	3 x 0.5	102	7.4
12000504	4 x 0.5	114	7.9
12000505	5 x 0.5	126	8.6
12000507	7 x 0.5	155	9.2
12000512	12 x 0.5	213	11.6
12000518	18 x 0.5	338	13.4
12000525	25 x 0.5	406	15.5
12000702	2 x 0.75	102	7.2
12000703	3 x 0.75	118	7.7
12000704	4 x 0.75	134	8.3
12000705	5 x 0.75	158	8.9
12000707	7 x 0.75	183	9.7
12000712	12 x 0.75	263	12.1
12000718	18 x 0.75	393	15.3
12000725	25 x 0.75	544	16.8
12001002	2 x 1.0	117	7.6
12001003	3 x 1.0	134	8.1
12001004	4 x 1.0	154	8.6
12001005	5 x 1.0	182	9.7
12001007	7 x 1.0	202	10.5
12001012	12 x 1.0	346	13.4
12001018	18 x 1.0	476	15.6
12001025	25 x 1.0	644	18.1
12001041	41 x 1.0	1008	22.1

Part No.	Cores & mm²	Weight kg/km	O/D mm
12001502	2 x 1.5	142	8.6
12001503	3 x 1.5	165	9.1
12001504	4 x 1.5	189	10.1
12001505	5 x 1.5	223	10.6
12001507	7 x 1.5	268	11.5
12001512	12 x 1.5	441	15.1
12001518	18 x 1.5	626	17.4
12002503	3 x 2.5	214	10.4
12002504	4 x 2.5	258	11.3
12002505	5 x 2.5	306	12.9
12002507	7 x 2.5	422	13.9
12004004	4 x 4.0	411	13.5
12004005	5 x 4.0	482	14.8
12006004	4 x 6.0	533	15.9
12006005	5 x 6.0	657	17.4
12010004	4 x 10	932	19.1
12010005	5 x 10	1085	22.6
12016004E	4 x 16	1195	22.3
12025004E	4 x 25	1918	32.5
12035004E	4 x 35	2516	35.6
12050004E	4 x 50	3374	38.7
12070004E	4 x 70	3819	43.8
12095004E	4 x 95	5859	47.9
12120004E	4 x 120	7351	58.2

12001007

Equipment Wire LSHF

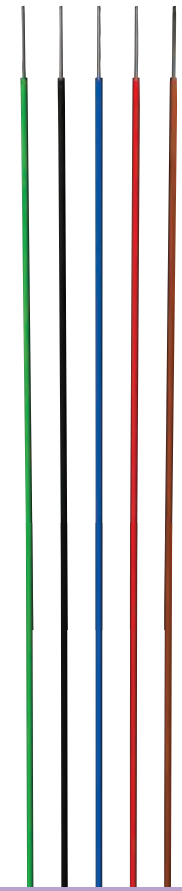
The LSHF equipment wire is intended for use with electronic equipment within public buildings, control panels, higher temperature applications, military and commercial data processing, in fact anywhere where the safety of people and property is essential.

Construction

Fine tinned copper wire strands, high performance LSHF insulation.

Technical Information

Voltage Rating: Working 600V AC Test 3000V AC
Temperature Rating: Static -40°C to + 120°C
Minimum Bending Radius: 6 x Overall Diameter



Part No.	AWG	Stranding & mm	CSA mm²	Weight Kg/Km	O/D mm	DC Resistance @ 20°C (Ohms/km)
249E3007xx	30	7/0.10	0.057	0.9	0.70	355
249E2807xx	28	7/0.13	0.089	1.2	0.78	225
249E2619xx	26	19/0.10	0.155	1.9	0.88	135
249E2419xx	24	19/0.13	0.241	2.7	1.00	85.9
249E2219xx	22	19/0.16	0.382	4.0	1.16	53.1
249E2216xx	-	16/0.20	0.50	5.2	1.28	40.1
249E2019xx	20	19/0.20	0.597	6.2	1.36	32.4
249E2024xx	-	24/0.20	0.75	7.5	1.45	26.7
249E1819xx	18	19/0.25	0.963	9.5	1.60	20.4
249E1832xx	-	32/0.20	1.00	9.5	1.60	20.0
249E1619xx	16	19/0.29	1.229	12.0	1.36	15.7
249E1630xx	-	30/0.25	1.50	14.8	2.00	13.7
249E1419xx	14	19/0.36	1.870	18.5	2.21	10.0
249E1450xx	-	50/0.25	2.50	24.0	2.45	8.21
249E1237xx	12	37/0.32	2.976	29.0	2.74	6.62

Resistant to some oils, fuels and acids. Please check at time of order if critical.

We are also able to offer LSHF equipment wire to Def-Stan 61-12 Part 18/5.

Versions that have both high (+200ºC) and lower (-60ºC) temperature ratings are also available.

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

LF-249 H05Z-K & H07Z-K (2491B & 6701B)

2491B and 6701B are flexible single cores with class 5 stranding conforming to the harmonisation standard H05Z-K and H07Z-K for Low Smoke Halogen Free single core cable. Applications include panel and conduit wiring where its flexibility makes installation easier.

Public and government buildings are increasingly using LSHF cabling to reduce the risk of injury through smoke inhalation in the event of a fire. The cables also produce less corrosive gases when burnt, which is particularly important where sensitive electronic equipment is installed such as in computer rooms.

Construction

Plain fine copper wire strands to IEC 60228 class 5. Thermosetting insulation of Low Smoke Halogen Free compound to BS 7211.

Technical Information

Voltage up to 1.0mm²:	300/500V
Voltage 1.5mm² & above:	450/750V
Temperature Rating:	-15°C to +90°C
Current Rating:	4E1A & B
Conductor Stranding:	To IEC 60228 Class 5.
Manufactured to:	BS 7211: 1994
Flame Retardant to:	IEC 60332-1-2

24901501

24916099

BASEC approval available on many from stock. If required, please check at time of enquiry.

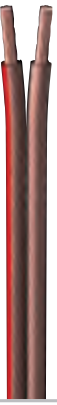
Part No.	mm²	No. of Strands/mm	Weight kg/km	O/D mm
249005xx	0.5	16/0.20	10	2.1
249007xx	0.75	24/0.20	13	2.4
249010xx	1.0	32/0.20	16	2.5
249015xx	1.5	30/0.25	21	2.9
249025xx	2.5	50/0.25	33	3.6
249040xx	4.0	56/0.30	49	4.2
249060xx	6.0	84/0.30	70	5.0
249100xx	10	80/0.40	125	6.4
249160xx	16	126/0.40	180	8.0
249250xx	25	196/0.40	275	9.5
249350xx	35	276/0.40	380	11.7
249500xx	50	400/0.40	560	12.4
249700xx	70	356/0.50	780	14.5
249950xx	95	485/0.50	1000	17.0
249120xx	120	614/0.50	1300	17.7
249150xx	150	765/0.50	1600	19.5
249185xx	185	944/0.50	2000	22.0
249240xx	240	1225/0.50	2600	25.3

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

Standard pack size for conductor sizes up to and including 16mm² is 100m, with some sizes/colours stocked on 500m reels. 25mm² and above is normally stocked on bulk reels and can be cut to the length you require. Not all colours are available in the larger sizes.

TS804002



TS802502H

TSS02504

TruSound Parallel Speaker Cables

Designed for installation in pubs, clubs, gyms and public buildings as well as high end domestic installations, these parallel cables provide easy termination due to the longitudinal core identification. The high number of strands and low resistance values enable the speaker to operate at optimum level. The question when specifying is to check the purity of the copper as it is this which gives the lowest resistance figure. In the case of the TruSound speaker cables the copper purity is 99.99999% so can be classed as OFC (Oxygen Free Copper).

Technical Information **Minimum Bend Radius:** 5 x cable thickness

Part No.	Size mm²	Stranding No. x mm	Weight Kg/Km	O/D mm	Cond. Resistance Ohms/Km	Cap. pF/m	Test Voltage	Colour
TruSound Parallel Speaker Cable								
TS800702	0.75	24 x 0.20	23	2.3 x 4.9	26.0	82	2kV	Clear
TS801502	1.5	189 x 0.10	42	2.8 x 5.8	13.3	67	2kV	Clear
TS802502	2.5	322 x 0.10	60	3.6 x 7.4	7.98	57	2kV	Clear
TS804002	4.0	511 x 0.10	105	4.5 x 9.7	4.95	54	2kV	Clear
TS806002	6.0	777 x 0.10	141	6.1 x 12.5	3.30	58	2kV	Clear
TS810002	10.0	1260 x 0.10	252	7.0 x 15.0	1.91	62	2kV	Clear

Part No.	Size mm²	Stranding No. x mm	Weight Kg/Km	O/D mm	Cond. Resistance Ohms/Km	Cap. pF/m	Test Voltage	Colour
TruSound LSHF Parallel Speaker Cable								
TS800702H	0.75	24 x 0.20	23	2.3 x 4.9	26.0	82	2kV	White
TS801502H	1.5	189 x 0.10	42	2.8 x 5.8	13.3	67	2kV	White
TS802502H	2.5	322 x 0.10	60	3.6 x 7.4	7.98	57	2kV	White

TruSound Multicore Speaker Cables

Designed for the professional, these multicore speaker cables are extremely flexible due to the high rate of twist and the insulation and jacket materials used. Ideal for winding on and off drums, they even remain flexible at low temperatures, making rigging easier.

Part No.	Cores x mm²	Stranding No. x mm	Weight Kg/Km	O/D mm	Cond. Resistance Ohms/Km	Test Voltage	Colour
TruSound Multicore Speaker Cable - Circular							
TSS01502	2 x 1.5	30 x 0.20	75	7.0	<14	2kV	Black
TSS01504	4 x 1.5	30 x 0.20	120	8.6	<14	2kV	Black
TSS02502	2 x 2.5	50 x 0.25	90	7.5	<8	2kV	Black
TSS02504	4 x 2.5	50 x 0.25	175	10.0	<8	2kV	Black
TSS02508	8 x 2.5	50 x 0.25	330	14.0	<8	2kV	Black
TSS04002	2 x 4.0	56 x 0.30	170	10.5	<5	2kV	Black
TSS04004	4 x 4.0	56 x 0.30	265	13.0	<5	2kV	Black
TSS04008	8 x 4.0	56 x 0.30	495	18.5	<5	2kV	Black

Colour Code - Multicore Circular Speaker Cable
1. Red 2. Blue 3. Black 4. White Cables with 7 cores and above are number coded.

This cable is Low Smoke Halogen Free throughout

TruSound Microphone Cables

Microphone cables come in many shapes and sizes. Super flexibility even at low temperatures is achieved through the use of a special insulation and highly flexible cotton fillers to maintain constant capacitance and avoid noise when the cable flexes. The spiral copper shield or braid offers excellent screening while remaining flexible and providing mechanical support.

Part No.	Cores x mm²	Stranding No. x mm	Weight Kg/Km	O/D mm	Colour
TruSound Microphone Cable					
TSM02020	2 x 0.22	28 x 0.10	45	5.9	Black
TSM02040	4 x 0.22†	28 x 0.10	55	6.5	Black
TSM03020	2 x 0.34	40 x 0.10	52	6.0	Black
TSM03040	4 x 0.34†	40 x 0.10	64	6.2	Black
TSM05020	2 x 0.50	28 x 0.15	65	6.7	Black
TSM05040	4 x 0.50†	28 x 0.15	75	7.2	Black

† These cables are in a star quad format.

TSM02020

TruSound Snake Cables

Snake cables are multicore audio cables usually linking a number of individual microphone cables or audio feeds back to the mixing desk. Ideal for either fixed installation in permanent venues or for temporary installations when the cables will be coiled up and stored after the show.

Part No.	Pairs x AWG	Stranding No. x mm	Weight Kg/Km	O/D mm	Colour
Snake Cable					
TSSN0204	4 x 2 x 24	7 x 0.20	96	8.9	Black
TSSN0208	8 x 2 x 24	7 x 0.20	183	12.1	Black
TSSN0212	12 x 2 x 24	7 x 0.20	243	14.3	Black
TSSN0216	16 x 2 x 24	7 x 0.20	319	16.6	Black
TSSN0108Q	8 x 4 x 28	7 x 0.127	255	15.1	Black

TSD02010

TruSound DMX Cables

Developed to ensure accurate transmission of digital AES/EBU audio signals and digital DMX control signals, these cables are used extensively in the entertainment industry. DMX is designed to work between 90ohm and 120ohm impedance. The level of shielding enables interference-free transmission even over long distances.

Technical Information

Conductor Resistance: <87.2 ohm/km
Capacitance: Core to core: 47 pF/m
Impedance: 110 ohm
Test Voltage: Core to core: 1200V Core to screen: 500 V
Working Temperature: -20°C to +70°C
Attenuation/100m: Frequency: 1MHz : 2.3dB 3MHz : 3.9dB 10MHz : 6.9dB

Part No.	No. of cores x mm²	Stranding No. x mm	Weight Kg/Km	O/D mm	Colour
DMX Cable					
TSD02010	1 x 2 x 0.22	7 x 0.20	50	6.0	Black
TSD02020	2 x 2 x 0.22	7 x 0.20	75	8.0	Black

Unscreened Paired Data Cable

General purpose unscreened single and multipair cables with a small outer diameter, frequently used in audio, bus, data, security and instrumentation applications.

These cables can also be supplied with PE sheaths for running in ducts or in SWA versions for direct burial.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

1601PUY

Construction - Single Pair

Tinned copper stranded conductor, PVC insulation on standard cable, twisted into a pair, grey PVC sheath.

Technical Information

Voltage Rating: 22AWG – 16AWG: 300V
14AWG: 600V

Part No.	Alt. to Belden	No. of Pairs	AWG	CSA mm²	Weight kg/km	O/D mm	Core Colours	Capacitance C/C pF/m
2201PUY	8442	1	22(7)	0.35	23	4.5	Black/Red	99
2201PUYH	LSHF	1	22(7)	0.35	23	4.5	Black/Red	99
2001PUY	8205	1	20(7)	0.56	26	5.0	Black/Red	81
2001PUYH	LSHF	1	20(7)	0.56	26	5.0	Black/Red	81
1801PUY	9740	1	18(16)	0.79	37	6.0	Black/Red	84
1801PUYH	LSHF	1	18(16)	0.79	37	6.0	Black/Red	84
1601PUY	8471	1	16(19)	1.23	56	7.0	Black/White	108
1601PUYH	LSHF	1	16(19)	1.23	56	7.0	Black/White	108
1401PUY	8473	1	14(42)	2.01	89	8.5	Black/White	108
1401PUYH	LSHF	1	14(42)	2.01	89	8.5	Black/White	108

2204CUYH

Construction - Two & Three Pair

Tinned copper stranded conductor, PVC insulation, cores twisted into pairs, pairs laid together, clear tape, PVC grey sheath.

Technical Information

Voltage Rating: 22AWG – 16AWG: 300V
14AWG: 600V

Part No.	Alt. to Belden	No. of Pairs	AWG	CSA mm²	Weight kg/km	O/D mm	Core Colours	Capacitance C/C pF/m
2202PUYH	9744 NH	2	22(7)	0.35	39	6.2	Chart 3	84
1802PUYH	9156 NH	2	18(16)	0.79	71	8.5	Chart 3	84
2003PUY	9750	3	20(7)	0.56	67	7.6	Chart 3	80
2003PUYH	LSHF	3	20(7)	0.56	67	7.6	Chart 3	80

Construction - Multicore

Tinned copper stranded conductor, PVC insulation, cores twisted into pairs, pairs laid together, clear tape, PVC grey sheath.

Technical Information

Voltage Rating: 300V

Part No.	Alt. to Belden	No. of Cores	AWG	CSA mm²	Weight kg/km	O/D mm	Core Colours	Capacitance C/C pF/m
2203CUY	9491	3	22(7)	0.35	32	4.9	Chart 2	85
2204CUYH	8444 NH	4	22(7)	0.35	34	5.1	Chart 2	111

This cable is Low Smoke Halogen Free throughout

Single Pair Screened Data Cable

General purpose foil screened single pair cables with a small outer diameter, frequently used in audio, data and instrumentation applications. Polyethylene insulation results in lower signal loss than standard PVC insulation.

These cables can also be supplied with PE sheaths for running in ducts or in SWA versions for direct burial.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - Screened Single Pair

Tinned copper conductor, polyethylene insulation, colours black & clear (black & white in LSHF versions), twisted pair, aluminium/polyester foil screen, tinned copper drain wire, PVC sheath. LDPE on Duct grade version.

Technical Information

Voltage Rating: 22AWG – 18AWG: 300V
16AWG – 14AWG: 600V

Temperature Rating: 22AWG – 18AWG: +60°C
16AWG – 14AWG: +80°C

UL Style: 2092

1601POFP

Part No.	Alt. to Belden	No. of Pairs	AWG	CSA mm²	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2201POFP	8761	1	22(7)	0.35	25	4.6	79	154
2201POFPH	LSHF	1	22(7)	0.35	25	4.6	79	154
2201POFPD	DUCT	1	22(7)	0.35	27	6.2	79	154
2001POFP	8762	1	20(7)	0.56	35	5.1	89	161
2001POFPH	LSHF	1	20(7)	0.56	35	5.1	89	161
2001POFPD	DUCT	1	20(7)	0.56	38	6.5	89	161
1801POFP	8760	1	18(16)	0.79	45	6.0	79	144
1801POFPH	LSHF	1	18(16)	0.79	45	6.0	79	144
1801POFPH06	VIOLET	1	18(16)	0.79	45	6.0	79	144
1801POFPD	DUCT	1	18(16)	0.79	48	7.6	79	144
1601POFP	8719	1	16(19)	1.34	84	7.9	75	144
1601POFPH	LSHF	1	16(19)	1.34	84	7.9	75	144
1401POFP	8720	1	14(19)	1.92	109	9.0	79	154
1401POFPH	LSHF	1	14(19)	1.92	109	9.0	79	154

1801POFPH

Construction - Miniature 22AWG

Tinned copper conductors, polypropylene insulation, colours black & red, twisted pair, aluminium / polyester foil screen tinned copper drain wire, grey PVC sheath.

Technical Information

Voltage Rating: 300V

Part No.	Alt. to Belden	No. of Pairs	AWG	CSA mm²	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2201POFR	8451	1	22(7)	0.35	20	3.4	111	220
2201POFRH	LSHF	1	22(7)	0.35	20	3.5	111	220

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Three Core Overall Screened Data Cable

For use as audio or instrumentation wiring.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

1803COFP

Construction - 22AWG, 20AWG & 18AWG

Tinned copper conductor, polyethylene insulation, colours black, red & clear, cores laid up, aluminium/polyester foil screen, tinned copper drain wire, PVC sheath.

Technical Information

Voltage Rating: 300V
Temperature Rating: +60°C
UL Style: 2093

Part No.	Alt. to Belden	No. of Cores	AWG	CSA mm²	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2203COFP	8771	3	22(7)	0.35	35	5.1	75	134
2203COFPH	LSHF	3	22(7)	0.35	35	5.1	75	134
2203COFPH06	VIOLET	3	22(7)	0.35	35	5.1	75	134
2003COFP	8772	3	20(7)	0.56	42	5.6	89	167
2003COFPH	LSHF	3	20(7)	0.56	42	5.6	89	167
1803COFP	8770	3	18(16)	0.79	56	6.3	79	157
1803COFPH	LSHF	3	18(16)	0.79	56	6.3	79	157

2203COFPH06

Construction - 16AWG

Tinned copper conductor, polyethylene insulation, colours black, red & clear, cores laid up, aluminium / polyester foil screen, tinned copper drain wire, PVC sheath.

Technical Information

Voltage Rating: 600V
Temperature Rating: +60°C
UL Style: 2107

Part No.	Alt. to Belden	No. of Cores	AWG	CSA mm²	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
1603COFP	8618	3	16(19)	1.34	96	8.3	85	151

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Overall Screened Multicored Data Cable RS232

Uses include RS232, instrumentation and sound applications where balanced lines are not required.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - 24AWG

Tinned copper conductor 24(7) AWG, 0.22mm², PVC insulation, colour chart 1, above 10 core chart 2, page 195. Cores laid up, overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), PVC sheath.

Technical Information - 24AWG & 18AWG

Voltage Rating: 300V
Temperature Rating: +80°C
Capacitance: Up to 8 core: Core to core 108pF/m, Core to screen 213pF/m
Above 8 core: Core to core 98pF/m, Core to screen 180pF/m
UL Style: 2464

Part No.	Alt. to Belden	No. of Cores	Weight kg/km	O/D mm
2403COFY	9533	3	26	4.2
2404COFY	9534	4	33	4.7
2404COFYH	LSHF	4	33	4.7
2405COFY	9535	5	35	4.8
2406COFY	9536	6	42	5.3
2406COFYH	LSHF	6	42	5.3
2407COFY	9537	7	45	5.3
2408COFY	9538	8	49	5.7
2408COFYH	LSHF	8	49	5.7
2409COFY	9539	9	60	6.2
2410COFY	9540	10	61	6.2
2410COFYH	LSHF	10	61	6.2
2415COFY	9541	15	83	7.3
2415COFYH	LSHF	15	83	7.3
2420COFY	9542	20	104	8.0
2425COFY	9543	25	139	8.6
2430COFY	9544	30	152	9.7
2440COFY	9545	40	195	10.9
2450COFY	9546	50	238	12.5

2415COFY

1804COFY

Construction - 18AWG

Tinned copper conductor 18(19) AWG, 0.96mm², PVC insulation, colour chart 1, page 195. Cores laid up, overall aluminium/polyester foil screen, tinned copper drain wire (20AWG), PVC sheath.

Part No.	Alt. to Belden	No. of Cores	Weight kg/km	O/D mm
1804COFY	9418	4	78	6.2
1804COFYH	LSHF	4	78	6.2

A full range of 22AWG cored cables is available from stock with LSHF and duct grade versions available to order.

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Overall Screened Multipair Data Cable RS232

Widely used for computers, point of sale, control systems and RS232 applications. This is a general purpose overall screened twisted paired cable.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - 24AWG

Tinned copper conductor 24(7) AWG, 0.22mm², PVC insulation, colour chart 3, page 195. Twisted into pairs, overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), PVC sheath.

Technical Information - 24AWG & 22AWG

Voltage Rating: 300V
Temperature Rating: +80°C
Capacitance: 24AWG: Core to core 98pF/m, Core to screen 164pF/m
22AWG: Core to core 114pF/m approx, Core to screen 206pF/m approx
UL Style: 2464

2403POFYD

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm
2401POFY	9501	1	21	3.9
2401POFYH	LSHF	1	21	3.9
2401POFYD	DUCT	1	44	6.2
2402POFY	9502	2	32	5.6
2402POFYH	LSHF	2	32	5.6
2403POFY	9503	3	49	5.9
2403POFYH	LSHF	3	49	5.9
2403POFYD	DUCT	3	66	8.1
2404POFY	9504	4	54	6.7
2404POFYH	LSHF	4	54	6.7
2404POFYD	DUCT	4	72	8.9
2405POFY	9505	5	66	7.4
2405POFYH	LSHF	5	66	7.4
2406POFY	9506	6	72	7.4
2406POFYH	LSHF	6	72	7.4

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm
2406POFYD	DUCT	6	93	9.6
2407POFY	9507	7	80	7.5
2407POFYH	LSHF	7	80	7.5
2408POFY	9508	8	97	8.2
2408POFYH	LSHF	8	97	8.2
2409POFY	9509	9	104	8.5
2410POFY	9510	10	119	9.3
2410POFYH	LSHF	10	119	9.3
2415POFY	9515	15	160	10.5
2415POFYH	LSHF	15	160	10.5
2419POFY	9519	19	192	11.4
2419POFYH	LSHF	19	192	11.4
2425POFY	9525	25	243	12.8
2425POFYH	LSHF	25	243	12.8
2450POFY	9550	50	460	18.0

2206POFY

Construction - 22AWG

Tinned copper conductor 0.34mm², PVC insulation, colour chart 3, page 195. Twisted into pairs, overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), PVC sheath.

Part No.	AWG	No. of Pairs	Weight kg/km	O/D mm
2202POFY	22	2	38	5.8
2203POFY	22	3	50	6.1
2204POFY	22	4	71	6.7
2205POFY	22	5	81	7.4
2206POFY	22	6	88	7.9
2209POFY	22	9	123	9.1
2211POFY	22	11	160	9.9
2215POFY	22	15	190	10.9
2219POFY	22	19	234	12.8

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Individually Screened Two Pair Data Cable 22AWG

Used extensively in the security industry for CCTV applications including telemetry. Also suitable for computer and instrumentation applications where it is important to provide a high level of screening from external sources, together with low levels of cross talk between pairs.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - Individually Screened

Tinned copper conductor 22(7) AWG 0.35mm², polypropylene insulation, red/black & green/white conductors, twisted into pairs, each pair aluminium / polyester foil screened, common tinned copper drain wire (24AWG), PVC sheath. The duct grade version has a black polyethylene sheath, while the armoured version is protected by heavy galvanised steel wires and an external grade sheath.

Technical Information

Temperature Rating: +60°C
Nominal impedance: 45 ohms

Part No.	Alt. to Belden	No. of Pairs	AWG	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2202PIFR	8723	2	22(7)	32	4.2	115	203
2202PIFRW	WHITE	2	22(7)	32	4.2	115	203
2202PIFRL	LSF	2	22(7)	32	4.2	115	203
2202PIFRH	LSHF	2	22(7)	32	4.2	115	203
2202PIFRH06	VIOLET	2	22(7)	32	4.2	115	203
2202PIFRD	DUCT	2	22(7)	50	6.2	115	203
2202PIFRA	SWA	2	22(7)	210	9.8	115	203

2202PIFR

Construction - Individually and Overall Screened

Tinned copper conductor 22(7) AWG 0.35mm², polypropylene insulation, twisted into pairs, colour code red/black & green/white, each pair individually screened with aluminium / polyester foil and 24AWG tinned copper drain wire, overall aluminium / polyester foil and 24AWG tinned copper drain wire, PVC sheath.

Technical Information

Temperature Rating: +60°C
Nominal impedance: 45 ohms

Part No.	Alt. to Belden	No. of Pairs	AWG	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2202PTFR	8728	2	22(7)	42	5.2	115	203
2202PTFRH	LSHF	2	22(7)	42	5.2	115	203

2202PIFRA

This cable is Low Smoke Halogen Free throughout

Individually Screened Multpair Data Cable 22AWG Low Capacitance

These cables are used extensively within security, computer and instrumentation applications. Many sizes are also used within the audio field as snake cables where the individually screening of pairs reduces cross talk. The 3 pair version is particularly popular with the security industry for CCTV and access control.

2203PIFRD

2206PIFR

Construction - 22AWG

Tinned copper conductor 22(7) AWG, 0.35mm². polypropylene insulated, colour chart 3, page 195. Twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (24AWG), PVC sheath.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+80°C
Nominal Impedance:	50 ohms
UL Style:	2919

Part No.	Alt. to Belden	No. of Pairs	AWG	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2203PIFR	8777	3	22(7)	70	7.0	98	180
2203PIFRH	LSHF	3	22(7)	70	7.0	98	180
2203PIFRA	SWA	3	22(7)	330	11.1	98	180
2203PIFRD	DUCT	3	22(7)	96	8.6	98	180
2206PIFR	8778	6	22(7)	123	9.2	98	180
2206PIFRH	LSHF	6	22(7)	123	9.2	98	180
2209PIFR	8774	9	22(7)	177	10.6	98	180
2209PIFRH	LSHF	9	22(7)	177	10.6	98	180
2211PIFR	8775	11	22(7)	201	11.8	98	180
2212PIFR	9768	12	22(7)	226	12.1	98	180
2212PIFRH	LSHF	12	22(7)	226	12.1	98	180
2215PIFR	8776	15	22(7)	290	13.9	98	180
2217PIFR	9769	17	22(7)	331	14.7	98	180
2219PIFR	8769	19	22(7)	348	15.3	98	180
2227PIFR	8773	27	22(7)	502	18.0	98	180
2237PIFR	9767	37	22(7)	739	20.3	98	180

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Individually Screened Multipair Data Cable 20AWG & 18AWG

Widely used in monitoring, computer, instrumentation and audio applications where the individually screened pairs reduce cross talk. Reduced losses are achieved through the use of 20AWG or 18AWG conductors making this cable ideal for long runs.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - 20AWG

2 Pair - Tinned copper conductor 20(7)AWG, 0.56mm², PVC insulated, twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (22AWG). Grey PVC sheath.

Multipair - Tinned copper conductor 20(7)AWG, 0.56mm², polypropylene insulated. Twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (22AWG), PVC sheath.

Technical Information

Temperature Rating: +60°C
Nominal impedance: 45 ohms*

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance in pF/m C/C	Capacitance in pF/m C/S	Colour Code
2002PIFY	9402	2	76	7.6	180	312	Blk/Red/Grn/Wht
2002PIFYH	LSHF	2	76	7.6	180	312	Blk/Red/Grn/Wht
2003PIFP	9873	3	104	8.4	98	180	Chart 3
2003PIFPH	LSHF	3	104	8.4	98	180	Chart 3
2006PIFP	9874	6	182	10.9	98	180	Chart 3
2009PIFP	9875	9	270	13.6	98	180	Chart 3
2011PIFP	9876	11	302	15.2	98	180	Chart 3
2012PIFP	9877	12	322	15.2	98	180	Chart 3
2015PIFP	9879	15	384	17.0	98	180	Chart 3

2009PIFP

Construction - 18AWG

2 Pair - Tinned copper conductor 18(19)AWG, 0.96mm², PVC insulated, twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (20AWG). Grey PVC sheath.

