

BOXES for EQUIPMENT and INSTRUMENTS

series
RO..I

Protection	Mines	n.a.	IM2	Ex db I Mb
	Gas	1-2	II2G	Ex db IIC T6÷T4 Gb
	Dusts	21-22	II2D	Ex tb IIIC T85°C÷T135°C Db

Degree of Protection	IP66
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Amb. Temp.	Standard	-20°C	+40°C
	Extended	-50°C	+85°C



Entries Threading	NPT ANSI B1.20
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Material	Stainless Steel AISI 316L
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Painting	See Options
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Standards and Certificates

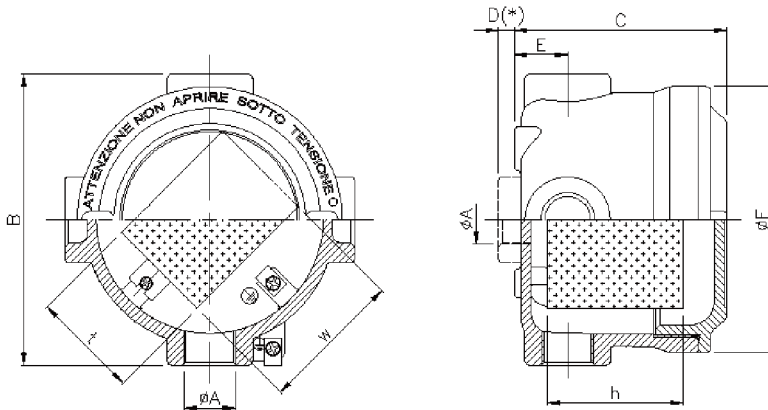
Directive 2014/34/EU (ATEX)
 EN 60079-0 • EN 60079-1 • EN 60079-31

CE BVI 14 ATEX 0068X
U BVI 14 ATEX 0067U

IECEx
 IEC 60079-0 • IEC 60079-1 • IEC 60079-31
 IECEx EPS 14.0086X
 IECEx EPS 14.0087U

- Threaded cover with tempered glass
- Designed to house electrical/electronic equipment and instruments.
- Raw or painted outside surface according to customer specifications.
- Certificated either for the version complete with electrical apparatus or empty as an Ex component.

Options	- Cable entries threading: Metric ISO 262 (M).	- Material: Aluminum (see page B06).	- Equipment/Instruments (see page I10).
	- External Painting: on customer specification.	- Accessories (see page I07).	



NOTES

The drawing is valid for dimensional data only. For further details, such as the orientation of the internal / external joints, there might be differences among the different models.

(*) Applicable to 5 entry version only, where the fifth is at the bottom of the box.

The temperature class and the maximum surface temperature may vary depending on the ambient temperature and the power dissipation of the equipment contained in the box. (see pag. I09).

The extended A.T. is -40°C÷+85°C for boxes with EPDM O-Ring (temperature class T6/T5). The extended A.T. is -50°C÷+85°C for boxes with Silicone O-Ring (temperature class T6/T5/T4).

Entries Diagram



Type	Size	ØA [NPT]	Size	ØA [ISO]	External Dimensions (mm)					Elect. app. dimensions (mm)			V _{app.elet.} (dm ³)	Weight (kg)	
					B	C	D(*)	E	ØF	ØL	h	w			t
RO..I	14	1/2"	14M	M20x1,5	80	69	9	20	71	38	30	28	30	0.025	0.96
RO..I	24	3/4"	24M	M25x1,5	80	69	9	20	71	38	30	28	30	0.025	0.96
RO..I	16	1/2"	16M	M20x1,5	100	68	9.5	22.5	90	50	50	35	30	0.052	1.25
RO..I	26	3/4"	26M	M25x1,5	100	68	9.5	22.5	90	50	50	35	30	0.052	1.25
RO..I	36A	1"	36AM	M32x1,5	100	73	9.5	22.5	90	50	50	35	35	0.061	1.30
RO..I	27	3/4"	27M	M25x1,5	126	82	11	24	112	70	65	45	40	0.108	2.20
RO..I	37	1"	37M	M32x1,5	126	82	11	24	112	70	65	45	40	0.108	2.20
RO..I	28	3/4"	28M	M25x1,5	145	99	9.5	27	131	85	70	60	55	0.231	3.50
RO..I	38	1"	38M	M32x1,5	145	99	9.5	27	131	85	70	60	55	0.231	3.50
RO..I	48	1.1/4"	48M	M40x1,5	145	99	9.5	27	131	85	70	60	55	0.231	3.50
RO..I	58	1.1/2"	58M	M50x1,5	145	99	9.5	27	131	85	70	60	55	0.231	3.50
RO..I	29	3/4"	29M	M25x1,5	161	115	9.5	27	146	100	85	65	65	0.360	4.40
RO..I	39	1"	39M	M32x1,5	161	115	9.5	27	146	100	85	65	65	0.360	4.40
RO..I	59	1.1/2"	59M	M50x1,5	161	115	9.5	27	146	100	85	65	65	0.360	4.40
RO..I	69	2"	69M	M63x1,5	161	115	9.5	27	146	100	85	65	65	0.360	4.40

