

# ESX

## Junction boxes

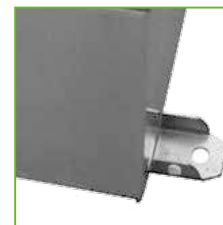
Explosion Proof Electrical Equipment



Ex Enclosures

**Installation:** hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

**Classification:** Group II Category 2G 2D



### REFERENCE STANDARDS

**Directive 94/9/EC (until April 19th, 2016) and Directive 2014/34/EU (from April 20th, 2016)**

EXECUTION	Ⓢ II 2 G Ex e IIB or IIC T6 ÷ T3 Gb Ⓢ II 2 D Ex tb IIIC T85°C ÷ T200°C Db
RULES OF COMPLIANCE	EN/IEC 60079-0; EN/IEC 60079-1; EN/IEC 60079-7; EN/IEC 60079-11; EN/IEC 60079-18; EN/IEC 60079-31
EC Type-Examination Certificate	INERIS 02 ATEX 0067X
PROTECTION DEGREE	IP66
AMBIENT TEMPERATURE	-60°C ÷ +60°C
OTHER AVAILABLE CERTIFICATES	Component: INERIS 13 ATEX 9028U IECEx: IECEx INE11.0016 INMETRO: CEPEL 12.2159 EAC: TC RU C-IT.Г508.B.01499 RINA: ELE18111CS_011 RUSSIAN MARINE CERTIFICATE (RMRS): 13.03518.315 NEC 505: UL 20141112-E465037 - Type rating NEMA 1, 12, 4 and 4X Kc (Korean certification): 2014-024207-02

### Mechanical characteristics

Body	stainless steel AISI-316L - th. 1,5mm
Cover	stainless steel AISI-316L - th. 1,5mm
Screws	stainless steel AISI-316L
Internal plate	stainless steel AISI-316L - th. 1,5mm
Gasket	silicon rubber
Fixing	stainless steel AISI-316L fixing lugs, adjustable on horizontal / vertical position
Closing	whit key (on demand) / whit screws (on standard)

### On Request Accessories: :

- External epoxy painting with colour on request
- Internal anticondensate painting orange RAL-2004
- Drain and breather valves
- Removable flanges on side walls (see identification table)
- Locking with screws



# ESX Technical Features

ESX

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LONG SIDE		SHORT SIDE		HEIGHT		LONG SIDE FLANGE			SHORT SIDE FLANGE			HINGES			TYPE OF CLOSING			INTERNAL HEIGHT	PLATE X-Y	WEIGHT	DETAIL
TYPE	A [mm]	TYPE	B [mm]	TYPE	C [mm]	No.			No.			No.			No.			D [mm]	[mm]	[Kg]	
13	130	13	130	087	87	0	-	-	0	-	-	0	-	-	0	-	-	53	80-80	1,00	A
17	170	17	170	087	87	0	-	-	0	-	-	0	-	-	0	-	-	53	120-120	2,00	A
22	220	12	120	087	87	0	-	-	0	-	-	0	-	-	0	-	-	53	170-70	2,50	A
		16	165	087	87	0	-	-	0	-	-	0	-	-	0	-	-	53	170-115	3,00	
				148	148	0	1	2	0	1	2	0	1	2	0	1	2	113			
		22	220	087	87	0	-	-	0	-	-	0	-	-	0	-	-	53	170-170	4,00	
				148	148	0	1	2	0	1	2	0	1	2	0	1	2	113			
33	330	22	220	115	115	0	-	-	0	-	-	0	-	-	0	-	-	53	280-170	5,00	A
				148	148	0	1	2	0	1	2	0	1	2	0	1	2	113			
		33	330	115	115	0	-	-	0	-	-	0	-	-	0	-	-	53	280-280	6,80	
				148	148	0	1	2	0	1	2	0	1	2	0	1	2	113			
44	440	22	220	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	390-170	7,00	A
		33	330	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	390-280	8,50	A
49	490	36	360	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	440-310	9,50	A
52	520	42	420	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	470-370	12,00	A
				242	242													206			
63	630	48	480	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	580-430	16,00	A
74	745	40	400	148	148	0	1	2	0	1	2	0	1	2	0	1	2	113	695-350	18,00	A
				227	227													190			