Multipair - Tinned copper conductor 18(19)AWG, 0.96mm², polypropylene insulated. Twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (20AWG), PVC sheath.

Technical Information

Temperature Rating: +60°C
Nominal impedance: 45 ohms*

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance in pF/m C/C	Capacitance in pF/m C/S	Colour Code
1802PIFY	9368	2	103	9.6	187	335	Blk/Red No. Coded
1802PIFYH	LSHF	2	103	9.6	187	335	Blk/Red No. Coded
1803PIFP	9773	3	139	10.3	98	180	Chart 3
1803PIFPH	LSHF	3	139	10.3	98	180	Chart 3
1806PIFP	9774	6	259	14.3	98	180	Chart 3
1806PIFPH	LSHF	6	259	14.3	98	180	Chart 3

1802PIFY

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

* Impedence figure not applicable on two pair version

This cable is Low Smoke Halogen Free throughout

Individually Screened Multpair Data Cable 24AWG Low Capacitance RS422

For RS422 connection and any other application requiring both low capacitance and excellent isolation between pairs. Used for CAD/CAM and many other industrial applications with high data rates.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

2402PIFFD

2406PIFF

Construction - 24AWG

Tinned copper conductor 24(7) AWG 0.22mm², foam polyolefin insulation, colour chart 3, page 195. Twisted into pairs, each pair aluminium/polyester foil screened, tinned copper drain wire (24AWG), PVC sheath.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+60°C
Nominal Impedance:	100 ohms
UL Style:	2493

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance pF/m C/C	C/S
2402PIFF	9729	2	66	6.7	41	76
2402PIFFH	LSHF	2	66	6.7	41	76
2402PIFFD	DUCT	2	79	10.2	41	76
2402PIFFA	SWA	2	178	12.6	41	76
2403PIFF	9730	3	80	8.5	41	76
2403PIFFH	LSHF	3	80	8.5	41	76
2404PIFF	9728	4	97	9.2	41	76
2404PIFFH	LSHF	4	97	9.2	41	76
2406PIFF	9731	6	137	10.7	41	76
2406PIFFH	LSHF	6	137	10.7	41	76
2409PIFF	9732	9	203	12.4	41	76
2411PIFF	9733	11	226	14.6	41	76
2412PIFF	9734	12	242	14.6	41	76
2415PIFF	9735	15	300	16.3	41	76
2417PIFF	9736	17	326	17.1	41	76
2419PIFF	9737	19	348	17.1	41	76
2427PIFF	9738	27	557	20.3	41	76

Some of the above cables are also available in Armoured, Duct grade or Low Smoke Halogen Free versions even where not listed. Please call for details.

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Overall Foil & Braid Screened Paired Data Cable 24AWG RS485 Low Capacitance

Designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - 24AWG

Tinned copper conductor 24(7) AWG 0.22mm², polyethylene insulation, colour chart 5†, page 195. Twisted into pairs, overall aluminium/polyester foil screened, tinned copper drain wire (24AWG), overall tinned copper braid (90%). PVC sheath.

Technical Information

Voltage Rating: 300V
Temperature Rating: +80°C
UL Style: 2919

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2401POHP†	9841	1	64	5.8	42	76
2401POHPD	DUCT	1	92	8.4	42	76
2401POHPH	LSHF	1	64	5.8	42	76
2401POHPA	SWA	1	192	9.6	42	76
2402POHP*	9842	2	95	8.6	42	76
2402POHPD	DUCT	2	118	11.1	42	76
2402POHPH	LSHF	2	95	8.6	42	76
2402POHPA	SWA	2	251	12.5	42	76
2403POHP	9843	3	108	9.2	42	76
2403POHPH	LSHF	3	108	9.2	42	76
2404POHP	9844	4	125	9.9	42	76
2404POHPH	LSHF	4	125	9.9	42	76

† Single pair 2401POHP is supplied with blue & white cores (Western Electric colour code, page 195) as standard or black & white cores as special order. Please specify if you have a preference at time of order.

**2402POHP is an alternative to Allen Bradley type 1747CD*

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

2401POHPH

2402POHP

This cable is Low Smoke Halogen Free throughout

Overall Foil & Braid Screened Cored Data Cable RS232 & RS423

A range of high performance cables for use over extended distances at high data rates for RS232 and RS423 applications. Also well suited to industrial measurement where low signal distortion is required. These cables are widely used in CAD/CAM applications.

2405CODF

Construction - 24AWG

Tinned copper conductor 24(7) AWG, 0.22mm², foam polyolefin insulation, colour chart 1, page 195. For above 10 core, see chart 2 on same page. Cores laid up, overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), overall tinned copper braid (65%). PVC sheath.

Technical Information

Voltage Rating: 300V
UL Style: 2919

Part No.	Alt. to Belden	No. of Cores	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S
2402CODF	N/A	2	33	4.7	40	72
2403CODF	9925	3	38	5.5	40	72
2404CODF	9927	4	45	5.8	40	72
2405CODF	9929	5	51	6.3	40	72
2406CODF	9931	6	58	6.7	40	72
2407CODF	9932	7	62	6.8	40	72
2408CODF	9933	8	68	7.1	40	72
2409CODF	9934	9	77	7.6	40	72
2410CODF	9935	10	83	7.8	40	72
2415CODF	9936	15	107	8.9	40	72
2425CODF	9937	25	165	11.3	40	72
2437CODF	9938	37	207	12.7	40	72

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

Overall Foil & Braid Screened Paired Data Cable RS232 & RS422

A range of high performance cables for use over extended distances at high data rates for RS232 and RS422 applications. Also well suited to industrial measurement applications where low signal distortion is required.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - 24AWG

Tinned copper conductor 24(7) AWG, 0.22mm², foam polyolefin insulation, colour chart 5, page 195. Twisted into pairs, overall aluminium / polyester foil screen, tinned copper drain wire (24AWG), overall tinned copper braid (65%). PVC sheath.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+80°C
Nominal Impedance:	100 ohms
UL Style:	2919

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance pF/m C/C	C/S
2402PODF	8102	2	61	6.8	41	72
2402PODFH	LSHF	2	61	6.8	41	72
2403PODF	8103	3	71	7.1	41	72
2404PODF	8104	4	80	7.6	41	72
2405PODF	8105	5	89	7.9	41	72
2406PODF	8106	6	104	8.6	41	72
2406PODFH	LSHF	6	104	8.6	41	72
2407PODF	8107	7	106	8.6	41	72
2408PODF	8108	8	118	9.3	41	72
2408PODFH	LSHF	8	118	9.3	41	72
2410PODF	8110	10	150	10.9	41	72
2412PODF	8112	12.5*	165	11.8	41	72
2415PODF	8115	15	196	12.6	41	72
2418PODF	8118	18	235	13.6	41	72
2419PODF	N/A	19	248	13.6	41	72
2425PODF	8125	25	297	16.1	41	72

** Twelve pairs plus one conductor.*

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

2406PODF

This cable is Low Smoke Halogen Free throughout

Individual & Overall Screened Multipair Data Cable 24AWG RS422 Low Capacitance

Designed for RS422 data connections, this cable combines low capacitance insulation with very high levels of screening to provide high speed, interference free, data transmission.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

2402PTMFH

Construction - 24AWG

Tinned copper conductor 24(7) AWG 0.22mm², foam polyolefin insulation, colour chart 3, page 195. Twisted into pairs, each pair individually aluminium / polyester foil screened with an overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), overall tinned copper braid (65%). PVC sheath.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+60°C
Nominal impedance:	100 ohms
UL Style:	2493

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance pF/m C/C	C/S
2402PTMF	8162	2	92	8.7	41	72
2402PTMFH	LSHF	2	92	8.7	41	72
2403PTMF	8163	3	104	9.1	41	72
2403PTMFH	LSHF	3	104	9.1	41	72
2404PTMF	8164	4	121	9.8	41	72
2404PTMFH	LSHF	4	121	9.8	41	72
2406PTMF	8166	6	150	11.3	41	72
2407PTMF	8167	7	158	11.3	41	72
2407PTMFH	LSHF	7	158	11.3	41	72
2408PTMF	8168	8	177	12.0	41	72
2410PTMF	8170	10	245	15.0	41	72
2415PTMF	8175	15	325	17.0	41	72
2418PTMF	8178	18	354	17.5	41	72
2425PTMF	8185	25	522	21.0	41	72

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Instrumentation, Process control & PLTC

Industrial process control and instrumentation cables suitable for use in a wide variety of industries from nuclear energy generation to security and access control.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - Individually and Overall Screened Pairs

Plain copper conductor 18(7) AWG 0.88mm², Low Smoke Halogen Free insulation with a nylon skin. Conductors twisted into pairs, black and white numbered pairs, each pair individually aluminium/polyester foil screened with a 20(7) AWG tinned copper drain wire, pairs laid up with isolated screens. Overall screen is aluminium/polyester foil screen with 20(7) AWG tinned copper drain wire. Low Smoke Halogen Free sheath.

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Voltage
1802PTFNH	1048A LSHF	2	115	9.9	600V

Construction - Overall Screened Triple 14 AWG

3 x 14(41) AWG, 2.0mm², plain copper conductor, (colour code: black, white, red) Low Smoke Halogen Free insulation, polyester tape, 90% tinned copper wire braid, black Low Smoke Halogen Free sheath.

Part No.	No. of Cores	Weight kg/km	O/D mm	Voltage
1403COBYH	3	128	9.1	600V

Construction - Overall Screened Triple 22 & 18 AWG

Tinned copper conductor, colour coded PVC insulation, black, red, white. Aluminium/polyester foil screen with drain wire. Grey PVC jacket.

Part No.	Alt. to Belden	No. of Cores	AWG	CSA mm²	Weight kg/km	O/D mm	Voltage
2203COFY	9363	3	22(7)	0.35	39	5.3	300V
1803COFY	9365	3	18(16)	0.79	64	6.3	300V

1802PTFNH

This cable is Low Smoke Halogen Free throughout

Overall Foil & Braid Screened Data Cables RS232 & RS422

A range of high performance cables for use over extended distances at high data rates for RS232 applications. They are also well suited to industrial measurement where low signal distortion is required.

The 24AWG foil & braid twisted paired cable runs over RS232 & RS422 protocols. Excellent dual screening enables this cable to carry signals over long distances with minimum distortion.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

2402PODP

Construction - RS232 & RS422 Overall Foil & Braid Screened 24AWG

Tinned copper conductor 24(7) AWG, 0.22mm², polyethylene insulation. Twisted into pairs, overall aluminium/polyester foil screen, tinned copper drain wire (24AWG), overall tinned copper braid (65%). PVC sheath.

Technical Information

Voltage Rating:	300V
Temperature Rating:	+80ºC
UL Style:	2919

Part No.	Alt. to Belden	No. of Pairs	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S	Colour Code
2402PODP	9829	2	61	7.4	51	90	Chart 5
2402PODPH	LSHF	2	61	7.4	51	90	Chart 5
2403PODP	9830	3	70	7.7	51	90	Chart 5
2404PODP	9831	4	79	8.4	51	90	Chart 5
2405PODP	9832	5	84	8.6	51	90	Chart 5
2406PODP	9839	6	97	9.3	51	90	Chart 5
2407PODP	9833	7	103	9.4	51	90	Chart 5
2409PODP	9834	9	130	10.6	51	90	Chart 5
2410PODP	9835	10	140	11.5	51	90	Chart 5
2412PODP	9836	12	155	11.8	51	90	Chart 5
2418PODP	9837	18	225	14.4	51	90	Chart 5
2425PODP	9838	25	295	17.1	51	90	Chart 5

2209CODY

Construction - RS232 Overall Foil & Braid Screened 22AWG

Tinned copper conductor 22(7) AWG, 0.35mm², semi rigid PVC insulation. Cores laid up, overall. Aluminium/polyester foil screen, tinned copper drain wire (24AWG), overall tinned copper braid (65%). PVC sheath

Technical Information

Voltage Rating:	300V
Temperature Rating:	+80ºC
UL Style:	2464

Part No.	Alt. to Belden	No. of Cores	Weight kg/km	O/D mm	Capacitance pF/m C/C	Capacitance pF/m C/S	Colour Code
2203CODY	9939	3	41	5.1	121	220	Chart 1
2204CODY	9940	4	48	5.5	121	220	Chart 1
2205CODY	9941	5	55	5.8	121	220	Chart 1
2206CODY	9942	6	63	6.2	115	207	Chart 1
2207CODY	9943	7	65	6.3	115	207	Chart 1
2208CODY	9944	8	74	6.6	115	207	Chart 1
2209CODY	9945	9	85	7.1	115	207	Chart 1
2210CODY	9946	10	94	7.6	115	207	Chart 1
2215CODY	9947	15	130	8.6	115	207	Chart 1
2225CODY	9948	25	189	10.4	115	207	Chart 1
2237CODY	9949	37	238	11.7	115	207	Chart 1
2250CODY	9950	50	348	14.1	115	207	Chart 1

UL style numbers are given for cross reference purposes only. Not all the cables on this page are tested to or approved by UL. If you require UL approved versions please tell us when you first enquire.

This cable is Low Smoke Halogen Free throughout

Transducer & Load Cell Cables

Developed for accurate signal transmission in physically demanding conditions the range of transducer and load cell cables available cover all the popular applications. The ultra tough polyurethane jacket provides excellent protection against both water and mechanical damage. To guard against the effects of nearby power cables or other sources of electromagnetic radiation a choice of either a foil screen with drain wire or a high density tinned copper wire braid is offered.

Construction - Foil Screened

Tinned or plain copper conductor, colour coded PE or PVC insulation, polyester tape, tinned copper drain wire, inward facing aluminium/polyester tape, tough polyurethane gloss jacket.

Technical Information

Voltage Rating: 300V
Temperature Rating: -30°C to +80°C
Max Conductor Resistance:
0.055mm² (30AWG): 367 ohms per km
0.5mm² (20AWG): 39 ohms per km

Part No.	Cores x mm²	Weight kg/km	O/D mm	Insulation Type	Screen Type	Colour
9950020408	4 x 0.22	29	4.6	PE	Foil	Orange
9950020608	6 x 0.22	36	6.2	PE	Foil	Orange
9950030408	4 x 0.34	35	6.0	PE	Foil	Orange
9950009405	4 x 0.09	21	4.0	PVC	Foil	Grey

9950020408

Construction - Braid Screened

Tinned or plain copper conductor, colour coded cold resistant PVC insulation, polyester tape, high coverage tinned copper wire braid, tough polyurethane gloss jacket.

Technical Information

Voltage Rating: 300V
Temperature Rating: -30°C to +80°C
Max Conductor Resistance:
0.09mm² (28AWG): 232 ohms per km
0.22mm² (24AWG): 92 ohms per km
0.34mm² (22AWG): 57 ohms per km

Part No.	Cores x mm²	Weight kg/km	O/D mm	Insulation Type	Screen Type	Colour
39300112PUR	12 x 0.055	32	4.3	PVC	Braid	Black
9960020400	4 x 0.22	34	4.7	PVC	Braid	Black
9960050400	4 x 0.50	65	6.8	PVC	Braid	Black

9960050400

Other sizes, colours and insulation types can be supplied for quantities as low as 2km. Cable can be printed with your company name or message and phone number. See pages 184-185 for details.

Full specifications sheets are available on the above giving electrical characteristics and colour codes.

IBM Cables, Ethernet Cables & Twin-Ax Cables

Although many of these cables are no longer used on new installations we still have stock of some types which can be useful if you are extending an existing system. Please call us to discuss your needs.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

2202PTDP

200278DPH

Part No.	Reference	Alt. to Belden	IBM Part No.	Description	O/D mm
IBM Cables					
2202PTDP	IBM Type 1A	9688	4716748	2 x 2 x 22AWG	7.8 x 12
2202PTDPH	IBM Type 1A	LSHF	4716734	2 x 2 x 22AWG	7.8 x 12
2404PUY	IBM Type 3	-	-	4 x 2 x 22AWG	4.7
2602PODF	IBM Type 6	1215A	4716743	2 x 2 x 26(7)AWG	8.7
2601PODF	IBM Type 7	-	4716746	1 x 2 x 26(7)AWG	6.3

Part No.	Alt. to Belden	Description	Stranding AWG	Capacitance pF/m C/C	O/D mm
Ethernet 10BASE5					
1201AXDD	9880	Trunk	12(1)	85	10.3
2004PTMFH	9901 LSHF	Grey AUI Drop	4 x 2 x 20(7)	55	10.7
2203PTMP	9891	Blue AUI Drop	3 x 2 x 22(7) + 1 x 2 x 20(7)	55	9.9

Part No.	Alt. to Belden	Description	Stranding AWG	Capacitance pF/m C/C	O/D mm
Ethernet 10BASE2					
2001AXD	9907	Thinnet	20(19)	86	4.6
2001AXDH	LSHF	Thinnet	20(19)	86	4.6

Part No.	Alt. to Belden	AWG	O/D mm	Cap. pF/m C/C	Imp. Ohms	Colour
Twin-Ax						
220215FF	9182	22(19)	8.9	29	150	Black
220215FFH	LSHF	22(19)	8.9	29	150	Black
200278BP	9272	20(7)	6.2	65	78	Blue
200278BPH	LSHF	20(7)	6.2	65	78	Blue
200278DP	9463	20(7)	6.2	65	78	Blue
200278DPH	LSHF	20(7)	6.2	65	78	Blue
200210DP	9207	20(7)	8.4	51	100	Black
200210DPH	LSHF	20(7)	8.4	51	100	Black
160212DP	9860	16(1)	11.2	36	124	Black

This cable is Low Smoke Halogen Free throughout

Cat 3 Multipair & Cat 5 Multipair

With the spread of internet access over broadband, the need for high specification cables has grown. Cable to support ADSL data rates are increasingly being installed in offices, airports, education and commercial centres.

Cat-3 multipair is available in 25, 50, 100, 150 & 200 pair configurations and offers substantial benefits in terms of cost, space & weight with significantly reduced installation times when compared with multiple runs of standard 4 pair Cat-5 cable.

Multipair Cat-5 offers the same advantages as Cat-3 but at higher data rates.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

Construction - Cat-3 Multipair

24(1) AWG solid plain copper conductor, colour coded HDPE insulation, twisted into pairs and laid up, polyester tape, PVC sheath. Colour code chart 5 page 195.

Technical Information

Minimum bend radius: 10 x cable O/D
Conductor DCR: ≤ 9,38 Ohm/100m

Part No.	Cable Size	Jacket	Weight kg/km	O/D mm
C310	10 x 2 x 24AWG	PVC	67	7.3
C310H	10 x 2 x 24AWG	LSHF	67	7.3
C325	25 x 2 x 24AWG	PVC	186	11.5
C325H	25 x 2 x 24AWG	LSHF	186	11.5
C350	50 x 2 x 24AWG	PVC	422	17.5
C350H	50 x 2 x 24AWG	LSHF	422	17.5
C3100	100 x 2 x 24AWG	PVC	710	23.5
C3100H	100 x 2 x 24AWG	LSHF	710	23.5
C3150	150 x 2 x 24AWG	PVC	880	28.0
C3150H	150 x 2 x 24AWG	LSHF	880	28.0
C3200	200 x 2 x 24AWG	PVC	1047	33.0
C3200H	200 x 2 x 24AWG	LSHF	1047	33.0

C350H

Construction - Cat-5 Multipair

24(1) AWG solid plain copper conductor, colour coded PE insulation twisted into pairs. Laid up into a bundle and jacketed in PVC. Colour code chart 5 page 195.

Technical Information

Minimum bend radius: 10 x cable O/D
Conductor DCR: ≤ 9,38 Ohm/100m

Part No.	Cable Size	Jacket	Weight kg/km	O/D mm
C525	25 x 2 x 24AWG	PVC	189	13.2
C525H	25 x 2 x 24AWG	LSHF	189	13.2
C550	50 x 2 x 24AWG	PVC	435	20.8
C550H	50 x 2 x 24AWG	LSHF	435	20.8

C525H

This cable is Low Smoke Halogen Free throughout

Cat5E UTP, Cat5E Screened, Cat 6A Screened & Unscreened & Cat 7 Screened

The benefits of running voice, data or video over the same cabling system are considerable. The versatility of the latest structured wiring systems ensure confidence that future needs can be easily met with minimal expense or inconvenience to other network users.

The majority of installations use unshielded twisted pair (UTP) cables. Baluns allow RGB video signals to be transmitted using UTP, saving the cost of running dedicated wiring for many dealing room systems.

Where higher performance cables for ATM, multimedia and similar applications are required, please call us for the latest information.

Low Smoke Halogen Free versions are available where indicated. The insulation and sheath materials are replaced by those that do not emit halogens and toxic smoke.

C7HR08

C6HB

Part No.	Description	Weight kg/km	O/D mm	Packed On	Colour
Cat-5E UTP					
C51HR	1 Pair 24AWG UTP LSHF†	12	2.8	Reel	Grey
C5E2HR	2 Pair 24AWG UTP LSHF * †	22	4.4	Reel	Grey
C5EB	4 Pair 24AWG Cat-5E UTP	36	5.5	Box	Grey
C5ER	4 Pair 24AWG Cat-5E UTP	36	5.5	Reel	Grey
C5EHB	4 Pair 24AWG Cat-5E UTP LSHF	36	5.5	Box	Violet
C5EHR	4 Pair 24AWG Cat-5E UTP LSHF	36	5.5	Reel	Grey

Part No.	Description	Weight kg/km	O/D mm	Packed On	Colour
Cat-5E FTP					
C5EFR	4 Pair 24AWG Cat-5E FTP PVC	40	6.0	Reel	Grey
C5EFHR	4 Pair 24AWG Cat-5E FTP LSHF	40	6.0	Reel	Orange

Part No.	Description	Weight kg/km	O/D mm	Packed On	Colour
Cat-6 UTP					
C6B	4 Pair 23AWG Cat-6 UTP PVC	36	5.6	Box	Grey
C6HB	4 Pair 23AWG Cat-6 UTP LSHF	36	5.6	Box	Violet
C6PHR08	4 Pair 23AWG Cat-6 Patch LSHF	36	6.0	Reel	Orange

Part No.	Description	Weight kg/km	O/D mm	Packed On	Colour
Cat-6 FTP					
C6FR	4 Pair 23AWG Cat-6 FTP PVC	58	7.2	Reel	Grey
C6FHR06	4 Pair 23AWG Cat-6 FTP LSHF	58	7.2	Reel	Violet
C6GFFH	4 Pair 23AWG Cat-6A F-FTP LSHF	60	8.0	Reel	Blue

Part No.	Description	Weight kg/km	O/D mm	Packed On	Colour
Cat-7 FTP					
C7HR08	4 Pair 23AWG Cat-7 S/FTP LSHF	59	7.4	Reel	Orange

† Not to Cat-5E standard ** This cable is an alternative to Belden 1588A*

This cable is Low Smoke Halogen Free throughout

External Grade Structured Wiring

Category or structured wiring cable has always been on the delicate side, but treated carefully it does the job well. Now there is a cable available to cover the more demanding jobs.

Designed for fixed installations, duct grade or armoured Cat-5 & Cat-6 cables have heavy jackets of polyethylene to protect against moisture and give the cables extra strength.

The external version is ideal for running through ducts, up the side of a building or up masts. The armoured version is great for direct burial or vandal-plagued installations.

These cables are supplied on drums.

Part No.	Description	Weight kg/km	O/D mm
Cat-5E UTP			
C5EC	4 Pair 24AWG Cat-5E UTP PE - Weatherproof	40	5.6
C5ED	4 Pair 24AWG Cat-5E UTP PVC/PE - Duct Grade	67	8.6
C5EA	4 Pair 24AWG Cat-5E UTP PVC/PE/SWA/PE - Armoured	239	12.6
C525D	25 Pair 24AWG Cat-5 UTP PVC/PE - Duct Grade	278	17.0
C525A	25 Pair 24AWG Cat-5 UTP PVC/PE/SWA/PE - Armoured	598	21.6

Part No.	Description	Weight kg/km	O/D mm
Cat-5E FTP			
C5EFD	4 Pair 24AWG Cat-5E FTP PVC/PE - Duct Grade	68	8.8
C5EFA	4 Pair 24AWG Cat-5E FTP PVC/PE/SWA/PE - Armoured	275	12.2

Part No.	Description	Weight kg/km	O/D mm
Cat-6 UTP			
C6D	4 Pair 23AWG Cat-6 UTP PVC/PE - Duct Grade	86	9.9
C6A	4 Pair 23AWG Cat-6 UTP PVC/PE/SWA/PE - Armoured	309	14.2

Part No.	Description	Weight kg/km	O/D mm
Cat-6 FTP			
C6FD	4 Pair 23AWG Cat-6 FTP PVC/PE - Duct Grade	105	10.2
C6FA	4 Pair 23AWG Cat-6 FTP PVC/PE/SWA/PE - Armoured	315	14.5

Please note the armouring and oversheathing process can sometimes affect the performance of the cable. If your installation is likely to require optimum performance please check before installing to ensure it meets your requirement.

C5EA

C6D

Fibre Optic Cables

Fibre optic cables provide a high speed method of transmitting large amounts of data over much greater bandwidths than traditional copper cables. They are widely adopted for use in industrial and commercial applications where streaming live data is vital or when long distance applications make copper conductors impractical due to signal loss. Fibre is not affected by EMI (Electro Magnetic Interference) making it ideal for data transmission in electrically noisy environments.

The construction can vary depending on the application and environment. Options include singlemode or multimode transmission in a loose tube or tight buffered fibre design. These are available with a variety of sheath materials and mechanical armours.

F5212LUH

Fibre Core Classification

Fibre size/µm	Fibre grade	Fibre mode	Attenuation dB/km @ 1310nm		Attenuation dB/km @ 1550nm	
9/125	OS2	Singlemode	Loose tube Tight buffered	0.36 0.38	Loose tube Tight buffered	0.22 0.28

Fibre size/µm	Fibre grade	Fibre mode	Bandwidth MHz/km @ 850nm	Bandwidth MHz/km @ 1300nm
50/125	OM2	Multimode	500	500
50/125	OM3	Multimode	1500	500
50/125	OM4	Multimode	3500	500
62.5/125	OM1 (L)	Multimode	200	500
62.5/125	OM1 (M)	Multimode	300	800

Part No.	Core x µm	Grade	Sheath	Weight kg/km	O/D mm
Internal - Tight buffered					
F902TIH	2 x 9/125	OS2	LSHF	14	4.2
F904TIH	4 x 9/125	OS2	LSHF	21	5.6
F908TIH	8 x 9/125	OS2	LSHF	30	6.1
F912TIH	12 x 9/125	OS2	LSHF	38	7.0
F5202TIH	2 x 50/125	OM2	LSHF	14	4.2
F5204TIH	4 x 50/125	OM2	LSHF	21	5.6
F5208TIH	8 x 50/125	OM2	LSHF	30	6.1
F5212TIH	12 x 50/125	OM2	LSHF	38	7.0
F6L02TIH	2 x 62.5/125	OM1 (L)	LSHF	14	4.2
F6L04TIH	4 x 62.5/125	OM1 (L)	LSHF	21	5.6
F6L08TIH	8 x 62.5/125	OM1 (L)	LSHF	30	6.1
F6L12TIH	12 x 62.5/125	OM1 (L)	LSHF	38	7.0

This cable is Low Smoke Halogen Free throughout

Part No.	Core x µm	Grade	Sheath	Weight kg/km	O/D mm
Universal - Loose tube					
F904LUH	4 x 9/125	OS2	LSHF	42	7.0
F908LUH	8 x 9/125	OS2	LSHF	46	7.0
F912LUH	12 x 9/125	OS2	LSHF	48	7.0
F924LUH	24 x 9/125	OS2	LSHF	55	7.5
F5204LUH	4 x 50/125	OM2	LSHF	42	7.0
F5206LUH	6 x 50/125	OM2	LSHF	46	7.0
F5212LUH	12 x 50/125	OM2	LSHF	48	7.0
F5224LUH	24 x 50/125	OM2	LSHF	55	7.5
F6L04LUH	4 x 62.5/125	OM1 (L)	LSHF	42	7.0
F6L06LUH	6 x 62.5/125	OM1 (L)	LSHF	46	7.0
F6L12LUH	12 x 62.5/125	OM1 (L)	LSHF	48	7.0
F6L24LUH	24 x 62.5/125	OM1 (L)	LSHF	55	7.5

Part No.	Core x µm	Grade	Sheath	Weight kg/km	O/D mm
External - Loose tube					
F912LD	12 x 9/125	OS2	LDPE	38	7.0
F924LD	24 x 9/125	OS2	LDPE	43	7.5
F5212LD	12 x 50/125	OM2	LDPE	38	7.0
F5224LD	24 x 50/125	OM2	LDPE	43	7.5
F6L12LD	12 x 62.5/125	OM1 (L)	LDPE	38	7.0
F6L24LD	24 x 62.5/125	OM1 (L)	LDPE	43	7.5

Multiple loose tube versions are available up to 144 core, please call for a data sheet.

Armour options: *For a mechanical armour please suffix the part number with:*
CA = Corrugated Steel Tape (CST)
A = Galvanised Single Wire Armour (GSWA)
BA = Galvanised Steel Wire Braid (GSWB)

Multimode fibre grades OM1 (M), OM4 are available on request.
Sheath colours can vary, please specify at time of order if you have a preference.
Hydrocarbon resistant versions available on request.

