

Universal combo boxes

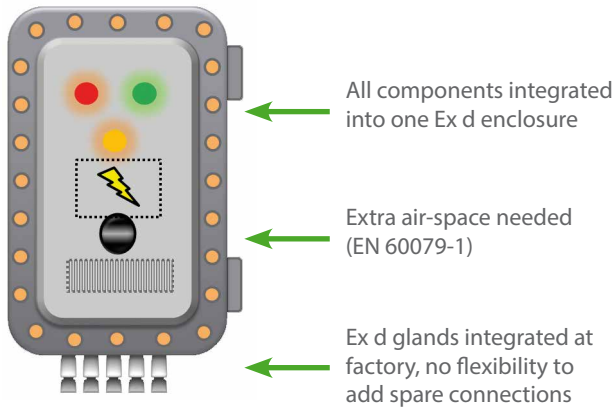
Ex e and Ex tb products

Our universal combo box is an Ex e enclosure designed to fit perfectly next to an Ex d enclosure. Instead of having one Ex d enclosure with terminals and human interface, you can have a light-weight and flexible solution.



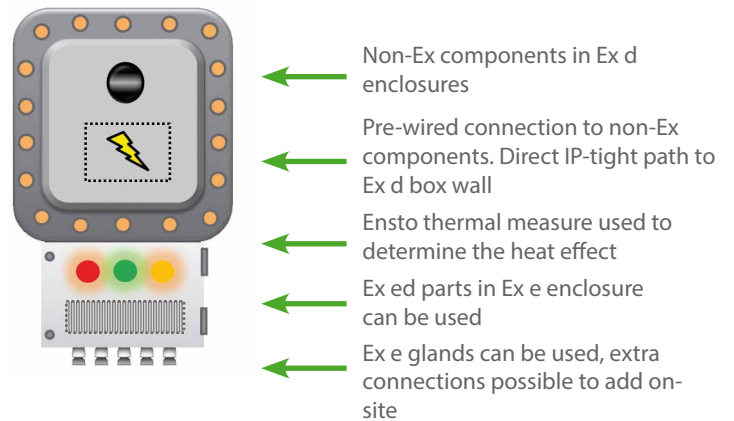
Operation example

All in ex d enclosure Large Ex d with terminals



Indirect connection

Small Ex d with the terminals in the Combo box



Benefits of the universal combo box

Benefits for the panel builder

Using a smaller Ex d enclosure together with Ex e, instead of big Ex d enclosure	→	You get a solution with less weight, fewer screws to open and, more importantly, it is less expensive
Using Ex d enclosure only for the equipment that needs it and Ex e universal combo box for connections, push-buttons, etc.	→	You save money since Ex d enclosures are far more expensive
Certified gasket with IP 66/67 between Ex d and universal combo box	→	You need only one Ex d conduit bushing for feeding the cables into the Ex d enclosure
Connections are made inside the universal combo box	→	You can use cheaper Ex e components instead of expensive Ex d components
Machining Ex e is easier and cheaper than Ex d	→	You have more possibilities for different variations

Benefits for the end user

Using a smaller Ex d enclosure together with Ex e instead of big Ex d enclosure	→	You get a solution that weights less, it is easier and quicker to connect and maintain, and able to connect the enclosure without special knowledge on Ex d components
Ensto universal combo box has a quick lock	→	You can open the connection space quickly and close reliably
You don't need to open the Ex d enclosure for wiring and checking the connections	→	You minimize the risk of damaging the protection type of the Ex d enclosure
Using Ex e glands instead of Ex d	→	You can use Ex e glands which are easier than Ex d (no special knowledge needed). You can also add extra connections on-site.
Possibility to add push-buttons and a window to the door	→	You can easily monitor your equipment