**EXAMPLES OF CREATING CODE**

ESX#	13	13	87	0	0	0	0
ESX#	44	33	148	1	2	1	1

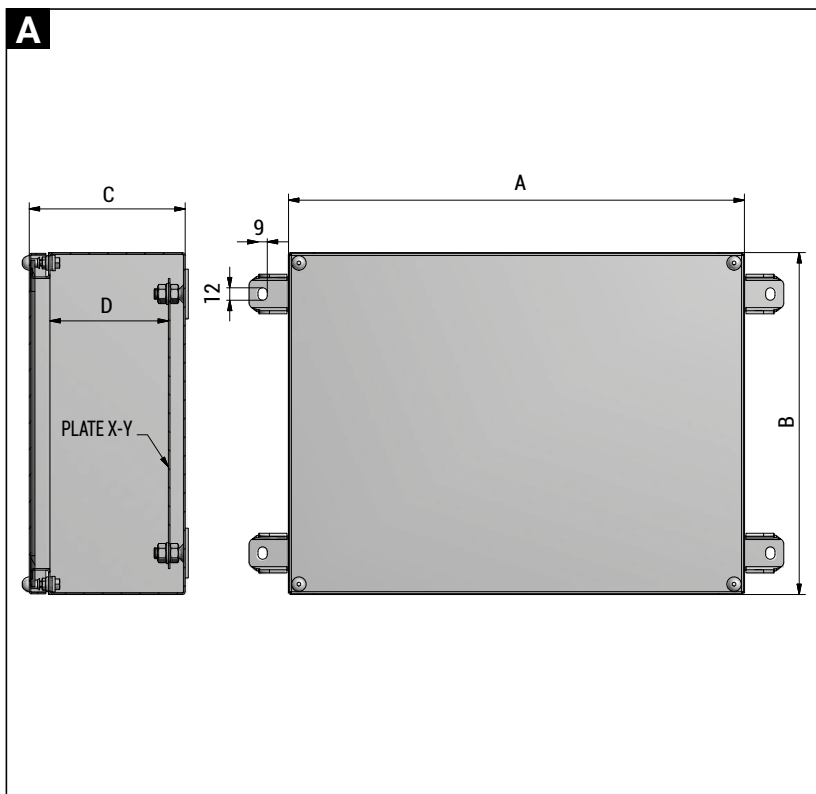
ESX#1313870000= dimension 130x130x87, without flange, closing lid with screws

ESX#44331481211= dimension 440x330x148, 1 flange on long side, 2 flange on short side, hinges on long side, closing with key, on long side

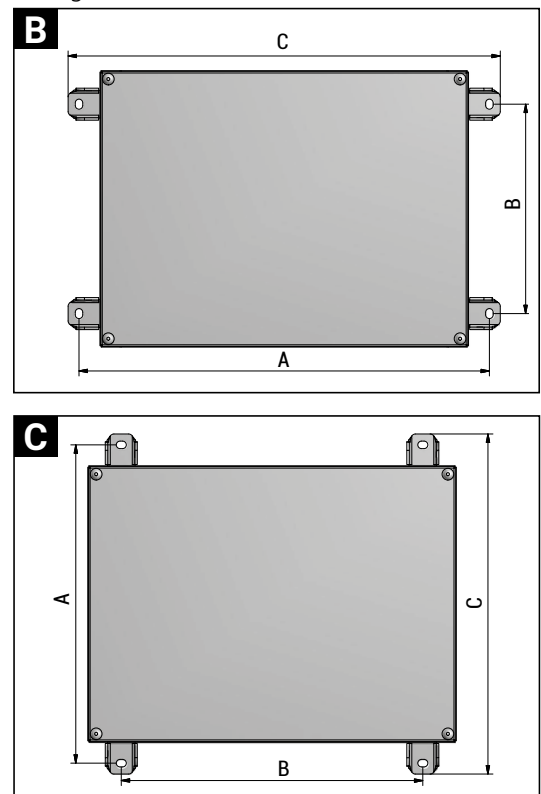
N°	Long Side Flange	N°	Short Side Flange	N°	Hinges	N°	Type of closing
0	without flange	0	without flange	0	on long side	0	closing lid with screws
1	one flange	1	one flange	1	on long side	1	closing lid with key, on long side
2	two flanges	2	two flanges	2	on short side	2	closing lid with key, on short side

\*NOTE: the choice of positioning of the hinge, is linked to the tightening. If you choose option 0 for the hinges, you are forced to use option 0 for tightening. The same also applies to other options (1, 2). If you want to create some "special code", please contact our sales office.