This cable is Low Smoke Halogen Free throughout

1801POFOH

Databus® Foundation Fieldbus ISA/SP-50 Profibus PA Type A

A single pair 18AWG bi-directional digital Fieldbus cable for type A applications (31.25 KBits/sec) available in PVC, LSHF and SWA versions.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened	Sheath Colour
1801PODF		1	18(1)	PVC	75	8.0	Yes	Blue
1801POFO	3076F	1	18(7)	PVC	51	6.4	Yes	Orange
1801POFOH	LSHF	1	18(7)	LSHF	51	6.4	Yes	Orange
1801POFOA	SWA	1	18(7)	SWA/PE	246	9.6	Yes	Black

Databus® Foundation Fieldbus ISA/SP-50 Type B

A single pair 22AWG bi-directional digital Fieldbus cable for type B applications (31.25 KBits/sec) available in PVC, LSHF and SWA versions.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
2201POFO	3077F	1	22(7)	PVC	29	4.9	Yes
2201POFOH	LSHF	1	22(7)	LSHF	29	4.9	Yes
2201POFOA	SWA	1	22(7)	SWA/PE	213	8.1	Yes

31000502H

Databus® Foundation Fieldbus ISA/SP-50 High Speed

A high speed single pair 22AWG bi-directional digital Fieldbus cable for 1.0 & 2.5MBit/sec applications available in PVC, LSHF and SWA versions.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
2201POFF	3078F	1	22(7)	PVC	65	9.4	Yes
2201POFFH	LSHF	1	22(7)	LSHF	65	9.4	Yes
2201POFFA	SWA	1	22(7)	SWA/PE	287	12.6	Yes

KNX

A two pair / quad format Bus cable for home automation and building control. The two pair version has been certified by the KNX association, guaranteeing it's interoperability between devices while the quad format benefits from a smaller overall diameter. Both cables are Low Smoke Halogen Free throughout.

Part No.	No. of Pairs	Conductor mm	Sheath Material	Weight kg/km	O/D mm	Screened	KNX Reg No.
Quad 0.8mm KNX / EIB Cable							
31000501QH	1 Quad	0.8	LSHF	57	5.6	Yes	-
2 Pair 0.8mm KNX / EIB Cable							
31000502H	2	0.8	LSHF	62	6.3	Yes	150/8928/10

This cable is Low Smoke Halogen Free throughout

CAN Bus Cables

CAN Bus (Control Area Network) is a non-addressable system which treats all devices as equal allowing for fast transmission of data. Due to its robust nature it has been widely adopted in the automotive industry. While all the types listed below are for high flexing automation applications, static versions can also be supplied.

Part No.	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
28100201	1	0.22	PUR	41	5.2	Yes
28100202	2	0.22	PUR	60	8.0	Yes
28100301	1	0.34	PUR	53	5.9	Yes
28100302	2	0.34	PUR	64	6.5	Yes
28100501	1	0.50	PUR	67	7.2	Yes
28100502	2	0.50	PUR	75	9.0	Yes

CC-Link 1.10 FieldLink® Cables

Developed by Mitsubishi, CC-Link allows high speed communication between controllers and field devices. CC-Link is particularly popular in Asia and is used worldwide for time critical applications in conjunction with Mitsubishi Automation products. CC-Link is certified by CLPA and ensures product compatibility.

Part No.	Alt. to Belden	No. of Cores	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
2003CODF-03	YR47205	3	20	PVC	186	7.6	Yes
2003CODFA	SWA	3	20	SWA/PE	276	12.0	Yes

DeviceNet™ Thick Cables

Designed for use on Allen Bradley DeviceNet systems, the 'thick' cable construction incorporates a power and data pair for backbone wiring. Several sheathing options are available for different installation environments. These cables are also referred to as DeviceNet Trunk cables.

Part No.	Alt. to Belden	Pairs x AWG	Sheath Material	Weight kg/km	O/D mm	Appl	Screened
15ABDY	3082A	P: 1Px15 D: 1Px18	PVC	174	12.2	Static	Yes
15ABDR	3083A	P: 1Px15 D: 1Px18	CPE	174	12.1	Static	Yes
15ABDYA	SWA	P: 1Px15 D: 1Px18	SWA/PE	359	16.1	Static	Yes
15ABDY-HF	Hi-FLEX	P: 1Px15 D: 1Px18	PUR	209	12.1	Dynamic	Yes

DeviceNet™ Thin Cables

'Thin' cables are designed to connect sensors, actuators and switches to the DeviceNet backbone (thick cable) on the Allen Bradley DeviceNet system. Similar in construction to the backbone cable, the 'thin' cable incorporates a power and data pair. Several sheathing options are available for different installation environments. These cables are also referred to as DeviceNet Drop cables.

Part No.	Alt. to Belden	Pairs x AWG	Sheath Material	Weight kg/km	O/D mm	Appl	Screened
22ABDY	3084A	P: 1Px22 D: 1Px24	PVC	65	7.0	Static	Yes
22ABDR	3085A	P: 1Px22 D: 1Px24	CPE	68	7.1	Static	Yes
22ABDYA	SWA	P: 1Px22 D: 1Px24	SWA/PE	240	11.9	Static	Yes
22ABDY-HF	Hi-FLEX	P: 1Px22 D: 1Px24	PUR	64	7.0	Dynamic	Yes

2003CODF-03

15ABDY

2202POFGH

Echelon LonWork System Cabling

A range of single pair Bus cables is available for the LonWork's system allowing convenient wiring via the Free Topology concept. Due to the popularity of the system for building management applications in the public sector these cables are now stocked in Low Smoke Halogen Free versions. Duct grade and SWA options can also be manufactured for quantities as low as 100m.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
1601PUY	8471	1	16(19)	PVC	56	7.0	No
1601PUYH	LSHF	1	16(19)	LSHF	56	7.0	No
1601PUYD	DUCT	1	16(19)	LDPE	89	9.5	No
1601PUYA	SWA	1	16(19)	PE	280	10.8	No

Echelon LonWork System Cabling

Designed for use on industrial and commercial Bus systems, these cables have become increasingly popular on Building Management Systems (BMS). Available as one and two pair cables, screened and unscreened in Low Smoke Halogen Free, they provide the ideal low cost solution to Bus wiring.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
2201PUGH	7701NH	1	22(1)	LSHF	14	3.5	No
2202PUGH	7702NH	2	22(1)	LSHF	27	5.0	No
2201POFGH	7703NH	1	22(1)	LSHF	23	4.5	Yes
2202POFGH	7704NH	2	22(1)	LSHF	36	6.5	Yes

C5S-HF

Industrial Ethernet Cables to IEEE 802.3

Through the use of Category 5 style cables Industrial Ethernet provides a stable platform for linking automation systems and workstations. They are also suitable for interlinking different Bus protocols such as Profibus and Interbus. The use of finely stranded conductors and PUR sheathing compounds makes them ideal for frequent flexing and dynamic applications.

Part No.	No. of Pairs	AWG	Sheath Material	Weight kg/km	O/D mm	Screened
C52S-HF	2	24(19)	PUR	65	6.1	Yes
C5S-HF	4	24(19)	PUR	82	8.0	Yes

Interbus Cables

The Interbus open ring topology allows integration of different field devices from control level down to sensor switches over one system. Unlike traditional ring systems Interbus uses one cable to route data back and forth to all devices. Each device or unit will amplify the signal before sending it on to the next station. The data is transmitted over a 3 pair screened cable. For remote applications a composite data and power cable is available.

Part No.	Alt. to Belden	Pair x mm^2	Sheath Material	O/D mm	Application	Screened
2403POBP	N/A	3P x 0.22	PVC	8.0	Static	Yes
2403POBP-HF	3102A	3P x 0.22	PUR	8.2	Dynamic	Yes
2403/3POBP-HF	3119A	3P x 0.22 +3C 1.0	PUR	9.3	Dynamic with remote power	Yes

This cable is Low Smoke Halogen Free throughout

Modbus

Developed by Modicon, Modbus provides a master/slave communication between intelligent automation devices. Based on Belden 9841, the Modbus cable has an increased jacket thickness to ensure a correct termination into the Modbus connectors.

Part No.	Alt. to Belden	No. of Pairs	AWG	Sheath Material	Sheath Colour	Weight kg/km	O/D mm	Screened
2401POHP+	YM29560	1	24(7)	PVC	Grey	63	6.7	Yes
2401POHPH+	LSHF	1	24(7)	LSHF	Grey	63	6.7	Yes

Profibus DP IEC 61158/EN 50170 SINEC L2

A range of single pair Bus cables for process and field communication in cell networks. The Profibus protocol has been widely adopted for production and process automation applications providing transmission rates up to 12Mbits/sec.

Part No.	Alt. to Belden	No. of Pairs	Cond mm	Sheath Material	Sheath Colour	FastConn/ Quickstrip	Weight kg/km	O/D mm	Application
2201PODF	3079A	1	0.64	PVC	Violet	Yes	62	8.0	Static
2201PODFHA	SWA	1	0.64	LSHF	Black	No	188	11.5	Static
2201PODFHQ	LSHF	1	0.64	LSHF	Violet	Yes	64	8.0	Static
2201PODFD	DUCT	1	0.64	LDPE	Black	No	88	9.5	Wet/outdoor static
2201PODFHF	Hi-FLEX	1	0.64	PUR	Violet	No	78	8.3	Dynamic
2201PODF7	3079E	1	0.64	PVC	Violet	No	65	8.0	European type static
2201PODFHT	HiTEMP	1	0.64	FEP	Violet	No	64	7.2	High Temperature

Pilz Safety Bus p®

Safety Bus p® is an open Fieldbus system based on well established CAN Bus technology. Safety Bus p® modules must be self monitoring, perform intelligent checks and react independently, therefore remaining 'safe'. Several versions of Safety Bus p® cables are available depending on the application and environmental conditions.

Part No.	No. of Cores	CSA mm^2	Sheath Material	Sheath Colour	Weight kg/km	O/D mm	Application
28100703	3	0.75	PVC	Yellow	89	7.5	Light Flexing
28100703H	3	0.75	LSHF	Yellow	89	7.5	Light Flexing
28100703-HF	3	0.75	PUR	Yellow	89	7.5	Dynamic

This cable is Low Smoke Halogen Free throughout

2201PODF

28100703

18/22LCCH

Lutron GRX-CBL-346S Grafik Eye Cables

Lutron are world leaders in lighting control systems for prestige residential properties as well as restaurant, retail and commercial applications. In addition to the full range of genuine Lutron cables we are also able to offer a high quality alternative to the GRX-CBL-346S for the GRAFIK Eye® 3000, 4000, 5000 & 6000 systems manufactured using Low Smoke Halogen Free materials throughout. This enables installations in locations that prohibit the use of standard PVC types. Where the cable is run outside duct grade and armoured versions are also popular.

Cable Construction - Power Pair

Conductors: 18(7)AWG tinned copper strands
Insulation: Polypropylene insulation – 1.97mm nominal
Colour code: Red & black
Conductor resistance: 23 ohm/km @ 20°C

Cable Construction - Data Pair

Conductors: 22(7)AWG tinned copper strands
Insulation: Polypropylene insulation – 1.83mm nominal
Screen: aluminium/polyester screen and 24(7)AWG TCu drain wire
Colour code: Purple & white
Conductor resistance: 58 ohm/km @ 20°C
Capacitance: Core to core 45pF/m nominal
Impedance: 120 ohm nominal

Pair bundles laid up with polyester fillers, polyester tape, blue LSHF sheath.

Technical Information

Voltage Rating: 300V
Test Voltage: 1.5kV
Temperature Rating: 0°C to +70°C
Smoke Emission: IEC 61034-1 & 2
Halogen Emission: IEC 60754-1 & 2

Part No.	Alternative to	Sheath Colour	O/D mm	Weight kg/km
18/22LCCH	Lutron GRX CBL-346S	Blue	8.4	72
18/22LCCHD	Duct Grade	Black	10.8	123
18/22LCCHA	SWA/PE	Black	12.3	259

18/22ECCH

Mode Lighting Cable

If you are installing a Mode Lighting Evolution system we offer an alternative to Belden 1502R. The cable is electrically the same as the Lutron type above but uses a PVC jacket with a reduced overall diameter for easy routing.

Part No.	Alternative to	Sheath Colour	O/D mm	Weight kg/km
18/22ECC	Belden 1502R	Blue	6.4	65
18/22ECCH	LSHF	Blue	6.4	65
18/22ECCD	Duct Grade	Black	8.7	89
18/22ECCA	SWA/PE	Black	10.5	223

This cable is Low Smoke Halogen Free throughout

Fire Resistant Communication Cables

Paired communications cables designed for use on critical warning and emergency telephone circuits. These cables maintain signal transmission during a fire and meet the requirements of IEC 60331-21.

The cables are Low Smoke Halogen Free throughout and incorporate an aluminium foil screen to prevent electrical interference making them ideal for use in airports, hospitals, railway networks and public areas.

Technical Information

Voltage Rating:	500V
Conductor Resistance:	36.6 ohm/km
Capacitance Unbalanced:	200pF/100m
Bending Radius:	6 x overall diameter
Fire Resistant:	IEC 60331-21, DIN VDE FE180/E30
Flame Retardant:	IEC 60332-3-24 Cat C
Halogen Emission:	IEC 60754-2, BS EN 50267
Smoke Emission:	IEC 61034-2, BS EN 50268

Construction

Solid copper wire conductors, fire barrier insulation, cores twisted into pairs, aluminium foil screen and 0.8mm drain wire, LSHF sheath – red or orange.

Part No.	Pairs x Size mm	Weight kg/km	O/D mm
31000502HFxx	2 x 2 x 0.8	74	7.4
31000504HFxx	4 x 2 x 0.8	127	10.8
31000508HFxx	8 x 2 x 0.8	300	16.9
31000512HFxx	12 x 2 x 0.8	336	18.5
31000516HFxx	16 x 2 x 0.8	426	20.1
31000520HFxx	20 x 2 x 0.8	529	22.2
31000532HFxx	32 x 2 x 0.8	859	29.1
31000540HFxx	40 x 2 x 0.8	1094	34.2
31000552HFxx	52 x 2 x 0.8	1280	37.3

To show the colour required please replace xx in the part number with:

03 Red 08 Orange

Steel armoured versions are also available on request

31000502HF03

Fire Alarm Cable Standard & Enhanced

It is now recognised that in some buildings the continued functioning or circuit integrity of some cables is essential in providing sufficient time for evacuation. The requirements divide 'soft skin' cables into 2 groups, Standard and Enhanced.

The 'enhanced' versions shown below are suitable for installation where evacuation may be delayed, for example in high-rise buildings without sprinklers and hospitals. The 'enhanced' group of cables offer a viable alternative to MICC (Mineral Insulated Copper Clad) in many applications with the benefit of faster installation and easier routing.

38701502E

Standard

Construction

Solid plain copper conductor, flame retardant Low Smoke Halogen Free insulation. Metallic barrier tape with copper earth-wire maintaining longitudinal contact. Low Smoke Halogen Free sheath.

Technical Information

Conductors:	Copper wire to BS 6360 or IEC 60228
Voltage Rating:	300/500V
Resistance to Fire Alone:	IEC 60331: 3 hours at 750°C, BS 6387 Cat. C: 3 hours at 950°C
Resistance to Fire with Water:	BS 6387 Cat. W: 15 mins at 650°C, plus 15 mins with water spray
Resistance to Fire with Mechanical Shock:	BS 6387 Cat. Z: 15 mins at 950°C with mechanical shock
Approvals:	BASEC, LPCB, BS7629: Part 1 BS 5839:1 2002 & EN 50200 Standard grade

Part No.	Cores x mm²	O/D mm	Weight kg/km	Gland	Clip
38701002E	2 E 1.0	7.9	80	G251	RCH34
38701003E	3 E 1.0	8.2	93	G251	RCH34
38701004E	4 E 1.0	8.7	120	G251	RCH37
38701502E	2 E 1.5	8.0	98	G251	RCH37
38701503E	3 E 1.5	8.3	121	G251	RCH43
38701504E	4 E 1.5	9.5	148	G252	RCH47
38702502E	2 E 2.5	9.1	139	G252	RCH47
38702503E	3 E 2.5	9.8	179	G252	RCH51
38702504E	4 E 2.5	11.3	205	G252	RCH54

Standard pack size 100m or 500m. Other sizes are available to order.

387E01504E

Enhanced

Construction

Plain copper conductor, circuit integrity Low Smoke Halogen Free insulation, metallic barrier tape with copper earth-wire maintaining longitudinal contact. Low Smoke Halogen Free sheath.

Standards:	BS 6387	C, W & Z
	BS 5839 - 1	2002 Enhanced Grade
	BS EN 50200	Classification PH 120
	BS 8434-2:2003	120min duration
	IEC 60332-3	Parts 1 & 3

Part No.	Core x mm²	O/D mm	Weight kg/km
387E01002E	2 E 1.0	7.9	80
387E01003E	3 E 1.0	8.2	93
387E01004E	4 E 1.0	8.7	120
387E01502E	2 E 1.5	8.0	98
387E01503E	3 E 1.5	8.3	121

Part No.	Core x mm²	Weight kg/km	O/D mm
387E01504E	4 E 1.5	9.5	148
387E02502E	2 E 2.5	9.1	139
387E02503E	3 E 2.5	9.8	179
387E02504E	4 E 2.5	11.8	205
387E04002E	2 E 4.0	12.1	269

Firetuf Data & Coax

Firetuf Data is a group of high performance fire survival data cables manufactured by Draka and designed to carry on functioning even in the event of a fire. This allows safe monitoring of evacuation routes without putting lives at risk.

The twisted pair cables provide high data transmission rates and have been developed to mimic Cat-5 cabling as closely as possible. Increasingly popular with system integrators for BMS applications, the cables can be terminated using traditional LAN Insulation Displacement Connectors (IDC) making them ideal for use in horizontal backbone wiring systems in offices and public buildings.

Where video is carried the coax performs in a similar way to RG59 which is widely used in the CCTV sector. This allows continued monitoring of fire exits and evacuation routes in the event of a fire. BNC connectors part no. YFTCBC1# are available to suit Firetuf Coax.

Where people and property come first the Draka Firetuf Data cable range provides the ideal solution.

Firetuf Data

Technical Information

Design: Generally to ISO/IEC 11801:95, EN 50173 95 and EN 50288-2-1. Suitable for standard Insulation Displacement Connector L.A.N. sockets. RS-485 10Mb/s
Flame Retardant: IEC 60332-1-2
Smoke Emission: IEC 61034-2
Halogen Emission: IEC 60754-2
Fire Resistant:

BS 5839 Clause 26.2E	>2hrs @ 950°C
BS 6387	>3hrs @ 950°C
IEC 60331-23	>3hrs @ 750°C
BS EN 50200	>3hrs @ 950°C

Part No.	Draka Part No.	Type	Screen	Sheath	Weight kg/km	O/D mm
387FTD103	910234	1 Pair 0.63mm [22(1)AWG]	Foil & braid	LSHF red	48	6.8
387FTD203	910244	2 Pair 0.63mm [22(1)AWG]	Foil & braid	LSHF red	97	8.1
387FTD403	910245	4 Pair 0.63mm [22(1)AWG]	Foil & braid	LSHF red	122	10.4

387FTD403

Firetuf Coax

Technical Information

Design: Generally to ISO/IEC 11801:95, EN 50173 95 and EN 50288-2-1. Suitable for standard insulation Displacement Connector L.A.N. sockets. RS-485 10Mb/s
Flame Retardant: IEC 60332-1-2
Smoke Emission: IEC 61034-2
Halogen Emission: IEC 60754-2
Fire Resistant:

BS 5839 Clause 26.2E	>2hrs @ 950°C
BS 6387	>3hrs @ 950°C
IEC 60331-23	>3hrs @ 750°C
BS EN 50200	>3hrs @ 950°C

Part No.	Draka Part No.	Type	Screen	Sheath	Weight kg/km	O/D mm
387FTD5903	660096	75ohm coax 1/0.65mm	Double braid	LSHF red	110	9.1
YFTCBC1#	-	BNC Connector	-	-	-	-
YTC10	-	BNC Crimp tool	-	-	-	-

Due to the unique size of Firetuf Coax special BNC connectors have been designed as standard types do not fit.

387FTD5903

MICC Fire Resistant Cables

Mineral Insulated Copper Clad cables offer un-paralleled fire performance in the event of an emergency.

In their bare copper sheath form they are completely inert in a fire situation and meet the requirements of the E.U Construction Products Directive. MICC provides circuit integrity up to 3 hours at +950°C with minimal contribution to fire spread. They are the ultimate fire performance cable for densely populated buildings such as hospitals, airports and office towers.

Due to its impervious design MICC is ideal for wiring in hazardous and explosion risk areas. It is also suitable for offshore, radio-active and chemically aggressive environments.

MICC can be supplied as a bare copper cable or with an LSHF coloured sheath for identification in light duty – 500V and heavy duty - 750V versions.

Other versions of MICC can also be supplied including data twisted pair, thermocouple configurations and specialist metals including stainless steel and Inconel® for extreme high temperature and hostile applications.

M2L015H08

Construction

Solid plain copper conductors, magnesium oxide powder insulation, copper tube sheath and a coloured LSHF plastic cover if required.

Technical Information

Voltage Rating:	Light duty 500V, Heavy duty 750V
Conductor Stranding:	IEC 60228 Class 1, circular
Standard Operating Temp:	-80°C to +250°C (dependant on the seal and sheathing type used.)
Fire Resistant:	BS 5839-1 Enhanced, BS EN 50200 PH120, BS 6387 CWZ, BS 8434-2, BS 7346-6 120 min, IEC 60331, IEC 60331-21
Flame Retardant:	IEC 60332-3-22 cat A, BS EN 50265, BS EN 50266
Smoke Emission:	IEC 61034-2, BS EN 50268
Halogen Emission:	IEC 60754-2, BS EN 50267

Some sizes certified by Lloyds Register.

Termination kits can be supplied with the cable, please specify the type required from the options below:

Fire Resistant Kit:	+950°C for 3 hours, also suitable for radioactive installations
Atex Rated Safety Kit:	-20°C to +85°C class "e" for explosive atmospheres
High Temperature Kit:	+250°C glazed insulator
Standard Kit:	-80°C to +105°C for general wiring

Glands, clips, saddles and straps are also available as plain copper or LSHF coated.

Part No.	No. of Cores	Size mm²	Current Rating Amps	Volts Drop mV	O/D of Conductor mm	Weight kg/km	O/D mm
Light Duty							
M2L010Hxx	2	1.0	20	41	1.11	123	6.5
M2L015Hxx	2	1.5	24	29	1.43	156	7.4
M2L025Hxx	2	2.5	34	17	1.77	2103	8.1
M2L040Hxx	2	4.0	43.5	11	2.22	825	9.2
M3L010Hxx	3	1.0	17	37	1.11	159	7.6
M3L015Hxx	3	1.5	21	25	1.43	204	7.7
M3L025Hxx	3	2.5	26	13	1.77	253	9.2
M4L010Hxx	4	1.0	14	35	1.11	186	7.8
M4L015Hxx	4	1.5	23	33	1.43	228	8.3
M4L025Hxx	4	2.5	29	15	1.77	313	9.7
M7L010Hxx	7	1.0	12	43	1.11	267	9.1
M7L015Hxx	7	1.5	15	27	1.43	330	10.4
M7L025Hxx	7	2.5	18	19	1.77	457	11.6
Heavy Duty							
M1H160Hxx	1	16	117	2.2	4.48	358	10.1
M1H250Hxx	1	25	156	1.7	5.68	497	11.4
M1H350Hxx	1	35	189	1.1	6.66	635	12.6
M1H500Hxx	1	50	227	0.85	7.73	812	13.5
M1H700Hxx	1	70	276	0.63	9.35	1077	15.3
M1H950Hxx	1	95	333	0.55	10.99	1416	17.7
M1H120Hxx	1	120	385	0.49	12.35	1707	19.3
M1H150Hxx	1	150	432	0.41	13.7	2058	20.5
M1H185Hxx	1	185	481	0.38	15.15	2512	26.4
M1H240Hxx	1	240	535	0.34	17.3	3211	32.3
M2H015Hxx	2	1.5	23	26	1.43	272	9.7
M2H025Hxx	2	2.5	37	18	1.77	313	10.6
M2H040Hxx	2	4.0	49	9	2.27	399	11.3
M2H060Hxx	2	6.0	63	6	2.73	495	12.5
M2H100Hxx	2	10	80	4.3	3.6	671	14.4
M2H160Hxx	2	16	106	2.8	4.3	912	16.6
M2H250Hxx	2	25	145	1.64	5.68	1278	19.4
M3H015Hxx	3	1.5	22	22	1.43	292	10.2
M3H025Hxx	3	2.5	32	16	1.77	366	11.3
M3H040Hxx	3	4.0	37	9.5	2.27	462	12.1
M4H015Hxx	4	1.5	25	22	1.43	343	10.6
M4H025Hxx	4	2.5	29	16	1.77	428	11.9
M4H040Hxx	4	4.0	42	9.5	2.27	558	13.3
M4H060Hxx	4	6.0	53	7	2.73	699	14.4
M4H100Hxx	4	10	66	3.8	3.6	973	16.6
M4H160Hxx	4	16	87	2.6	4.3	1385	19.8
M4H250Hxx	4	25	118	1.43	5.68	1945	22.9
M7H015Hxx	7	1.5	16	27	1.43	479	12.2
M7H025Hxx	7	2.5	19.5	15	1.77	613	13.8

Part Code Suffix Key: 'xx' = Bare copper without LSHF sheath.

00 Black 03 Red 04 White 08 Orange

Access Control

Specifically designed for proprietary access control systems, these cables are widely used in public buildings including hospitals, government and local authority offices as well as commercial and retail organisations where security and safety are important.

The Low Smoke Halogen Free versions ensure minimum risk in the event of fire to both property and personnel.

3993P9CHP

Composite Access Control - Purple Pipe

Construction

Pair 1: 1 twisted pair 20(7)AWG tinned copper strands. Foam PE insulation, 20(7)AWG tinned copper drain wire, aluminium/polyester foil. Colour code: Black/green.

Pairs 2 & 3: 2 twisted pairs 22(7)AWG tinned copper strands, foam PE insulation, 22(7)AWG tinned copper drain wire, each individual pair aluminium/polyester foil screened. Pair colour code: Black/red & black/white.

Cores: 9 single cores 22(7)AWG tinned copper wire strands, solid polypropylene insulation. Colour code: Black, white, red, green, brown, blue, orange, yellow, purple. Overall Screen: aluminium/polyester foil, 22(7)AWG tinned copper drain wire.

Sheath: Low Smoke Halogen Free, purple.

Part No.	Alt. to Belden	No. of Pairs	AWG	Screen type	Weight kg/km	O/D mm
3993P9CHP	-	-	-	-	114	9.1

Access Control

Part No.	Alt. to Belden	No. of Pairs	AWG	Screen type	Weight kg/km	O/D mm	Protocol
2202PIFR	8723	2	22	Individual foils	32	4.2	Traditional security
2202PIFRH	8723NH	2	22	Individual foils	32	4.2	Traditional security
2203PIFR	8777	3	22	Individual foils	32	7.0	Traditional security
2203PIFRH	8777NH	3	22	Individual foils	32	7.0	Traditional security
2402POHP	9842	2	24	O/A foil & braid	95	8.6	RS-485
2402POHPH	9842NH	2	24	O/A foil & braid	95	8.6	RS-485
2802PODGH	8132NH	2	28	O/A foil & braid	45	5.6	RS-485
2803PODGH	8133NH	3	28	O/A foil & braid	52	6.8	RS-485

2402PIFF

Access control and door release cables are also available from stock in PVC versions either in standard pack sizes or cut to length from bulk drums.

This cable is Low Smoke Halogen Free throughout

Composite Coaxial & Door Entry

To meet the increasing demands for camera cables containing a coax with power and control cores for Pan, Tilt, Zoom (PTZ) or audio we are now stocking at a variety of options.

These can either be within one circular jacket for easy glanding or in a shotgun style with a web between the individual elements for branching off at termination points.

Designed to meet the need of the installer of proprietary door entry systems, door entry cables cover video, voice and door release. Stocked on bulk drums, cutting to length is offered to reduce your wastage and cut costs. Armoured and duct grade versions are also available.

Composite Coaxial

Part No.	Coax	Power Cores	Signal Cores	Construction	O/D mm	Colour
3900592/2	RG59 B/U	2 x 1.5mm²	2 x 0.22mm²	Circular	10.8	Black
3900592/2D	RG59 B/U	2 x 1.5mm²	2 x 0.22mm²	Circular Duct	13.4	Black
3900592/2H	RG59 B/U	2 x 1.5mm²	2 x 0.22mm²	Circular LSHF	10.8	Black
390059/2	RG59	2 x 0.75mm²	-	Shotgun	12.7 x 6.2	Black
390059/2D	RG59	2 x 0.75mm²	-	Circular Duct	10.3	Black
390059-Shotgun	2 x RG59	-	-	Shotgun	12.2 x 6.2	Black
390059H-Shotgun	2 x RG59	-	-	Shotgun	12.2 x 6.2	Black
391070/2	URM70	2 x 0.75mm²	-	Shotgun	10.2 x 5.8	White

3900592/2

Door Entry

Part No.	Coax	Power Cores	Signal Cores	Construction	O/D mm	Colour
DE12C	7/0.15mm 75 Ω	1 x 1.5mm² + 6 x 1mm²	5 x 0.5mm²	PVC	12.5	Grey
DE5C	7/0.15mm 75 Ω	2 x 1mm²	3 x 0.5mm²	PVC	9.2	White

Other constructions are available on short lead-times please call us with your specific requirements.

