

CCEx

PANELS FOR POTENTIALLY EXPLOSIVE ATMOSPHERES

PROTECTION: Ex d – Ex tb

ZONES: 1 and 2 – 21 and 22

GROUPS: IIB – IIIC

TEMPERATURE CLASS: T6... T5 – T85 °C

EPL: Gb – Db

DEGREE OF PROTECTION: IP66

APPLICABLE STANDARDIZING:

ABNT NBR IEC 60079-0

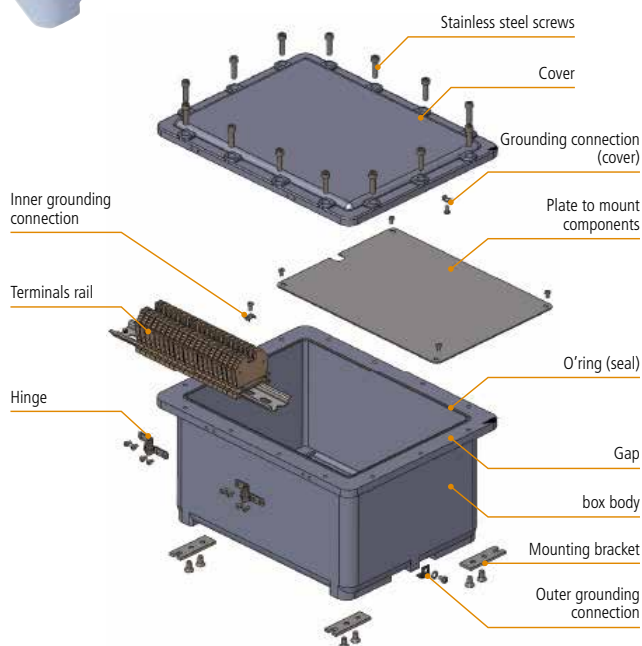
ABNT NBR IEC 60079-1

ABNT NBR IEC 60079-31



TECHNICAL SPECIFICATIONS

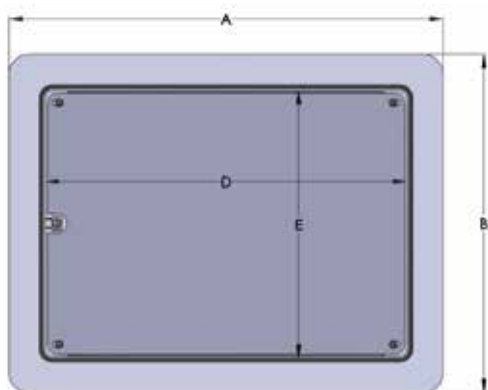
- Panels with **Ex d** (explosion-proof) and **Ex tb** (combustible dust) protection for installation in potentially explosive atmospheres.
- Made in copper-free aluminum alloy resistant to corrosion.
- **1/2" to 4" NPT** and **M20 to M80 metric** threaded inlets.
* The holes are placed according to the customer specifications.
- Cover attached to body with **stainless steel** hex head bolts.
- **Electrostatic powder coating** finish in gray Munsell N 6.5 polyester.
- O'ring seal installed on the box.
- **Aluminum** or **zinc-plated steel** inner plate.
- Stainless steel bolts, grounding connectors, and hinges.
- Bracket to mount the boxes on the wall.
- Panels may be provided with analog/digital instruments, PLCs, IHM, commutators, fuses, relays, contactors, switches, timers, capacitors, transformers, terminals/connectors, circuit breakers, switch-disconnectors, frequency inverters, soft-starter, buses, heating elements, pilot and signaling control, and levers, amongst others, according to the customer's project.



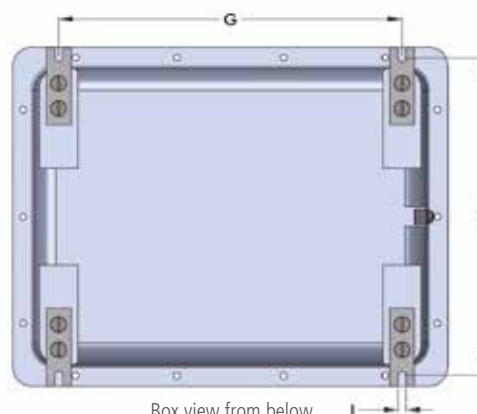
HOW TO REQUEST

Send or request project to Tramontina with the features of components and necessary internal circuits.