Reference Details



Fixing details





## ESX Distance between fixing centers

ENCLOSURE	A	B	C	DETAIL
ESX#1313...	180	50	205	B
ESX#1717...	220	90	245	B
ESX#2212...	270	40	295	B
ESX#2216...	270	80	295	B
ESX#2222...	270	140	295	B
ESX#3322...	380	140	405	B
ESX#3333...	380	250	405	B
ESX#4422...	490	140	510	B
ESX#4433...	490	250	510	B
ESX#4936...	535	280	560	B
ESX#5242...	570	340	590	B
ESX#6348...	675	400	700	B
ESX#7440...	790	360	815	B

ENCLOSURE	A	B	C	DETAIL
ESX#1313...	180	50	205	C
ESX#1717...	220	90	245	C
ESX#2212...	170	140	245	C
ESX#2216...	210	140	235	C
ESX#2222...	270	140	295	C
ESX#3322...	270	250	295	C
ESX#3333...	380	250	405	C
ESX#4422...	270	360	295	C
ESX#4433...	380	360	405	C
ESX#4936...	410	410	435	C
ESX#5242...	470	440	495	C
ESX#6348...	530	550	555	C
ESX#7440...	490	660	515	C

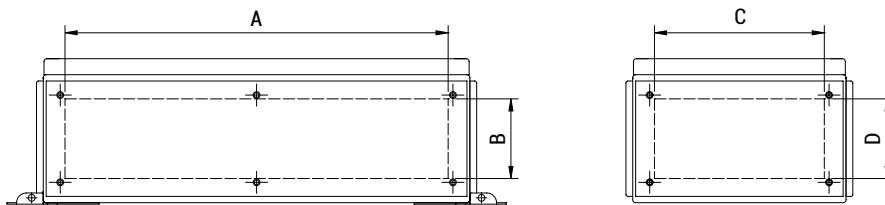
## ESX Removable flanges drilling layout

ENCLOSURE CODE	DRILLING AREA A-B [mm]	QUANTITY ALLOWED ENTRIES FOR SIZE (from 1 to size 8)							
		1	2	3	4	5	6	7	8
ESX#2216...	180 - 85	8	5	4	3	2	2	1	/
ESX#2222...	180 - 85	8	5	4	3	2	2	1	/
ESX#3322...	290 - 85	12	8	7	4	4	3	3	/
ESX#3333...	290 - 85	12	8	7	4	4	3	3	/
ESX#4422...	400 - 85	16	11	9	7	6	5	4	/
ESX#4433...	400 - 85	16	11	9	7	6	5	4	/
ESX#4936...	450 - 85	18	13	11	8	6	5	4	/
ESX#5242*	480 - 85	20	14	11	8	7	6	4	/
ESX#5242...	480 - 178	40	28	22	16	14	12	8	4
ESX#6348...	590 - 85	24	17	14	10	9	7	5	/
ESX#7440*	705 - 85	30	21	17	13	10	8	6	/
ESX#7440...	705 - 163	53	38	34	26	20	14	9	6

\* Enclosure height 148 mm

DRILLING AREA C-D [mm]	QUANTITY ALLOWED ENTRIES FOR SIZE (from 1 to size 8)							
	1	2	3	4	5	6	7	8
125 - 85	6	3	2	2	1	1	1	/
180 - 85	8	5	4	3	2	2	1	/
180 - 85	8	5	4	3	2	2	1	/
290 - 85	12	8	7	4	4	3	3	/
290 - 85	12	8	7	4	4	3	3	/
290 - 85	12	8	7	4	4	3	3	/
320 - 85	14	9	7	5	4	3	3	/
380 - 85	16	11	9	7	5	4	3	/
380 - 178	32	22	18	14	10	8	6	3
440 - 85	18	13	10	8	6	5	4	/
360 - 85	14	10	8	6	5	4	3	/
360 163	25	18	16	12	10	8	4	3

