
















# EJB-... series Aluminium junction boxes gas group IIB+H<sub>2</sub>

## CERTIFICATION DATA FOR ENCLOSURES WITH TERMINALS






<b>Classification:</b>	Group II	Category 2GD		
<b>Installation:</b> EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
<b>Marking:</b>	CE 0722  II 2 GD - Ex d IIB+H <sub>2</sub> T... Gb - Ex tb IIIC T...°C Db - IP66/67			
<b>Certification:</b>	ATEX CESI 01 ATEX 026			
	IEC Ex TSA 06.0011	All IEC Ex certification data contact comm@antideflagrantiqce.com		
	TR CU AVAILABLE	All TR CU certification data contact comm@antideflagrantiqce.com		
<b>Standards:</b>	CENELEC EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009, EN 60439-1, EN 60529: 1991 and EUROPEAN DIRECTIVE 2014/34/UE			
 <b>Ambient Temp.:</b>	 -50°C +40°C 	With temperature class T6 and maximum surface temperature T85°C.		
	 -50°C +55°C 	With temperature class T5 and maximum surface temperature T100°C.		
<b>Degree of protection:</b>	IP66/67			

## CERTIFICATION DATA OF ENCLOSURES FOR CONTROL, MONITORING AND SIGNALLING UNITS

<b>Classification:</b>	Group II	Category 2GD		
<b>Installation:</b> EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
<b>Marking:</b>	CE 0722  II2GD - Ex db IIB+H <sub>2</sub> T... Gb - Ex tb IIIC T...°C Db - IP66/67			
<b>Certification:</b>	ATEX CESI 01 ATEX 027X			
	IEC Ex CES 16.0012X	All IEC Ex certification data contact comm@antideflagrantiqce.com		
	TR CU AVAILABLE	All TR CU certification data contact comm@antideflagrantiqce.com		
	INMETRO DNV 14.0140	All INMETRO certification data contact comm@antideflagrantiqce.com		
<b>Standards:</b>	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014, EN 60529: 1991 and EUROPEAN DIRECTIVE 2014/34/UE			
 <b>Ambient Temp.:</b>	 -20°C +40°C 	With temperature class T6 and maximum surface temperature T85°C.		
	 -20°C +55°C 	With temperature class T5 and maximum surface temperature T100°C.		
	 -60°C on request. (Use indicator light series M-0457AL, M-0457AL/3, M-0457IN or M-0457IN/3)			
<b>Degree of protection:</b>	IP66/67	For enclosures without control and signalling devices		
	IP66	For enclosures with Cortem M-0...-series control gear		

# EJB-... series Aluminium junction boxes gas group IIB+H<sub>2</sub>

## CERTIFICATION DATA OF ENCLOSURES SERVING INTERFACE UNIT CONTROL AND MONITORING FUNCTION

<b>Classification:</b>	Group II	Category 2GD		
<b>Installation:</b> EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
<b>Marking:</b>	CE 0722 Ex II2(1)GD - Ex db [ia Ga] IIB+H <sub>2</sub> T... Gb - Ex tb IIIC T...°C Db - IP66/67			
<b>Certification:</b>	ATEX	CESI 02 ATEX 073X		
	IEC Ex	CES 16.0014X	All IEC Ex certification data contact comm@antideflagrante.com	
<b>Standards:</b>	CENELEC EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-11: 2011, EN 60079-26: 2007, EN 60079-31: 2009, EN 60439-1, EN 60529 and EUROPEAN DIRECTIVE 2014/34/UE			
<b>Ambient Temp.:</b>	 -20°C	+40°C 	With temperature class T6 and maximum surface temperature T85°C.	
	 -20°C	+55°C 	With temperature class T5 and maximum surface temperature T100°C.	
		-60°C on request. (Use indicator light series M-0457AL, M-0457AL/3, M-0457IN or M-0457IN/3)		
<b>Degree of protection:</b>	IP66/67		For enclosures without control and signalling devices	

### OTHER AVAILABLE CERTIFICATES (please contact the sales department for further information)

EXTENSION n° 07/12 to EC-type examination certificate CESI 01 ATEX 027

Equipment: EJB-series control, monitoring and signalling units  
EJB-55B enclosures with PDTrac partial discharge monitoring units

