

Ex-e Stainless Steel BOXES for TERMINALS and CONTROL/SIGNALLING OPERATORS

series
CBX

Protection	Gas	Zone	1-2	II2G	Ex eb IIC T6/T5/T4 Gb
	Dust		21-22	II2D	Ex tb IIIC T85°C/T100°C/T135°C Db

Degree of Protection	IP65/66
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Amb. Temp.	Standard	-20°C	+40°C
	Extended	-60°C	+65°C



Entries Threading	Through or threaded holes
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Material	Stainless Steel AISI 316L
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Painting	See Options
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Standards and Certificates	Directive 2014/34/UE (ATEX)
	EN 60079-0 • EN 60079-1 • EN 60079-7 • EN 60079-11 • EN 60079-18 • EN 60079-31 • EN 60529
	CE IMQ 20 ATEX 036X
	IECEx IMQ 20.0004X

These boxes are mainly used for:

- Junction and/or cables pulling.
- Sorting of barrier signals and/or transposition signals on field to control rooms like Field-Bus; Mod-Bus and Profi-Bus for analogical, digital and/or measurement signals such as thermocouples, 4 ÷ 20 mA signals, etc.
- Available also complete of a wide range of control and signaling units (see page J05).
- Connections must be performed through cable entries according to IEC / EN 60079-14 standard completed with certified components following IEC / EN 60079-0, IEC / EN 60079-1, IEC / EN 60079-7, IEC / EN 60079-31 Standards.
- Do not add gaskets if not provided by the manufacturer.
- When the cable glands is not equipped with an anti breakage system, the user shall complete the box with an alternative system to avoid the transmission of mechanical stresses to the terminals and cable glands.
- Unused holes must be closed with metallic or plastic plugs, with the same dimensional characteristics of the cable glands as well as certified according to IEC / EN 60079-0, IEC / EN 60079-1, IEC / EN 60079-7, IEC / EN 60079-31 Standards.

Options

- Hinges kit with 180° opening applicable to the "VV" version only.
- Removable flanges (from 1 to 4 for CBX 222215 and available higher sizes). (**)
- High thickness flanges (in case of threaded entries - see page J07).
- Stainless steel document pockets (see page J07).
- External painting: according to customer specification.
- EAC approval.

NOTES

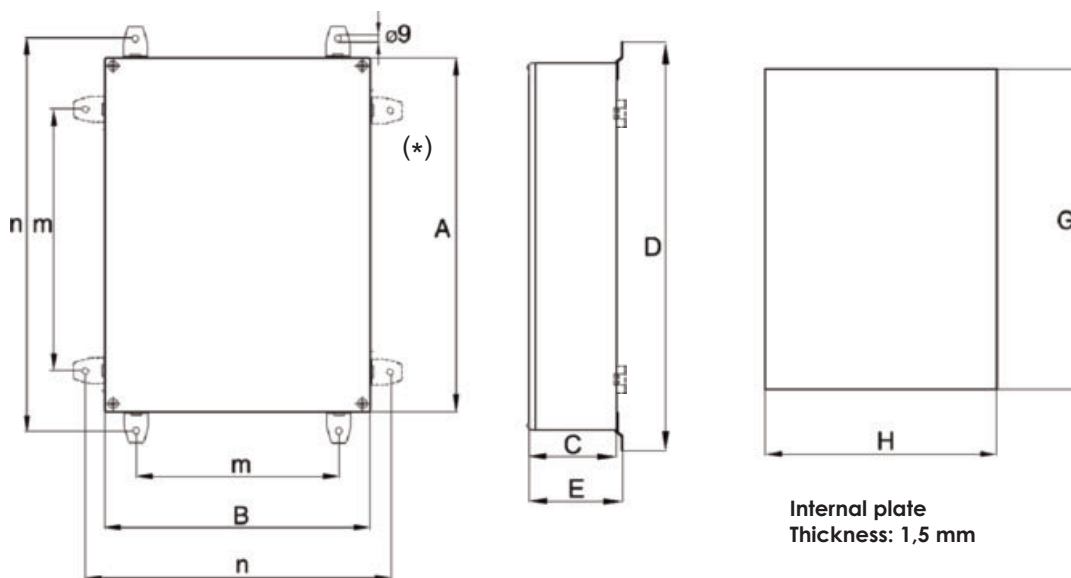
The drawing is valid for dimensional data only.