Maximum power dissipation method (MDP) tables

Dimensions (mm)	Maximum dissipated power (W)									Diagonal dimensions (m)
	T4			T5			T6			
	Max Tamb (°C)			Max Tamb (°C)			Max Tamb (°C)			
	40	55	65	40	55	65	40	55	65	
150 x 150 x 90	15.3	15.3	15.3	12.4	9.6	5.4	9.6	5.4	2.1	0.23
150 x 200 x 100	26.8	26.8	19.4	14.6	10.1	5.6	10.1	5.4	2.2	0.27
200 x 250 x 150	39.1	31.6	28.2	22.7	13.3	8.8	13.3	6.5	3.9	0.35
300 x 300 x 150	54.9	54.9	39.6	33.7	17.8	10.7	17.8	8.9	4.8	0.45
200 x 400 x 100	40.3	31.6	28.2	27.8	13.9	9.9	13.9	7.9	3.9	0.46
300 x 450 x 150	74.8	54.9	39.6	40.7	23.9	12.0	23.9	9.6	4.8	0.56
300 x 600 x 150	122.7	101.4	59.4	52.2	37.7	20.3	37.7	14.5	4.8	0.69
500 x 500 x 100	123.0	84.5	47.0	48.1	27.6	15.0	27.6	11.5	4.8	0.71
800 x 500 x 150	188.1	118.1	79.1	61.1	36.0	32.4	36.0	14.5	7.1	0.96
1000 x 500 x 200	295.3	220.3	164.1	93.4	46.9	33.4	46.9	19.8	7.1	1.14

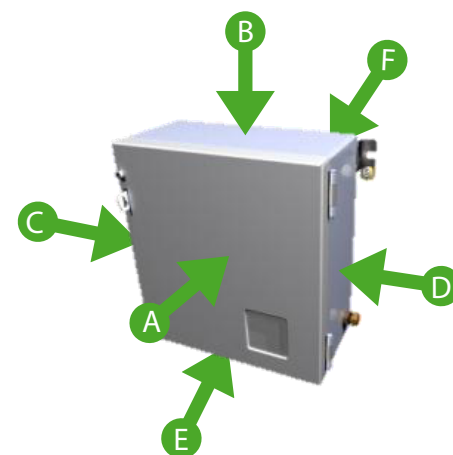


Maximum amount of terminals allowed

Product code	Nominal voltage	Terminal blocks (pcs) Cable size (mm ²) Nominal current max. per terminal block (A)								
		ST / STH	ST2,5	ST4	ST6	ST10	ST16	ST35	STH50	STH95
UCB2010	690V / 1100V	30 pcs (16A)	42 pcs (16A)	31 pcs (16A)	25 pcs (30A)	18 pcs (30A)	14 pcs (30A)	6 pcs (60A)	4 pcs (60A)	3 pcs (60A)
		2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
UCB2015	690V / 1100V	24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
		30 pcs (16A)	42 pcs (16A)	31 pcs (16A)	25 pcs (30A)	18 pcs (30A)	14 pcs (30A)	6 pcs (60A)	4 pcs (60A)	3 pcs (60A)
UCB2510	690V / 1100V	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
		24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
UCB2515	690V / 1100V	35 pcs (14A)	50 pcs (16A)	31 pcs (16A)	25 pcs (30A)	20 pcs (30A)	16 pcs (30A)	8 pcs (60A)	6 pcs (60A)	4 pcs (60A)
		2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
UCB3010	690V / 1100V	24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
		55 pcs (14A)	60 pcs (14A)	45 pcs (16A)	30 pcs (30A)	25 pcs (30A)	20 pcs (30A)	10 pcs (60A)	8 pcs (60A)	6 pcs (60A)
UCB3015	690V / 1100V	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
		24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
UCB3313	690V / 1100V	85 pcs (10A)	120 pcs (12A)	60 pcs (16A)	55 pcs (30A)	50 pcs (30A)	40 pcs (30A)	12 pcs (60A)	8 pcs (60A)	6 pcs (60A)
		2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
UCB3319	690V / 1100V	24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
		85 pcs (10A)	120 pcs (12A)	60 pcs (16A)	55 pcs (30A)	50 pcs (30A)	40 pcs (30A)	12 pcs (60A)	8 pcs (60A)	6 pcs (60A)
UCB4013	690V / 1100V	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35	50 mm ²	95 mm ²	240 mm ²
		24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A
UCB4019	690V / 1100V	120 pcs (10A)	140 pcs (12A)	80 pcs (16A)	70 pcs (30A)	60 pcs (30A)	50 pcs (30A)	14 pcs (60A)	10 pcs (60A)	9 pcs (60A)
		2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	50 mm ²	95 mm ²	240 mm ²
UCB4019	690V / 1100V	24 A	32 A	41 A	57 A	76 A	125 A	150 A	232 A	353 A