EXTENSION n° 04/08 to EC-type examination certificate CESI 01 ATEX 027

Equipment: EJB-series control, monitoring and signalling units  
EJB-6 enclosures with RX and IBUC units

CESI 07 ATEX 047 CERTIFICATE

EJB..AD and MU..AD switchgear  
Enclosures made from cast iron

CESI 11 ATEX 037 CERTIFICATE

EJB-45 with actuators. "Hook release controller" for simultaneous release of hooks  
The actuators control 1,2 or 3 push-pull controls that are fed out of the enclosure through certified RRC-01 bushes

EXTENSION n° 07/12 to EC-type examination certificate CESI 01 ATEX 027

Equipment: EJB-series control, monitoring and signalling units  
New type of equipment named Surge Protection Device has been added

## EJB-... series Aluminium junction boxes gas group IIB+H<sub>2</sub>



### MECHANICAL FEATURES

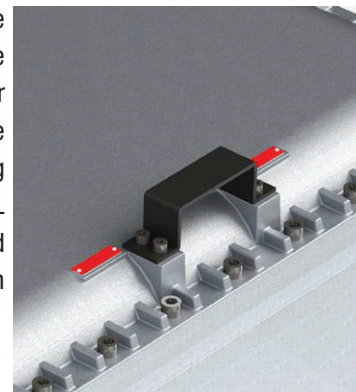
<b>Body and lid:</b>	Low copper content aluminium alloy
<b>Hinges:</b>	Cast (except for EJB-01), stainless steel for new models
<b>Lid handle:</b>	Made of black painted steel for EJB-6, 6B and EJB-7, 7B models (see below). Made of black painted plastic for EJB-55, 55B models
<b>Gasket:</b>	Acid, hydrocarbon and high temperature-resistant silicone, located between body and lid
<b>Certification label:</b>	Adhesive label located inside on empty enclosures; aluminium label riveted onto lid on other versions
<b>Bolts and screws:</b>	Stainless steel
<b>Earth screws:</b>	M6 stainless steel. On inside and outside of body and on lid complete with anti-rotation brackets
<b>Mounting brackets:</b>	Electroalvanized steel (cast aluminium feet for AQS-1)
<b>Coating:</b>	Polyester coating RAL 7035 (Light grey)

**Corrosion Resistance** : The STANDARD of the aluminium alloy used by building has passed the tests required by standards EN 60068-2-30 (hot/humid cycles) and EN 60068-2-11 (salt mist tests)

### Lid featuring Cortem easy-close system.



For EJB-6/6B and EJB-7/7B junction boxes, the opening and closing of the cover is facilitated by the presence of an even more sturdy handle, able to offer a greater safety of use for the operator. It is made of stainless steel AISI 316L, which, after a blasting process, is coated with a matt black powder (RAL 9005) coating that ensures pleasing aesthetics and a high resistance to physical impact and corrosion in saline environments.



### ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

- Internal anti-condensation coating RAL 2004 (pure orange)
- External polyester coating in different colour (specify the RAL number)
- Breather valve Code ECD-210S
- Drain valve Code ECD-210S
- Round or rectangular windows on lid (see section Enclosures with windows for inspection and reading instruments)
- Hinges for enclosures EJB-01 Code K-0351
- Internal mounting plate:
  - 2.5mm-thick aluminium (code BFE-...). See accessories section
  - 2.5mm-thick electroalvanized steel (code BFE-...AC).
- Thread options:
  - NPT threads ANSI B1.20.1
  - GAS UNI ISO 7-1 thread
  - Metric threads ISO 261/965

Building manufactures any type of custom-made products according to customer specifications and in compliance with the certification