For enclosure cable entries layout, please refer to page J04.

The Ambient Temperature range, Temperature Class and maximum Surface Temperature are always strictly related to the components installed inside the box (terminals or control and/or signaling units).

(*) Fixing brackets may be installed either perpendicularly to the long or to the short side.

(**) The removable flanges cause a reduction of the available drilling area hence reducing the number of cable entries achievable on the wall. Please contact our Technical/Sales Department for further information.



Example: CBX 443315-CV-2FC 2FL

Order Coding

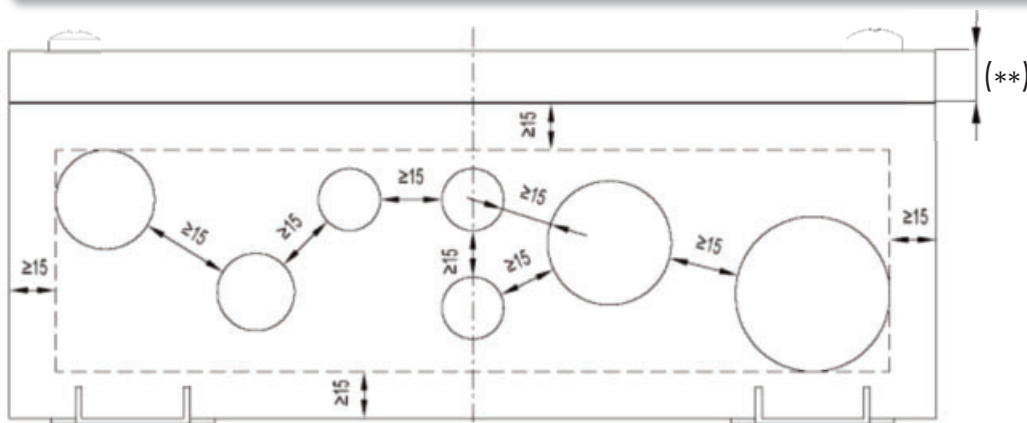
Type	External Dimensions	Lid Fixing	Removable Flanges
CBX	44 = A	VV = Lid closed by screws	xFC = n° removable flanges on short side
	33 = B	CV = Lid closed by screws and internal hinges	xFL = n° removable flanges on long side
	15 = C	CC = Lid fixed by mechanical key locking device and internal hinges	

Order Coding	External Dimensions (mm)					Fixing Interaxes (mm)		Bottom Plate Dimensions (mm)	
	A	B	C	D	E	m	n	G	H
CBX 101009*	100÷135	100÷155	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 101609*	100÷135	160÷215	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 102209*	100÷135	220÷275	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 102809*	100÷135	280÷300	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 131309*	130÷170	130÷170	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 141409*	140÷170	140÷170	90÷130	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 171709*	170÷220	170÷220	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 221209*	220÷270	120÷170	90÷100	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 221609*	220÷270	165÷200	90÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 221615*	220÷270	165÷200	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 222209*	220÷270	220÷270	90÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 222215*	220÷270	220÷270	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 332211	330÷400	220÷300	110÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 332215	330÷400	220÷300	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 333311	330÷400	330÷400	110÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 333315	330÷400	330÷400	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 404013	400÷490	400÷490	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 404015	400÷490	400÷490	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 442213	440÷530	220÷300	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 442215	440÷530	220÷300	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 443313	440÷530	330÷400	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 443315	440÷530	330÷400	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 493613	490÷600	365÷450	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 493615	490÷600	360÷450	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 504013	500÷600	400÷490	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 504015	500÷600	400÷490	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 524213	520÷600	420÷500	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 524215	520÷600	420÷500	150÷250	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 602013	600÷720	200÷280	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 602015	600÷720	200÷280	150÷250	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 634813	630÷900	480÷680	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 634815	630÷900	480÷680	150÷225	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 744013	740÷100	400÷750	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 744015	740÷100	400÷750	150÷300	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 806013	750÷110	600÷850	130÷150	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50
CBX 806015	800÷110	600÷850	150÷300	A / B + 80	C + 11,5	A / B - 42	A / B + 50	A - 50	B - 50

NOTES

- (*) Boxes are managed at stock without any internal fixing plate, though available on request.
- The identification codes refer to nominal dimensions, generally managed as standard; for any extended dimension please contact our Technical/Sales department.