Example: ROTI 26 ...

Order Coding

Type	Scheme
RO	T I

Entries Size and Threading
2 = 3/4"

Body Size
6

Model
...

BOXES for EQUIPMENT and INSTRUMENTS with EXTENSION

series
RO..I

Protection	Mines	n.a.	IM2	Ex db I Mb
	Gas	1-2	II2G	Ex db IIC T6÷T4 Gb
	Dusts	21-22	II2D	Ex tb IIIC T85°C÷T135°C Db

Degree of Protection	IP66
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Amb. Temp.	Standard	-20°C	+40°C
	Extended	-50°C	+85°C



Entries Threading	NPT ANSI B1.20
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Material	Stainless Steel AISI 316L
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Painting	See Options
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Standards and Certificates

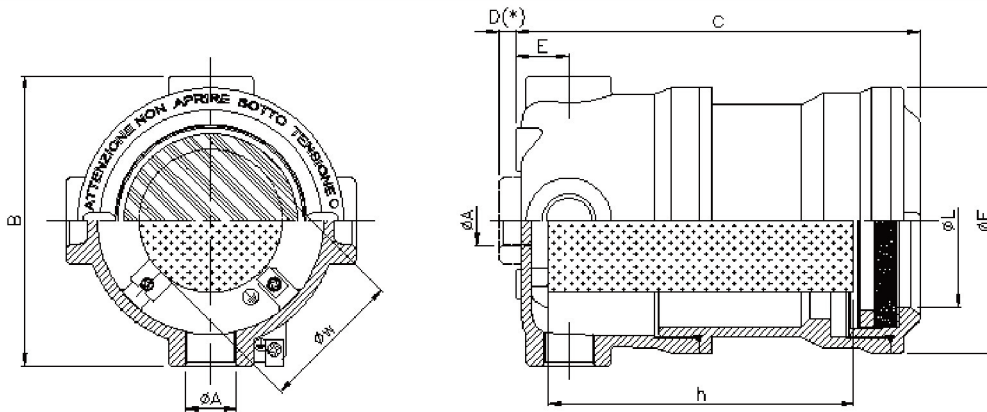
Directive 2014/34/EU (ATEX)
EN 60079-0 • EN 60079-1 • EN 60079-31

CE BVI 14 ATEX 0068X
U BVI 14 ATEX 0067U

IECEX
IEC 60079-0 • IEC 60079-1 • IEC 60079-31
IECEX EPS 14.0086X
IECEX EPS 14.0087U

- Threaded cover with tempered glass
- Designed to house electrical/electronic equipment and instruments.
- Standard or extended depth by adding one of the available extensions (short or long).
- Certified either for the version complete with electrical apparatus or empty as an Ex component.

- Options**
- Cable entries threading: Metric ISO 262 (M).
 - External Painting: on customer specification.
 - Material: Aluminum (see page B06).
 - Accessories (see page I07).
 - Equipment/Instruments (see page I10).



NOTES

The drawing is valid for dimensional data only. For further details, such as the orientation of the internal / external joints, there might be differences among the different models.

(*): Applicable to 5 entry version only, where the fifth is at the bottom of the box.

The temperature class and the maximum surface temperature may vary depending on the ambient temperature and the power dissipation of the equipment contained in the box. (see pag. I09).

The extended A.T. is -40°C÷+85°C for boxes with EPDM O-Ring (temperature class T6/T5). The extended A.T. is -50°C÷+85°C for boxes with Silicone O-Ring (temperature class T6/T5/T4).