# EJB-... series Aluminium junction boxes gas group IIB+H<sub>2</sub>

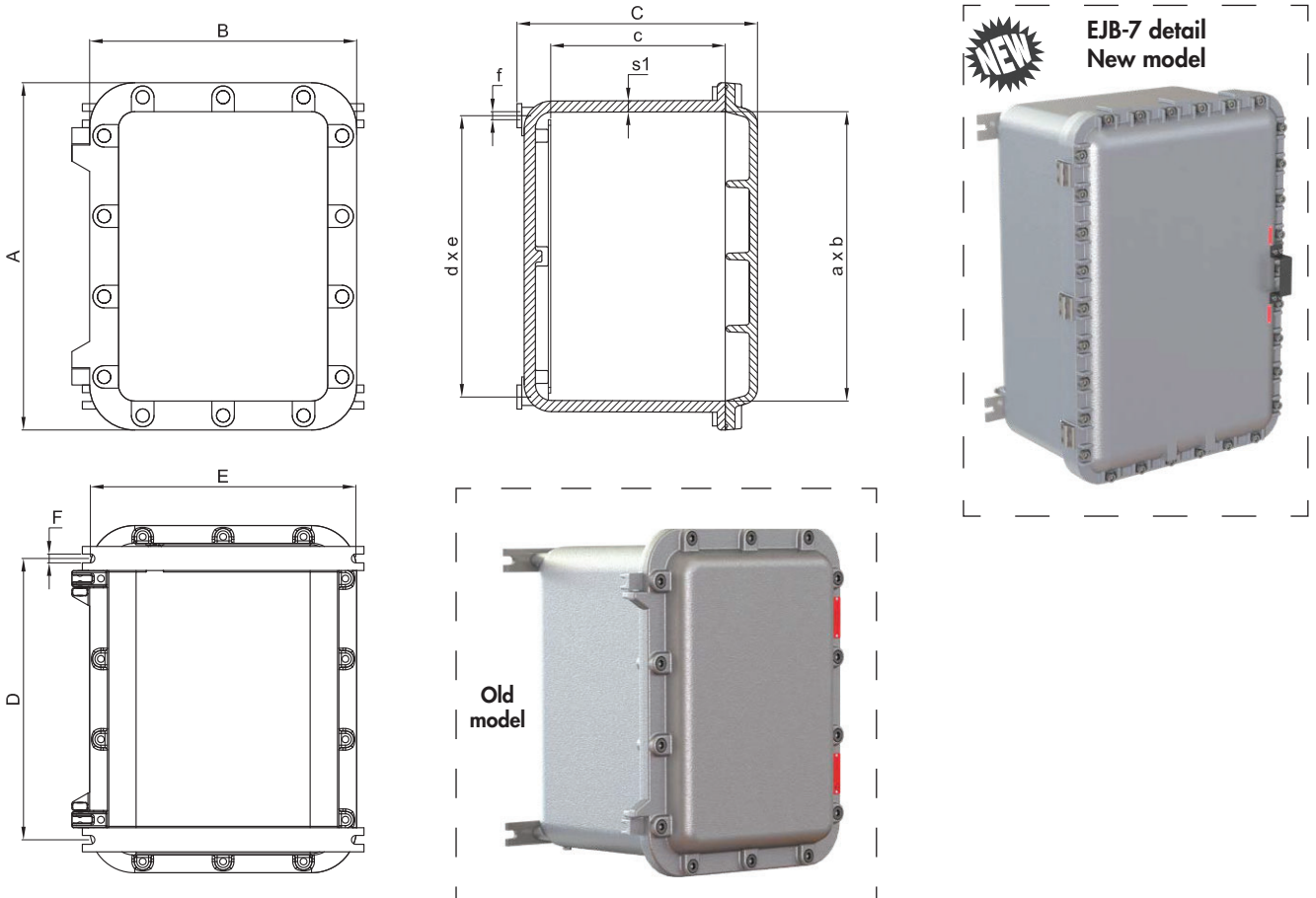
Cortem is introducing a new model of EJB enclosures that will replace the entire range. This new series will be provided with new stainless steel hinges and a new lid that will allow more flexibility in the supply of the product. Building will then be able to offer the best solution to customer needs.