The boxes can be configured with pass-through holes on the walls to allow entries of the required cables. Allowed holes diameter on the CBX box walls must be within 12 and 75 mm, and their quantity and position depends on the box dimension. Such holes may be placed taking into account the minimum distances between holes centers and box edges, as shown in the following figure:



NOTE

(**) The indicated height is equal to 14,5 mm for the "VV" version, and 23 mm for the "CV" and "CC" versions.

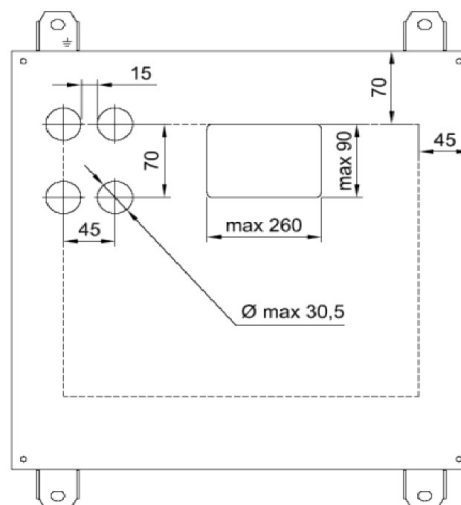
Ex-e BOXES with CONTROL and SIGNALLING UNITS

series
CBX

The holes on the lid for control and signalling units may be placed taking into account the minimum distances between holes centers and box edges, as shown in the following figure:



Examples with control and/or signalling units



ACCESSORIES and OPTIONS

series
CBX

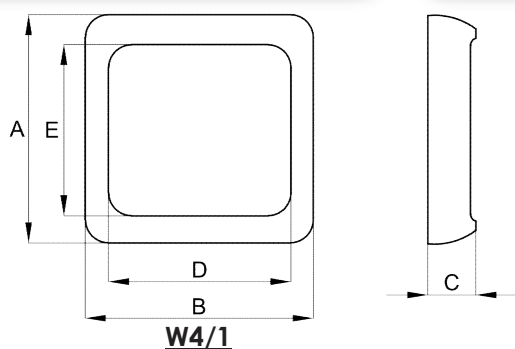
VIEWING WINDOWS: The lid can be fitted of one or more windows, suitable for viewing displays installed inside the box (with fixed windows) or for operating directly on automatic switches, avoiding the opening of the box itself (by using opening windows).



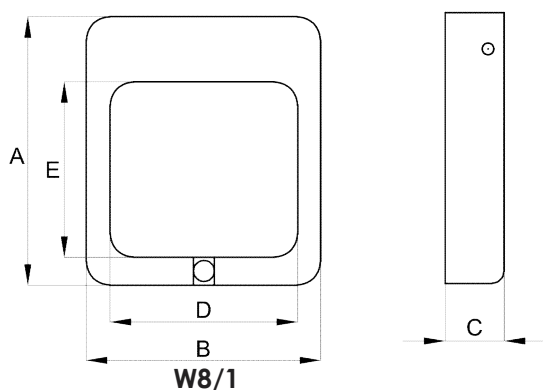
Fixed windows Series W4



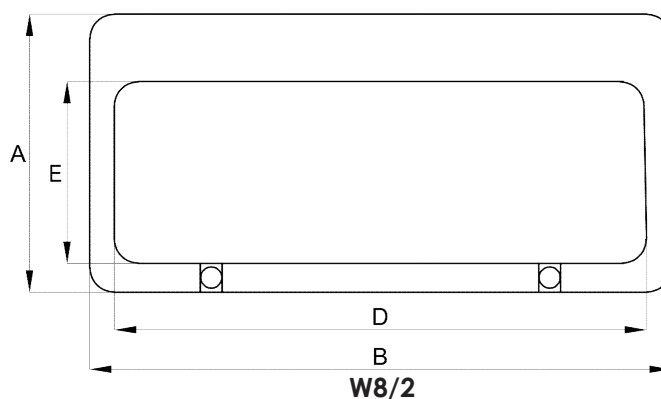
Opening windows Series W8/...