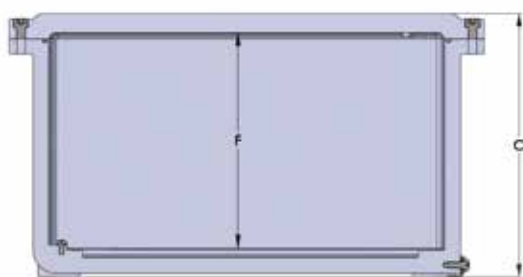
TECHNICAL INFORMATION



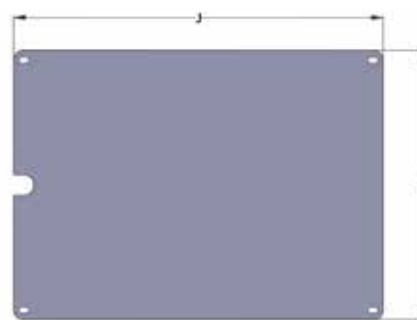
Box view from above



Box view from below



Box and cover cut side view



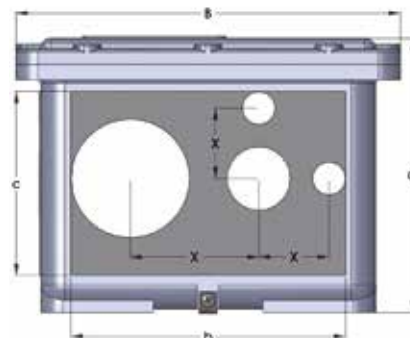
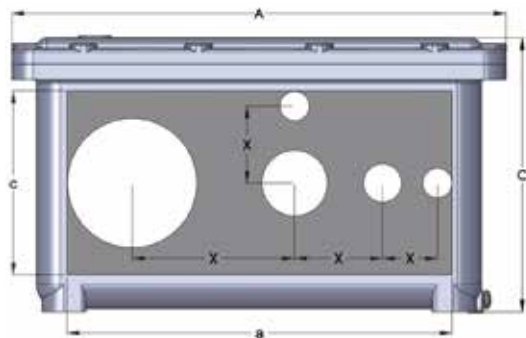
Plate

MODEL	DIMENSIONS EXTERNAL [mm]			DIMENSIONS INTERNAL [mm]			BRACKET MOUNTING [mm]			PLATE [mm]		WEIGHT [kg]	VOLUME [dm ³]
	A	B	C	D	E	F	G	H	I	J	L		
CCEx-1C	205	205	155	135	135	115	130	190	8	125	125	5,0	2,0
CCEx-2C	305	305	175	230	230	135	215	277	8	220	220	11,4	7,0
CCEx-3C	405	405	205	325	325	160	305	377	8	310	310	22,5	17,0
CCEx-1	315	213	166	240	140	125	225	190	8	230	130	8,0	4,3
CCEx-2B	355	255	210	280	180	165	265	227	8	270	170	11,8	8,4
CCEx-2			255			215						13,5	11,0
CCEx-3B	458	357	210	375	275	160	355	327	8	360	260	22,0	16,4
CCEx-3			255			210						25,0	21,6
CCEx-4B	560	358	210	475	275	155	455	327	8	460	260	27,0	21,0
CCEx-4			260			205						30,5	27,2
CCEx-5B	664	460	268	565	365	200	545	428	10	550	350	54,0	41,0
CCEx-5			310			250						58,5	52,0
CCEx-6B	710	510	257	610	410	190	595	478	10	580	380	70,0	50,0
CCEx-6			310			240						77,0	62,0
CCEx-7B	868	610	255	740	490	225	719	575	10	720	460	135,0	85,5
CCEx-7			355			275						145,0	97,0
CCEx-8B	1120	615	325	990	490	225	979	575	10	970	470	172,0	115,0
CCEx-8			355			275						185,0	130,0