## SELECTION CHART FOR ENCLOSURES WITH RIBBED LIDS

Code	Outside dimensions			Inside dimensions				Mounting			Mounting with brackets			Weight kg
	A	B	C	a	b	c	s1	d	e	f	D	E	F	
EJB-01	282	182	105	214	113	60	14	160	123	M6	160	154	9	5,6
EJB-1	304	204	218	240	140	160	14	230	130	M8	230	210	9	9,4
EJB-2	424	224	218	360	160	159	14	350	150	M8	350	230	9	13,6
EJB-3	364	284	278	300	220	214	14	290	210	M8	290	290	9	17
EJB-3B	364	284	218	300	220	154	14	290	210	M8	290	290	9	14,2
* EJB-7	1000	700	500	890	590	340	30	810	510	M16	810	655	18	248
* EJB-7B	1000	700	400	890	590	240	30	810	510	M16	810	655	18	210
AQS-1	500	450	207	430	380	127	15	420	300	M12	-	-	-	31,5

\* New model.

Dimensions in mm



## EJB-... series Aluminium junction boxes gas group IIB+H<sub>2</sub>

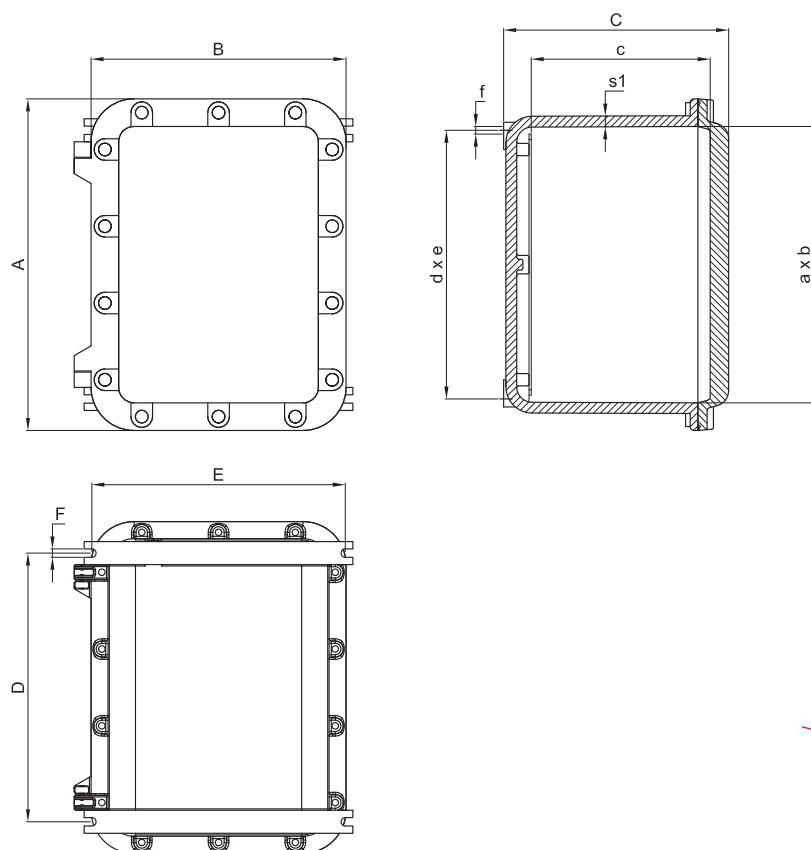
Aluminium enclosures with solid lids are used when there is a need to install a greater number of control and signalling devices than can be accommodated on the same enclosure with a ribbed lid or when handles need to be installed in certain positions on the lid.

### SELECTION CHART FOR ENCLOSURES WITH SOLID LIDS

Code	Outside dimensions			Internal dimensions				Mounting			Mounting with brackets			Weight kg
	A	B	C	a	b	c	s1	d	e	f	D	E	F	
EJB-1A	304	204	218	240	140	153	14	230	130	M8	230	210	9	10,3
EJB-2A	424	224	218	360	160	153	14	350	150	M8	350	230	9	15,4
EJB-3A	364	284	278	300	220	213	14	290	210	M8	290	290	9	19,4
EJB-3BA	364	284	218	300	220	153	14	290	210	M8	290	290	9	16,4
* EJB-4	432	332	299	360	260	233	14	350	250	M10	350	330	11	25,4
* EJB-4B	432	332	229	360	260	163	14	350	250	M10	350	330	11	21,4
* EJB-45	567	387	298	490	305	229	14	360	236	M10	360	356	11	38,9
* EJB-45B	567	387	248	490	305	179	14	360	236	M10	360	356	11	35,3
*EJB-48BA	507	432	271	435	360	203	16	350	425	M10	425	430	11	37,5
* EJB-5	632	432	341	560	360	275	16	350	550	M10	550	430	11	51
* EJB-5B	632	432	271	560	360	205	16	350	550	M10	550	430	11	43,4
EJB-503	632	432	397	560	360	330	16	350	550	M10	550	430	11	59,2
EJB-55	710	510	356	630	430	273	17	600	400	M10	600	490	11	81,3
EJB-55B	710	510	256	630	430	173	20	600	400	M10	600	490	11	66,9
* EJB-6	870	650	480	760	540	353	28	680	460	M16	680	580	14	158,4
* EJB-6B	870	650	380	760	540	253	28	680	460	M16	680	580	14	138,5