DE12C

Bus Wiring & Door Release

Part No.	Alt. to Belden	No. of Pairs	AWG	Screen type	Weight kg/km	O/D mm	Protocol
1601PUY	8471	1	16	Unscreened	56	7.0	Echelon
1601PUYH	8471NH	1	16	Unscreened	56	7.0	Echelon

This cable is Low Smoke Halogen Free throughout

Alarm Cables

Designed for inter-connecting sensors and control panels, alarm cables are widely used within the security industry.

Manufactured in white or black as standard, although other colours can be easily and quickly produced for quantities as low as 300m, for example to identify a circuit or blend with a colour scheme.

Cables held in stock include standard PVC, Low Smoke Halogen Free, screened and duct grade versions.

39800208W

39900208WH

Technical Information

Temperature Rating: 0°C to +70°C
Conductor Size: 0.22mm² (24AWG)
Max Working Voltage: 50V
Max Current: 1 amp per core

Construction

PVC: Tinned copper wire strands, PVC insulation, PVC sheath

LSHF: Tinned copper wire strands, Low Smoke Halogen Free insulation, Low Smoke Halogen Free sheath (with or without aluminium foil screen)

Screened: Tinned copper wire strands, PVC insulation, aluminium foil screen with tinned copper drain wire, PVC sheath

Duct: Tinned copper wire strands, PVC insulation, PVC inner sheath, black LDPE outer sheath

Unscreened Alarm

Part No.	Cores	Weight kg/km	O/D mm
PVC Unscreened Alarm Cable			
39800204W	4	18	3.4
39800206W	6	25	4.0
39800208W	8	30	4.3
39800212W	12	37	5.5

Part No.	Cores	Weight kg/km	O/D mm
LSHF Unscreened Alarm Cable			
39800204WH	4	18	3.4
39800206WH	6	25	4.0
39800208WH	8	30	4.3
39800212WH	12	42	5.7

Screened Alarm

Part No.	Cores	Weight kg/km	O/D mm
PVC Foil Screened Alarm Cable			
39900204W	4	24	3.7
39900206W	6	28	4.3
39900208W	8	34	4.6
39900212W	12	47	6.2

Part No.	Cores kg/km	Weight mm	O/D
LSHF Foil Screened Alarm Cable			
39900204WH	4	24	3.7
39900206WH	6	28	4.3
39900208WH	8	34	4.6

Part No.	Cores	Weight kg/km	O/D mm
Duct Grade Unscreened Alarm Cable			
39200206D	6	52	6.8
39200208D	8	56	7.1
39200212D	12	68	8.4

Part No.	Cores	Weight kg/km	O/D mm
Duct Grade Screened Alarm Cable			
39400206D	6	53	7.1
39400208D	8	58	7.6
39400212D	12	72	9.0

Core Colour Code

4-core: Red, blue, yellow, black
6-core: Red, blue, yellow, black, white, green
8-core: Red, blue, yellow, black, white, green, orange*, brown
12-core: Red, blue, yellow, black, white, green, orange, brown, grey, pink, violet, turquoise

*On Duct grade cables core 7 is violet.

Brown or black PVC alarm cable also available.

Standard packing 100m, 200m & 500m spools

This cable is Low Smoke Halogen Free throughout

Outdoor Control & Data

Many outdoor cables need to be run either through ducts, clipped to buildings or even directly buried. By applying a heavy jacket of UV stable polyethylene this gives the cable not only additional mechanical strength but also additional water resistance. The cables listed below are all standard stock items for immediate despatch.

Most are kept on bulk drums so cutting to length could reduce your wastage and save time. If you don't see the cable you want listed we offer an oversheathing and armouring service for most standard cables. More details are shown on pages 184-185 or call us now with your specific requirements.

Part No.	No. of Cores & mm²	Colour Code	Weight kg/km	O/D mm	Colour
Duct Grade YY 0.6/1kV					
10001002CD	2 x 1.0	Brown, Blue	54	8.0	Black
10001003CD	3 x 1.0	Brown, Blue, Green/Yellow	62	8.6	Black
10001502CD	2 x 1.5	Brown, Blue	68	9.3	Black
10001503CD	3 x 1.5	Brown, Blue, Green/Yellow	85	10.0	Black
10002502CD	2 x 2.5	Brown, Blue	102	11.0	Black
10002503CD	3 x 2.5	Brown, Blue, Green/Yellow	129	12.2	Black

10001503CD

Part No.	No. of Cores & mm²	Screening	Weight kg/km	O/D mm	Colour
Duct Grade Alarm Cable					
39200206D	6 x 0.22	Unscreened	52	6.8	Black
39200208D	8 x 0.22	Unscreened	56	7.1	Black
39200212D	12 x 0.22	Unscreened	68	8.4	Black
39400206D	6 x 0.22	Overall Foil Screen	53	7.1	Black
39400208D	8 x 0.22	Overall Foil Screen	58	7.6	Black
39400212D	12 x 0.22	Overall Foil Screen	72	9.0	Black

39200208D

Part No.	Alt. to Belden	No. of Pairs & AWG	Description	Weight kg/km	O/D mm	Colour
Data						
1801POFPD	8760	1 x 2 x 18	Overall Foil Screen, Duct Grade	48	7.6	Black
2202PIFRA	8723	2 x 2 x 22	Individual Foil Screen, Armoured	210	9.8	Black
2202PIFRD	8723	2 x 2 x 22	Individual Foil Screen, Duct Grade	50	6.2	Black
2203PIFRA	8777	3 x 2 x 22	Individual Foil Screen, Armoured	242	11.1	Black
2203PIFRD	8777	3 x 2 x 22	Individual Foil Screen, Duct Grade	96	8.6	Black
2401POFYD	9501	1 x 2 x 24	Overall Foil Screen, Duct Grade	44	6.2	Black
2403POFYD	9503	3 x 2 x 24	Overall Foil Screen, Duct Grade	66	8.1	Black
2404POFYD	9504	4 x 2 x 24	Overall Foil Screen, Duct Grade	72	8.9	Black
2406POFYD	9506	6 x 2 x 24	Overall Foil Screen, Duct Grade	93	9.6	Black
2402PIFFD	9729	2 x 2 x 24	Individual Foil Screen, Duct Grade	79	10.2	Black
2402POHPD	9842	2 x 2 x 24	Overall Foil & Braid, Duct Grade	118	10.6	Black

Part No.	Coax	Description	Weight kg/km	O/D mm	Colour
Coax					
390059A	RG59 B/U	Armoured	195	10.3	Black
390059D	RG59 B/U	Duct Grade	73	7.9	Black
390062A	RG62 A/U	Armoured	210	10.4	Black

RG Coaxial

The RG cables listed cover the majority of high frequency data and signal transmission requirements. Other types can be supplied on request as can armoured versions or alternative sheath colours. Twin and multicore versions are available in some types.

Sheath and Insulation Codes

FEP	Fluorinated Ethylene Propylene
FPE	Foamed Polyethylene
LDPE	Low Density Polyethylene
PTFE	PolyTetraFluoroEthylene
PESS	Polyethylene Semi Solid
TFE	TetraFluoroEthylene
PEAS	Polyethylene Air Spaced
PVC	Polyvinyl Chloride
PEC	Polyethylene Cellular
GFB	Glass Fibre Braid

390059

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm	Conn. Type
RG								
390006-C	RG6 Type†	75	1/1.00	FPE	PVC	47	6.7	B1
390006Q	RG6 Quadshield	75	1/1.00	FPE	PVC	48	7.5	B1
390008-C	RG8 Type★	50	1/2.74	PE	PE	207	10.2	A9
390008-CH	RG8 Type LSHF	50	1/2.74	PE	LSHF	207	10.2	A9
390011-C	RG11 Type	75	7/0.40	FPE	PVC	84	10.2	A2
390011	RG11 A/U	75	7/0.40	PE	PVC	149	10.3	A2
390011L	RG11 A/U LSF	75	7/0.40	PE	LSF	149	10.3	A2
390011H	RG11 A/U LSHF	75	7/0.40	PE	LSHF	149	10.3	A2
390011A	RG11 A/U SWA	75	7/0.40	PE	LDPE	380	15.7	A2
390012	RG12 A/U	75	7/0.40	PE	LDPE	380	15.7	A2
390058	RG58 C/U	50	19/0.18	PE	PVC	46	5.1	A3
390058W	RG58 C/U White	50	19/0.18	PE	PVC	46	5.1	A3
390058H	RG58 C/U LSHF	50	19/0.18	PE	LSHF	46	5.1	A3
390058D	RG58 C/U Duct	50	19/0.18	PE	LDPE	59	6.5	A3
390059-C	RG59 B/U Type	75	1/0.58	PE	PVC	58	6.1	A1
390059W	RG59 B/U White	75	1/0.58	PE	PVC	60	6.1	A1
390059H	RG59 B/U LSHF	75	1/0.58	PE	LSHF	60	6.1	A1
390059L	RG59 B/U LSF	75	1/0.58	PE	LSF	60	6.1	A1
390059D	RG59 B/U Duct	75	1/0.58	PE	LDPE	73	7.9	A1
390059A	RG59 B/U SWA	75	1/0.58	PE	LDPE	195	10.3	A1
390059MB	RG59 Mini Black	75	1/0.58	FPE	PVC	16	4.0	A8
390059MW	RG59 Mini White	75	1/0.58	FPE	PVC	16	4.0	A8
390059MBH	RG59 Mini Black LSHF	75	1/0.58	FPE	LSHF	16	4.0	A8
390059MWH	RG59 Mini White LSHF	75	1/0.58	FPE	LSHF	16	4.0	A8
390062	RG62 A/U	93	1/0.69	PESS	PVC	60	6.2	A1
390062H	RG62 A/U LSHF	93	1/0.69	PESS	LSHF	60	6.2	A1
390062A	RG62 A/U SWA	93	1/0.69	PESS	LDPE	210	10.4	A1
390108	RG108 Twin-Ax	78	2 x 7/0.32	PE	PVC	48	5.9	TBC
390115	RG115 A/U	50	7/0.71	PTFE	GFB	240	10.6	TBC
390142	RG142 B/U	50	1/0.91	PTFE	FEP	74	4.9	A6
390165	RG165	50	7/0.81	PTFE	GFB	180	10.4	TBC
390174	RG174 A/U	50	7/0.16	PE	PVC	16	2.6	C4
390174H	RG174 A/U LSHF	50	7/0.16	PE	LSHF	16	2.6	C4
390178	RG178 B/U	50	7/0.10	PTFE	FEP	10	1.8	C6

† RG6 type is an alternative to Belden 9248
★ RG8 type is an alternative to Belden 9913
TBC - To be confirmed

This cable is Low Smoke Halogen Free throughout

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm	Conn. Type
RG								
390178H	RG178 Type LSHF	50	1/0.30	FPE	LSHF	10	1.9	C6
390179	RG179 B/U	75	7/0.10	PTFE	FEP	15	2.5	C8
390179Y	RG179 Type	75	1/0.35	PE	PVC	12	2.6	A7
390179H	RG179 Type LSHF	75	1/0.35	PE	LSHF	12	2.6	A7
390179Y-S	RG179 Type Stranded	75	7/0.10	PE	PVC	12	2.6	A7
390179H-S	RG179 Type Stranded LSHF	75	7/0.10	PE	LSHF	12	2.6	A7
390180	RG180	95	1/0.30	PTFE	TFE	29	3.7	TBC
390188	RG188	50	7/0.17	PTFE	FEP	17	2.5	C4
390196	RG196	50	7/0.10	PTFE	FEP	9	2.0	C6
390212	RG212	50	1/1.41	PE	PVC	123	8.4	TBC
390213	RG213 /U	50	7/0.75	PE	PVC	166	10.3	A4
390213H	RG213 /U LSHF	50	7/0.75	PE	LSHF	166	10.3	A4
390214	RG214 /U	50	7/0.75	PE	PVC	173	10.8	A5
390214H	RG214 /U LSHF	50	7/0.75	PE	LSHF	173	10.8	A5
390216	RG216	75	7/0.40	PE	PVC	169	10.8	TBC
390216H	RG216 LSHF	75	7/0.40	PE	LSHF	169	10.8	TBC
390218	RG218	50	1/4.95	PE	PVC	658	22.0	TBC
390223	RG223 /U	50	1/0.90	PE	PVC	49	5.4	TBC
390223H	RG223 /U LSHF	50	1/0.90	PE	LSHF	49	5.4	TBC
390225	RG225	50	7/0.79	PTFE	GFB	268	10.9	TBC
390302	RG302	75	1/0.63	PTFE	FEP	47	5.3	TBC
390303	RG303	50	1/0.99	PTFE	FEP	46	4.3	TBC
390304	RG304	50	1/1.49	PTFE	FEP	131	7.1	TBC
390316	RG316	50	7/0.17	PTFE	FEP	15	2.5	C4
390316DB	RG316 DBL Braid	50	7/0.17	PTFE	FEP	22	2.6	C4
390316H	RG316 Type LSHF	50	7/0.17	FPE	LSHF	13	2.7	C4
390316DBH	RG316 Type DBL Braid LSHF	50	7/0.17	FPE	LSHF	20	3.1	C4
390393	RG393	50	7/0.80	PTFE	FEP	245	10.0	TBC
390393H	RG393 Type LSHF	50	7/0.80	FPE	LSHF	180	10.1	TBC
390400	RG400	50	19/0.20	PTFE	FEP	74	4.9	A6
390400H	RG400 Type LSHF	50	19/0.20	FPE	LSHF	55	5.1	A6

TBC - To be confirmed

RGB Coaxial

Manufactured using RG179 type coax in PE. These cables are colour coded for easy termination. Also available in LSHF & screened versions. Call for details.

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm
RGB							
390179Y3	RGB Triple	75	1/0.35	PE	PVC	70	7.3
390179Y5	RGB & 2 Sync	75	1/0.35	PE	PVC	117	12.3
390179H5	RGB & 2 Sync LSHF	75	1/0.35	PE	LSHF	117	12.3
390179H508	RGB & 2 Sync LSHF★	75	1/0.35	FPE	LSHF	117	11.1
390179Y5F-S	RGB & 2 Sync Foil Scr	75	7/0.12	PE	PVC	126	12.8

★ Orange

For composite coax cables see page 149.

This cable is Low Smoke Halogen Free throughout

390179

Corrugated Low Loss Coaxial

When you install corrugated low loss coaxial cables you can be confident you are installing quality. Using the latest development and design techniques these products combine both high performance and low cost.

Through working closely with communication and service providers our product range covers almost every need.

We are also pleased to supply genuine Andrew® cable if required. Andrew part numbers are shown for this purpose.

390AC12-50

Part No.	Alternative to Andrew	Imp. Ohms	Inner Cond. mm	Cap. pF/m	Velocity of Prop.	Max. Freq. GHz	Sheath	Weight Kg/Km	O/D mm
Corrugated Coax Series									
390AC14-50	LDF1-50 1/4"	50	1/2.6	76.8	86%	15.8	PVC	90	8.8
390AC14-50H	LDF1RN-50 1/4" LSHF	50	1/2.6	76.8	86%	15.8	LSHF	90	8.8
390AC38-50	LDF2-50 3/8"	50	1/3.1	75.5	88%	13.5	PVC	120	11.0
390AC38-50H	LDF2RN-50 3/8" LSHF	50	1/3.1	75.5	88%	13.5	LSHF	120	11.0
390AC12-50	LDF4-50A 1/2"	50	1/4.6	75.8	88%	8.8	PVC	220	16.0
390AC12-50H	LDF4RN-50A 1/2" LSHF	50	1/4.6	75.8	88%	8.8	LSHF	220	16.0
390AC12-75	LDF4-75A 1/2"	75	1/3.0	50.5	88%	10.0	PVC	210	16.0
390AC12-75H	LDF4RN-75A 1/2" LSHF	75	1/3.0	50.5	88%	10.0	LSHF	210	16.0
390AC58-50	LDF4.5-50 5/8"	50	1/7.0	76.1	89%	6.1	PVC	220	22.0
390AC58-50H	LDF4.5RN-50 5/8" LSHF	50	1/7.0	76.1	89%	6.1	LSHF	220	22.0
390AC78-50	LDF5-50A 7/8"	50	1/9.0	75.0	89%	5.0	PVC	490	28.0
390AC78-50H	LDF5RN-50A 7/8" LSHF	50	1/9.0	75.0	89%	5.0	LSHF	490	28.0
390AC78-75	LDF5-75 7/8"	75	1/5.6	49.5	89%	5.3	PVC	450	27.5

Part No.	Alternative to Andrew	Imp. Ohms	Inner Cond. mm	Cap. pF/m	Velocity of Prop.	Max. Freq. GHz	Sheath	Weight Kg/Km	O/D mm
Superflexible Series									
390ACF14-50	FSJ1-50A 1/4"	50	1/1.9	79.4	84%	20.4	PVC	67	7.4
390ACF14-50H	FSJ1RN-50B 1/4" LSHF	50	1/1.9	79.4	84%	20.4	LSHF	67	7.4
390ACF14-75	FSJ1-75 1/4"	75	1/1.0	57.0	78%	22.0	PVC	67	7.4
390ACF14-75H	FSJ1RN-75A 1/4" LSHF	75	1/1.0	57.0	78%	22.0	LSHF	67	7.4
390ACF38-50	FSJ2-50 3/8"	50	1/2.8	79.7	83%	13.4	PVC	120	10.5
390ACF38-50H	FSJ2RN-50 3/8" LSHF	50	1/2.8	79.7	83%	13.4	LSHF	120	10.5
390ACF12-50	FSJ4-50B 1/2"	50	1/3.6	82.7	81%	10.2	PVC	210	13.2
390ACF12-50H	FSJ4RN-50B 1/2" LSHF	50	1/3.6	82.7	81%	10.2	LSHF	210	13.2
390ACF12-75	FSJ4-75A 1/2"	75	1/3.0	54.9	81%	11.5	PVC	210	13.2
390ACF12-75H	FSJ4RN-75A 1/2" LSHF	75	1/3.0	54.9	81%	11.5	LSHF	210	13.2

Part No.	Alternative to Andrew	Imp. Ohms	Inner Cond. mm	Cap. pF/m	Velocity of Prop.	Max. Freq. GHz	Sheath	Weight Kg/Km	O/D mm
Air Coax Series									
390ACV78-50	AVA5-50 7/8"	50	1/9.45	73.2	91%	4.9	PVC	440	28.0
390ACV58-50	AVA7-50 5/8"	50	1/18.16	72.2	92%	2.5	PVC	1070	50.3

To ensure minimal signal loss we can also offer connectors for all of the above cables, ranging from N-Type & 7-16 Din to TNC, UHF and SMA.

This cable is Low Smoke Halogen Free throughout

Broadcast Coaxial

There is an increasing demand for Broadcast standard video cables. The best known are the BBC specification PSF series for which we stock a range of alternatives.

Part No.	Description	Imp. Ohms	Central Cond. mm	Dielectric	Sheath	Weight Kg/Km	O/D mm
390PS12	PSF1/2 Style	75	1/0.80	PE	PVC	93	7.5
390PS13	PSF1/3 Style*	75	1/0.60	PE	PVC	74	6.5
390PS13H	PSF1/3 Style LSHF	75	1/0.60	PE	LSHF	74	6.5
390PS16	PSF1/6 Style	75	7/0.32	PE	PVC	44	5.2
390PS17	PSF1/7 Style	75	1/0.42	PPC	PVC	14	2.9
390PS19	PSF1/9 Style Triax	75	1/1.40	PEC	PUR	160	11.2

*Various colour jackets are available for the PSF1/3 style cable

390PS13

Camera Cable Triaxial

The triaxial camera cable range covers the three main sizes, 8.5mm, 11.2mm, and 14mm with a variety of jacket materials to suit various environments. Stranded centre conductors combined with flexible jacket materials are also offered for studio applications where frequent movement is likely.

Part No.	Description	Imp. Ohms	Central Cond. mm	Dielectric	Sheath	Weight Kg/Km	O/D mm
390CC08	Camera Cable 8	75	1/1.0	FPE	PVC	106	8.5
390CC08H	Camera Cable 8 LSHF	75	1/1.0	FPE	LSHF	106	8.5
390CC08P	Camera Cable 8 PUR	75	1/1.0	FPE	PUR	106	8.5
390CF08	Camera Cable 8 Flexible	75	7/0.35	FPE	TPE	102	8.5
390CC11	Camera Cable 11	75	1/1.40	FPE	PVC	160	11.2
390CC11H	Camera Cable 11 LSHF	75	1/1.40	FPE	LSHF	160	11.2
390CC11P	Camera Cable 11 PUR	75	1/1.40	FPE	PUR	160	11.2
390CF11	Camera Cable 11 Flexible	75	19/0.30	FPE	TPE	158	11.2
390CC14	Camera Cable 14	75	7/0.75	FPE	PVC	268	14.0
390CC14H	Camera Cable 14 LSHF	75	7/0.75	FPE	LSHF	268	14.0
390CC14P	Camera Cable 14 PUR	75	7/0.75	FPE	PUR	268	14.0

390CC11

Digital Video Coaxial

A new breed of digital video coaxial cables combines high performance with compact sizing. This enables high density wiring in confined spaces, such as within racks and for longer runs on trays or through ducting.

Part No.	Description	Imp. Ohms	Central Cond. mm	Dielectric	Sheath	Weight Kg/Km	O/D mm
390DV06	Digital Video	75	1/0.66	FPE	PVC	35	4.5
390DV06/28H	Digital Video 0.6/2.8 LSHF	75	1/0.6	FPE	LSHF	35	4.5
390DV06/4	Digital Video 4 Core	75	1/0.66	FPE	PVC	210	13.2
390DV06/6	Digital Video 6 Core	75	1/0.66	FPE	PVC	270	15.8
390DV06/8	Digital Video 8 Core	75	1/0.66	FPE	PVC	330	17.2
390DV10	Digital Video	75	1/1.0	FPE	PVC	65	7.0
390DV14/66H	Digital Video 1.4/66 LSHF	75	1/1.4	FPE	LSHF	110	9.4

This cable is Low Smoke Halogen Free throughout

High Definition Coax Cables

The increase in HDTV transmission is phenomenal, with both commercial and domestic installations calling for high performance coaxial cables to transmit signals precisely and accurately at higher frequencies than analogue cables allow.

Designed to meet these demands, High Definition coax cables offer extended installation distances with increased bandwidth up to 4.5GHz making them ideal for professional digital HDTV applications. The cables are return loss sweep tested to guarantee quality transmission up to 4.5GHz. There are five sizes available so whether you are wiring an HDTV rack or installing a 200m studio to machine room run, High Definition cables will deliver the picture you want.

Each cable type is uniquely identified for easy installation and can be terminated by BNC, F-type or RCA connectors.

Low Smoke Halogen Free jacketing is provided as standard so you can be confident that these are some of the safest, high performance cables in the world.

390HD59H

Construction

Solid bare copper conductor, physical foam polyethylene dual extruded dielectric, aluminium foil and tinned copper wire braid screen, LSHF sheath.

Part No.	Description	Imp. Ohms	Central. Cond. mm	Sheath	Weight kg/km	O/D mm	1080i Run Length/m	1080p Run Length/m
390HD179H	HD179-LSHF	75	0.31	LSHF	11	2.6	40	24
390HD59MH	HD59M-LSHF	75	0.58	LSHF	27	4.1	81	46
390HD59H	HD59-LSHF	75	0.81	LSHF	46	6.0	146	76
390HD6H	HD6-LSHF	75	1.02	LSHF	59	7.0	158	82
390HD11H	HD11-LSHF	75	1.62	LSHF	149	10.0	232	110

Telecom BT Coaxial

The BT range of coaxial cables are to British Telecom specifications and are used for interconnecting equipment. British Telecom types BT2002 & BT2003 are used for digital telephone and data links. BT2002 is equivalent to ICL Part Number 80047293.

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm	Conn. Type
3902001	BT2001	75	7/0.20	PEC	PVC	31	4.6	TBC
3902002	BT2002	75	7/0.20	PEC	PVC	51	5.3	B8
3902003	BT2003	75	1/0.61	PE	PVC	79	6.9	B7
3903002	BT3002	75	1/0.31	PE	PVC	24	3.5	B6
390300200	BT3002 Black	75	1/0.31	PE	PVC	24	3.5	B6
3903002H	BT3002 LSHF	75	1/0.31	PE	LSHF	24	3.5	B6
3903002/8	BT3002/8 Core	75	1/0.31	PE	PVC	214	16.0	B6
3903002/16	BT3002/16 Core	75	1/0.31	PE	PVC	392	19.0	B6
3903002/16D	BT3002/16 Core Duct Grade	75	1/0.31	PE	LDPE	430	21.0	B6
390BT5000†	BT5000	75	1/0.96	PEF	LSHF	68	7.2	TBC

† BT5000 is designed for runs of up to 200m at 155Mbit/s and uses standard connectors for terminations.

TZC Coaxial

TZC coax is to a very similar standard to the BT3002 and is available in both single and multicore options from stock. The cable is designed for Ericsson systems.

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm	Conn. Type
TZC75024	TZC	75	1/0.31	PE	PVC	24	3.5	B6
TZC7502408	TZC/8 Core	75	1/0.31	PE	PVC	219	14.5	B6
TZC7502408D	TZC/8 Core Duct	75	1/0.31	PE	LDPE	402	19.0	B6
TZC7502408H	TZC/8 Core LSHF	75	1/0.31	PE	LSHF	221	14.5	B6
TZC7502416	TZC/16 Core	75	1/0.31	PE	PVC	394	19.1	B6
TZC7502416H	TZC/16 Core LSHF	75	1/0.31	PE	LSHF	394	19.1	B6

RA Coaxial

RA7000 has been developed as a higher performance version of BT2003 but with a smaller overall diameter. RA8000 is a high performance alternative to BT3002 with a much smaller overall diameter. Multicore versions are also available.

Part No.	Description	Imp. Ohms	Central Cond.	Dielectric	Sheath	Weight Kg/Km	O/D mm	Conn. Type
390RA7000	RA7000	75	1/0.60	PEF	LSHF	30	4.5	B9
390RA7000/4	RA7000/4 Core	75	1/0.60	PEF	LSHF	165	12.8	B9
390RA7000/8	RA7000/8 Core	75	1/0.60	PEF	LSHF	285	17.2	B9
390RA7000/16	RA7000/16 Core	75	1/0.60	PEF	LSHF	535	24.3	B9
390RA8000	RA8000	75	1/0.31	PEF	LSHF	13	2.8	TBC
390RA8000/4	RA8000/4 Core	75	1/0.31	PEF	LSHF	72	8.2	TBC
390RA8000/8	RA8000/8 Core	75	1/0.31	PEF	LSHF	124	11.0	TBC
390RA8000/16	RA8000/16 Core	75	1/0.31	PEF	LSHF	228	14.8	TBC

This cable is Low Smoke Halogen Free throughout

3902003

Digital Satellite & Cable TV Coaxial

The TV range of cable television and video cables is used primarily to carry TV, Satellite and CCTV signals. These cables are all 75 ohm and supplied in a variety of versions to suit different applications.

An optional heavy duty tough sheath to improve impact and moisture resistance makes the TV-DB range ideal for pulling into ducts or for direct burial.

A version with an aluminium moisture barrier is also available. Cables can be armoured and sheathed with LDPE for quantities as low as 100 metres.

392100F Shotgun

392125DBF

Part No.	Description	Dielectric Type	Imp. Ohms	Cond. Dia. mm	Weight Kg/Km	O/D mm	Conn. Type
392100	TV 100 PVC	Airspaced	75	1.00	49	6.6	B1
392100F	TV 100 PVC	Foamed	75	1.00	49	6.6	B1
392100W	TV 100 PVC White	Foamed	75	1.00	49	6.6	B1
392100HR	TV 100 LSHF	Airspaced	75	1.00	49	6.6	B1
392100H	TV 100 LSHF	Foamed	75	1.00	49	6.6	B1
392100D	TV 100 Duct	Foamed	75	1.00	70	8.1	B2
392100FShotgun	TV 100 Shotgun	Foamed	75	1.00	100	6.9x14.4	B1
392125	TV 125 PE	Airspaced	75	1.25	69	8.0	B2
392125F	TV 125 PE	Foamed	75	1.25	69	8.0	B2
392125W	TV 125 PVC White	Airspaced	75	1.25	69	8.0	B2
392125HR	TV 125 LSHF	Airspaced	75	1.25	69	8.0	B2
392125H	TV 125 LSHF	Foamed	75	1.25	69	8.0	B2
392125DB	TV 125 Duct	Airspaced	75	1.25	90	9.5	C1
392125DBF	TV 125 Duct	Foamed	75	1.25	90	9.5	C1
392167	TV 167 PE	Airspaced	75	1.67	115	10.1	B3
392167F	TV 167 PE	Foamed	75	1.67	115	10.1	B3
392167H	TV 167 LSHF	Foamed	75	1.67	115	10.1	B3
392167D	TV 167 Duct	Airspaced	75	1.67	130	11.3	C2
392233	TV 233 PE	Airspaced	75	2.33	135	12.7	TBC
392233F	TV 233 PE	Foamed	75	2.33	135	12.7	TBC
392233H	TV 233 LSHF	Airspaced	75	2.33	135	12.7	TBC
392233FH	TV 233 LSHF	Foamed	75	2.33	135	12.7	TBC
392233DB	TV 233 Duct	Airspaced	75	2.33	147	14.4	TBC

TBC - to be confirmed

This cable is Low Smoke Halogen Free throughout

URM Coaxial

The URM (Uni Radio-Metric) BS 2316 cables listed cover the majority of high frequency data and signal transmission requirements. Other types can be supplied on request, as can armoured, duct grade or alternative sheath colours.

