

CBEx

CONDUIT AND CONTROL BOXES FOR EXPLOSIVE ATMOSPHERES

PROTECTION: Ex d – Ex tb

ZONES: 1 and 2 – 21 and 22

GROUPS: IIC – IIIC

TEMPERATURE CLASS: T6 – T85 °C

(control boxes)

EPL: Gb – Db

DEGREE OF PROTECTION: IP66

APPLICABLE STANDARDIZING:

ABNT NBR IEC 60079-0

ABNT NBR IEC 60079-1

ABNT NBR IEC 60079-31



TECHNICAL SPECIFICATIONS

- Boxes with **Ex d** (explosion-proof) and **Ex tb** (combustible dust) protection for installation in potentially explosive atmospheres.
- Made in copper-free aluminum alloy resistant to corrosion.
- **1/2" to 4"** NPT or BSP threaded inlets.
* The holes are placed according to the customer specifications.
- Cover threaded to the body.
- **Electrostatic powder coating** finish in gray Munsell N 6.5 polyester.
- O'ring seal installed on the cover.
- **Aluminum** or **zinc-plated steel** inner plate.
- **Stainless steel** stud bolt to lock the cover.
- Bolts, grounding connectors, and non-rotating **stainless steel** plate.

- Boxes can be supplied with digital/analog instruments, CLPs, IHMs, switches, fuses, relays, connectors, timers, capacitors, transformers, circuit breakers, switchdisconnectors, frequency inverters, soft-starter, buses, heating elements, control stations, amongst other equipment/component parts according to the customer's project.

HOW TO REQUEST

- **Example:** Copper-free aluminum explosion-proof conduit box, model CBEx-1 with 3 3/4" NPT threaded inlets.

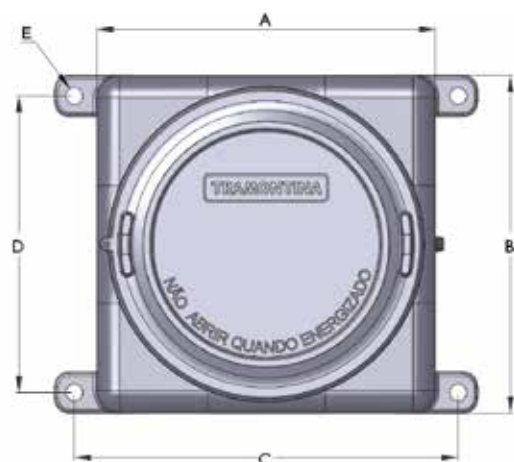
Order by reference: **56510/000 + 3x3/4" NPT**

Order by description: **CBEx-1 + 3x3/4" NPT**

- **Control boxes** send or request the project from Tramontina with the features of components and necessary internal circuits.

CBEx

TECHNICAL INFORMATION



View from above

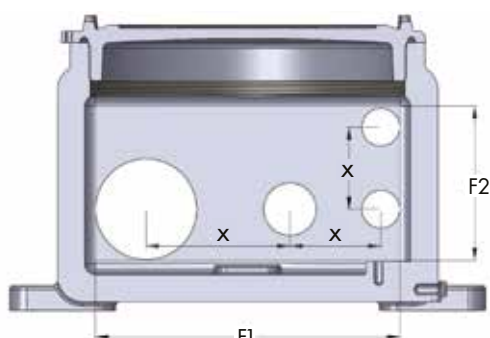


Cut side view

MEASUREMENTS

REF.	BOX MODEL	A	B	C	D	Ø E	F	G	H	I	VOLUME [dm ³]	WEIGHT [kg]
56510/000	CBEx-1	161	161	184	136	8	133	132	132	103	1,72	3,25
56511/000	CBEx-2	184	184	204	158	8	142	152	152	112	2,46	4,65
56512/000	CBEx-3	239	239	265	202	10	173	200	200	134	5,35	9,30
56513/000	CBEx-4	309	309	338	275	12	224	267	267	183	13,25	17,40