\* New model

Dimensions in mm



NEW MODEL



# EJB-... series Body drilling data

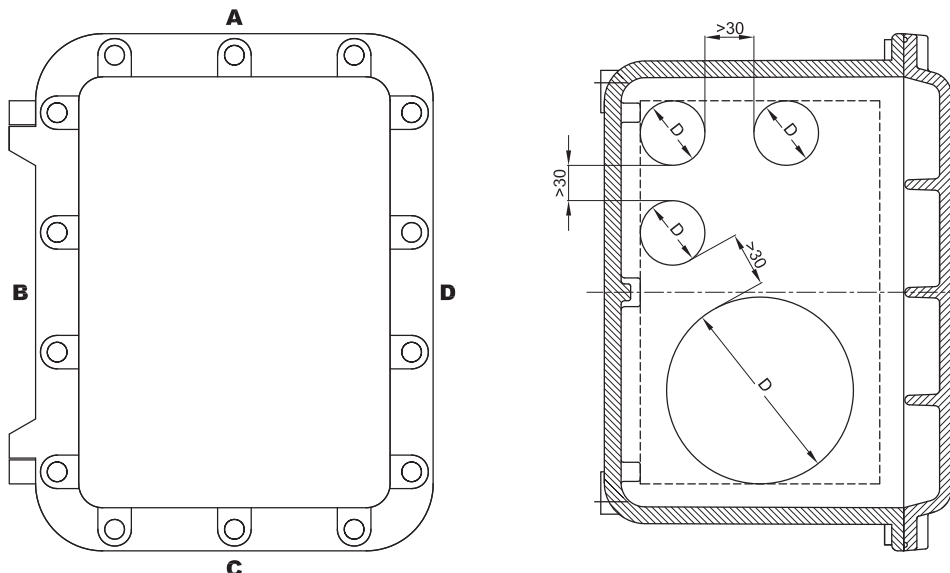
THREAD COMPARISON CHART									
ISO 7-1	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ANSI B.20.1 NPT	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	(*)	(*)	(*)
ISO 261/965	20x1.5	25x1.5	32x1.5	40x1.5	50x1.5	63x1.5	75x1.5	90x1,5	100x1,5
<b>D</b> Thread diameter	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>10</b>



As required by the current standard, holes can be drilled by Cortem or by authorized partners who hold a production notification in accordance with ATEX Directive .