URM 70 is widely used for security applications connecting CCTV equipment where the stranded conductor centre is less likely to break than the RG 59 type. This may be important where the camera pans and tilts. Other URM cables are available to order.

Part No.	Description	Imp. Ohms	Central Cond. mm	Dielectric	Sheath	Weight Kg/Km	O/D mm	Connector Type
391043	URM 43	50	1/0.81	PE	PVC	40	5.0	A3
391054	URM 54	50	7/0.19	PE	PVC	118	8.3	TBC
391054H	URM 54 LSHF	50	7/0.19	PE	LSHF	118	8.3	TBC
391057	URM 57	75	1/1.15	PE	PVC	158	10.3	TBC
391065	URM 65	75	1/1.15	PE	PVC	158	10.3	TBC
391067	URM 67	50	7/0.77	PE	PVC	162	10.3	A4
391067H	URM 67 LSHF	50	7/0.77	PE	LSHF	162	10.3	A4
391070	URM 70	75	7/0.19	PE	PVC	59	5.8	A1
391070W	URM 70 White	75	7/0.19	PE	PVC	59	5.8	A1
391070L	URM 70 LSF	75	7/0.19	PE	LSF	59	5.8	A1
391070H	URM 70 LSHF	75	7/0.19	PE	LSHF	59	5.8	A1
391070D	URM 70 DUCT	75	7/0.19	PE	LDPE	72	8.0	A1
391074	URM 74	50	1/4.78	PE	PVC	710	22.1	TBC
391076	URM 76	50	19/0.16	PE	PVC	41	5.1	TBC
391095	URM 95	50	1/0.46	PE	Nylon	13	2.3	TBC
391096	URM 96	95	1/0.64	PE	PVC	42	6.0	TBC
391109	URM 109	50	7/0.17	PTFE	FEP	14	2.4	TBC
391110	URM 110	50	7/0.11	PTFE	FEP	12	1.8	TBC
391111	URM 111	75	7/0.11	PTFE	FEP	14	2.4	TBC
391112	URM 112	50	7/0.74	PE	PVC	176	11.0	TBC
391115	URM 115	50	1/0.90	PE	PVC	85	7.2	TBC
391202	URM 202	75	7/0.25	PEC	PVC	31	5.1	TBC
391203	URM 203	75	1/1.12	PEC	PVC	52	7.25	TBC

TBC - To be confirmed

391067

391070H

This cable is Low Smoke Halogen Free throughout

Antennax™ Feeder Coax

The Antennax range of high performance, ultra low loss coaxial cables are designed for interconnection of base stations, aerials and transceivers. Developed for microwave, satellite and telecommunication, Antennax coax cables are manufactured to guarantee optimum levels of performance across the broadband spectrum up to 5.8GHz.

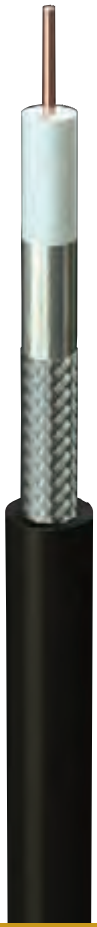
Antennax 50 Ohm & 75 Ohm coaxial cables offer a direct alternative to traditional corrugated cables with similar high performance, greater flexibility and faster termination with reduced risk of kinking.

The flexible braided design allows Antennax cables to be used throughout the installation, removing the need for Jumper cables traditionally used to terminate corrugated coax cables.

75 Ohm versions are designed for use on wireless broadband video applications and specialised RF communications.

A range of high quality connectors to suit Antennax cables are available from stock with termination tools to provide a complete RF cable installation solution.

390L40H



Antennax 50 Ohm

Part No.	Cable Type	Sheath Material	Imp. Ohms	Central Conductor	Size mm	Dielectric Material	Weight kg/km	O/D mm
390L19	ANT-195	PE	50	BC	1/0.94	FPE	30	4.9
390L19H	ANT-195H	LSHF	50	BC	1/0.94	FPE	30	4.9
390L20	ANT-200	PE	50	BC	1/1.12	FPE	30	4.9
390L20H	ANT-200H	LSHF	50	BC	1/1.12	FPE	30	4.9
390L24	ANT-240	PE	50	BC	1/1.42	FPE	50	6.1
390L24H	ANT-240H	LSHF	50	BC	1/1.42	FPE	50	6.1
390L30	ANT-300	PE	50	BC	1/1.78	FPE	80	7.6
390L30H	ANT-300H	LSHF	50	BC	1/1.78	FPE	80	7.6
390L40	ANT-400	PE	50	BCCAl	1/2.74	FPE	100	10.3
390L40H	ANT-400H	LSHF	50	BCCAl	1/2.74	FPE	100	10.3
390L50	ANT-500	PE	50	BCCAl	1/3.61	FPE	140	12.7
390L50H	ANT-500H	LSHF	50	BCCAl	1/3.61	FPE	140	12.7
390L60	ANT-600	PE	50	BCCAl	1/4.47	FPE	200	15.0
390L60H	ANT-600H	LSHF	50	BCCAl	1/4.47	FPE	200	15.0
390L90	ANT-900	PE	50	BCCAl	1/6.65	FPE	400	22.1
390L90H	ANT-900H	LSHF	50	BCCAl	1/6.65	FPE	400	22.1

Antennax 75 Ohm

Part No.	Cable Type	Sheath Material	Imp. Ohms	Central Conductor	Size mm	Dielectric Material	Weight kg/km	O/D mm
390L20H75	ANT-200H-75	LSHF	75	BC	1/0.64	FPE	31	5.0
390L24H75	ANT-240H-75	LSHF	75	BC	1/0.82	FPE	49	6.1
390L40H75	ANT-400H-75	LSHF	75	BC	1/1.65	FPE	101	10.3
390L60H75	ANT-600H-75	LSHF	75	BCCAl	1/2.74	FPE	201	15.0

This cable is Low Smoke Halogen Free throughout

Antennax 50 Ohm

Connector Type	ANT-195	ANT-200	ANT-240	ANT-300	ANT-400	ANT-500	ANT-600	ANT-900
N Type Crimp Plug	390L19-CN1	390L20-CN1	390L24-CN1	390L30-CN1	390L40-CN1	-	-	-
N Type Crimp Jack	390L19-CN2	390L20-CN2	390L24-CN2	390L30-CN2	390L40-CN2	-	-	-
N Type Clamp Plug	390L19-CN3	390L20-CN3	390L24-CN3	390L30-CN3	390L40-CN3	390L50-CN1	390L60-CN1	390L90-CN1
N Type Clamp Jack	390L19-CN4	390L20-CN4	390L24-CN4	390L30-CN4	390L40-CN4	390L50-CN2	390L60-CN2	390L90-CN2
TNC Crimp Plug	390L19-CT1	390L20-CT1	390L24-CT1	390L30-CT1	390L40-CT1	-	-	-
TNC Crimp Jack	390L19-CT2	390L20-CT2	390L24-CT2	390L30-CT2	390L40-CT2	-	-	-
TNC Clamp Plug	390L19-CT3	390L20-CT3	390L24-CT3	390L30-CT3	390L40-CT3	390L50-CT1	390L60-CT1	390L90-CT1
TNC Clamp Jack	390L19-CT4	390L20-CT4	390L24-CT4	390L30-CT4	390L40-CT4	390L50-CT2	390L60-CT2	390L90-CT2
Reverse Polarity TNC Crimp Plug	390L19-CT6	390L20-CT6	390L24-CT6	390L30-CT6	390L40-CT6	-	-	-
Reverse Polarity TNC Crimp Jack	390L19-CT7	390L20-CT7	390L24-CT7	390L30-CT7	390L40-CT7	-	-	-
Reverse Polarity TNC Clamp Plug	390L19-CT8	390L20-CT8	390L24-CT8	390L30-CT8	390L40-CT8	390L50-CT6	390L60-CT6	390L90-CT6
Reverse Polarity Clamp Jack	390L19-CT9	390L20-CT9	390L24-CT9	390L30-CT9	390L40-CT9	390L50-CT7	390L60-CT7	390L90-CT7
Crimp Tool	390L19-T1	390L20-T1	390L24-T1	390L30-T1	390L40-T1	-	-	-

Antennax 75 Ohm

Connector Type	ANT-200	ANT-240	ANT-400	ANT-600
N Type Crimp Plug	390L20-75-CN1	390L24-75-CN1	390L40-75-CN1	-
N Type Crimp Jack	390L20-75-CN2	390L24-75-CN2	390L40-75-CN2	-
N Type Clamp Plug	390L20-75-CN3	390L24-75-CN3	390L40-75-CN3	390L60-75-CN3
N Type Clamp Jack	390L20-75-CN4	390L24-75-CN4	390L40-75-CN4	390L60-75-CN4
Crimp Tool	390L20-75-T1	390L24-75-T1	390L40-75-T1	-

390L40-CN1

Coaxial Connectors

To meet the needs of installers and assemblers worldwide we are now stocking a range of quality connectors to suit many of the coaxial cables listed on the previous pages. If the connector you need is not listed - please call - we may be able to provide it or an alternative.

BNC PLUG TO PLUG

BNC CRIMP PLUG

F TYPE PLUG

N TYPE PLUG

T43 PLUG

Part No.	Description
Cable Group A1	
YA1BC1*	BNC Crimp Plug
YA1BC1	BNC Crimp Plug
YA1BS1	BNC Clamp Plug
YA1BT1†	BNC Twist On Plug
YA1NC1	N Type Crimp Plug
YA1NS1	N Type Clamp Plug
YA1BC2	BNC Crimp Jack
YA1BS2	BNC Clamp Jack
YA1BT2	BNC Twist On Jack
YA1NC2	N Type Crimp Jack
YA1NS2	N Type Clamp Jack
Cable Group A2	
YA2BC1	BNC Crimp Plug
YA2BT1	BNC Twist On Plug
YA2BC2	BNC Crimp Jack
YA2BT2	BNC Twist On Jack
Cable Group A3	
YA3BC1	BNC Crimp Plug
YA3BC2	BNC Crimp Jack
Cable Group A4	
YA4BC1	BNC Crimp Plug
YA4BS1	BNC Clamp Plug
YA4NC1	N Type Crimp Plug
YA4NS1	N Type Clamp Plug
YA4BC2	BNC Crimp Jack
YA4BS2	BNC Clamp Jack
YA4NC2	N Type Crimp Jack
YA4NS2	N Type Clamp Jack
Cable Group A5	
YA5BC1	BNC Crimp Plug
YA5BS1	BNC Clamp Plug
YA5NC1	N Type Crimp Plug
YA5NS1	N Type Clamp Plug
YA5BC2	BNC Crimp Jack
YA5BS2	BNC Clamp Jack
YA5NC2	N Type Crimp Jack
YA5NS2	N Type Clamp Jack

Part No.	Description
Cable Group A6	
YA6BC1	BNC Crimp Plug
YA6BS1	BNC Clamp Plug
YA6NC1	N Type Crimp Plug
YA6NS1	N Type Clamp Plug
YA6BC2	BNC Crimp Jack
YA6BS2	BNC Clamp Jack
YA6NC2	N Type Crimp Jack
YA6NS2	N Type Clamp Jack
Cable Group A7	
YA7BC1	BNC Crimp Plug
YA7BS1	BNC Clamp Plug
YA7BC2	BNC Crimp Jack
YA7BS2	BNC Clamp Jack
Cable Group A8	
YA8BC1	BNC Crimp Plug
YA8BC2	BNC Crimp Jack
Cable Group A9	
YA9NS1	N Type Clamp Plug
YA9NS2	N Type Clamp Jack
Cable Group B1	
YB1BC1	BNC Crimp Plug
YB1BC2	BNC Crimp Jack
YB1FC1	F Type Crimp Plug
YB1FC2	F Type Crimp Jack
Cable Group B2	
YB2BC1	BNC Crimp Plug
YB2BC2	BNC Crimp Jack
YB2FC1	F Type Crimp Plug
YB2FC2	F Type Crimp Jack
FireTuf Coax	
YFTCBC1	BNC Crimp Plug

* Budget priced connectors have diecast shell and body.

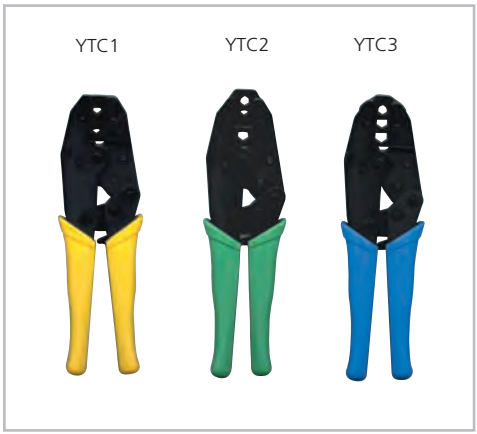
† Not suitable for use on URM70

Part No.	Description
Cable Group B3	
YB3FC1	F Type Crimp Plug
YB3FC2	F Type Crimp Jack
Cable Group B4	
YB4BC1	BNC Crimp Plug
YB4BC2	BNC Crimp Jack
Cable Group B5	
YB5BC1	BNC Crimp Plug
YB5BC2	BNC Crimp Jack
Cable Group B6	
YB64C1	T43 Crimp Plug
YB64C2	T43 Crimp Sockets
Cable Group B7	
YB74C1	T43 Crimp Plug
YB74C2	T43 Crimp Sockets
Cable Group B8	
YB84C1	T43 Crimp Plug
YB84C2	T43 Crimp Sockets
Cable Group B9	
YB94C1	T43 Crimp Plug
YB94C2	T43 Crimp Sockets

Part No.	Description
Cable Group C1	
YC1FC1	F Type Crimp Plug
YC1FC2	F Type Crimp Jack
Cable Group C2	
YC2FC1	F Type Crimp Plug
YC2FC2	F Type Crimp Jack
BNC Adaptors	
YXBX6	Plug to Plug
YXBX3	Jack to Jack
RJ45 Connectors	
RJ45UTPP	RJ45 UTP Plug Solid conductor Cat-5E
RJ45UTPP-S	RJ45 UTP Plug Stranded conductor Cat-5E
Boots	
YA1BX700	Boots for BNC cable group A1 Black
YA3BX700	Boots for BNC cable group A3 Black
YA7BX700	Boots for BNC cable group A7 Black
YA8BX704	Boots for BNC cable group A8 White

Tools

YTC1 (Yellow)	Crimp tool 1 for RG58; RG59; RG62; RG59 Mini
YTC2 (Green)	Crimp tool 2 for RG59 CT100; CT125
YTC3 (Blue)	Crimp tool 3 for RG11; RG213; CT125RBS BNC only
YTC5 (Orange)	Crimp tool 5 for RJ45 Plugs
YTC10	Crimp tool 10 YFTCBC1# FireTuf Coax BNC
YTS1	Cable stripper 1 (Cyclops) for Structured wiring Cat5e, Cat6
YTS2	Cable stripper 2 for RG58 & RG59



BNC JACK TO JACK

BNC JACK

F TYPE BULKHEAD JACK

N TYPE JACK

T43 SOCKET

CW1308 PVC Internal

Manufactured to British Telecom Specification CW1308, this cable is used for internal connection of telephone systems and other communications equipment.

Insulated and sheathed in PVC, these cables offer an extremely cost effective general signal cable for fixed installation. Standard sheath colour is white although some sizes are available in black or grey.

A full range of European specification telephone cables is also available on short lead times, please call us with your requirements.

Construction

Solid copper conductor, colour coded PVC insulation, twisted in pairs, rip cord, PVC sheath.

Technical Information

Conductor Diameter:	0.5mm	Earth 1.38mm
Max. Conductor Resistance:	97.8 ohm/km	12.4 ohm/km
Max. Capacitance Unbalanced:	500pF/km	
Working Temperature:	0°C to +70°C	
Min. Bend Radius Fixed:	8 x cable diameter	

30810E

Part No.	No. of Pairs	Weight kg/km	O/D mm
30802	2	21	4.5
30803	3	28	5.0
30804	4	34	5.8
30806	6	44	6.8
30810	10	67	8.3
30810E	10+E	85	8.6
30815	15	115	9.8
30820	20	150	10.7
30820E	20+E	183	12.0
30825	25	184	11.4
30825E	25+E	210	12.0
30830	30	226	12.2
30830E	30+E	262	12.9
30840E	40+E	371	15.0
30850E	50+E	427	17.0
30880E	80+E	610	20.2
308100E	100+E	708	27.0
308160E	160+E	1059	30.3
308200E	200+E	1393	33.1

Other pair combinations or larger numbers of pairs and alternative conductor sizes are available on request.

Cables ending with E include a 1.38mm Earth core.

Colour codes to BT Standards, see page 195.

CW1308 LSHF Internal

When you need a LSHF internal telephone cable but don't want to go to the expense of CW1600 this range is ideal.

Manufactured generally in accordance with BT CW1308 specification both the insulation and sheath materials have been changed to ones that don't emit poisonous halogens in the event of a fire. These cables are not to be confused with the cheaper, PVC insulated, modified PVC jacketed LSF versions that have appeared on the market in the last few years.

Construction

Solid copper conductor, colour coded Low Smoke Halogen Free insulation, twisted into pairs, rip cord, Low Smoke Halogen Free jacket, white. Earth core in cables with 10 pairs or more.

Technical Information

Conductor Diameter:	0.5mm	Earth 1.38mm
Max. Conductor Resistance:	97.8 ohm/km	12.4 ohm/km
Max. Capacitance Unbalanced:	500pF/km	
Working Temperature:	0°C to +70°C	
Min. Bend Radius Fixed:	8 x cable diameter	

Part No.	No. of Pairs	Weight kg/km	O/D mm
30802H	2	22	4.5
30803H	3	31	5.0
30804H	4	34	5.8
30806H	6	50	6.8
30810EH	10+E	102	8.6
30820EH	20+E	161	12.0
30850EH	50+E	352	17.0
308100EH	100+E	687	27.0

30850EH

CW1600 LSHF Limited Fire Hazard

This cable is similar in design and application to CW1308 but with the addition of an aluminium foil screen and Low Smoke Halogen Free cores and sheath.

Used for the internal wiring of buildings where the need to protect people and equipment from smoke and fumes is paramount. CW1600 has the added advantage of an aluminium/polyester foil screen and drain wire.

A fire barrier tape is included on cable with more than 6 pairs. A rip cord is located directly under the jacket to make stripping the outer sheath easier.

Construction

Solid copper conductor, colour coded Low Smoke Halogen Free insulation. Twisted into pairs, screened with an aluminium / polyester tape in contact with solid copper drain wire, fire barrier tape on cables with more than 6 pairs, Low Smoke Halogen Free sheath.

Technical Information

Conductor Diameter:	0.5mm	Earth 1.38mm
Max. Conductor Resistance:	97.8 ohm/km	12.4 ohm/km
Max. Capacitance Unbalanced:	500pF/km	
Working Temperature:	0°C to +70°C	
Minimum Bending Radius:	8 x cable diameter	
Oxygen Index:	35%	
HCl Emissions to:	BT M234	

60010E

Part No.	No. of Pairs	Weight kg/km	O/D mm
60003	3	35	6.0
60004	4	39	6.4
60006	6	66	6.8
60010E	10+E	102	8.6
60020E	20+E	167	12.0
60040E	40+E	295	15.0
60050E	50+E	358	20.0
600100E	100+E	692	26.0

Cables ending with E include a 1.38mm Earth core.

Colour codes to BT Standards, see page 197.

All sizes are normally available from stock.

Armoured versions can be produced to order for quantities as low as 100m.

CW1044 Functional Earth

CW1044 is primarily intended to provide a connection to earth for internal telephone systems. It features a single core plain annealed copper conductor which is solid in 1.5mm² and stranded in all other sizes. 16mm² and above is stocked in Low Smoke Halogen Free versions only. The insulation is cream with black printing 'Telecom Functional Earth'.

Part No.	Size mm²	Stranding	Weight kg/km	Nominal O/D mm
044015	1.5	1/1.38	24	3.3
044025	2.5	7/0.67	38	3.9
04404	4.0	7/0.85	57	4.6
04406	6.0	7/1.04	87	5.4
04410	10	7/1.35	110	6.1
04416H	16	7/1.70	172	7.1
04425H	25	7/2.14	285	8.9
04435H	35	7/2.52	380	10.1
04450H	50	19/1.78	510	11.8

04416H

CW1411 & CW1417 BT Drop Wire

Self supporting aerial cables are designed for use in telephony networks to link between pole and building or two buildings. The high tensile steel strainer wires are incorporated within the cable. A black polyethylene sheath, which is UV stable offers excellent weather resistance.

2 pair Ref: CW1411 4 pair Ref: CW1417

Part No.	BT Ref	No. of Pairs	Conductor Dia. mm	Weight kg/km	Nominal O/D mm
37802	10B	2	0.5	32	5.3
37804	14 (55m)	4	0.5	35	5.6

Standard packing on Drop Wire is 350m reels.

37804

This cable is Low Smoke Halogen Free throughout

CW1128 External

CW1128 external telephone cables are suitable for installation outdoors where an armoured cable is not necessary. They offer a lightweight, compact, tough solution for cables that will have to endure a variety of weather conditions, from rain and snow to bright sunlight.

CW1128 is ideal for clipping around the outside of buildings or running through ducting.

The outer sheath is made from tough, durable polyethylene which is also UV and sunlight resistant. The pairs are bedded in petroleum jelly to protect against the ingress of moisture.

Construction

Solid plain copper conductor, colour coded polyethylene insulation, petroleum jelly filled, separator tape and a black polyethylene sheath.

Technical Information

Conductor Diameter:	0.5mm	0.9mm
Max. Conductor Resistance:	91 ohm/km	28 ohm/km
Insulation Resistance:	1500 Mohm/km	1500 Mohm/km
Capacitance Unbalanced: >3pair	275pF/m	275pF/m
Colour Code: see page 197	To CW1128	To CW1128

12800520

Part No.	No. of Pairs	Conductor Dia. mm	Weight kg/km	O/D mm
Solid 0.5mm				
12800502	2 (Quad)	0.5	50	5.9
12800503	3	0.5	58	6.6
12800505	5	0.5	76	8.0
12800510	10	0.5	113	9.5
12800520	20	0.5	184	12.0
12800530	30	0.5	249	13.0
12800550	50	0.5	381	16.5
128005100	100	0.5	710	22.0

Part No.	No. of Pairs	Conductor Dia. mm	Weight kg/km	O/D mm
Solid 0.9mm				
12800901Q	2 (Quad)	0.9	72	7.2
12800905	5	0.9	160	11.5
12800910	10	0.9	261	14.0
12800920	20	0.9	452	18.0
12800950	50	0.9	1076	26.5
128009100	100	0.9	2033	36.0

Aluminium screened / moisture barrier versions of this cable are also available in the style of CW1179 with some sizes from stock. Please call to check availability.

CW1128/1198 Armoured

CW1128/1198 type telephone cables are used for external connection of telephone systems and other communications equipment where the added protection of steel wire armouring is needed. This cable is ideally suited for direct burial.

The outer sheath is made from tough, durable polyethylene or external grade PVC which is UV and sunlight resistant. The cores are bedded in petroleum jelly to protect against the ingress of moisture.

Construction

Solid plain copper conductor, colour coded polyethylene insulation, petroleum jelly filled, separator tape, polyethylene bedding, galvanised steel wire armour and a black or grey polyethylene or external grade PVC sheath.

Technical Information

Conductor Diameter:	0.5mm	0.9mm
Max. Conductor Resistance:	91 ohm/km	28 ohm/km
Insulation Resistance:	1500 Mohm/km	1500 Mohm/km
Capacitance Unbalanced: >3pair	275pF/m	275pF/m
Colour Code: see page 197	To CW1128	To CW1128

Part No.	No. of Pairs	Conductor Dia. mm	Weight kg/km	O/D mm
Solid 0.5mm				
19800501Q	2 (Quad)	0.5	187	10.1
19800505	5	0.5	218	11.0
19800510	10	0.5	285	12.2
19800520	20	0.5	378	14.5
19800530	30	0.5	621	16.2
19800550	50	0.5	896	20.4
198005100	100	0.5	1368	26.2

Part No.	No. of Pairs	Conductor Dia. mm	Weight kg/km	O/D mm
Solid 0.9mm				
19800901Q	2 (Quad)	0.9	320	12.8
19800905	5	0.9	496	13.9
19800910	10	0.9	738	17.4
19800920	20	0.9	1257	23.6
19800950	50	0.9	2310	32.3
198009100	100	0.9	3487	40.6

Larger pair counts and screened or moisture barrier versions to CW1179 are also available. Please call to check availability.

19800520

Silicone SiF, SiF-GL, SiD Singles

Silicone insulated conductors offer you an economical solution to many temperature related wiring problems. Capable of working at extremes as far apart as -60°C right up to +180°C, silicone insulated cables have grown substantially in popularity.

Flexibility is retained even at very low temperatures where conventional rubber or PVC cable would become brittle and crack.

At high temperatures the cable performs normally. In the case of a fire, the silicone changes to form an insulating layer of SiO2 which, provided there is no movement, will maintain cable integrity in the short term. This is important in the event of a fire where equipment needs to be shut down, lighting maintained and alarm systems remain operational.

Silicone is relatively inert, that is to say it gives off minimal smoke or fumes when exposed to fire. Airports, hospitals, and other public buildings use silicone cables to wire alarm, lighting, and other essential services.

At high temperatures, applications include heating elements, lighting, manufacturing and food processing and for control circuits where heat is involved. At low temperatures silicone insulated cables are used in cold stores and refrigeration plants for lighting, portable equipment and motor feeds.

SiF

Technical Information

Voltage Rating:	Working	300/500V	Test	2000V
Temperature Rating:	Flexing	-25°C to +180°C	Static	-60°C to +180°C
	SiD		Static	-60°C to +180°C
Bending Radius:	Flexing	15 x cable diameter	Static	7.5 x cable dia.
	SiD		Static	7.5 x cable dia.
Current Rating:	Refer to IEE Regs Table 4F2A&B			
Conductor Stranding:	Flexible cables		To IEC 60228 Class 5 & VDE 0295 Class 5	
	SiD		To IEC 60228 Class 1 & VDE 0295 Class 1	

Most of the silicone insulated cables on the following page are available from stock in standard pack sizes of 100m or 500m. For conductor sizes above 10mm² the cable can be cut to the length you require. Other voltages, strandings and approvals available on request.

Construction - SiF

Fine tinned copper wire strands, class 5, silicone insulation.

Part No.	mm²	Weight kg/km	O/D mm
451002xx	0.25	5	1.9
451005xx	0.50	8	2.1
451007xx	0.75	11	2.4
451010xx	1.0	13	2.5
451015xx	1.5	18	2.8
451025xx	2.5	30	3.4
451040xx	4.0	48	4.2
451060xx	6.0	71	4.9
451100xx	10	120	6.7
451160xx	16	187	7.7
451250xx	25	289	9.8

Part No.	mm²	Weight kg/km	O/D mm
451350xx	35	399	10.9
451500xx	50	559	12.6
451700xx	70	766	14.6
451950xx	95	1032	17.5
451120xx	120	1285	18.7
451150xx	150	1565	20.8
451185xx	185	1915	23.7
451240xx	240	2550	26.9
451300xx	300	3190	30.1
451400xx	400	4130	36.3
451510xx	500	5210	40.3

Construction - SiD

Fine tinned copper wire strands, class 1, silicone insulation.

Part No.	mm²	Weight kg/km	O/D mm
441005xx	0.50	7	1.8
441007xx	0.75	10	2.0
441010xx	1.0	13	2.1
441015xx	1.5	19	2.6
441025xx	2.5	31	3.2
441040xx	4.0	48	3.7
441060xx	6.0	68	4.2

Construction - SiF-GL

Fine tinned copper wire strands, class 5, silicone insulation. Impregnated glass fibre braid. Various colours.

Part No.	mm²	Weight kg/km	O/D mm
46100204	0.25	8	2.4
46100504	0.50	13	3.4
461007xx	0.75	16	3.6
461010xx	1.0	19	3.8
461015xx	1.5	24	4.3
461025xx	2.5	36	5.0
46104004	4.0	55	5.6
46106004	6.0	80	6.2
46110004	10	130	8.2
46116004	16	200	9.6
46125004	25	310	12.0
46135004	35	420	13.5
46150004	50	580	15.5
46170004	70	790	18.0
46195004	95	1070	20.0

Construction - SiF-HT

Flexible tinned copper wire strands, class 5, silicone high voltage insulation.

Part No.	mm²	Volts kV	O/D mm	Colour
45201000	1.0	7.5	5.0	Red
45501004	1.0	10	7.0	White

Construction - SiF-G-Si-HT

Flexible tinned copper wire strands, class 5, silicone high voltage insulation, glass fibre braid, blue silicone sheath.