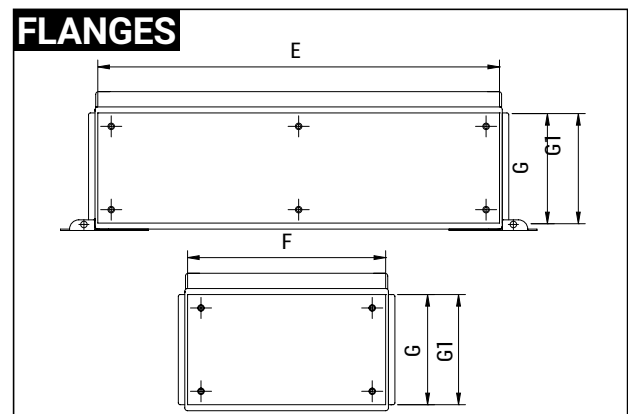
## FLANGES DRILLING AREA



## ESX Removable flanges dimensions

CODE	E [mm]	F [mm]	G [mm]	G1 [mm]
ESX#2216...	214	159	/	119
ESX#2222...	214	214	/	119
ESX#3322...	324	214	/	119
ESX#3333...	324	324	/	119
ESX#4422...	434	214	/	119
ESX#4433...	434	324	/	119
ESX#4936...	484	359	/	119
ESX#5242...*	514	414	212,5	119
ESX#6348...	624	474	/	119
ESX#7440...*	739	394	197,5	119

Reference Details



\* ENCLOSURES WITH TWO HEIGHTS (see ESX technical features table)

# ESX Indicative quantity of terminals and relevant section



CODE ENCLOSUR	SECT. 2,5 [sq/mm]	SECT. 6,0 [sq/mm]	SECT. 10,0 [sq/mm]	SECT. 16,0 [sq/mm]	SECT. 35,0 [sq/mm]	SECT. 50,0 [sq/mm]	SECT. 70,0 [sq/mm]	SECT. 240,0 [sq/mm]	INT.PLATE X - Y [mm]
ESX-1313	8 x 1	5 x 1	4 x 1	4 x 1	3 x 1	2 x 1	1 x 1	/	80 - 80
ESX-1717	22 x 1	12 x 1	10 x 1	8 x 1	7 x 1	5 x 1	4 x 1	1 x 1	128 - 128
ESX-2212	30 x 1	18 x 1	14 x 1	12 x 1	9 x 1	8 x 1	6 x 1	/	178 - 78
ESX-2216	30 x 1	18 x 1	14 x 1	12 x 1	9 x 1	8 x 1	6 x 1	1 x 1	178 - 118
ESX-2222	30 x 1	18 x 1	14 x 1	12 x 1	9 x 1	8 x 1	6 x 1	2 x 1	170 - 170
ESX-3322	48 x 1	30 x 1	24 x 1	18 x 1	15 x 1	12 x 1	11 x 1	2 x 1	280 - 170
ESX-3333	48 x 2	30 x 2	24 x 2	18 x 2	15 x 2	12 x 2	11 x 1	2 x 1	280 - 280
ESX-4422	70 x 1	45 x 1	36 x 1	30 x 1	23 x 1	19 x 1	17 x 1	6 x 1	398 - 178
ESX-4433	70 x 2	42 x 2	34 x 2	28 x 2	22 x 2	18 x 2	16 x 1	4 x 1	390 - 290
ESX-4936	78 x 2	50 x 2	40 x 2	34 x 2	26 x 2	20 x 2	18 x 1	8 x 1	440 - 315
ESX-5242	86 x 2	55 x 2	44 x 2	36 x 2	28 x 2	22 x 2	19 x 2	6 x 1	470 - 370
ESX-6348	108 x 3	68 x 3	54 x 3	46 x 3	34 x 3	28 x 3	26 x 2	10 x 1	580 - 430
ESX-7440	140 x 2	80 x 2	64 x 2	54 x 2	40 x 2	34 x 2	30 x 2	12 x 1	695 - 350