Maximum amount of cable glands allowed

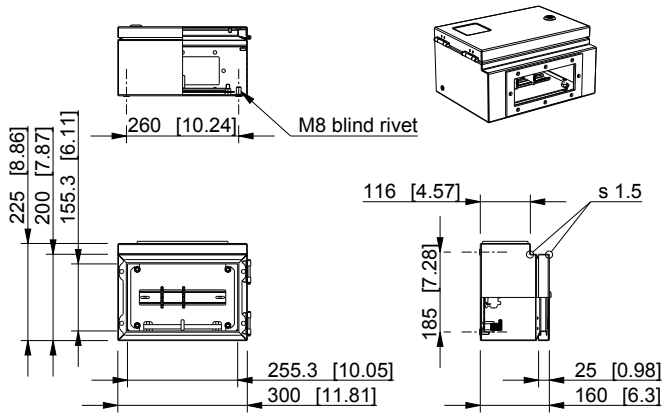
Product code	Cable entry table (E/CD) (KTA1.x Ex-e glands) (Quantity/side)			
	M20	M25	M32	M40
UCB2010	21/15	12/7	10/6	6/3
UCB2015	45/25	18/9	12/6	8/4
UCB2510	21/15	12/7	10/6	7/3
UCB2515	50/25	21/9	15/6	10/4
UCB3010	36/21	16/10	12/8	7/3
UCB3015	60/35	24/15	14/8	12/6
UCB3313	52/44	27/24	14/12	12/10
UCB3319	78/66	36/32	21/18	18/15
UCB4013	60/44	30/24	16/12	14/10
UCB4019	90/66	40/32	24/18	21/15



Dimensional drawings

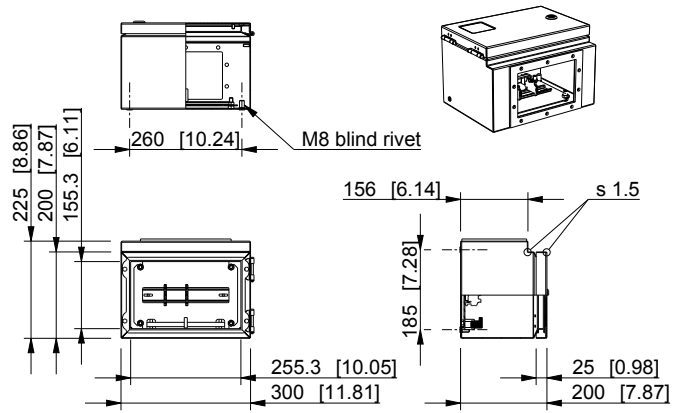
Dimensions in mm [inch]

Ensto Universal combo box 300 x 200+25 x 160 mm



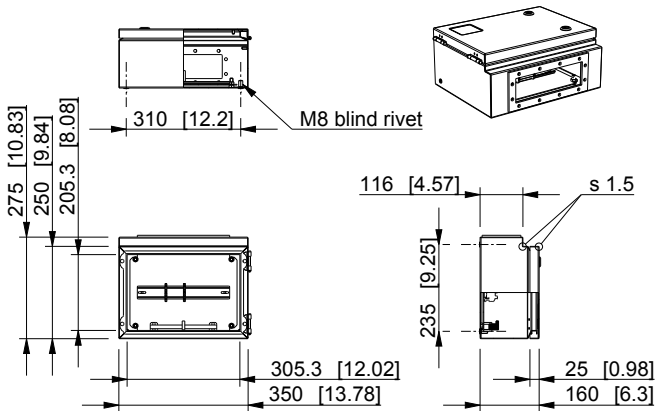
Product code	Description
UCB2010	X3ABP302316C, combo box