Entries Threading



Type	Size	ØA [NPT]	Size	ØA [ISO]	External Dimensions (mm)								Elec. app. dim. (mm)		V _{app.elet.} (dm ³)	Weight (kg)
					B	C	D(*)	E	ØF	ØL	h	Øw				
RO..I	14	1/2"	14M	M20x1,5	80	69	9	20	71	38	30	30	0.033	0.96		
RO..I	24	3/4"	24M	M25x1,5	80	69	9	20	71	38	30	30	0.033	0.96		
RO..I	16	1/2"	16M	M20x1,5	100	68	9.5	22.5	90	50	30	50	0.070	1.25		
RO..I	26	3/4"	26M	M25x1,5	100	68	9.5	22.5	90	50	30	50	0.070	1.25		
RO..I	36A	1"	36AM	M32x1,5	100	73	9.5	22.5	90	50	35	50	0.078	1.30		
RO..I	27	3/4"	27M	M25x1,5	126	82	11	24	112	70	40	65	0.146	2.20		
RO..I	37	1"	37M	M32x1,5	126	82	11	24	112	70	40	65	0.146	2.20		
RO..I	28	3/4"	28M	M25x1,5	145	99	9.5	27	131	85	55	70	0.273	3.50		
RO..I	38	1"	38M	M32x1,5	145	99	9.5	27	131	85	55	70	0.273	3.50		
RO..I	48	1.1/4"	48M	M40x1,5	145	99	9.5	27	131	85	55	70	0.273	3.50		
RO..I	58	1.1/2"	58M	M50x1,5	145	99	9.5	27	131	85	55	70	0.273	3.50		
RO..I	29	3/4"	29M	M25x1,5	161	115	9.5	27	146	100	65	85	0.414	4.40		
RO..I	39	1"	39M	M32x1,5	161	115	9.5	27	146	100	65	85	0.414	4.40		
RO..I	59	1.1/2"	59M	M50x1,5	161	115	9.5	27	146	100	65	85	0.414	4.40		
RO..I	69	2"	69M	M63x1,5	161	115	9.5	27	146	100	65	85	0.414	4.40		

Example: ROXI 36A/115 ...

Order Coding

Type	Scheme
RO	X I

Entries Size and Threading
3 = 1"

Body Size
6A

Internal height (only with extension see h)
115

Model
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MAX DISSIPATED POWER and TEMPERATURE CLASS RELATED to AMBIENT TEMPERATURE