TYPE OF ENCLOSURE	HOLE DRILLING IN BODY																			
	Sides A and C										Sides B and D									
	Drilling area mm	MAXIMUM QUANTITY PER HOLE TYPE										Drilling area mm	MAXIMUM QUANTITY PER HOLE TYPE							
1		2	3	4	5	6	7	8	10	1	2		3	4	5	6	7	8	10	
EJB-1	100x120	6	4	4	2	2	1	1	1	-	200x120	12	8	6	6	4	2	2	1	1
EJB-2	120x120	6	4	4	4	2	1	1	1	1	320x120	18	12	10	9	8	4	3	2	2
EJB-3	180x180	16	12	9	6	4	4	3	2	1	260x180	20	15	12	9	6	6	4	3	2
EJB-3B	180x120	11	6	6	5	4	2	2	1	1	260x120	15	10	8	8	6	3	2	2	2
EJB-4	220x195	16	16	9	9	8	4	4	3	1	320x195	24	24	15	12	12	6	6	4	2
EJB-4B	220x130	12	8	6	6	6	3	2	2	1	320x130	18	12	10	8	8	5	3	2	2
EJB-45	277x190	24	18	12	12	9	6	5	4	2	448x190	36	30	21	18	17	10	8	6	3
EJB-45B	277x135	17	8	6	6	6	3	2	2	1	448x135	27	12	10	8	8	5	3	2	2
EJB-48BA	300x150	24	15	14	8	8	3	3	2	2	375x150	30	20	17	10	10	4	3	3	3
EJB-5	320x230	30	28	20	16	12	9	6	4	3	520x230	50	45	32	28	18	15	10	8	5
EJB-5B	320x160	24	18	15	8	8	6	3	3	2	520x160	40	27	24	14	12	10	5	4	3
EJB-55	400x195	32	28	18	15	14	8	6	3	2	600x195	44	40	27	23	21	12	10	5	4
EJB-55B	400x95	16	13	11	5	5	4	3	3	-	600x95	24	20	17	8	7	6	5	5	-
EJB-6	480x260	50	45	38	28	24	15	12	8	6	700x260	70	60	55	40	34	24	18	12	10
EJB-6B	480x160	38	27	23	14	12	10	7	4	3	700x160	54	38	33	20	18	16	9	6	5
EJB-7	530x280	66	45	40	28	24	15	12	8	6	830x280	96	75	63	44	37	24	18	12	10
EJB-7B	530x180	40	36	23	20	12	10	4	4	3	830x180	62	56	36	32	19	17	7	6	5
AQS-1	400x70	10	9	8	4	3	3	2	-	-	400x70	17	15	13	6	6	5	4	-	-
EJB-01	100x40	2	1	1	-	-	-	-	-	-	200x40	4	4	3	-	-	-	-	-	-

(\*) 2 1/2" - 3" - 4" NPT holes can be drilled only on EJB-55..., EJB-6... and EJB-7...



# EJB-... series Lid drilling data

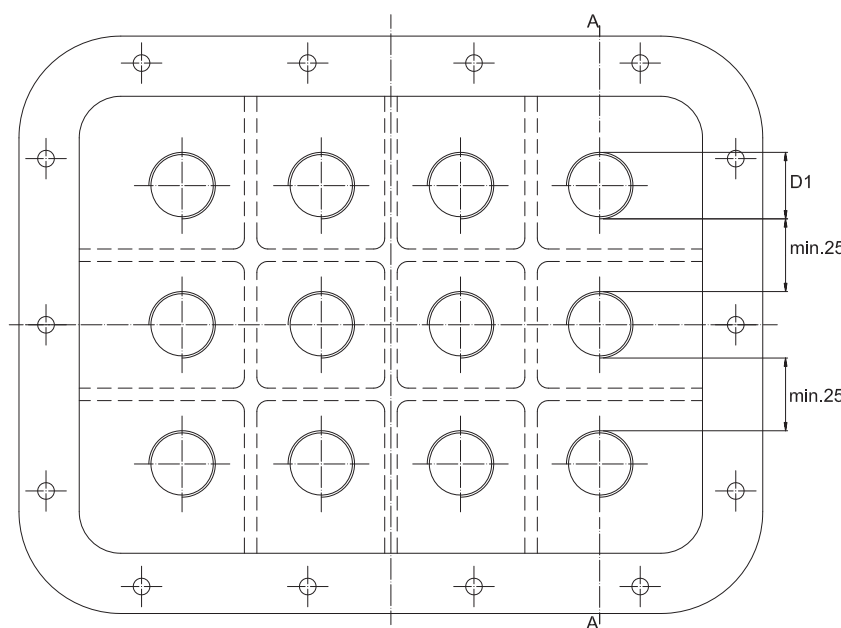


THREAD COMPARISON CHART								
D1	ISO 228	G 3/8"	G 1/2"	G 3/4"	-	-	-	-
	ISO 261/965	M16x1.5	M20x1.5	M25x1.5	M32x1.5	M35x1.5	M40x1.5	M42x1.5