Ensto Universal combo box 300 x 200+25 x 200 mm



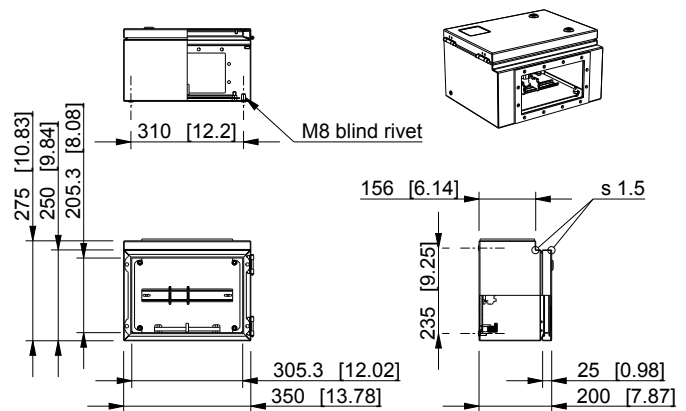
Product code	Description
UCB2015	X3ABP302320C, combo box

Ensto Universal combo box 300 x 250+25 x 160 mm



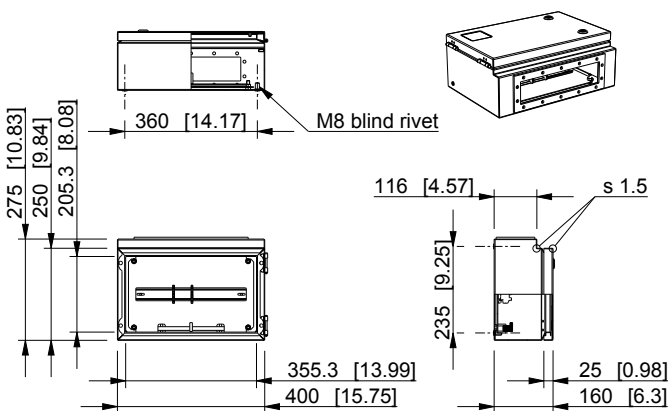
Product code	Description
UCB2510	X3ABP352816C, combo box

Ensto Universal combo box 350 x 250+25 x 200 mm



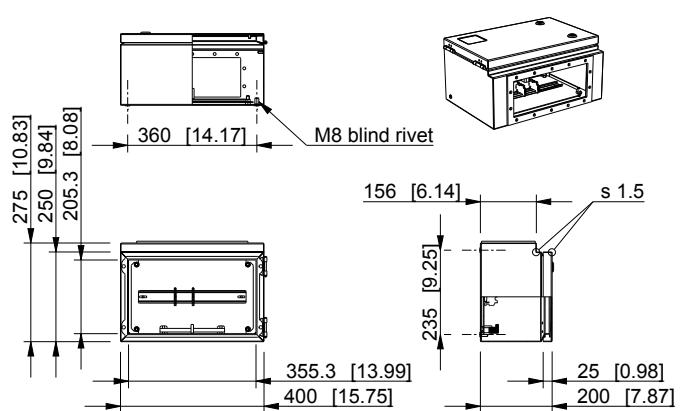
Product code	Description
UCB2515	X3ABP352820C, combo box