**series
RI
ROI**

ENCLOSURE	MAX. AMBIENT TEMPERATURE	MAX. DISSIPATED POWER	TEMPERATURE CLASS	MAXIMUM SURFACE TEMPERATURE	CABLE ENTRY POINT TEMPERATURE	O-RING TYPE
R..I.4 R..I.4/ RO..I.4 RO..I.4/..	40°C	7,5 W	T6	T85°C	80°C	EPDM / SILICONE
	50°C	5,5 W				
	60°C	3,0 W				
	70°C	1,0 W				
	40°C	11,0 W	T5	T100°C	95°C	EPDM / SILICONE
	50°C	8,5 W				
	60°C	6,0 W				
	70°C	4,5 W				
	85°C	1,0 W	T4	T135°C	130°C	SILICONE
	40°C	19,5 W				
	50°C	17,0 W				
	60°C	14,0 W				
70°C	12,0 W					
85°C	8,5 W	R..I.6 R..I.6/ RO..I.6 RO..IO..6/..	T6	T85°C	80°C	EPDM / SILICONE
40°C	8,0 W					
50°C	5,5 W					
60°C	3,0 W					
70°C	1,0 W		T5	T100°C	95°C	EPDM / SILICONE
40°C	11,5 W					
50°C	9,0 W					
60°C	6,5 W					
70°C	4,5 W		T4	T135°C	130°C	SILICONE
85°C	1,0 W					
40°C	20,5 W					
50°C	18,0 W					
60°C	15,0 W					
70°C	12,5 W	R..I.7 R..I.7/ RO..I.7 RO..I.7/..	T6	T85°C	80°C	EPDM / SILICONE
85°C	9,0 W					
40°C	10,0 W					
50°C	7,0 W					
60°C	4,0 W		T5	T100°C	95°C	EPDM / SILICONE
70°C	1,5 W					
85°C	1,5 W					
40°C	15,0 W					
50°C	11,5 W		T4	T135°C	130°C	SILICONE
60°C	8,5 W					
70°C	5,0 W					
85°C	1,5 W					
40°C	30,0 W					
50°C	26,0 W	R..I.8 R..I.8/ RO..I.8 RO..I.8/..	T6	T85°C	80°C	EPDM / SILICONE
60°C	4,5 W					
70°C	2,0 W					
85°C	2,0 W					
40°C	11,0 W		T5	T100°C	95°C	EPDM / SILICONE
50°C	7,5 W					
60°C	4,5 W					
70°C	2,0 W					
85°C	2,0 W		T4	T135°C	130°C	SILICONE
40°C	16,0 W					
50°C	12,5 W					
60°C	9,0 W					
70°C	6,0 W					
85°C	2,0 W	R..I.9 R..I.9/ RO..I.9 RO..I.9/..	T6	T85°C	80°C	EPDM / SILICONE
40°C	11,0 W					
50°C	7,5 W					
60°C	4,5 W					
70°C	2,0 W		T5	T100°C	95°C	EPDM / SILICONE
85°C	2,0 W					
40°C	14,0 W					
50°C	10,0 W					
60°C	6,0 W		T4	T135°C	130°C	SILICONE
70°C	2,5 W					
85°C	2,5 W					
40°C	21,0 W					
50°C	16,0 W					
60°C	12,0 W	R..I.9 R..I.9/ RO..I.9 RO..I.9/..	T5	T100°C	95°C	EPDM / SILICONE
70°C	8,0 W					
85°C	2,5 W					
40°C	42,0 W					
50°C	35,0 W					
60°C	29,0 W	T4	T135°C	130°C	SILICONE	
70°C	24,0 W					
85°C	16,0 W					
40°C	16,0 W					

TYPES of EQUIPMENT / INSTRUMENTS to be HOUSED inside the BOXES

**serie
RI
ROI**

DESCRIPTION	MOD. (°)
• Ammeter	A
• Analogic to digital signal converter	ADC
• Insulation controller	CI
• Electrical hours counter	CO
• Pulse counter	CP
• Digital to analogic signal converter	DAC
• LCD indicator panel	DE
• Frequency meter	F
• Single phase power factor meter	FM
• Three phase power factor meter	FT
• Twilight switch	IC
• Strain gauge signals converter	ICA
• Clock switch, hourly, daily, weekly programmable	IO
• Single phase overload voltage	LVM
• Three phase overload voltage	LVT
• Phase insulation meter	MI
• Multifunction meter	MM
• Electronic digital clock	O
• Cyclic programmer	PC
• Electronic digital programmer	PE
• Modular fuse bases for fuses up to Ø10.3x38	PF
• Control relay	RC
• Step relay	RP
• Electronic timer relay	RT
• Control, measuring and regulation electronic board	SCM
• Light sensor	SL
• Camera	TL
• Electromechanically, electronic, analogic and digital timers	TP
• Electronic thermoregulator	TR
• Wattmeter	W

NOTES

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| <ul style="list-style-type: none"> • Max supply voltage: 660 VAC / 440 VDC. • All the electrical equipment shall conform to their respective IEC/CENELEC standards regarding their nominal characteristics and operating mode. Furthermore, they must have dimensions as to ensure that, in any cross-section, at least 40% of the surface is free. • Maximum dissipated power shall be in accordance to table reported on page 19. | <ul style="list-style-type: none"> • A circuit breakers or contactors containing oil filling and apparatus producing turbulences are not allowed to be installed inside the enclosure. • The equipment must be installed to avoid a risk from propagating brush discharges. • Electrical equipment contained in the enclosure shall neither be intrinsically safe nor include capillaries or other non electric connections. • In case of presence of capacitors, when | <p>the voltage goes off they must be discharged within their own circuit in less than one second.</p> <ul style="list-style-type: none"> • When the device is use for Group I (mines), insulating material subject to electrical stresses capable of causing arc in air and which result from rated currents of more than 16 A shall have a comparative tracking index equal to or greater than CTI 400 M, according to IEC 60112. <p>(°) I.D. on the external plate.</p> |
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