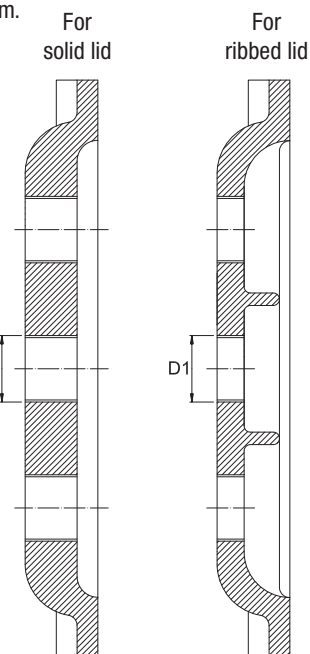
TYPE OF ENCLOSURE	HOLE DRILLING IN LID	
	Max. n°. of holes allowed for ribbed lids	Max. n°. of holes allowed for solid lids
EJB-1	4	6
EJB-2	8	10
EJB-3	8	12
EJB-4	-	15
EJB-45	-	28
EJB-5	-	40
EJB-55	-	54
EJB-6	-	60
EJB-7	60	-
EJB-01	-	6 (Only ISO 261/965 holes are possible on EJB-01)
AQS-1	24	-

**Notes:**

- The standard featured is for illustrative purposes only since it has been designed exclusively for M42 holes.
- Standard holes refer to mounting of Cortem control and signalling devices.
- 3/8" Ø holes for Cortem std. side-mounted handles centre-to-centre distance >70mm.
- 1/2" Ø holes for Cortem std. heavy-duty series side-mounted handles centre-to-centre distance >120mm.



**X-SECT. A - A**





# EJB-... series Features of junction boxes with terminals



These enclosures are customized based on size, on the number of terminals or cables they are due to accommodate, or taking into account the number of cable entries and cabling requirements inside a system. Hence we can produce tailor-made solutions as long as you provide us with the appropriate parameters required at the quote request stage, such as the number of cable glands, unions or sealing fittings to be installed, so that we can determine the most suitable size of enclosure. All terminals can be fitted with your requested accessories and mounted on special rails that are fastened to the enclosure's internal mounting frames. Terminal strips can be arranged in various ways, as specified by the customer and always within the limits allowed by the certificate. The options are vertical, horizontal, in a number of rows, or on different levels using suitable spacers.

## ELECTRICAL FEATURES

**Rated voltage:** 24 / 800 V

**Rated frequency:** 50 / 60 Hz

### Modular terminals

**Terminal cross-sectional area:** 2.5; 4; 6; 10; 25; 35; 70; 95; 120; 185; 240; 300 [mm<sup>2</sup>]

**Rated current:** 12.5 - 452 [A]

**Max. current density:** 1.5 - 7 [A/mm<sup>2</sup>]

### Multi-pole terminals

**Terminal cross-sectional area:** 3x16; 4x16; 3x25; 4x25; 3x40; 3x40; 4x40; 3x70; 4x125; 4x125; 3x200; 4x200; 3x315 [mm<sup>2</sup>]

**Rated current:** 48 - 252 [A]

**Max. current density:** 0.8 - 3 [A/mm<sup>2</sup>]

### Busbars:

#### Dimensions of

**busbars:** 20x5; 30x5; 40x5; 50x5; 60x5; 80x5; 100x4; 80x8; 100x5 [mm<sup>2</sup>]

**Rated current:** 240 350 480 600 690 800 800 1000 1000 [A]

**ATEX - IECEx label  
for terminal enclosures**

The diagram shows a detailed ATEX-IECEx label with the following fields and callouts:

- 1:** Year of manufacture (top right)
- 2:** Serial number (top right)
- 3:** Product code (top right)
- 4:** Temperature class (top right)
- 5:** Maximum surface temperature (middle left)
- 6:** Ambient temperature (middle right)
- 7:** Electrical specifications (bottom)

**Data filled in:**

1. year of manufacture
2. serial number
3. product code
4. temperature class:  
T6 for ambient temperature +40°C  
T5 for ambient temperature +55°C
5. maximum surface temperature:  
T85°C with T6 temperature class  
T100°C with T5 temperature class
6. ambient temperature:  
-20°C +55°C (for IECEx only)  
-50°C +55°C (for ATEX only)
7. electrical specs per certificate