

# JUNCTION BOXES

series  
**S**

Protection Gas Zone	1-2	II2G	Ex d IIC T6÷T4 Gb
Dust Zone	21-22	II2D	Ex tb IIIC T85°C÷T135°C Db

Degree of Protection	IP66/67
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Amb. Temp.	-20°C
Standard Extended	-50°C



+40°C  
+85°C



Entries Threading	NPT ANSI B1.20
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Material	Aluminum Light Alloy
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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
	IEC 60079-0 • IEC 60079-1 • IEC 60079-31
	IECEx EPS 14.0086X
	IECEx EPS 14.0087U

- Ideal for routing and interconnecting the wires at the intersection of the conduits.
- Supplied with rough surface or outside painted according to customer specifications

- Certified either for the version complete with electrical apparatus or empty as an Ex component.

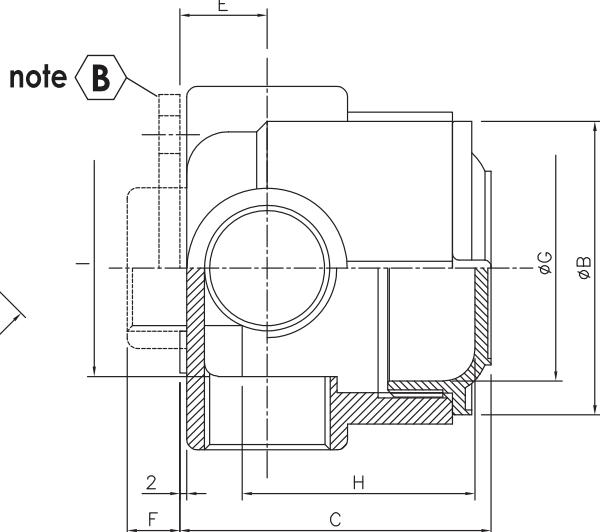
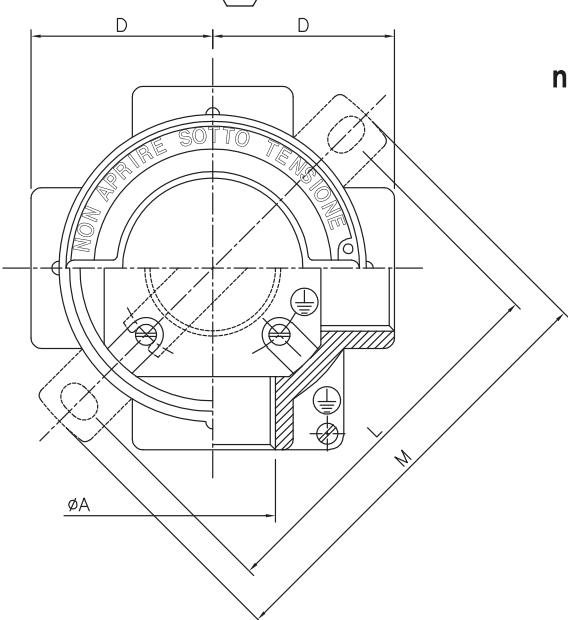
Options

- Terminal block: slotted terminals = MH  
modular terminals = MM

- Cable entries threading: Metric ISO 262 (M).  
- External Painting: on customer specification.

- Anti-corrosion technology: ALUMINOX.  
- Accessories (see page B07).

note **A**



## NOTES

**A.** 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.

**B.** See page B07.

(°):Diameter refers to the diagram for single entry only (see diagrams in the table).

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 page B8).

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).

Further information on first page (B01).

## Entries diagram

Type	Size	ØA [NPT]	External dimensions (mm)					Internal Dimensions (mm)			SF... Mounting Bracket		Weight (g)
			ØB	C	D	E	F	ØG	H	I	L	M	
S 14	1/2"	70	77	40	20	9		51	49	51	87	105	350
S 16	1/2"	90	78	50	20	8		70	49	70	108	126	440
S 24	3/4"	70	77	40	20	9		51	49	51	87	105	320
S 26	3/4"	90	78	50	20	8		70	49	70	108	126	440
S 236	3/4"	90	86	50	23	8		70	57	70	108	126	480
S 36	1"	90	86	50	23	8		70	57	70	108	126	480
S 47	1.1/4"	130	112	69	32	14		103	80	98	143	161	1260
S 57	3/4" (°) - 1.1/2"	130	113	75	32	14		103	80	98	143	161	1190
S 69	1" (°) - 2"	145	126	83	36	14		118	90	112	156	176	1410

Example: SC 36 MH2-6

Order Coding

Type  
**S**

Diagram  
**C**

Size  
**36**

Terminal Block Type  
**MH**

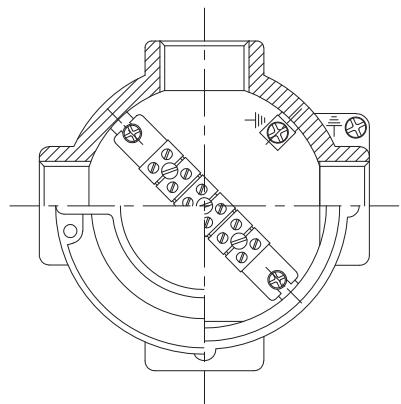
Terminal Dimension  
**2**

Number of terminals  
**6**

**NOTES**

The data given in the tables are for guidance only.