BOXES WITH THREADED ENTRIES

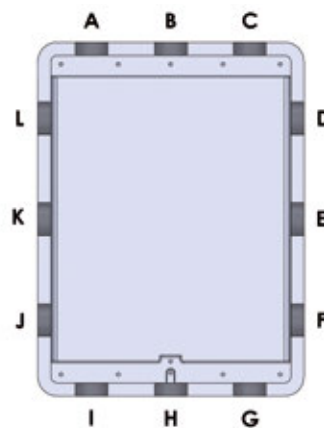
MODEL	MAXIMUM NUMBER OF ENTRIES LARGER SIDE										AREA FOR HOLES		MAXIMUM NUMBER OF ENTRIES SMALLER SIDE										AREA FOR HOLES	
	1/2" M20	3/4" M25	1" M32	1.1/4" M40	1.1/2" M50	2" M63	2.1/2" M75	3" M80	4"	a	c	1/2" M20	3/4" M25	1" M32	1.1/4" M40	1.1/2" M50	2" M63	2.1/2" M75	3" M80	4"	b	c		
CCEx-1C	5	3	2	1	1	-	-	-	-	115	80	5	3	2	1	1	-	-	-	-	115	80		
CCEx-2C	8	7	3	2	2	1	1	-	-	200	100	8	7	3	2	2	1	1	-	-	200	100		
CCEx-3C	18	10	8	3	3	2	1	1	-	300	125	18	10	8	3	3	2	1	1	-	300	125		
CCEx-1	10	7	3	2	2	1	1	-	-	210	100	4	4	2	1	1	-	-	-	-	110	100		
CCEx-2B	15	8	6	4	3	2	1	1	-	250	135	9	6	4	3	2	1	1	-	-	150	135		
CCEx-2	20	12	9	6	5	3	2	1	-	250	185	12	9	6	4	3	2	1	-	-	150	185		
CCEx-3B	21	12	10	6	5	3	2	1	-	340	135	15	8	6	4	2	2	1	1	-	240	135		
CCEx-3	28	18	10	8	6	4	2	1	1	340	180	20	12	9	6	4	3	2	1	-	240	180		
CCEx-4B	27	16	12	8	5	4	2	1	1	440	130	15	8	6	4	3	2	2	1	-	250	130		
CCEx-4	36	26	18	10	8	5	3	2	1	440	180	20	12	9	6	5	3	2	1	-	250	180		
CCEx-5B	44	27	14	12	10	4	4	2	1	530	170	28	18	10	8	5	3	2	1	1	330	170		
CCEx-5	55	36	21	12	10	8	5	3	2	530	220	35	24	15	8	6	5	3	2	1	330	220		
CCEx-6B	48	30	16	12	10	5	4	2	1	570	160	32	21	10	8	6	3	2	2	1	370	160		
CCEx-6	60	40	24	12	12	8	5	3	2	570	210	40	28	15	8	8	5	3	2	1	370	210		
CCEx-7B	60	36	30	16	14	9	5	4	2	690	190	36	24	18	10	8	5	3	2	1	440	190		
CCEx-7	75	48	27	23	14	11	8	4	3	690	240	45	32	18	15	8	7	5	3	2	440	240		
CCEx-8B	80	48	39	20	18	12	6	5	3	920	190	36	24	18	10	8	5	3	2	1	440	190		
CCEx-8	100	64	39	30	18	14	10	5	4	920	240	45	32	18	15	8	7	5	3	2	440	240		

Note: For other configurations, please consult TRAMONTINA.



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



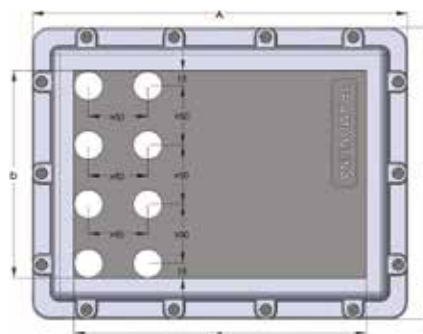
Position of the threaded entries

NOTE: Threaded entries may be requested according to positions illustrated above or according to the customer's needs.

COVERS WITH THREADED ENTRIES

Entries for fixing the control and signaling actuators.