Part No.	mm²	Volts kV	O/D mm	Colour
45601000	1.0	16	8.0	Blue
45601500	1.5	16	8.5	Blue

To show the colour required please replace xx in the part number with:

00	Black	04	White	08	Orange
01	Blue	05	Grey	09	Yellow
02	Brown	06	Violet	10	Green
03	Red	07	Pink	99	Green/Yellow

SiD

SiF-GL

Silicone SiHF, SiHFP, SiHF-C-Si Multicores

Silicone insulated and sheathed multicore cables offer electrical engineers and specifiers a superb range of options. Ideally suited to high or low temperature applications, these cables will work between -60°C and +180°C. When exposed to fire they produce minimal smoke or fumes and can be used to wire public buildings.

Options include a galvanised steel wire braid for mechanical protection or a tinned copper wire braid for screening against EMI.

Applications within industry include plastic forming and moulding, packaging, food processing, refrigeration, furnaces and lighting.

47101503

Technical Information

Voltage Rating:	Working	300/500V	Test	3000V
Temperature Rating:	Flexing	-25°C to +180°C	Static	-60°C to +180°C
Bending Radius SiHF:	Flexing	15 x cable diameter	Static	7.5 x cable dia.
Braided Cables:	Flexing	20 x cable diameter	Static	10 x cable dia.
Current Rating:	Refer to IEE Regs Table 4F2A&B and 4F3A&B			
Conductor Stranding:	To IEC 60228 Class 5 & VDE 0295 Class 5			

Construction - SiHF

Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber outer sheath. (Some sizes available with black or white sheaths or an overall glass fibre braid).

Part No.	Core & mm²	O/D mm
47100702	2 x 0.75*	6.3
47100703	3 x 0.75*	7.0
47100704	4 x 0.75	7.7
47100705	5 x 0.75	8.5
47101002	2 x 1.0	7.0
47101003	3 x 1.0*	7.5
47101004	4 x 1.0	8.0
47101005	5 x 1.0	9.0
47101006	6 x 1.0	10.5
47101007	7 x 1.0	10.5
47101502	2 x 1.5	8.0
47101503	3 x 1.5*	8.5
47101504	4 x 1.5	9.0
47101505	5 x 1.5	10.0
47101506	6 x 1.5	10.5
47101507	7 x 1.5	10.5
47101508	8 x 1.5	12.0
47101510	10 x 1.5	14.5
47101512	12 x 1.5	16.0
47101516	16 x 1.5	19.5
47101518	18 x 1.5	20.0

Part No.	Core & mm²	O/D mm
47101520	20 x 1.5	21.0
47101524	24 x 1.5	23.0
47102502	2 x 2.5	9.5
47102503	3 x 2.5	10.5
47102504	4 x 2.5	11.5
47102505	5 x 2.5	13.0
47102507	7 x 2.5	14.0
47102512	12 x 2.5	19.0
47104002	2 x 4.0	11.0
47104003	3 x 4.0	11.5
47104004	4 x 4.0	13.0
47104005	5 x 4.0	14.5
47104007	7 x 4.0	16.0
47106002	2 x 6.0	12.0
47106003	3 x 6.0	13.0
47106004	4 x 6.0	14.0
47106005	5 x 6.0	16.0
47106007	7 x 6.0	17.5
47110004	4 x 10	20.0
47116004	4 x 16	22.0
47125004	4 x 25	28.0
47135004	4 x 35	30.2

** Also available from stock with a black or white sheath*

48102504E

Construction - SiHFP

Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber sheath. Glass fibre tape with an overall galvanised steel wire braid.

Part No.	Core & mm²	O/D mm
Steel Braided Armour		
48100702	2 x 0.75	8.0
48100703	3 x 0.75	8.5
48100704	4 x 0.75	9.5
48100705	5 x 0.75	10.0
48100706	6 x 0.75	11.0
48100707	7 x 0.75	11.0
48101002	2 x 1.0	8.5
48101003	3 x 1.0	9.0
48101004	4 x 1.0	10.0
48101005	5 x 1.0	10.5
48101006	6 x 10	11.5
48101007	7 x 1.0	11.5
48101502	2 x 1.5	9.0
48101503	3 x 1.5	9.5
48101504	4 x 1.5	11.0
48101505	5 x 1.5	12.0
48101506	6 x 1.5	13.0
48101507	7 x 1.5	13.0
48101508	8 x 1.5	14.5
48101510	10 x 1.5	16.0
48101512	12 x 1.5	17.5
48101516	16 x 1.5	21.0
48101518	18 x 1.5	21.5
48101520	20 x 1.5	22.5
48101524	24 x 1.5	24.5
48102502	2 x 2.5	11.0
48102503	3 x 2.5	12.0
48102504	4 x 2.5	13.0
48102505	5 x 2.5	14.5
48102507	7 x 2.5	15.5
48102512	12 x 2.5	20.5
48104002	2 x 4.0	12.5
48104003	3 x 4.0	13.0
48104004	4 x 4.0	14.5
48104005	5 x 4.0	16.0
48104007	7 x 4.0	17.5
48106002	2 x 6.0	13.5
48106003	3 x 6.0	14.5
48106004	4 x 6.0	15.5
48106005	5 x 6.0	17.5
48106007	7 x 6.0	19.0
48110004	4 x 10	21.5
48116004	4 x 16	23.5
48125004	4 x 25	30.0

Construction - SiHF-C-Si

Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber inner sheath or polyester tape. Tinned copper wire braid. Reddish brown silicone rubber sheath.

Part No.	Core & mm²	O/D mm
Copper Braided Screened		
49100703	3 x 0.75	9.5
49100704	4 x 0.75	10.1
49100705	5 x 0.75	10.7
49100707	7 x 0.75	11.6
49101002	2 x 1.0	9.4
49101003	3 x 1.0	9.7
49101004	4 x 1.0	10.3
49101005	5 x 1.0	11.2
49101007	7 x 1.0	11.9
49101503	3 x 1.5	11.0
49101504	4 x 1.5	11.9
49101505	5 x 1.5	13.2
49101507	7 x 1.5	14.2
49101512	12 x 1.5	18.0
49102504	4 x 2.5	14.2
49102507	7 x 2.5	16.8

PTFE Single Cores

These cables are manufactured to BS 3G 210 and operate up to +200°C or +250°C short term with silver plated copper conductors. Nickel plated conductor versions to work up to +260°C are available to special order. Other standards available include American Mil, VDE, DIN and Lloyds.

PTFE is a remarkable material. It is unaffected by most oils, fuels and fluids. The high temperature range makes it resistant to damage from heat sources such as soldering irons or components.

Multicore and screened or braid armoured versions can also be manufactured in many sizes and styles.

Please note due to the manufacturing process this cable may be supplied in multiple lengths on a reel. For example 100m may be made up of two or more lengths.

BSG31819B01

BSG31419C04

Technical Information

Voltage Rating:	Working	Type A	300V	Test: 2500V
		Type B	600V	Test: 3400V
		Type C	1000V	Test: 5000V
Temperature Rating:	Static	-55°C to +200°C	Short term	+250°C
Bending Radius:	Static	6 x cable diameter		
Conductor Material:		Silver plated copper		

Manufactured to BS 3G 210. See page 171 for colour code table.

Part No.	Size AWG	Stranding mm	CSA mm²	Voltage Grade	Weight kg/km	O/D mm min	O/D mm max
BSG33007Axx	30	7/0.10	0.056	A	1.1	0.50	0.65
BSG32807Axx	28	7/0.12	0.089	A	1.4	0.56	0.71
BSG32807Bxx	28	7/0.12	0.089	B	2.1	0.76	0.96
BSG32607Axx	26	7/0.15	0.14	A	1.7	0.65	0.80
BSG32607Bxx	26	7/0.15	0.14	B	3.09	0.85	1.05
BSG32407Axx	24	7/0.20	0.22	A	3.04	0.80	0.95
BSG32407Bxx	24	7/0.20	0.22	B	3.89	1.00	1.20
BSG32407Cxx	24	7/0.20	0.22	C	4.64	1.26	1.52
BSG32219Axx	22	19/0.15	0.35	A	4.41	0.95	1.10
BSG32219Bxx	22	19/0.15	0.35	B	5.44	1.15	1.35
BSG32219Cxx	22	19/0.15	0.35	C	6.43	1.41	1.67
BSG32019Axx	20	19/0.20	0.61	A	7.19	1.20	1.35
BSG32019Bxx	20	19/0.20	0.61	B	8.43	1.40	1.60
BSG32019Cxx	20	19/0.20	0.61	C	9.08	1.66	1.92
BSG31819Bxx	18	19/0.25	0.96	B	12.1	1.65	1.85
BSG31819Cxx	18	19/0.25	0.96	C	14.3	1.91	2.17
BSG31619Cxx	16	19/0.30	1.23	C	16.5	2.16	2.46
BSG31419Cxx	14	19/0.36	1.94	C	23.9	2.34	2.74
BSG31219Cxx	12	19/0.45	3.08	C	38.5	2.91	3.31
BSG31037Cxx	10	37/0.40	4.65	C	56	3.46	3.86

P-Temp 260

P-Temp-260 cables are designed to operate at conductor temperatures up to +260°C. The PTFE insulation is covered by a layer of mica that is protected from abrasion or mechanical damage by an impregnated and varnished glass fibre braid. The cable is also capable of withstanding higher temperatures for short periods. This is a direct alternative to In-Temp 250 that used to be manufactured by BICC.

The fine stranded nickel plated copper conductor provides flexibility during installation and routing with substantially improved high temperature performance over tinned or plain copper.

Multicore versions can be made to your requirements normally with stainless steel or glass fibre braids. Other types of PTFE insulated wires are also available with tinned, nickel, or silver plated conductors. Please ask for details.

Construction

Fine nickel plated copper wire strands to IEC 60228 Class 5 or finer. White PTFE insulation. Mica tape, impregnated and varnished glass fibre braid. Standard colour white, other colours to special order.

Technical Information

Voltage Rating:	Working 0.6/1kV Test 5000V
Temperature Rating:	Static -55°C to +260°C
Bending Radius:	Static 10 x cable diameter
Conductor Stranding:	To IEC 60228 class 5 flexible or finer

Part No.	CSA mm²	Stranding x mm	Weight kg/km	O/D mm	Current amps*
76001000	1.0	32 x 0.2	22	3.2	25
76001500	1.5	30 x 0.25	30	3.6	40
76002500	2.5	50 x 0.25	39	3.9	54
76004000	4.0	56 x 0.3	56	4.7	74
76006000	6.0	84 x 0.3	80	6.1	98
76010000	10.0	133 x 0.3	120	6.9	135
76016000	16.0	126 x 0.4	193	8.7	180
76025000	25.0	196 x 0.4	287	10.2	240

**Current rating at +80°C ambient for conductor temperature of +250°C.*

Up to 25mm² held in stock.

We also hold stocks of some sizes of Unipren, Uniefglas, Uniminyvin, Uninyvin and Unitersil. Please ask for details.

76010000

G-Temp 600

Pure nickel conductors offer excellent high temperature performance. The conductor can withstand temperatures up to +750°C. The high temperature glass insulation enables the nickel conductor to operate continuously at +600°C and for short periods up to +750°C. Applications include furnaces, ovens, kilns and other extremely high temperature environments.

These cables can also be supplied in multicore versions with overall glass fibre or stainless steel braids for quantities as low as 100m.

Higher voltages are available by special order. These include a mica tape in the cable construction. Please call if you have a specific requirement.

Construction

Pure nickel strands, double glass yarn lapped, impregnated, glass braided, double silicone varnished, colour natural/white.

Technical Information

Voltage Rating: Working 250V

Temperature Rating: Continuous +600°C Intermittent +750°C

78504056

Part No.	Nominal CSA mm²	Stranding x mm	Lug Type	Weight Kg/Km	O/D mm	Current ratings in Amps at +30°C Ambient. Conductor Temp. +180°C	+200°	+250°C
78500516	0.50	16/0.2	A	9	2.0	5	6	7.5
78500724	0.75	24/0.2	A	11	2.3	6	7	9
78501032	1.0	32/0.2	A	16	2.5	9	9	10
78501530	1.5	30/0.25	B	22	2.7	15	16	17
78502550	2.5	50/0.25	B	32	3.3	21	22	23
78504056	4.0	56/0.3	C	46	3.9	26	28	29
78506084	6.0	84/0.3	C	59	5.2	31	33	34

Nickel Crimp Lugs

Copper is not suitable for crimp lugs at very high temperatures due to its greater expansion rate. This can result in nickel conductors simply dropping out.

We are able to offer high temperature stable crimp lugs that will work at over +800°C suitable for use on G-Temp-600.

Part No.	Lug Type	Conductor Size Min	Max	Stud Size	Max Length	Max Width
LUGN02/1/4	A	0.25mm²	1.0mm²	4mm	14.8	6.8
LUGN10/2/4	B	1.0mm²	2.5mm²	4mm	16.4	8.3
LUGN20/6/4	C	2.5mm²	6.0mm²	4mm	20.0	9.9

Extreme Temperature Cables -190°C to +1400°C

Singlecore, multicore, pair and triple configuration cables can be supplied to meet even the most extreme temperature applications. Variations include fluorpolymer based cables utilising PFA and PTFE materials through to glass and ceramic woven or braided cables offering temperature spans between -190°C to +1400°C. Conductor materials will be matched to the operating temperature. Thermocouple types are also available.

The cables can be supplied as instrumentation, control and power types with electrical screens to prevent interference where required. When mechanical protection is required metallic armours can be applied to prevent damage.

For highly aggressive and hazardous area applications Mineral Insulated Inconel Sheathed (MIIS) cables can be supplied. Similar to MICC cables shown on page 146, these cables are made from specialist metals to withstand corrosion, saltwater, sun and high temperatures. They are fire resistant to BS 6387 CWZ & BS 8434, suitable for use in ATEX rated areas and carry zone 1 & 2 hazardous area certification.

To obtain a quote for the cables you require please send us your specification or the following information and we will do the rest.

- Number of cores, pairs or triples
- Voltage rating
- Armour/mechanical protection
- Wet or dry environment
- Quantity required
- Conductor size & stranding
- Screening required (Individual or collective screen)
- Operating temperature
- Is the cable fixed or moving when installed
- Date required

Please provide us with a brief description of the application and environment.

Silicone based H.T ignition cables can be found on page 171.
Flare stack ignition and control cables are listed on page 73 in the Marine section.

H05RR-F Multicores

Used extensively for trailing and flexible supply leads, these rubber cables remain flexible even at sub-zero temperatures.

H05RR-F uses a standard grade rubber compound for the outer sheath and is suitable for light duty applications.

Application

Light portable tools, temporary or portable lighting, extension leads for indoor or outdoor use where there is minimal physical damage expected.

Construction

Fine copper wire strands to IEC 60228 class 5. Rubber insulation colour coded to BS 7671/HD 308 S2. Cores twisted together. Black rubber outer sheath to BS 6500:2000 table 12 and BS 7919:2001 table 10.

Technical Information

Voltage Rating: Working 300/500V Test 2000V
Temperature Rating: -25°C to +60°C
Bending Radius: Flexing 15 x cable diameter
Static 6 x cable diameter
Current Rating: H05RR-F Refer to IEE Regs Table 4HF3A&B
Conductor Stranding: To IEC 60228 Class 5 &
VDE 0295 Class 5.

55101503

Part No.	Core & Size mm²	O/D mm
55100702	2 X 0.75	6.2
55100703	3 G 0.75	6.8
55101002	2 X 1.0	6.8
55101003	3 G 1.0	7.2
55101004	4 G 1.0	8.0
55101502	2 X 1.5	8.5
55101503	3 G 1.5	9.6
55101504	4 G 1.5	10.2
55101505	5 G 1.5	11.5
55102502	2 X 2.5	9.8
55102503	3 G 2.5	10.4
55102504	4 G 2.5	11.4
55102505	5 G 2.5	12.5

G = With Green/Yellow X = Without Green/Yellow

The overall diameter given has been taken from measuring actual cables, however rubber cables vary considerably in diameter from one manufacturer to another. If the diameter is critical, please ask at time of order and we will check the stock you will be sent.

Also available in a special blue sheathed version suitable for use in drinking water.

H07RN-F Single & Multicores

Used extensively for trailing and flexible supply leads in either single or multicore versions, these rubber cables remain flexible even at sub-zero temperatures.

H07RN-F uses neoprene (PCP) for its sheath. The improved abrasion resistance and the ability to withstand many oils and chemicals make the neoprene sheathed cables suitable for the most arduous conditions.

Application

Portable saws, grinders, welders, pumps, transformers, as temporary lighting cable and feed cable to heavy mobile equipment. Single cores and large multicores are often used as distribution cables from mobile generators.

Construction

Fine copper wire strands to IEC 60228 class 5. Rubber insulation colour coded to BS 7671/HD 308 S2 (cables with over 5 cores, A07RN-F, are number coded). Cores twisted together. Black neoprene (PCP) outer sheath to BS 7919:2001 table 14.

Technical Information

Voltage Rating: Working 450/750V Test 3000V
Temperature Rating: -20°C to +60°C. + 85°C for static applications
Bending Radius: Flexing 15 x cable diameter
Static 6 x cable diameter
Current Rating: H07RN-F Refer to IEE Regs Table 4F1A&B
Conductor Stranding: To IEC 60228 Class 5 & VDE 0295 Class 5.

Part No.	Core x Size mm²	Weight kg/km	O/D mm
57101002	2 x 1.0	92	8.3
57101003	3 G 1.0	111	8.9
57101004	4 G 1.0	134	9.7
57101501	1 x 1.5	48	5.9
57101502	2 x 1.5	109	8.7
57101503	3 G 1.5	137	9.7
57101504	4 G 1.5	169	10.7
57101505	5 G 1.5	206	11.6
57101507	7 G 1.5	371	16.0
57101512	12 G 1.5	546	20.0
57101519	19 G 1.5	777	23.5
57101527	27 G 1.5	1090	27.5
57101537	37 G 1.5	1300	31.0
57102501	1 x 2.5	62	6.5
57102502	2 x 2.5	162	10.6
57102503	3 G 2.5	198	11.4
57102504	4 G 2.5	244	12.6
57102505	5 G 2.5	299	14.0
57102507	7 G 2.5	461	18.2
57102512	12 G 2.5	758	24
57102519	19 G 2.5	1100	24.5
57102527	27 G 2.5	1590	32.1
57104001	1 x 4.0	88	7.5
57104002	2 x 4.0	220	12.0
57104003	3 G 4.0	276	13.1
57104004	4 G 4.0	343	14.4
57104005	5 G 4.0	431	16.3
57106001	1 x 6.0	116	8.3
57106002	2 x 6.0	295	13.7
57106003	3 G 6.0	370	14.8
57106004	4 G 6.0	474	16.7
57106005	5 G 6.0	585	18.4
57110001	1 x 10	182	10.1
57110002	2 x 10	522	18.1
57110003	3 G 10	668	20.1
57110004	4 G 10	822	21.6
57110005	5 G 10	1010	24.2
57116001	1 x 16	250	11.4
57116002	2 x 16	738	21.6
57116003	3 G 16	906	22.6
57116004	4 G 16	1120	24.6
57116005	5 G 16	1380	27.1
57125001	1 x 25	361	13.4
57125003	3 G 25	1360	27.4
57125004	4 G 25	1730	30.7
57125005	5 G 25	2110	33.6
57135001	1 x 35	469	14.7
57135003	3 G 35	1700	29.7
57135004	4 G 35	2180	33.2
57135005	5 G 35	2680	41.3
57150001	1 x 50	671	17.5
57150003	3 G 50	2410	35.4
57150004	4 G 50	3060	39.2
57150005	5 G 50	4383	47.3
57170001	1 x 70	892	19.6
57170003	3 G 70	3180	39.6
57170004	4 G 70	4040	43.3
57170005	5 G 70	5398	56.2
57195001	1 x 95	1140	22.0
57195003	3 G 95	4070	45.2
57195004	4 G 95	5300	50.5
57112001	1 x 120	1420	24.2
57112003	3 G 120	4936	53.7
57112004	4 G 120	6499	59.5
57115001	1 x 150	1760	26.6
57115004	4 G 150	8101	65.5
57118501	1 x 185	2090	28.8
57118504	4 G 185	10029	76.5
57124001	1 x 240	2710	32.2
57130001	1 x 300	3310	34.9

G = With Green/Yellow X = Without Green/Yellow

The overall diameter given has been taken from measuring actual cables, however rubber cables vary considerably in diameter from one manufacturer to another. If the diameter is critical, please ask at time of order and we will check the stock you will be sent.
Also available in a special blue sheathed version suitable for use in drinking water.

57101503

NSHTöu Drum Reeling

NSHTöu is designed specifically for drum reeling applications. On anything from dockside cranes to automated conveyor systems, NSHTöu copes with incredible workloads. Good UV and weather resistance makes the cable suitable for exposed outdoor installation.

A special low temperature type is available to work down to -40°C. Other sizes and high tensile versions using Kevlar strain relief elements are also available. Medium and high voltage variants are available usually with red PCP outer sheaths.

Construction

Fine copper wire strands to IEC 60228. Rubber insulation, 4 & 5 core colour coded, six core and above, black with white numbers. Green/yellow earth core in all cables. Cores twisted together with short lay length. Black neoprene (PCP) dual layer outer sheath with integral textile braid.

Technical Information

Voltage Rating: Working 1000V Test 2500V
Temperature Rating: Flexing -25°C to +60°C
Bending Radius: Up to 20mm diameter: 10 x cable diameter
Flexing: Above 20mm diameter: 12.5 x cable diameter

51106004

Part No.	Core x Size mm²	Weight kg/km	O/D mm
51101504	4 x 1.5	301	15
51101505	5 x 1.5	342	16
51101507	7 x 1.5	419	20
51101512	12 x 1.5	620	22
51101518	18 x 1.5	875	27
51101524	24 x 1.5	1020	29
51101530	30 x 1.5	1362	31
51101542	42 x 1.5	1724	35
51102504	4 x 2.5	374	17
51102505	5 x 2.5	486	19
51102507	7 x 2.5	506	22
51102508	8 x 2.5	704	24
51102512	12 x 2.5	891	26
51102516	16 x 2.5	1103	28
51102518	18 x 2.5	1208	30
51102519	19 x 2.5	1282	31
51102524	24 x 2.5	1562	35
51102530	30 x 2.5	1819	36
51102536	36 x 2.5	2327	40
51102542	42 x 2.5	2860	45
51104004	4 x 4	526	19

Part No.	Core x Size mm²	Weight kg/km	O/D mm
51104005	5 x 4	636	21
51104008	8 x 4	1015	27
51106004	4 x 6	688	21
51106005	5 x 6	855	23
51110004	4 x 10	1047	26
51110005	5 x 10	1190	28
51116004	4 x 16	1280	29
51116005	5 x 16	1803	32
51125004	4 x 25	2102	35
51135004	4 x 35	2751	39
51150004	4 x 50	3695	45
51170004	4 x 70	5401	49
51195004	4 x 95	6985	57
51112004	4 x 120	8294	60
51115004	4 x 150	8989	65
51301525*	25x1.5+5x1.5(C)	2142	40
51302519*	19x2.5+5x1.5(C)	1757	34
51302525*	25x2.5+5x1.5(C)	2010	37
51501506	3 x (2 x 1.5)(C)	608	23
51501512	6 x (2 x 1.5)(C)	984	31

** The 5 x 1.5mm² signal cores are individually screened.*

Reelflex PUR-H Drum Reeling

Reelflex PUR-H is part of the latest generation of drum reeling cables. When compared to the standard rubber NSHTöu, Reelflex PUR-H is significantly smaller in overall diameter and lighter in weight. This allows the use of lighter winding/reeling equipment offering considerable cost savings. Ideal for use inside or in the open air, these cables emit very little smoke and are halogen free, making them suitable for sensitive applications in the event of fire.

Construction

Fine copper strands to IEC 60228 insulated with halogen free polyester, cores laid around a central textile suspension unit using a short length of twist. Anti-torsion braid embedded between the inner and outer halogen free black polyurethane sheath. Some large sizes may have a split earth construction. Please check at time of order if this is critical.

Technical Information

Voltage Rating:	Fixed Installation -50°C to +80°C
	Flexing -40°C to +80°C
Bending Radius:	Flexing 6 x cable diameter
Working Voltage:	0.6/1kV
Test Voltage:	2500V

Part No.	Core & mm²	Tensile Stength Newtons	Weight kg/km	O/D mm
51101504P	4 x 1.5	1200	155	10.5
51101505P	5 x 1.5	1500	178	11.2
51101507P	7 x 1.5	2000	231	12.6
51101512P	12 x 1.5	2500	359	16.1
51101518P	18 x 1.5	2500	474	17.0
51101524P	24 x 1.5	2500	590	21.1
51101530P	30 x 1.5	2500	710	23.1
51101542P	42 x 1.5	2500	980	27.3
51301525	25 x 1.5 + 5 x 1.5	2500	730	23.4
51102504P	4 x 2.5	1500	208	11.5
51102505P	5 x 2.5	1800	241	12.2
51102507P	7 x 2.5	2500	308	13.2
51102512P	12 x 2.5	2500	480	19.5
51102518P	18 x 2.5	2500	679	19.8
51102524P	24 x 2.5	2500	820	24.1
51102530P	30 x 2.5	2500	970	27.3
51302519	19 x 2.5 + 5 x 1.5	2500	820	24.3
51104004P	4 x 4	1800	281	12.7
51104005P	5 x 4	2000	318	13.7
51106004P	4 x 6	2000	372	14.1
51106005P	5 x 6	2500	426	15.1
51110004P	4 x 10	2000	611	17.9
51110005P	5 x 10	2500	704	19.5
51116004P	4 x 16	2500	924	22.3
51116005P	5 x 16	2500	1067	24.2
51125004P	4 x 25	2500	1270	25.5
51135004P	4 x 35	2500	1720	28.3
51150004P	4 x 50	3000	2630	34.2
51170004P	4 x 70	4200	3326	39.8
51195004P	4 x 95	5700	4695	47.1
51112004P	4 x 120	7200	5565	52.1
51115004P	4 x 150	9000	6933	56.5

51102518P

Crane Cables 6 to 20kV

High voltage reeling cables are designed to provide mobile power supplies to material handling equipment such as dock side cranes and stackers. The cables can withstand high mechanical stresses and frequent bending at high speed making them ideal for drum reeling applications.

Construction

Single Core - Fine tinned copper wire strands covered with a semi-conductive rubber layer, Ethylene Propylene Rubber (EPR) insulation, semi-conductive rubber layer, tinned copper wire screen, abrasion resistant PCP rubber sheath.

Multicore - Fine tinned copper wire strands covered with a semi-conductive rubber layer, Ethylene Propylene Rubber (EPR) insulation, semi-conductive rubber layer, cores twisted together with reduced cores laid in the interstices, PCP inner sheath, textile anti-torsion braid, abrasion resistant PCP rubber sheath.

Technical Information

Temperature Rating:	Fixed installation: -40°C to +90°C
Flexing installation:	-30°C to +90°C
Bending Radius:	Single core: 5 x diameter
	Multicore: 10 x diameter
Conductor Stranding:	To IEC 60228 Class 5
Sheath Colour:	Red

51602503

Part No.	Core & mm²	Max Tensile Force N	Weight kg/km	O/D mm
NTMCGCWÖU Single Core Rated Voltage 6/10kV - Screened				
51125001	1 x 25/16	375	910	23.5
51135001	1 x 35/16	525	1040	24.5
51150001	1 x 50/16	750	1260	27.0
51170001	1 x 70/16	1050	1530	28.5
51195001	1 x 95/16	1425	1770	30.5
51112001	1 x 120/16	1800	2044	35.5
51115001	1 x 150/25	2250	2364	36.7
51118501	1 x 185/25	2775	2709	38.2
51124001	1 x 240/25	3600	3446	41.8

Part No.	Core & mm²	Max Tensile Force N	Weight kg/km	O/D mm
NTMCGCWÖU Single Core Rated Voltage 12/20kV - Screened				
52125001	1 x 25/16	375	1180	28.0
52135001	1 x 35/16	525	1320	29.5
52150001	1 x 50/16	750	1560	31.5
52170001	1 x 70/16	1050	1920	34.0
52195001	1 x 95/16	1425	2190	36.0
52112001	1 x 120/16	1800	2219	37.0
52115001	1 x 150/25	2250	2637	39.9
52118501	1 x 185/25	2775	2995	42.0
52124001	1 x 240/25	3600	3658	44.5

Part No.	Core & mm²	Max Tensile Force N	Weight kg/km	O/D mm
NTSCGEWÖU Multicore Rated Voltage 6/10kV - Screened				
51602503	3 x 25 + 3 x 25/3	1500	2740	44.0
51603503	3 x 35 + 3 x 25/3	2100	3281	46.0
51605003	3 x 50 + 3 x 25/3	3000	3841	49.2
51607003	3 x 70 + 3 x 35/3	4200	4961	55.0
51609503	3 x 95 + 3 x 50/3	5700	5959	59.1
51612003	3 x 120 + 3 x 70/3	7200	7370	63.5
51615003	3 x 150 + 3 x 70/3	9000	8652	69.0
51618503	3 x 185 + 3 x 95/3	11101	10132	72.0
51624003	3 x 240 + 3 x 120/3	14410	13012	80.5
NTSCGEWÖU Multicore Rated Voltage 12/20kV - Screened				
51802503	3 x 25 + 3 x 25/3	1500	3581	52.0
51803503	3 x 35 + 3 x 25/3	2100	4320	56.0
51805003	3 x 50 + 3 x 25/3	3000	4940	59.5
51807003	3 x 70 + 3 x 35/3	4200	6025	62.9
51809503	3 x 95 + 3 x 50/3	5700	7345	69.0
51812003	3 x 120 + 3 x 70/3	7200	8819	73.5
51815003	3 x 150 + 3 x 70/3	9000	10263	78.5
51818503	3 x 185 + 3 x 95/3	11101	11778	82.0

Flat PVC Cables

PVC Flat cables offer good low temperature durability, flexing to -15°C. Their relatively light weight increases the options available to designers as does the tight bending radius of 10 x the thickness of the cable. Used mainly within buildings on a wide variety of applications. These cables are not suitable for use in elevators.