Terminals type and sections other than those specified may be used providing their compliance with the maximum dissipated power as indicated on page B08.



TERMINAL BLOCKS MH

Model	Terminal Blocks
MH	Slotted Terminals
MM	Modular Terminals

**TERMINAL BLOCKS for JUNCTION BOXES Size ...14 - ...24**

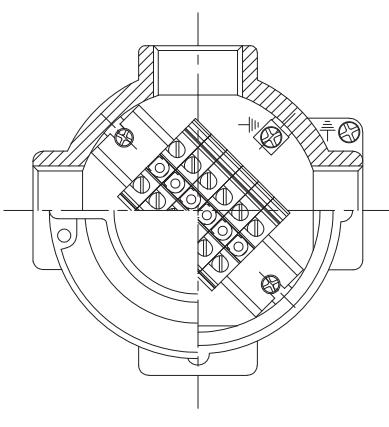
Model	Section (mm <sup>2</sup> )	Max No.
MH 1-5	1.5	5
MH 2-4	2.5	4
MH 4-4	4	4
MH 6-3	6	3
MM 1-5	1.5	5
MM 2-5	2.5	5
MM 4-4	4	4

**TERMINAL BLOCKS for JUNCTION BOXES Size ...26 - ...36**

Model	Section (mm <sup>2</sup> )	Max No.
MH 1-7	1.5	7
MH 2-6	2.5	6
MH 4-6	4	6
MH 6-5	6	5
MM 1-8	1.5	8
MM 2-8	2.5	8
MM 4-7	4	7

**TERMINAL BLOCKS for JUNCTION BOXES Size ...47 - ...57**

Model	Section (mm <sup>2</sup> )	Max No.
MM 2-9	2.5	9
MM 4-8	4	8
MM 6-6	6	6
MM 10-6	10	6
MM 16-5	16	5
MM 2-12	2.5	12
MM 35-3	35	3
MM 4-10	4	10
MM 6-8	6	8



TERMINAL BLOCKS MM

**TERMINAL BLOCKS for JUNCTION BOXES Size ...69**

Model	Section (mm <sup>2</sup> )	Max No.
MM 2-10	2.5	10
MM 4-10	4	10
MM 6-8	6	8
MM 10-8	10	8
MM 16-6	16	6
MM 2-14	2.5	14
MM 35-4	35	4
MM 4-12	4	12
MM 6-10	6	10

# BOXES for EQUIPMENT and INSTRUMENTS

series  
**S**

Protection Gas Zone	II2G 21-22	1-2 II2D	Ex d IIC T6÷T4 Gb Ex tb IIIC T85°C÷T135°C Db
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Degree of Protection	IP66/67
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Amb. Temp.	-20°C -50°C	Standard Extended
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	-20°C		+40°C
	-50°C		+85°C



Entities Threading	NPT ANSI B1.20
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Material	Aluminum Light Alloy
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Painting	External epoxy RAL 7000
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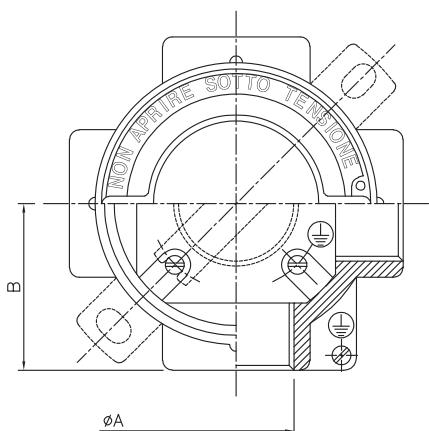
	Directive 2014/34/EU (ATEX)
	EN 60079-0 • EN 60079-1 • EN 60079-31
CE	BVI 14 ATEX 0068X
	U BVI 14 ATEX 0067U
	IEC 60079-0 • IEC 60079-1 • IEC 60079-31
	IECEx EPS 14.0086X
	IECEx EPS 14.0087U

- Suitable for electrical/electronic equipment and instruments.
- Standard or extended depth by adding one of the extensions (short or long).
- Supplied with rough surface or outside painted according to