BOXES WITH THREADED ENTRIES



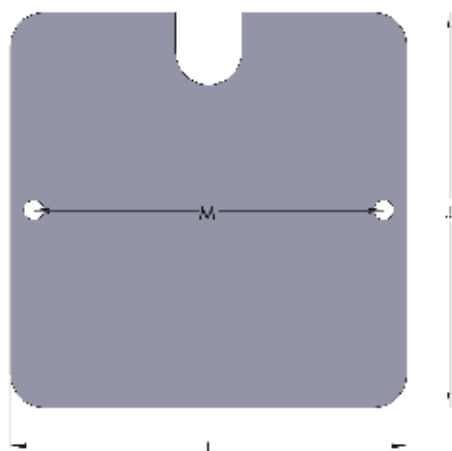
Cut side view

MINIMUM DISTANCE BETWEEN "X" CENTERS

GAUGES	1/2" M20	3/4" M25	1" M32	1.1/4" M40	1.1/2" M50	2" M63	2.1/2" M75	3" M80	4"
1/2" - M20	47	53	63	72	75	89	96	106	123
3/4" - M25	53	57	69	77	80	94	100	110	126
1" - M32	63	69	74	83	86	99	106	117	134
1.1/4" - M40	72	77	83	92	95	106	113	126	140
1.1/2" - M50	75	80	86	95	103	114	121	134	146
2" - M63	89	94	99	106	114	125	132	145	157
2.1/2" - M75	96	100	106	113	121	132	148	156	172
3" - M80	106	110	117	126	134	145	156	174	189
4"	123	126	134	140	146	157	172	189	214

BOX MODEL	USEFUL SURFACE						MAXIMUM NUMBER OF HOLES ALLOWED ON EACH SIDE							
	F1	F2	CM2	1/2" M20	- M22	3/4" M25	1" M32	1.1/4" M40	1.1/2" M50	2" M63	2.1/2" M75	3" M80	4"	THREAD, COVER
CBEx-1	118	70	83	4	4	3	3	1	-	-	-	-	-	M 130 X 2
CBEx-2	135	74	100	5	4	3	3	1	1	-	-	-	-	M 150 X 2
CBEx-3	185	90	167	9	8	6	4	2	1	1	-	-	-	M 200 X 2
CBEx-4	250	132	330	18	15	11	7	4	3	2	1	1	1	M 270 X 3

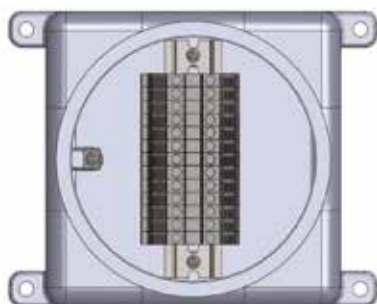
Note: For other configurations, please consult Tramontina.



Aluminum or zinc-plated steel inner plate.

BOX MODEL	DIMENSIONS		
	J	L	M
CBEEx-1	120	120	106
CBEEx-2	141	141	126
CBEEx-3	188	188	175
CBEEx-4	256	256	248

JUNCTION BOXES (WITH TERMINALS)

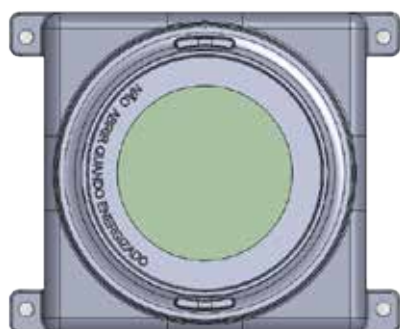


View from above

BOX MODEL	VOLUME [dm ³]	TERMINALS: SECTION AND QUANTITY (MAXIMUM)								
		1,5 mm ²	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	25 mm ²	35 mm ²	70 mm ²
CBEEx-1	1,80	12	12	12	10	8	5	-	-	-
CBEEx-2	2,59	20	20	16	12	10	8	4	4	4
CBEEx-3	5,47	28	28	24	18	14	12	8	8	6
CBEEx-4	13,74	45	45	36	28	22	18	12	12	9
MAXIMUM CURRENT PER TERMINAL [A]		10	12,5	20	24	30	48	75	105	175
MAXIMUM CURRENT DENSITY PER TERMINAL [A/MM ²]		6,6	5	5	4	3	3	3	3	2,5
VOLTAGE RATING [V]		750 V								

Note: CBEEx boxes are prepared for mounting terminal rails directly on the inner brackets with no need to use the inner plate.

GLASS DISPLAY BOXES



View from above

MODEL	GLASS DISPLAY (Ø)
CBEEx-2	90 mm
CBEEx-3	130 mm
CBEEx-4	180 mm