Ensto Universal combo box 400 x 250+25 x 160 mm



Product code	Description
UCB3010	X3ABP402816C, combo box

Ensto Universal combo box 400 x 250+25 x 200 mm

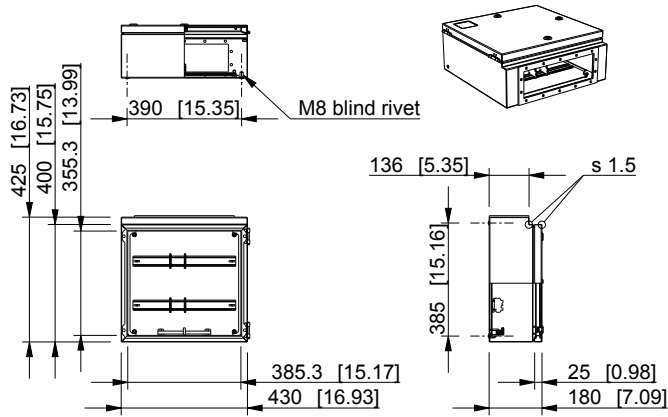


Product code	Description
UCB3015	X3ABP402820C, combo box

Dimensional drawings

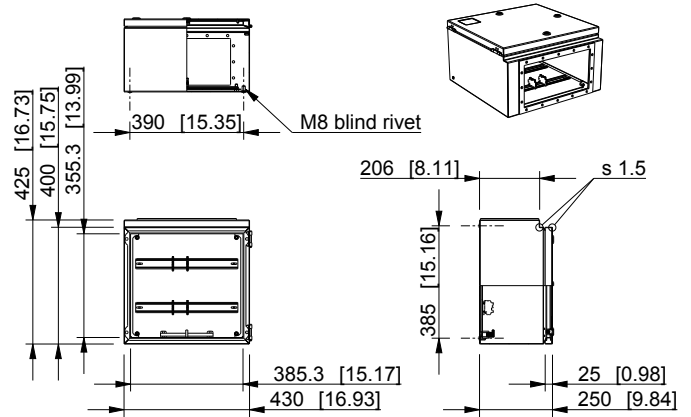
Dimensions in mm [inch]

Ensto Universal combo box 430 x 400+25 x 180 mm



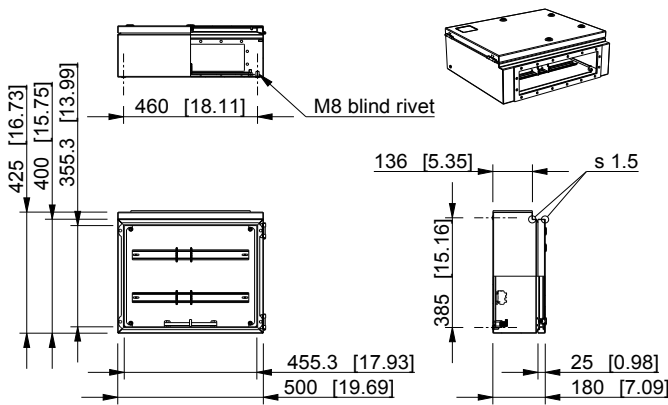
Product code	Description
UCB3313	X3ABP434318C, combo box

Ensto Universal combo box 430 x 400+25 x 250 mm



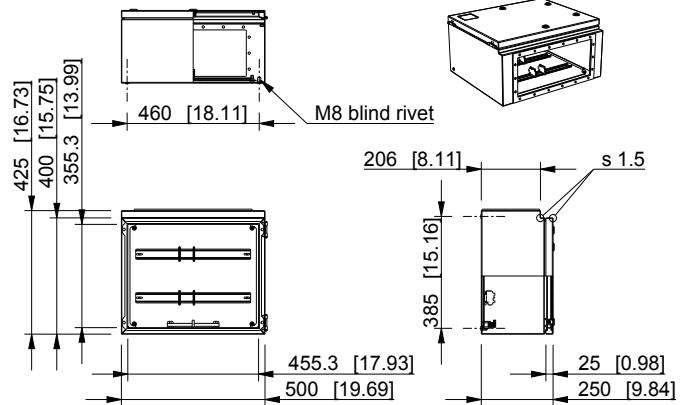
Product code	Description
UCB3319	X3ABP434325C, combo box

Ensto Universal combo box 500 x 400+25 x 180 mm



Product code	Description
UCB4013	X3ABP504318C, combo box

Ensto Universal combo box 500 x 400+25 x 250 mm



Product code	Description
UCB4019	X3ABP504325C, combo box