W4/1



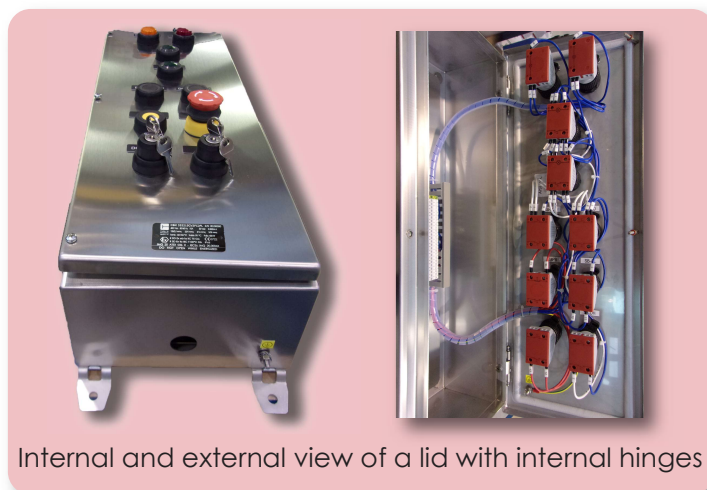
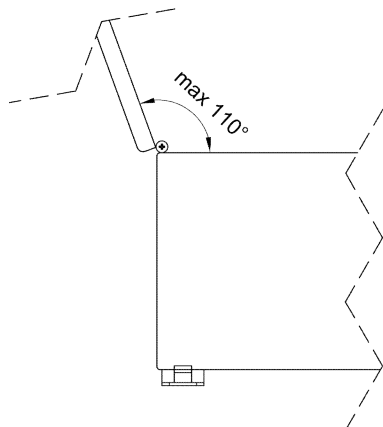
W8/1



W8/2

Order Coding	External Dimensions (mm)			Viewing Area (mm)	
	A	B	C	D	E
W4/1	73	73	15	57,3	53,3
W8/1	139	121	30	86	86
W8/2	139	281	30	255	86

INTERNAL HINGES ("CV" VERSION): On request, instead of four screws, is available the solution with hinged lid consisting in the assembly of internal hinges (not possible after supply) and closing screws (their number depending on the dimensions) on the opposite side to the hinges one; with such configuration the lid can be opened up to 110° (see the drawing).



Internal and external view of a lid with internal hinges

KEY LOCKING DEVICE ("CC" VERSION): Available also closing solution of the lid using one or more key locks (in function of the lid dimension itself - see following photos). Such solution involves presence of internal hinges on the opposite side of the locks one, making possible the opening of the lid up to 110°. For further information about please contact our Technical/Sales Department.

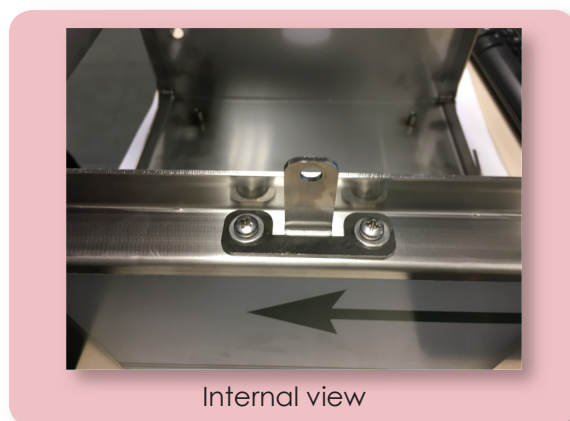


Example with one locking device

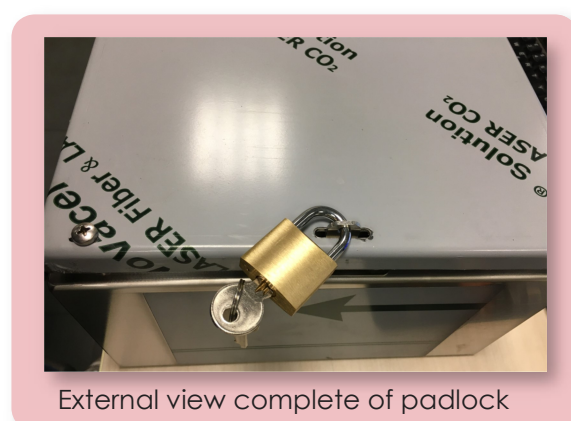


Example with two locking devices

PADLOCKABLE LID: On request, a special device allowing to padlock the lid for avoiding not authorized accesses is applicable when ordering.