Construction

Fine copper wire strands to IEC 60228 class 5. PVC insulation, colour coded for cables with 2-5 cores, six cores and above black PVC insulation with white numbers. A green/yellow earth conductor is included. Cores laid parallel. Black cold resistant PVC outer sheath.

Technical Information

Voltage Rating:	0.75 & 1mm²	300/500V
	1.5 - 50mm²	450/750V
Temperature Rating:	Flexing -15°C to +70°C	
Bending Radius:	Flexing 10 x cable thickness	
Current Rating:	Refer to IEE Regs Table 4F3A&B	
Conductor Stranding:	To IEC 60228 Class 5	

Part No.	Core x Size mm²	Weight kg/km	O/D mm
58100712	12 x 0.75	260	4.2 x 33.8
58100718	18 x 0.75	380	4.2 x 50.2
58100724	24 x 0.75	490	4.2 x 65.6
58101005	5 x 1.0	120	4.4 x 15.5
58101008	8 x 1.0	205	4.4 x 24.8
58101012	12 x 1.0*	335	9.5 x 22.5
58101016	16 x 1.0*	465	9.5 x 28.7
58101018	18 x 1.0	450	4.4 x 53.8
58101024	24 x 1.0	590	4.4 x 70.4
58101504	4 x 1.5	170	4.5 x 13.6
58101505	5 x 1.5	190	4.5 x 18.2
58101507	7 x 1.5	220	4.5 x 23.9
58101508	8 x 1.5	270	4.9 x 27.2
58101510	10 x 1.5	320	4.9 x 34.0
58101512	12 x 1.5	390	4.9 x 39.8
58101518	18 x 1.5	670	4.9 x 61.6
58101524	24 x 1.5	790	4.9 x 82.0
58102504	4 x 2.5	200	5.6 x 16.8
58102505	5 x 2.5	260	5.6 x 22.0
58102507	7 x 2.5	350	5.6 x 29.2
58102508	8 x 2.5	390	5.6 x 32.8
58102510	10 x 2.5	490	6.0 x 41.4
58102512	12 x 2.5	580	6.0 x 48.6
58102524	24 x 2.5	1200	6.0 x 104
58104004	4 x 4.0	320	7.0 x 21.2
58104005	5 x 4.0	400	7.0 x 27.4
58104007	7 x 4.0	540	7.0 x 36.6
58106004	4 x 6.0	432	8.2 x 24.8
58110004	4 x 10	680	10.0 x 29.6
58116004	4 x 16	970	11.2 x 34.4
58125004	4 x 25	1490	13.7 x 42.6
58135004	4 x 35	1980	15.4 x 47.6
58150004	4 x 50	2800	18.2 x 57.5

58101512

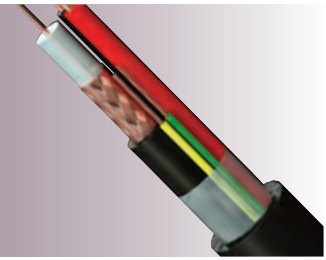
** Cores laid in Quad Format*

Low Smoke Halogen Free versions, other core combinations and individually screened cores are available on request. Please call us with your requirements.

Custom-made Cables

You specify, we supply – with quantities as low as 100 metres in some cases. The options outlined on these pages are the main variations and can be combined in any way to meet your particular specifications.

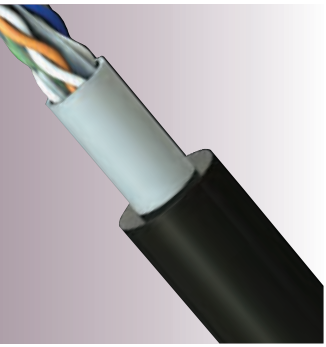
Talk to us about cost-effective solutions for applications that are not mentioned here.



Composite and Special Cables

There is an increasing need for cable to be manufactured to customers' specific requirements. This can be as basic as a special colour code or jacket colour, right through to cables containing mixed core sizes (as well as a coax), with various levels of screening or armouring.

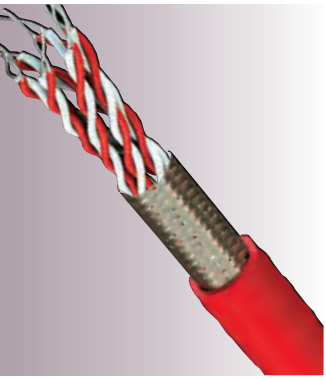
We have considerable experience of ensuring that 'specials' meet your design criteria.



Outdoor and Duct Grade Sheaths

In situations where the cable runs outside or through ducts Polyethylene sheathing is the ideal solution. This material is tough, water-resistant and has natural low friction, making it easy to pull through ducts. It is also ideal for clipping to the outside of buildings offering good resistance to sunlight.

Two types of Polyethylene are used, Low Density (LDPE) and High Density (HDPE). LDPE offers reasonable flexibility and mechanical protection. It is particularly suited to small data cables, while HDPE is much stiffer and is normally used for larger cables where no flexibility is required. Even quantities as low as 100m can be oversheathed, which allows you to use the same basic cable throughout an installation but with the added protection needed.



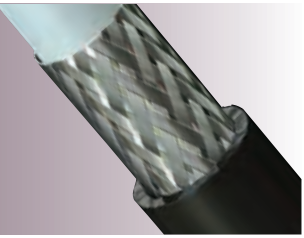
Extreme Temperature Cables

Extreme temperatures can place tremendous stress on cables so it is vital to ensure the correct materials are used to withstand the environment. The cable needs to be tough if it's going to survive.

We have experience in matching the right materials for the job from -190°C to +1400°C so if you're installing cable in a Siberian winter or hot steel works in the Middle East we should have the answer.

Cable types include power, instrumentation, control and thermocouples, all manufactured to meet your needs in quantities as low as 100m.

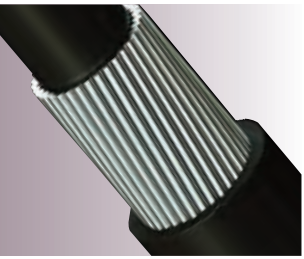
See page 177 for more details.



Braiding

For added protection cables can be braided with a galvanised steel wire braid (GSWB) or heavy tinned copper wire.

Braiding maintains a degree of flexibility, which may be important during installation or if the equipment needs to be moved for maintenance or is subject to vibration.



Armouring

Armouring is best suited for fixed installations and particularly direct burial. Both types of protection are sheathed with either an exterior grade PVC or Polyethylene.

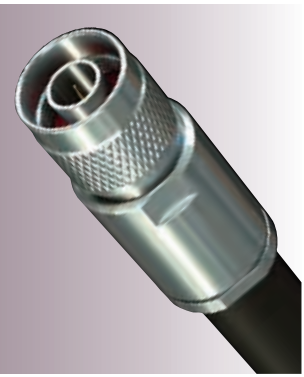
Low Smoke Halogen Free sheaths for special installations are also available.

Standard cables can be braided or armoured for quantities as low as 100m.

Special Colours or Printed Sheaths

Cables can be coloured either by dyeing if they are PVC or over-sheathed to match existing colour schemes or for identifying circuits - for example alarm data wiring.

In addition, unprinted cables can be printed with your company name and phone number or an identification code.



Custom Made Leads & Assemblies

For most jobs time is money and you cannot afford to make a mistake. To reduce installation time and cost many system manufactures are now operating a plug and play design allowing the installer to simply plug pre-manufactured leads into modules for right first time termination.

To meet these growing demands we are able to supply many of the coax, data and instrumentation cables listed in the catalogue as pre-terminated leads to save you time and money.

All we need to know is the length and the connector type you require - we will do the rest.

Spiral Cables

We offer both signal and power versions of retractable spiral cables. The variations in conductor size, insulation and sheath materials are enormous. Having decided on the conductor size and the number of cores it is important to choose the insulation and sheath materials most suitable for the task. The retracted length of the spiral can be made to your requirements up to 5m.

Although once popular, PVC is now giving way to polyurethane as a sheathing material which has a much better memory. Rubber is still popular with hytral used for the highest performance cables. The sizes and types shown on the page opposite are a small selection of the spiral cables offered. There are many other sheathing, insulation materials and voltage ratings as well as screened versions available. Please call with your exact requirement.

These cables are manufactured to order, to meet your needs precisely. You can specify tail lengths (the straights at either end). The standard length is at least 150mm and they can be supplied in line or at right angles to the coil.

Delivery is normally around 10 working days but please check when ordering. Many other core combinations are available. Please call to discuss your requirements.

Construction - Rubber TPE Spiral Cables

Fine copper wire strands. Special PVC insulation, colour coded cores twisted together, black TPE synthetic rubber jacket.

Technical Information

Voltage Rating:	Working 300/500V
Temperature Rating:	-15°C to +80°C
Approximate Extension Ratio:	5:1

Spiral Cable

Part No.	Cores x mm²	Cable O/D mm	Coil O/D mm
Rubber TPE Spirals			
88000702	2 x 0.75	6.7	23
88000703	3 x 0.75	9.5	35
88000704	4 x 0.75	9.5	35
88000705	5 x 0.75	10.5	37
88000707	7 x 0.75	11.0	38
88000708	8 x 0.75	12.0	43
88000710	10 x 0.75	14.0	53
88000715	15 x 0.75	15.5	60
88001002	2 x 1.0	8.5	30
88001003	3 x 1.0	9.5	35
88001004	4 x 1.0	9.5	35
88001502	2 x 1.5	9.5	35
88001503	3 x 1.5	10.0	36
88001504	4 x 1.5	11.5	42
88001505	5 x 1.5	13.0	51
88001507	7 x 1.5	13.5	52
88002502	2 x 2.5	10.5	37
88002503	3 x 2.5	11.5	42
88002504	4 x 2.5	12.5	47
88002505	5 x 2.5	14.0	53
88002507	7 x 2.5	15.5	60

Construction - Polyurethane Spiral Cables

Fine copper wire strands. Special PVC insulation, colour coded cores twisted together, black polyurethane jacket.

Technical Information

Voltage Rating:	Working 300/500V
Temperature Rating:	-15°C to +80°C
Approximate Extension Ratio:	6:1

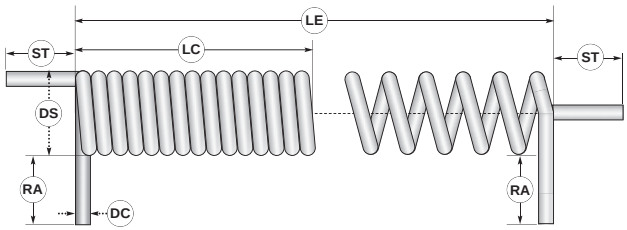
Screened Polyurethane Spirals

Part No.	Core x mm²	Cable O/D mm	Coil O/D mm
88300102	2 x 0.09	3.0	11
88300103	3 x 0.09	3.5	13
88300104	4 x 0.09	4.0	15
88300106	6 x 0.09	4.5	15
88300112	12 x 0.09	6.0	23

Polyurethane Spirals

Part No.	Core x mm²	Cable O/D mm	Coil O/D mm
88100102	2 x 0.09	3.0	11
88100103	3 x 0.09	3.3	11
88100104	4 x 0.09	3.3	11
88100105	5 x 0.09	4.0	14
88100107	7 x 0.09	4.3	16
88100143	3 x 0.14	3.5	13
88100144	4 x 0.14	3.8	14
88100145	5 x 0.14	4.3	15
88100148	8 x 0.14	4.7	17
88100202	2 x 0.20	4.0	14
88100204	4 x 0.20	4.8	17
88100206	6 x 0.20	5.5	19
88100207	7 x 0.20	5.5	19
88100209	9 x 0.20	6.0	22
88100702	2 x 0.75	7.5	26
88100703	3 x 0.75	8.0	27
88100704	4 x 0.75	8.5	30
88100705	5 x 0.75	10.0	36
88100706	6 x 0.75	12.0	43
88100707	7 x 0.75	12.0	43
88100715	15 x 0.75	16.5	65
88101002	2 x 1.0	7.0	26
88101003	3 x 1.0	7.5	28
88101004	4 x 1.0	9.0	35
88101502	2 x 1.5	9.5	35
88101503	3 x 1.5	11.0	38
88101504	4 x 1.5	12.0	50
88101505	5 x 1.5	13.0	51
88102503	3 x 2.5	12.5	50
88102504	4 x 2.5	13.5	49
88102505	5 x 2.5	13.5	49
88102507	7 x 2.5	15.0	62
88104003	3 x 4.0	15.0	55
88106002	2 x 6.0	14.0	60
88106003	3 x 6.0	14.5	61

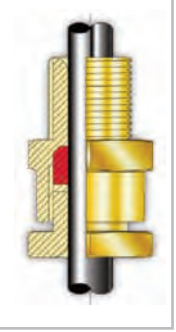
Standard lengths 0.5m,1m,1.5m, 2m and 2.5m retracted, other sizes up to 5m to order.



ST Length of straight tail
LE Length extended
DS Diameter of spiral
RA Length of tail at right angles
LC Length closed
DC Diameter of cable

Brass Industrial Glands

A2



"A" type glands commonly referred to as "stuffing glands", they provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 35 metres and is deluge proof without the use of an additional seal or deluge boot. Options are available for use with LSOH cables and extreme temperature applications.

CABLE GLAND SELECTION CHART

Gland Size	Entry Thread Size		ISO Thread Length	Cable Acceptance Details		Dimensions/Weight (Metric Versions)			Shroud Size
				Outer Sheath [D]		Across Flats	Across Corners [A]	Weight Kgs	
	Metric	NPT	[B]	Min	Max				
16	M20 x 1.5	1/2" or 3/4"	16	4.0	8.4	25.4	28.0	0.089	L24
20S	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	25.4	28.0	0.099	L24
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	30.0	33.0	0.128	L30
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	37.6	41.4	0.168	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	46.0	50.6	0.249	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	55.0	60.5	0.392	L55
50S	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	65.0	71.5	0.438	L65
50	M50 x 1.5	2"	16	33.1	44.1	65.0	71.5	0.548	L65
63S	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	80.0	88.0	0.834	L80
63	M63 x 1.5	2 1/2"	19	46.7	56.0	80.0	88.0	0.666	L80
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	90.0	99.0	1.280	L90
75	M75 x 1.5	3"	19	58.0	68.0	90.0	99.0	0.909	L90
80	M80 x 2	3" or 3 1/2"	25	62.2	72.0	104.0	115.2	1.518	L104
85	M85 x 2	3" or 3 1/2"	25	69.0	78.0	104.0	115.2	1.715	L104
90	M90 x 2	3 1/2" or 4"	25	74.0	84.0	114.0	125.7	1.550	L114
100	M100 x 2	3 1/2" or 4"	25	82.0	90.0	114.0	125.7	1.452	L114
110	M110 x 2	-	25	87.0	102.0	135.0	148.0	2.550	n/a
120	M120 x 2	-	25	97.0	112.0	145.0	159.0	3.200	n/a
130	M130 x 2	-	25	107.0	122.0	155.0	170.0	4.750	n/a

All dimensions in mm

C1W/C1X

"C" type single compression glands are suitable for cables that exhibit "cold flow" characteristics, whilst providing an IP66 environmental seal on the cable outer sheath and a detachable armour specific clamping system for wire (W), braid (X) or tape (Z) armoured cables. The "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with LSOH cables and extreme temperature applications.

CABLE GLAND SELECTION CHART

Gland Size	Entry Thread Size		ISO Thread Length	Inner Sheath [C]		Outer Sheath [D]		Reduced [D]*		Armoured Accpetance Range		Nominal Protrusion Length [L]	Dim./weight (Metric)			Shroud Size
													Across Flats	Across Corners	Weight Kgs	
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	XZ					
16	M20 x 1.5	1/2" or 3/4"	16	-	8.4	8.4	13.5	4.9	10.3	0.9	0.15-0.35	60	24.0	26.5	0.150	L24
20S	M20 x 1.5	1/2" or 3/4"	16	-	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	60	24.0	26.5	0.124	L24
20	M20 x 1.5	1/2" or 3/4"	16	-	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	60	30.0	33.0	0.177	L30
25	M25 x 1.5	3/4" or 1"	16	-	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	60	38.0	41.4	0.247	L38
32	M32 x 1.5	1" or 1 1/4"	16	-	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	65	46.0	50.6	0.396	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	-	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	75	55.0	60.5	0.638	L55
50S	M50 x 1.5	1 1/2" or 2"	16	-	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	75	65.0	71.5	0.925	L65
50	M50 x 1.5	2"	16	-	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	75	65.0	71.5	0.694	L65
63S	M63 x 1.5	2" or 2 1/2"	19	-	50.1	52.1	59.5	47.5	54.8	2.5	0.30-0.80	75	80.0	88.0	1.338	L80
63	M63 x 1.5	2 1/2"	19	-	56.0	58.4	65.8	53.8	61.2	2.5	0.30-0.80	75	80.0	88.0	1.106	L80
75S	M75 x 1.5	2 1/2" or 3"	19	-	62.0	64.8	72.2	60.2	68.0	2.5	0.30-1.00	85	90.0	99.0	1.633	L90
75	M75 x 1.5	3"	19	-	68.0	71.1	78.0	66.5	73.4	2.5	0.30-1.00	85	90.0	99.0	1.290	L90
80	M80 x 2	3" or 3 1/2"	25	-	72.0	69.0	84.0	-	-	3.15	0.45-1.00	110	104.0	115.2	2.722	L104
80H	M80 x 2	3" or 3 1/2"	25	-	72.0	79.6	90.0	-	-	3.15	0.45-1.00	110	104.0	115.2	2.722	L104
85	M85 x 2	3" or 3 1/2"	25	-	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.322	L104
90	M90 x 2	3 1/2" or 4"	25	-	84.0	88.0	96.0	-	-	3.15	0.45-1.00	110	114.0	125.7	2.854	L114
90H	M90 x 2	3 1/2" or 4"	25	-	84.0	92.0	102.0	-	-	3.15	0.45-1.00	110	114.0	125.7	2.854	L114
100	M100 x 2	3 1/2" or 4"	25	-	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.480	L114
110	M110 x 2	-	25	-	102.0	100.0	117.0	-	-	3.15	0.45-1.00	170	135.0	148.0	4.190	n/a
120	M120 x 2	-	25	-	112.0	110.0	127.0	-	-	3.15	0.45-1.00	170	145.0	159.0	5.750	n/a
130	M130 x 2	-	25	-	122.0	120.0	137.0	-	-	3.15	0.45-1.00	170	155.0	170.0	6.900	n/a

All dimensions in mm

* Reduced diameter versions available on request

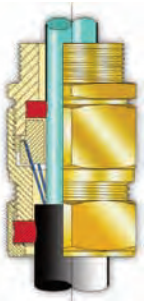
Brass Industrial Glands

"E" type double compression glands provide a controlled IP seal on the cable inner sheath, an environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid (X) or tape (Z) armoured cables. The gland has been tested to IP66 and IP68 to 35 metres. The "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with lead sheath, LSOH cables and extreme temperature applications.

CABLE GLAND SELECTION CHART

Gland	Entry Thread Size		ISO Thread Length	Cable Acceptance Details						Armoured Accpetance Range		Dim./weight (Metric)			Shroud
				Inner Sheath [C]		Outer Sheath [D]		Reduced [D]*				Across	Across	Weight	
Size	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	XZ	Flats	Corners	Kgs	Size
16	M20 x 1.5	1/2" or 3/4"	16	4.0	8.4	8.4	13.5	4.9	10.0	0.9	0.15-0.35	24.0	26.5	0.154	L24
20S	M20 x 1.5	1/2" or 3/4"	16	8.0	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	6.7	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	13.0	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	37.6	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.0	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	25.0	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	65.0	71.5	0.940	L65
50	M50 x 1.5	2"	16	36.5	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	65.0	71.5	0.707	L65
63S	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	52.1	59.5	47.5	54.8	2.5	0.30-0.80	80.0	88.0	1.369	L80
63	M63 x 1.5	2 1/2"	19	49.5	56.0	58.4	65.8	53.8	61.2	2.5	0.30-0.80	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	64.8	72.2	60.2	68.0	2.5	0.30-1.00	90.0	99.0	1.660	L90
75	M75 x 1.5	3"	19	60.5	68.0	71.1	78.0	66.5	73.4	2.5	0.30-1.00	90.0	99.0	1.310	L90
80	M80 x 2	3" or 3 1/2"	25	62.2	72.0	69.0	84.0	-	-	3.15	0.45-1.00	104.0	115.2	2.718	L104
80H	M80 x 2	3" or 3 1/2"	25	62.2	72.0	79.6	90.0	-	-	3.15	0.45-1.00	104.0	115.2	2.718	L104
85	M85 x 2	3" or 3 1/2"	25	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	104.0	115.2	2.326	L104
90	M90 x 2	3 1/2" or 4"	25	74.0	84.0	88.0	96.0	-	-	3.15	0.45-1.00	114.0	125.7	2.852	L114
90H	M90 x 2	3 1/2" or 4"	25	74.0	84.0	92.0	102.0	-	-	3.15	0.45-1.00	114.0	125.7	2.852	L114
100	M100 x 2	3 1/2" or 4"	25	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	114.0	125.7	2.496	L114
110	M110 x 2	-	25	87.0	102.0	100.0	117.0	-	-	3.15	0.45-1.00	135.0	148.0	4.190	n/a
120	M120 x 2	-	25	97.0	112.0	110.0	127.0	-	-	3.15	0.45-1.00	145.0	159.0	5.750	n/a
130	M130 x 2	-	25	107.0	122.0	120.0	137.0	-	-	3.15	0.45-1.00	155.0	170.0	6.900	n/a

E1W/E1X



All dimensions in mm

* Reduced diameter versions available on request

Plastic Industrial Glands

PF industrial glands provide an IP68 rated seal on the outer sheath of the cable. Temperature rating -40°C to +100°C. They are ideal for use on flexible cables and screened cables where the screen is terminated inside the enclosure . If the gland is not being used on a threaded enclosure you may require a locknut which is sold separately.

PF

CABLE GLAND SELECTION CHART

ISO Metric Gland Size	Cable Selling Range		Across Flats	Thread Length	Total Length	Part Number Gland		Part Number Locknut	
	Min	Max	mm	mm	mm	Grey	Black	Grey	Black
M12	2.5	6.5	15.0	8.0	32.0	F7021200	F8021200	G4312010	H4312110
M16/09	2.5	8.0	19.0	10.0	37.0	F7021650	F8021650	G4316005	H4316110
M16/11	3.5	10.0	22.0	10.0	39.0	F7021600	F8021600	G4316005	H4316110
M20/13	5.0	12.0	24.0	10.0	40.0	F7022050	F8022050	G4320010	H4320110
M20/16	7.0	14.0	27.0	10.0	43.0	F7022000	F8022000	G4320010	H4320110
M25/16	7.0	14.0	27.0	10.0	45.0	F7022550	F8022550	G4325010	H4325110
M25/21	9.0	18.0	33.0	10.0	49.0	F7022500	F8022500	G4325010	H4325110
M32	14.0	25.0	42.0	10.0	52.0	F7023200	F8023200	G4332010	H4332110
M40	18.0	32.0	53.0	10.0	62.0	F7024000	F8024000	G4340005	H4340110
M50	24.0	38.5	60.0	12.0	67.0	F7025000	F8025000	G4350005	H4350110
M63	35.0	48.0	70.0	12.0	68.0	F7026300	F8026300	G4363005	H4363110

All dimensions in mm

PF

CABLE GLAND SELECTION CHART

PG Gland Size	Cable Selling Range		Across Flats	Thread Length	Total Length	Part Number Gland		Part Number Locknut	
	Min	Max	mm	mm	mm	Grey	Black	Grey	Black
PG07	2.5	6.5	15.0	8.0	32.0	F7000700	F8000700	G4107010	H4107002
PG09	2.5	8.0	19.0	8.0	35.0	F7000900	F8000900	G4109010	H4109006
PG11	3.5	10.0	22.0	8.0	37.0	F7001100	F8001100	G4111009	H4111009
PG13.5	5.0	12.0	24.0	9.0	39.0	F7001300	F8001300	G4113003	H4113003
PG16	7.0	14.0	27.0	10.0	43.0	F7001600	F8001600	G4116004	H4116004
PG21	9.0	18.0	33.0	11.0	50.0	F7002100	F8002100	G4121010	H4121008
PG29	14.0	25.0	42.0	11.0	53.0	F7002900	F8002900	G4129010	H4129004
PG36	18.0	32.0	53.0	13.0	65.0	F7003600	F8003600	G4936110	H4936100
PG42	24.0	38.5	60.0	13.0	68.0	F7004200	F8004200	G4942110	H4942100
PG48	35.0	48.0	70.0	14.0	70.0	F7004900	F8004900	G4949110	H4949100

All dimensions in mm

Brass ATEX Hazardous Area Glands

"A" type glands, certified Flameproof Ex d, Increased Safety Ex e & Restricted Breathing Ex nR are suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups IIA, IIB and IIC. Commonly referred to as "stuffing glands" they provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 25 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads. Options are available for use with LSOH cables and extreme temperature applications.

CABLE GLAND SELECTION CHART

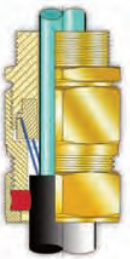
Gland Size	Entry Thread Size		ISO Thread Length	Cable Acceptance Details		Dimensions/Weight (Metric Versions)			Shroud Size
				Outer Sheath [D]		Across	Across	Weight	
	Metric	NPT	[B]	Min	Max	Flats	Corners [A]	Kgs	
16	M20 x 1.5	1/2" or 3/4"	16	4.0	8.4	25.4	28.0	0.089	L24
20S	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	25.4	28.0	0.099	L24
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	30.0	33.0	0.128	L30
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	37.6	41.4	0.168	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	46.0	50.6	0.249	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	55.0	60.5	0.392	L55
50S	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	65.0	71.5	0.438	L65
50	M50 x 1.5	2"	16	33.1	44.1	65.0	71.5	0.548	L65
63S	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	80.0	88.0	0.834	L80
63	M63 x 1.5	2 1/2"	19	46.7	56.0	80.0	88.0	0.666	L80
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	90.0	99.0	1.280	L90
75	M75 x 1.5	3"	19	58.0	68.0	90.0	99.0	0.909	L90
80	M80 x 2	3" or 3 1/2"	25	62.2	72.0	104.0	115.2	1.518	L104
85	M85 x 2	3" or 3 1/2"	25	69.0	78.0	104.0	115.2	1.715	L104
90	M90 x 2	3 1/2" or 4"	25	74.0	84.0	114.0	125.7	1.550	L114
100	M100 x 2	3 1/2" or 4"	25	82.0	90.0	114.0	125.7	1.452	L114

All dimensions in mm

A2F

"C" type single compression glands, certified Increased Safety Ex e are suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups IIA, IIB and IIC. The gland is suitable for cables that exhibit "cold flow" characteristics, whilst providing an IP66 environmental seal on the cable outer sheath and a detachable armour specific clamping system for wire (W), braid (X) or tape (Z) armoured cables. The "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with LSOH cables and extreme temperature applications.

C1We / C1Xe



CABLE GLAND SELECTION CHART

Gland Size	Entry Thread Size		ISO Thread Length	Inner Sheath [C]		Outer Sheath [D]		Reduced [D]*		Armoured Accpetance Range		Dim./weight (Metric) Across Flats	Across Corners	Weight Kgs	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	XZ				
16	M20 x 1.5	1/2" or 3/4"	16	-	8.4	8.4	13.5	4.9	10.0	0.9	0.15-0.35	24.0	26.5	0.150	L24
20S	M20 x 1.5	1/2" or 3/4"	16	-	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	24.0	26.5	0.124	L24
20	M20 x 1.5	1/2" or 3/4"	16	-	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	30.0	33.0	0.177	L30
25	M25 x 1.5	3/4" or 1"	16	-	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	37.6	41.4	0.247	L38
32	M32 x 1.5	1" or 1 1/4"	16	-	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	46.0	50.6	0.396	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	-	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	55.0	60.5	0.638	L55
50S	M50 x 1.5	1 1/2" or 2"	16	-	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	65.0	71.5	0.925	L65
50	M50 x 1.5	2"	16	-	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	65.0	71.5	0.694	L65
63S	M63 x 1.5	2" or 2 1/2"	19	-	50.1	52.1	59.5	47.5	54.8	2.5	0.30-0.80	80.0	88.0	1.338	L80
63	M63 x 1.5	2 1/2"	19	-	56.0	58.4	65.8	53.8	61.2	2.5	0.30-0.80	80.0	88.0	1.106	L80
75S	M75 x 1.5	2 1/2" or 3"	19	-	62.0	64.8	72.2	60.2	68.0	2.5	0.30-1.00	90.0	99.0	1.633	L90
75	M75 x 1.5	3"	19	-	68.0	71.1	78.0	66.5	73.4	2.5	0.30-1.00	90.0	99.0	1.290	L90
80	M80 x 2	3" or 3 1/2"	25	-	72.0	77.0	84.0	-	-	3.15	0.45-1.00	104.0	115.2	2.722	L104
80H	M80 x 2	3" or 3 1/2"	25	-	72.0	79.6	90.0	-	-	3.15	0.45-1.00	104.0	115.2	2.722	L104
85	M85 x 2	3" or 3 1/2"	25	-	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	104.0	115.2	2.322	L104
90	M90 x 2	3 1/2" or 4"	25	-	84.0	88.0	96.0	-	-	3.15	0.45-1.00	114.0	125.7	2.854	L114
90H	M90 x 2	3 1/2" or 4"	25	-	84.0	92.0	102.0	-	-	3.15	0.45-1.00	114.0	125.7	2.854	L114
100	M100 x 2	3 1/2" or 4"	25	-	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	114.0	125.7	2.480	L114

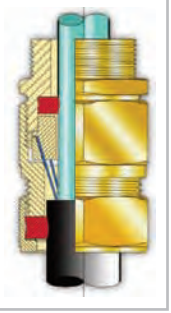
All dimensions in mm

* Reduced diameter versions available on request

Brass ATEX Hazardous Area Glands

"E" type double compression glands, certified Flameproof Ex d, Increased Safety Ex e & Restricted Breathing Ex nR are suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups IIA, IIB and IIC. They provide a controlled Ex d & IP seal on the cable inner sheath, an environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid (X) or tape (Z) armoured cables. The gland has been tested to IP66 and IP68 to 35 metres and is available with an IP O-ring seal on metric entry threads. The "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with lead sheath, LSOH cables and extreme temperature applications.