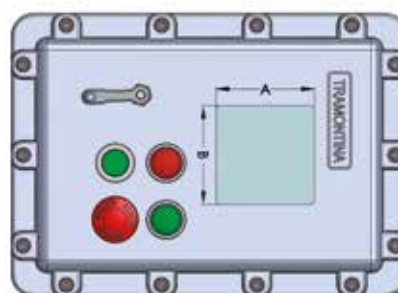
MODEL	MAXIMUM QUANTITY OF HOLES	AREA FOR HOLES [mm]	
		A	B
CCEx-1C	4	115	115
CCEx-2C	9	200	200
CCEx-3C	16	300	300
CCEx-1	6	210	110
CCEx-2B	8	250	150
CCEx-2			
CCEx-3B	15	340	240
CCEx-3			
CCEx-4B	18	440	250
CCEx-4			
CCEx-5B	24	530	330
CCEx-5			
CCEx-6B	35	570	370
CCEx-6			
CCEx-7B	40	690	440
CCEx-7			
CCEx-8B	55	920	440
CCEx-8			



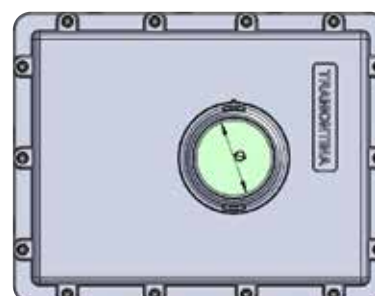
View from above

TEMPERED GLASS COVERS

MODEL	DIMENSION DISPLAY/RECT	DIMENSION DISPLAY/ROUND	
	A X B [mm]	MAXIMUM QUANTITY	Ø [mm]
CCEx-1C	95 x 65	-	-
CCEx-2C		-	-
CCEx-3C		1	90
CCEx-1		-	-
CCEx-2B		-	-
CCEx-2			
CCEx-3B		1	90
CCEx-3			
CCEx-4B	110 x 65	1	90
CCEx-4			
CCEx-5B		1	130
CCEx-5			
CCEx-6B		1	180
CCEx-6			
CCEx-7B		1	180
CCEx-7			
CCEx-8B		1	180
CCEx-8			

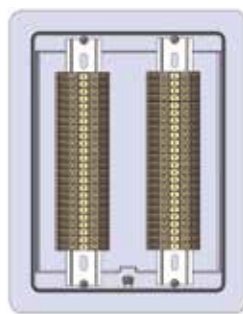


Cover with square/rectangular display



Cover with round display

JUNCTION BOXES (WITH TERMINALS)



Junction boxes with terminals

NOTE: For other terminal sizes or different mounting configurations, please consult Tramontina.