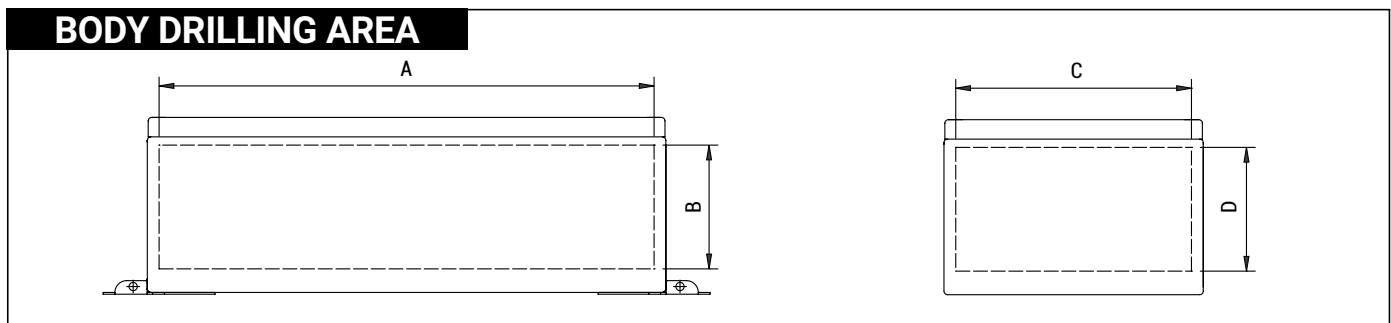
## ESX Body Enclosures Drilling Layout

ENCLOSURE CODE	DRILLING AREA A-B [mm]	QUANTITY ALLOWED ENTRIES FOR SIZE (from 1 to size 8)							
		1	2	3	4	5	6	7	8
ESX#1313...	117 - 44	2	2	/	/	/	/	/	/
ESX#1717...	160 - 44	3	3	/	/	/	/	/	/
ESX#2212...	210 - 44	4	4	/	/	/	/	/	/
ESX#2216...*	210 - 44	4	4	/	/	/	/	/	/
ESX#2216...	210 - 100	8	8	6	5	3	2	2	1
ESX#2222...*	210 - 44	4	4	/	/	/	/	/	/
ESX#2222...	210 - 100	8	8	6	5	3	2	2	1
ESX#3322...*	320 - 64	9	6	5	5	4	/	/	/
ESX#3322...	320 - 100	12	12	10	8	4	4	3	2
ESX#3333...*	320 - 64	9	6	5	5	4	/	/	/
ESX#3333...	320 - 100	12	12	10	8	4	4	3	2
ESX#4422...	430 - 100	16	16	14	11	7	5	4	3
ESX#4433...	430 - 100	16	16	14	11	7	5	4	3
ESX#4936...	480 - 100	20	18	15	12	8	6	4	4
ESX#5242...*	510 - 100	22	18	16	13	8	6	5	4
ESX#5242...	510 - 195	44	27	24	21	16	14	10	5
ESX#6348...	620 - 100	29	22	20	16	10	7	6	5
ESX#7440...*	735 - 100	33	26	24	18	12	9	7	5
ESX#7440...	735 - 180	55	43	38	33	20	18	14	7

DRILLING AREA C-D [mm]	QUANTITY ALLOWED ENTRIES FOR SIZE (from 1 to size 8)							
	1	2	3	4	5	6	7	8
117 - 44	2	2	/	/	/	/	/	/
160 - 44	3	3	/	/	/	/	/	/
110 - 44	2	2	/	/	/	/	/	/
155 - 44	3	3	/	/	/	/	/	/
155 - 100	6	6	4	3	2	2	1	1
210 - 44	4	4	/	/	/	/	/	/
210 - 100	8	8	6	5	3	2	2	1
210 - 64	6	4	3	3	2	/	/	/
210 - 100	8	8	6	5	3	2	2	1
320 - 64	9	6	5	5	4	/	/	/
320 - 100	12	12	10	8	4	4	3	2
210 - 100	8	8	6	5	3	2	2	1
320 - 100	12	12	10	8	4	4	3	2
350 - 100	14	14	10	8	5	4	3	3
410 - 100	18	14	13	10	7	5	4	3
410 - 195	36	21	18	15	12	11	8	4
470 - 100	21	16	15	12	7	5	4	3
390 - 100	18	14	12	9	6	4	3	3
390 - 180	30	23	20	15	9	8	6	3

\* "LOW" ENCLOSURE (see ESX technical features table)

### Reference Details



REMARK: Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.