E1WF / E1XF



CABLE GLAND SELECTION CHART

Gland Size	Entry Thread Size		ISO Thread Length	Inner Sheath [C]		Outer Sheath [D]		Reduced [D]*		Armoured Accpetance Range		Dim./weight (Metric) Across Flats	Across Corners	Weight Kgs	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	XZ				
16	M20 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.0	0.9	0.15-0.35	24.0	26.5	0.154	L24
20S	M20 x 1.5	1/2" or 3/4"	16	8.0	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	6.7	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	13.0	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	37.6	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.0	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	25.0	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	65.0	71.5	0.940	L65
50	M50 x 1.5	2"	16	36.5	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	65.0	71.5	0.707	L65
63S	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	52.1	59.5	47.5	54.8	2.5	0.30-0.80	80.0	88.0	1.369	L80
63	M63 x 1.5	2 1/2"	19	49.5	56.0	58.4	65.8	53.8	61.2	2.5	0.30-0.80	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	64.8	72.2	60.2	68.0	2.5	0.30-1.00	90.0	99.0	1.660	L90
75	M75 x 1.5	3"	19	60.5	68.0	71.1	78.0	66.5	73.4	2.5	0.30-1.00	90.0	99.0	1.310	L90
80	M80 x 2	3" or 3 1/2"	25	62.2	72.0	77.0	84.0	-	-	3.15	0.45-1.00	104.0	115.2	2.718	L104
80H	M80 x 2	3" or 3 1/2"	25	62.2	72.0	79.6	90.0	-	-	3.15	0.45-1.00	104.0	115.2	2.718	L104
85	M85 x 2	3" or 3 1/2"	25	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	104.0	115.2	2.326	L104
90	M90 x 2	3 1/2" or 4"	25	74.0	84.0	88.0	96.0	-	-	3.15	0.45-1.00	114.0	125.7	2.852	L114
90H	M90 x 2	3 1/2" or 4"	25	74.0	84.0	92.0	102.0	-	-	3.15	0.45-1.00	114.0	125.7	2.852	L114
100	M100 x 2	3 1/2" or 4"	25	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	114.0	125.7	2.496	L114

All dimensions in mm

* Reduced diameter versions available on request

PF Plastic ATEX Hazardous Area Glands

PF type glands, certified Increased Safety Exe are suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups II. They are manufactured from polyamide and provide a controlled pull resistant displacement seal on the cable outer sheath providing both Ex e & IP protection concepts. The gland has been tested to IP66 & IP68 to 50 metres and is fully compliant with the Ex e standard with no reduced impact restriction. Available in black or blue, in a range of thread forms complete with an IP flat washer on metric entry threads.

CABLE GLAND SELECTION CHART

Gland Size	Entry Thread Size	Cable Sealing Range		ISO Thread Length	Part Number Standard Thread		ISO Thread Length	Part Number Long Thread		Dimensions/Weight		
		Min	Max	Standard [E]	Blue	Black	Long [E]	Blue	Black	Across Flats	Across Corners	Weight Kgs
12	M12 x 1.5	4.0	6.5	8.0	PF7421200E	PF8021200E	15.0	PF7431200E	PF8031200E	15.0	16.5	0.003
16	M16 x 1.5	5.0	8.0	10.0	PF7421650E	PF8021650E	15.0	PF7431650E	PF8031650E	19.0	22.0	0.009
16	M16 x 1.5	5.0	10.0	10.0	PF7421600E	PF8021600E	15.0	PF7431600E	PF8031600E	22.0	24.5	0.009
20	M20 x 1.5	7.0	12.0	10.0	PF7422050E	PF8022050E	15.0	PF7432050E	PF8032050E	24.0	28.0	0.010
20	M20 x 1.5	10.0	14.0	10.0	PF7422000E	PF8022000E	15.0	PF7432000E	PF8032000E	27.0	30.3	0.010
25	M25 x 1.5	10.0	14.0	10.0	PF7422550E	PF8022550E	15.0	PF7432550E	PF8032550E	33.0	37.0	0.021
25	M25 x 1.5	12.0	18.0	10.0	PF7422500E	PF8022500E	15.0	PF7432500E	PF8032500E	33.0	37.0	0.021
32	M32 x 1.5	16.0	25.0	10.0	PF7423200E	PF8023200E	15.0	PF7433200E	PF8033200E	42.0	47.0	0.038
40	M40 x 1.5	22.0	32.0	10.0	PF7424000E	PF8024000E	16.0	PF7434000E	PF8034000E	53.0	59.8	0.078
50	M50 x 1.5	28.0	38.5	12.0	PF7425000E	PF8025000E	16.0	PF7435000E	PF8035000E	60.0	67.6	0.088
63	M63 x 1.5	40.0	48.0	12.0	PF7426300E	PF8026300E	16.0	PF7436300E	PF8036300E	70.0	78.3	0.128

All dimensions in mm

PF

BS 5308 Part 1 Colour Code

Unscreened & Collective Screened

Pair No.	A - Wire	B - Wire
1	Black	Blue
2	Black	Green
3	Blue	Green
4	Black	Brown
5	Blue	Brown
6	Green	Brown
7	Black	White
8	Blue	White
9	Green	White
10	Brown	White
11	Black	Red
12	Blue	Red
13	Green	Red
14	Brown	Red
15	White	Red
16	Black	Orange
17	Blue	Orange
18	Green	Orange
19	Brown	Orange
20	White	Orange
21	Red	Orange
22	Black	Yellow
23	Blue	Yellow
24	Green	Yellow
25	Brown	Yellow
26	White	Yellow
27	Red	Yellow
28	Orange	Yellow
29	Black	Grey
30	Blue	Grey
31	Green	Grey
32	Brown	Grey
33	White	Grey
34	Red	Grey
35	Orange	Grey
36	Yellow	Grey
37	Black	Grey
38	Blue	Grey
39	Green	Violet
40	Brown	Violet
41	White	Violet
42	Red	Violet
43	Orange	Violet
44	Yellow	Violet
45	Grey	Violet
46	Black	Turquoise
47	Blue	Turquoise
48	Green	Turquoise
49	Brown	Turquoise
50	White	Turquoise

Single Quad (2 pair): Black, Blue, Green, Brown
Single Triple: Blue, Black, Green
Individually screened pairs can also be identified by a polyester tape over black and blue pairs

BS 5308 Part 2 Colour Code

Unscreened & Collective Screened

Pair No.	A - Wire	B - Wire
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Grey
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Grey
11	Black	Blue
12	Black	Orange
13	Black	Green
14	Black	Brown
15	Black	Grey
16	Yellow	Blue
17	Yellow	Orange
18	Yellow	Green
19	Yellow	Brown
20	Yellow	Grey
21	White-Blue	Blue
22	White-Blue	Orange
23	White-Blue	Green
24	White-Blue	Brown
25	White-Blue	Grey
26	Red-Blue	Blue
27	Red-Blue	Orange
28	Red-Blue	Green
29	Red-Blue	Brown
30	Red-Blue	Grey
31	Blue-Black	Blue
32	Blue-Black	Orange
33	Blue-Black	Green
34	Blue-Black	Brown
35	Blue-Black	Grey
36	Yellow-Blue	Blue
37	Yellow-Blue	Orange
38	Yellow-Blue	Green
39	Yellow-Blue	Brown
40	Yellow-Blue	Grey
41	White Orange	Blue
42	White Orange	Orange
43	White Orange	Green
44	White Orange	Brown
45	White Orange	Grey
46	Orange-Red	Blue
47	Orange-Red	Orange
48	Orange-Red	Green
49	Orange-Red	Brown
50	Orange-Red	Grey

Single Quad (2 pair): Blue, Green, Orange, Brown
Single Triple: Blue, White, Orange
Individually screened pairs can also be identified by a polyester tape over white and blue pairs

Colour Chart 1: Conductor/Colour

1	Black	5	Brown	9	Purple
2	White	6	Blue	10	Grey
3	Red	7	Orange	11	Pink
4	Green	8	Yellow		

Colour Chart 2: Conductor/Colour

1	Black	18	Orange/Red	35	White/Red/Orange
2	White	19	Blue/Red	36	Orange/White/Blue
3	Red	20	Red/Green	37	White/Red/Blue
4	Green	21	Orange/Green	38	Black/White/Green
5	Orange	22	Black/White/Red	39	White/Black/Green
6	Blue	23	White/Black/Red	40	Red/White/Green
7	White/Black	24	Red/Black/White	41	Green/White/Blue
8	Red/Black	25	Green/Black/White	42	Orange/Red/Green
9	Green/Black	26	Orange/Black/White	43	Blue/Red/Green
10	Orange/Black	27	Blue/Black/White	44	Black/White/Blue
11	Blue/Black	28	Black/Red/Green	45	White/Black/Blue
12	Black/White	29	White/Red/Green	46	Red/White/Blue
13	Red/White	30	Red/Black/Green	47	Green/Orange/Red
14	Green/White	31	Green/Black/Orange	48	Orange/Red/Blue
15	Blue/White	32	Orange/Black/Green	49	Blue/Orange/Red
16	Black/Red	33	Blue/White Orange	50	Black/Orange/Red
17	White/Red	34	Black/White/Orange		

Colour Chart 3: Pair/Number Colour Combination

1	Black/Red	14	Green/White	27	Brown/Orange
2	Black/White	15	Green/Blue	28	Orange/Yellow
3	Black/Green	16	Green/Yellow	29	Purple/Orange
4	Black/Blue	17	Green/Brown	30	Purple/Red
5	Black/Yellow	18	Green/Orange	31	Purple/White
6	Black/Brown	19	White/Blue	32	Purple/Dark Green
7	Black/Orange	20	White/Yellow	33	Purple/Light Blue
8	Red/White	21	White/Brown	34	Purple/Yellow
9	Red/Green	22	White/Orange	35	Purple/Brown
10	Red/Blue	23	Blue/Yellow	36	Purple/Black
11	Red/Yellow	24	Blue/Brown	37	Grey/White
12	Red/Brown	25	Blue/Orange		
13	Red/Orange	26	Brown/Yellow		

Colour Chart 5: Western Electric Standard & CW1308 Telephone Cable Colour Chart

Pair number/colour combination. The second colour denotes the band or stripe, however due to environmental issues the cores may be solid colours instead of bi-colours.

1	White/Blue	Blue/White	16	Yellow/Blue	Blue/Yellow
2	White/Orange	Orange/White	17	Yellow/Orange	Orange/Yellow
3	White/Green	Green/White	18	Yellow/Green	Green/Yellow
4	White/Brown	Brown/White	19	Yellow/Brown	Brown/Yellow
5	White/Grey	Grey/White	20	Yellow/Grey	Grey/Yellow
6	Red/Blue	Blue/Red	21	Purple/Blue	Blue/Purple
7	Red/Orange	Orange/Red	22	Purple/Orange	Orange/Purple
8	Red/Green	Green/Red	23	Purple/Green	Green/Purple
9	Red/Brown	Brown/Red	24	Purple/Brown	Brown/Purple
10	Red/Grey	Grey/Red	25	Purple/Grey	Grey/Purple
11	Black/Blue	Blue/Black	26	Pink/Blue	Blue/Pink
12	Black/Orange	Orange/Black	27	Pink/Orange	Orange/Pink
13	Black/Green	Green/Black	28	Pink/Green	Green/Pink
14	Black/Brown	Brown/Black	29	Pink/Brown	Brown/Pink
15	Black/Grey	Grey/Black	30	Pink/Grey	Grey/Pink

DIN 47100 European Colour Codes

The DIN 47100 standard specifies the core colour for up to 44 cores. Above this it is usual practice to repeat the colours. The first colour is the colour of the base insulation and the second colour is that of either a longitudinal stripe or printed rings.

1	White	16	Yellow/Brown	31	Green/Blue
2	Brown	17	White/Grey	32	Yellow/Blue
3	Green	18	Grey/Brown	33	Green/Red
4	Yellow	19	White/Pink	34	Yellow/Red
5	Grey	20	Pink/Brown	35	Green/Black
6	Pink	21	White/Blue	36	Yellow/Black
7	Blue	22	Brown/Blue	37	Grey/Blue
8	Red	23	White/Red	38	Pink/Blue
9	Black	24	Brown/Red	39	Grey/Red
10	Violet	25	White/Black	40	Pink/Red
11	Grey/Pink	26	Brown/Black	41	Grey/Black
12	Red/Blue	27	Grey/Green	42	Pink/Black
13	White/Green	28	Yellow/Grey	43	Blue/Black
14	Brown/Green	29	Pink/Green	44	Red/Black
15	White/Yellow	30	Yellow/Pink		

HD 308 S2 BS 7671 Amendment 2: 2004 Colour Code New European Harmonised Standard For Mains Cables

The new colour code for mains cables is obligatory from April 2006 and applies to flexible and fixed cables connected to the mains. It does not apply to control or signal.

Two Core
Blue
Brown

Three Core
Green/Yellow
Blue
Brown

Cables without earth core:
Brown
Black
Grey

Four Core
Green/Yellow
Brown
Black
Grey

or Green /Yellow
Blue
Brown
Black

Cables without earth core:
Blue
Brown
Black
Grey

Five Core
Green/Yellow
Blue
Brown
Black
Grey

Cables without earth core:
Blue
Brown
Black
Grey
Black

CW1600 Colour Codes

Pairs	Colour of Insulation	
	A-Wire	B-Wire
1	White/Blue	Blue
2	White/Orange	Orange
3	White/Green	Green
4	White/Brown	Brown
5	White/Grey	Grey
6	Red/Blue	Blue
7	Red/Orange	Orange
8	Red/Green	Green
9	Red/Brown	Brown

Pairs	Colour of Insulation	
	A-Wire	B-Wire
9	Red/Brown	Brown
10	Red/Grey	Grey
11	Black/Blue	Blue
12	Black/ Orange	Orange
13	Black/Green	Green
14	Black/Brown	Brown
15	Black/Grey	Grey
16	Yellow/Blue	Blue
17	Yellow/Orange	Orange

Pairs	Colour of Insulation	
	A-Wire	B-Wire
17	Yellow/Orange	Orange
18	Yellow/Green	Green
19	Yellow/Brown	Brown
20	Yellow/Grey	Grey
21	Violet/Blue	Blue
22	Violet/Orange	Orange
23	Violet/Green	Green
24	Violet/Brown	Brown
25	Violet/Grey	Grey

On cables with over 25 pairs the first 20 pairs will be repeated with coloured separators or binder tapes to indicate each bundle.

CW1128 & CW1128/1198 Colour Coding

Pair	A-Wire	B-Wire
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Grey
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Grey

Colours of tape lappings

1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
7	Red
8	Black
9	Yellow
10	Violet

Other colour codes for external telephone cables also exist.

Def Style Miniature Cables

1	Red	19	Yellow/Blue
2	Blue	20	White/Blue
3	Green	21	Blue/Black
4	Yellow	22	Orange/Blue
5	White	23	Green/Blue*
6	Black	24	Grey/Blue*
7	Brown	25	Yellow/Green
8	Violet	26	White/Green*
9	Orange	27	Green/Black
10	Pink	28	Orange/Green*
11	Turquoise	29	Grey/Green
12	Grey	30	Yellow/Brown
13	Red/Blue	31	White/Brown
14	Green/Red	32	Brown/Black
15	Yellow/Red	33	Grey/Brown
16	White/Red	34	Yellow/Violet
17	Red/Black	35	Violet/Black
18	Red/Brown	36	White/Violet

* Note: The colour code of 25 core cables has core colours 23 & 24 replaced with colours 26 & 28. For colour codes above 36 cores please ask for details.

Low Smoke Halogen Free Cabling

When specifying cable for installations in confined areas, computer rooms and other sensitive environments, Low Smoke Halogen Free cables offer significant advantages over traditional PVC.

Hospitals, airports and train stations are just some examples of areas that can be difficult to evacuate in the event of fire. It is now recognised that smoke and poisonous fumes can pose a far greater threat to life and property than the fire itself.

Standard PVC cables are made up of halogens which, when burnt, give off toxic gases such as Hydrogen Chloride. When exposed to water – moisture in the air or fire sprinkler systems for example, hydrogen chloride forms highly noxious and corrosive hydrochloric acid.

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3m³ smoke test to IEC 61034

Standard PVC cables are made up of halogens which, when burnt, give off toxic gases such as hydrogen chloride. When exposed to water – moisture in the air or fire sprinkler systems for example, hydrogen chloride forms highly noxious and corrosive hydrochloric acid.

The effects of burning PVC are two-fold. Firstly, the dense smoke produced can reduce visibility and obscure exit routes. Secondly the harmful hydrogen chloride gas given off is dangerous to people and also has a corrosive effect on electronic equipment potentially causing random, unpredictable failure over a period of time.

Specifying Low Smoke Halogen Free (LSHF) cable goes a long way to reducing this risk. LSHF cables are those which emit negligible amounts of halogens when burnt and have reduced smoke emission properties. Compared with around 28% acid gas emissions of standard PVC, LSHF cables give off less than 0.5% HCl (Gases Evolved During Combustion BS EN 50267, IEC 60754-2). Visibility through smoke emission is measured through a 3m³ smoke test (pictured) to IEC 61034.

Confusion still surrounds the terminology used to describe LSHF cables and caution should be exercised when specifying. While LSHF, LS0H, LSZH and 0HLS are the same, it is important to note that LSF is not. LSF (Low Smoke and Fume) often refers to modified PVC compound which can still emit up to 22% HCl and should be regarded as only slightly better than PVC in the event of fire.

Also beware standard PVC cables which are over-sheathed with a LSHF compound. When the jacket burns through the PVC inner sheath or insulation will give off poisonous fumes in just the same way. The range of LSHF cables are LSHF throughout – insulation and sheath.

If you are unsure of what you are buying, ask for written confirmation that the cable is LSHF throughout.

Conductor Stranding		Alternative Standard References		
Standard	**Description**			
IEC 60228	Conductor class, stranding and resistance for electric cables.	EN 60228	BS 6360	VDE 0295

Flame Retardant Tests		Alternative Standard References		
Standard	**Requirements**			
IEC 60332-1-2	Vertical flame test on a single wire or cable.	EN 60332-1-2 EN 50265-2-1	IEC 60332-1 VDE 0482-265-2-1	BS 4066-1
IEC 60332-3-21 Cat A F/R	Bunched cables 40 minute burn test. 7.0 litres/metre of combustible material.	EN 60332-3-21 Cat A F/R	EN 50266-2-1 Cat A F/R	
IEC 60332-3-22 Cat A	Bunched cables 40 minute burn test. 7.0 litres/metre of combustible material.	EN 60332-3-22 Cat A EN 50266-2-2 Cat A	IEC 60332-3A VDE 0482-266-2-2 Cat A	BS 4066 pt 3A
IEC 60332-3-23 Cat B	Bunched cables 40 minute burn test. 3.5 litres/metre of combustible material.	EN 60332-3-23 Cat B EN 50266-2-3 Cat B	IEC 60332-3B VDE 0482-266-2-3 Cat B	BS 4066 pt 3B
IEC 60332-3-24 Cat C	Bunched cables 20 minute burn test. 1.5 litres/metre of combustible material.	EN 60332-3-24 Cat C EN 50266-2-4 Cat C	IEC 60332-3C VDE 0482-266-2-4 Cat C	BS 4066 pt 3C
IEC 60332-3-25 Cat D	Bunched cables 20 minute burn test. 0.5 litres/metre of combustible material.	EN 60332-3-25 Cat D	EN 50266-2-5 Cat D	

Fire Resistant Circuit Integrity Tests		Alternative Standard References	
IEC 60331-21	Cables up to and including 0.6/1kV. 90 minutes minimum @ 750°C with fire.	IEC 60331	VDE 0472 FE180
IEC 60331-23	Data cables. 90 minutes @ 750°C with fire.		
IEC 60331-25	Optical fibre cables. 90 minutes @ 750°C with fire.		
IEC 60331-1 & 2	Cables up to and including 0.6/1kV. 120 minutes @ 830°C with fire & mechanical shock.	IEC 60331-31	
BS 6387 Cat C	Circuit integrity for 3 hours @ 950°C with fire.		
BS 6387 Cat W	Circuit integrity for 30 minutes @ 650°C. 15 mins with fire, 15 mins with fire & water spray.		
BS 6387 Cat Z	Circuit integrity for 15 minutes @ 950°C with fire & mechanical shock.		
BS 8434-1 Standard	Circuit integrity for 30 minutes @ 850°C. 15mins fire, 15 mins with fire & water spray	BS 5839-1 Clause 26.2d	
BS 8434-2 Enhanced	Circuit integrity for 2 hours @ 950°C. 60 mins fire & shock, 60 mins fire, shock & water spray.	BS 5839-1 Clause 26.2e	
EN 50200 PH30	Circuit integrity for 30 minutes @ 850°C with fire and mechanical shock.	Similar to BS 8434-1 without the water spray test	
EN 50200 PH60	Circuit integrity for 60 minutes @ 850°C with fire and mechanical shock.		
EN 50200 PH120	Circuit integrity for 120 minutes @ 850°C with fire and mechanical shock.	Similar to BS 8434-2 without the water spray test	

Halogen Gas Emission Tests		Alternative Standard References		
IEC 60754-1	Determination of halogen acid gas generation. Only suitable for cables with emissions of 5% and above. Not suitable for Low Smoke Halogen Free classification.	EN 50267-2-1	BS 6425-1	VDE 0482-267-2-1
IEC 60754-2	Determination of the degree of acidity of gases evolved during combustion by measuring pH levels and conductivity. Suitable for Low Smoke Halogen Free classification.	EN 50267-2-2	BS 6425-2	VDE 0482-267-2-2

Smoke Generation Tests		Alternative Standard References			
IEC 61034-1	Test apparatus for measuring the smoke density of cables.	EN 61034-1	EN 50268-1	BS 7622-1	VDE 0482-1034-1
IEC 61034-2	Test proceedure and requirements. Minimum of 60% light transmission.	EN 61034-2	EN 50268-2	BS 7622-2	VDE 0482-1034-2

American Wire Gauge to Metric Conversion - Listed below are some of the most popular strandings, however, many other combinations exist. Resistance figures are approximate and are given for guidance only.

AWG	Cross Section mm²	Stranding	Resistance Ohms/km
38	0.008	1 x 0.10	2125
38	0.009	7 x 0.04	1930
36	0.013	1 x 0.12	1360
36	0.014	7 x 0.05	1217
34	0.020	1 x 0.16	856
34	0.022	7 x 0.06	777
32	0.032	1 x 0.20	538
32	0.034	7 x 0.08	538
32	0.035	19 x 0.05	446
30	0.051	1 x 0.25	338
30	0.057	7 x 0.10	338
30	0.059	19 x 0.06	286
28	0.080	1 x 0.32	213
28	0.089	7 x 0.12	213
28	0.090	19 x 0.08	186
26	0.128	1 x 0.40	134
26	0.141	7 x 0.16	122
26	0.155	19 x 0.10	113
24	0.205	1 x 0.51	84
24	0.227	7 x 0.20	76
24	0.241	19 x 0.12	69
22	0.324	1 x 0.64	53
22	0.355	7 x 0.25	48
22	0.382	19 x 0.16	45
20	0.519	1 x 0.81	33
20	0.563	7 x 0.32	30.4
20	0.616	19 x 0.20	28.3
18	0.785	16 x 0.25	21.2
18	0.823	1 x 1.02	20.9

AWG	Cross Section mm²	Stranding	Resistance Ohms/km
18	0.90	7 x 0.40	19.2
18	0.96	19 x 0.25	17.9
16	1.30	1 x 1.29	13.2
16	1.23	19 x 0.28	14.0
14	2.08	1 x 1.62	8.28
14	1.94	19 x 0.36	8.86
12	3.31	1 x 2.05	5.20
12	3.08	19 x 0.45	5.58
10	5.26	1 x 2.58	3.28
10	5.26	19 x 0.6	3.28
8	8.38	1 x 3.26	2.06
8	8.35	19 x 0.75	2.06
6	13.29	1 x 4.11	1.59
6	13.29	19 x 0.96	1.59
4	21.15	1 x 5.18	0.815
4	21.14	19 x 1.19	0.815
2	33.63	1 x 6.54	0.513
2	33.61	19 x 1.50	0.513
1	42.41	1 x 7.34	0.424
1	42.38	19 x 1.68	0.424
1/0	53.4	19 x 1.89	0.253
2/0	67.4	19 x 2.17	0.291
4/0	107	19 x 2.68	0.182
250 MCM	127	37 x 2.09	0.139
300 MCM	152	37 x 2.29	0.119
350 MCM	177	37 x 2.47	0.102
400 MCM	202	37 x 2.64	0.091
500 MCM	253	37 x 2.95	0.072

Cross Section mm²	Nearest AWG Size*	Stranding Class 1	Stranding Class 2	Resistance Ohms/km Classes 1 & 2	Stranding Class 5	Stranding Class 6	Resistance Ohms/km Classes 5 & 6	Approx Weight kg/km
IEC 60228/BS 6360 Conductors for insulated cables								
0.14	26	-	-	-	-	18 x 0.10	138	1.35
0.25	24	-	-	-	14 x 0.16	32 x 0.10	79	2.4
0.34	22	-	-	-	19 x 0.16	42 x 0.10	57	3.3
0.5	20	1 x 0.80	7 x 0.30	36.0	16 x 0.21	28 x 0.16	38	4.8
0.75	18	1 x 0.97	7 x 0.37	24.5	24 x 0.21	42 x 0.16	26	7.2
1.0	18	1 x 1.13	7 x 0.43	18.1	32 x 0.21	56 x 0.16	19.5	9.6
1.5	16	1 x 1.38	7 x 0.53	12.1	30 x 0.26	84 x 0.16	13.3	14.4
2.5	14	1 x 1.78	7 x 0.67	7.41	50 x 0.26	140 x 0.16	7.98	24
4.0	12	1 x 2.26	7 x 0.85	4.61	56 x 0.31	224 x 0.16	4.95	38
6.0	10	1 x 2.76	7 x 1.04	3.08	84 x 0.31	192 x 0.21	3.3	58
10	8	1 x 3.57	7 x 1.35	1.83	80 x 0.41	320 x 0.21	1.91	96
16	6	1 x 4.5	17 x 1.70	1.15	128 x 0.41	512 x 0.21	1.21	154
25	4	–	7 x 2.14	0.72	200 x 0.41	800 x 0.21	0.78	240
35	2	–	7 x 2.52	0.52	280 x 0.41	1120 x 0.21	0.55	336
50	1/0	–	19 x 1.78	0.39	400 x 0.41	705 x 0.31	0.39	480
70	2/0	–	19 x 2.14	0.27	356 x 0.51	990 x 0.31	0.27	672
95	3/0	–	19 x 2.52	0.19	485 x 0.51	1340 x 0.31	0.21	912
120	250MCM	–	37 x 2.03	0.15	614 x 0.51	1690 x 0.31	0.16	1152
150	300MCM	–	37 x 2.25	0.12	765 x 0.51	2123 x 0.31	0.13	1440
185	400MCM	–	37 x 2.52	0.1	944 x 0.51	1470 x 0.41	0.11	1776
240	500MCM	–	61 x 2.25	0.07	1225 x 0.51	1905 x 0.41	0.08	2304
300	600MCM	–	61 x 2.52	0.06	1530 x 0.51	2385 x 0.41	0.064	2880
400	750MCM	–	61 x 2.85	0.05	2035 x 0.51	–	0.068	3840
500	1000MCM	–	61 x 3.20	0.04	1768 x 0.60	–	0.0384	4800

The number of strands according to IEC 60228/BS 6360 shown in classes 1 & 2 is obligatory. Stranding shown in classes 5 & 6 gives the maximum strand diameters and may have less strands provided the conductor does not exceed the resistance figures shown. In either case the standard gives the maximum resistance in ohms/km that is permissable for non-tinned conductors.

* AWG sizes are approximate and for information only. Please contact us for exact sizing.