MODEL	TERMINAL 2,5 mm ²		TERMINAL 4 mm ²		TERMINAL 6 mm ²		TERMINAL 10 mm ²		TERMINAL 16 mm ²		TERMINAL 25 mm ²	
	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL
CCEX-1C	1	12	1	12	1	10	1	8	1	8	1	6
CCEX-2C	1	22	1	22	1	18	1	12	1	12	1	8
CCEX-3C	2	30	2	30	1	24	1	26	1	26	1	12
CCEX-1	1	28	1	26	1	21	1	17	1	14	1	12
CCEX-2B	2	38	2	35	2	28	2	23	2	21	1	18
CCEX-2	2	38	2	35	2	28	2	23	2	21	1	18
CCEX-3B	3	48	3	38	3	30	3	29	2	25	2	21
CCEX-3	3	48	3	38	3	30	3	29	2	25	2	21
CCEX-4B	3	70	3	65	3	50	3	35	3	25	2	25
CCEX-4	3	70	3	65	3	50	3	35	3	25	2	25
CCEX-5B	3	80	3	70	3	60	3	50	3	40	2	30
CCEX-5	3	80	3	70	3	60	3	50	3	40	2	30
CCEX-6B	3	90	3	80	3	70	3	54	3	42	2	34
CCEX-6	3	90	3	80	3	70	3	54	3	42	2	34
CCEX-7B	4	120	4	100	4	80	4	60	4	50	3	40
CCEX-7	4	120	4	100	4	80	4	60	4	50	3	40
CCEX-8B	4	150	4	120	4	120	4	85	4	70	3	65
CCEX-8	4	150	4	120	4	120	4	85	4	70	3	65
MAX. CURRENT PER TERMINAL [A]	12.5		20		24		30		48		75	
MAX. CURRENT DENSITY PER TERMINAL [A/mm ²]	5		5		4		3		3		3	
VOLTAGE RATING [V]	750		750		750		750		750		750	
MODEL	TERMINAL 35 mm ²		TERMINAL 70 mm ²		TERMINAL 95 mm ²		TERMINAL 120 mm ²		TERMINAL 185 mm ²		TERMINAL 240 mm ²	
	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL	RAILS	TERMINALS IN EACH RAIL
CCEX-1C	-	-	1	-	1	-	1	-	1	-	1	-
CCEX-2C	1	6	1	-	1	-	1	-	1	-	1	-
CCEX-3C	1	8	1	4	1	4	1	4	1	-	1	-
CCEX-1	1	10	1	3	1	10	1	-	1	-	1	-
CCEX-2B	1	14	1	6	1	14	1	4	1	3	1	3
CCEX-2	1	14	1	6	1	14	1	4	1	3	1	3
CCEX-3B	2	18	1	13	1	18	1	6	1	6	1	6
CCEX-3	2	18	1	13	1	18	1	6	1	6	1	6
CCEX-4B	2	20	1	20	1	20	1	10	1	8	1	8
CCEX-4	2	20	1	20	1	20	1	10	1	8	1	8
CCEX-5B	2	28	1	28	1	22	1	10	1	10	1	8
CCEX-5	2	28	1	28	1	22	1	10	1	10	1	8
CCEX-6B	2	30	1	30	1	25	1	12	1	12	1	9
CCEX-6	2	30	1	30	1	25	1	12	1	12	1	9
CCEX-7B	3	35	1	35	1	30	1	15	1	15	1	10
CCEX-7	3	35	1	35	1	30	1	15	1	15	1	10
CCEX-8B	3	55	1	55	1	42	1	24	1	20	1	12
CCEX-8	3	55	1	55	1	42	1	24	1	20	1	12
MAX. CURRENT PER TERMINAL [A]	105		175		190		240		315		400	
MAX CURRENT DENSITY PER TERMINAL [A/mm ²]	3		2.5		2.5		2		2		1,65	
VOLTAGE RATING [V]	750		750		750		750		750		750	

CCEx

CCEX PANELS

Analog and digital instruments
 Electronic Circuits
 PLCs IHM
 Commutators
 Fuses
 Relays
 Contactors
 Switches
 Timers Capacitors
 Transformers
 Elements Connectors /
 Terminals Circuit
 Breakers
 Switch-Disconnectors
 Frequency Inverters Softstarter
 Buses Actuators
 Pilot and Control Stations Amplifiers
 Others

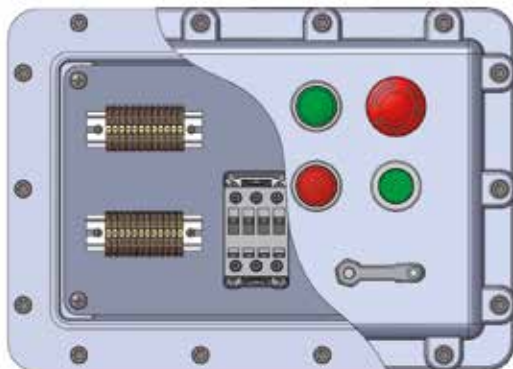
Features of equipment and components allowed to be mounted on **Panels in CCEx boxes:**



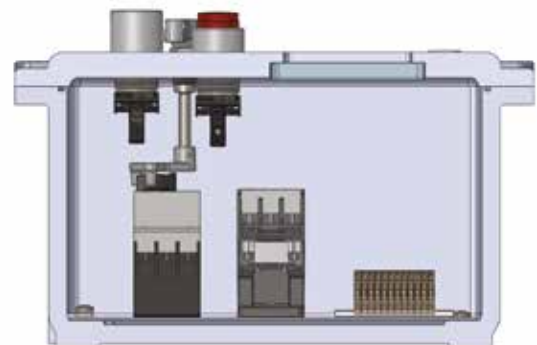
TECHNICAL SPECIFICATIONS

Explosion-proof CCEx panels have been designed to assemble with internal equipment and components according to users' and project needs.

The chart to the side shows the features of equipment and components allowed to be mounted on panels.



Cut view from above



Cut view from the side