Internal view



External view complete of padlock

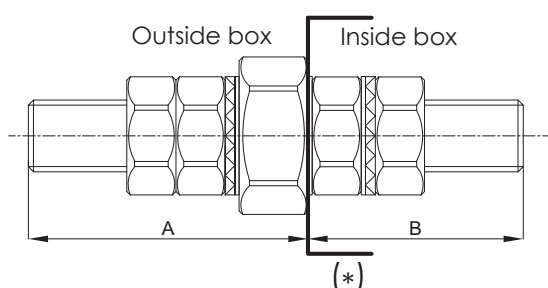
GROUND PASS-THROUGH WALL DEVICE: Alternatively to the external standard earth connections (tab or welded pin M6x15), the ground pass-through wall device with M6 - M8 - M10 diameters may be installed on request (respectively coded GC6, GC8, GC10).



Ground pass-through wall device
"GC6, GC8, GC10"



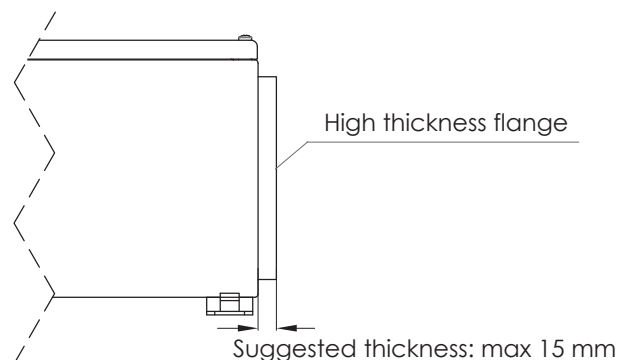
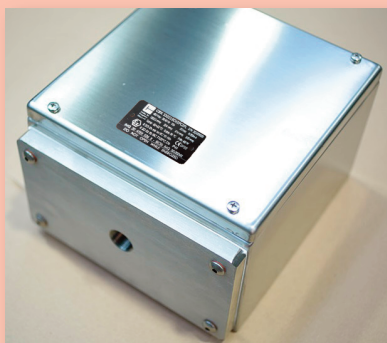
Installation example



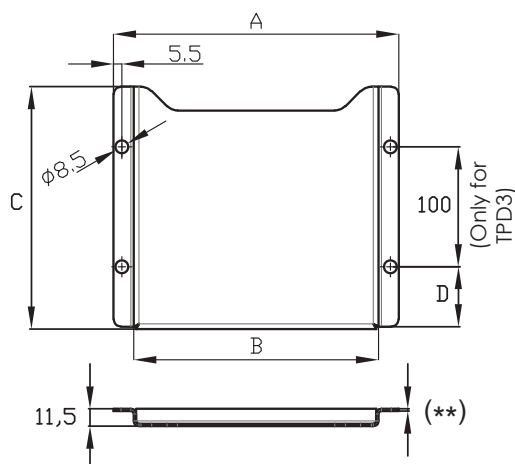
Order Coding	External Dimensions (mm)	
	A	B
GC6	28	20
GC8	32	24
GC10	35	27

NOTES (*) Box wall thickness: 1,5 mm.

HIGH THICKNESS FLANGES: Suitable when are demanded the use of cable entries with conical thread (NPT) necessary; a maximum thickness of 15 mm is recommended.



DOCUMENT POCKETS: Three different sizes of documents pockets (TPD) are available, made of stainless steel 316L and installed inside the boxes.



Order Coding	External Dimensions (mm)			
	A	B	C	D
TPD1	86	59	111,5	55,75 *
TPD2	190	163	111,5	55,75 *
TPD3	190	163	211,5	55,75

NOTE - (*) Only one fixing screw per side.
- (**) Thickness: 1,5 mm.

NOTES:

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