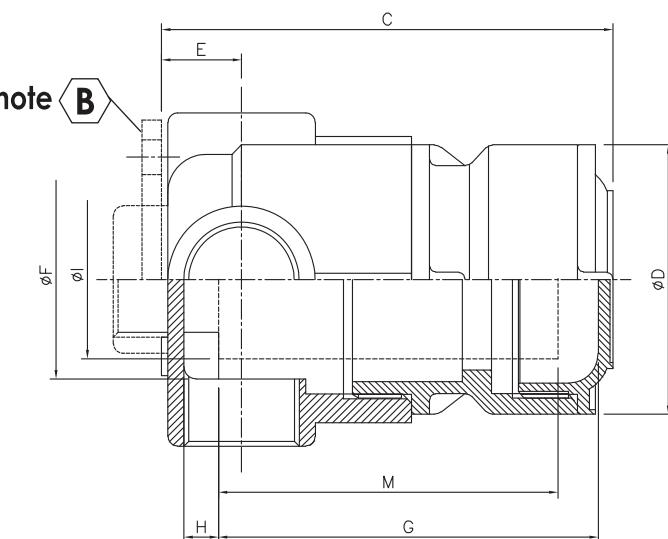
- customer specifications.
- Certificated either for the version complete with electrical apparatus or empty as an Ex component.

Options	<ul style="list-style-type: none"> <li>- Cable entry threading: METRIC ISO 262 (M).</li> <li>- Different RAL colours.</li> </ul>	<ul style="list-style-type: none"> <li>- Anti-corrosion technology: ALUMINOX.</li> <li>- Accessories (see page B07).</li> </ul>	<ul style="list-style-type: none"> <li>- Apparatus mounted inside the box (see page B10).</li> </ul>
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note **A**



note **B**



## NOTES

**A.** 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.

**B.** See page B07.

(\*) Diameter refers to the diagram for single entry only (see diagrams in the table).

(\*) Data refer to boxes with no extension, with short and long extension respectively.

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.

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).

More information on first page (B01).

## Entries Diagram

Type	Size	ØA [NPT]	External Dimensions (mm)			Internal Dimensions (mm)			Electrical Apparatus (mm)			Max dissipated Power	Weight (*) (g)
			B	C(*)	D	E	ØF	G(*)	H	ØI	M		
S 14	1/2"	40	61 / 121	70	20	48	47 / 105	8	44	45 / 103		310/610	
S 24	3/4"	40	61 / 121	70	20	48	47 / 105	8	44	45 / 103		265/565	
S 26	3/4"	50	66 / 121 / 141	90	20	68	47 / 105 / 125	8	64	45 / 103 / 123		420/710/780	
S 36	1"	50	73 / 128 / 148	90	23	68	57 / 113 / 133	8	64	55 / 111 / 131		450/740/810	
S 57	3/4"(*) - 1.1/2"	75	93 / 155 / 185	130	32	100	78 / 140 / 170	8	96	76 / 138 / 168		1090/1650/1830	
S 69	1"(*) - 2"	83	104 / 165 / 205	145	36	112	91 / 150 / 190	9	106	89 / 148 / 188		1400/1980/2220	

Example: SC 36/113

Order Coding	Type <b>S</b>	Diagram <b>C</b>	Size <b>36</b>	/	Inside depth G (with extension only) <b>113</b>	Cable entries threading if different from std. (NPT) <b>M = Metric</b>
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# BOXES for EQUIPMENT and INSTRUMENTS

series  
SO

Protection	Gas	Zone	1-2	II2G	Ex d IIC T6÷T4 Gb
Dust		21-22	II2D	Ex tb IIIC T85°C÷T135°C Db	

Degree of Protection	IP66/67
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Amb. Temp.	Standard
Extended	

-20°C	-50°C	+40°C
		+85°C



Entries Threading	NPT ANSI B1.20
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Material	Aluminum Light Alloy
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Painting	External epoxy RAL 7000
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Standards and Certificates	
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Directive 2014/34/EU (ATEX)

EN 60079-0 • EN 60079-1 • EN 60079-31

CE BVI 14 ATEX 0068X

U BVI 14 ATEX 0067U

IEC 60079-0 • IEC 60079-1 • IEC 60079-31

IECEx EPS 14.0086X

IECEx EPS 14.0087U

- Screw cap with heat-resistant tempered glass and O-ring which ensures both IP66/67 protection and protection against dusts (2D).
- Suitable for electrical/electronic equipment and instruments.
- Standard or extended depth by adding one of the extensions

- (short or long).
- Supplied with rough surface or outside painted according to customer specifications.
- Certified either for the version complete with electrical apparatus or empty as an Ex component.

## Options

- Cable entry threading: METRIC ISO 262 (M).
- Different RAL colours.

- Anti-corrosion technology: ALUMINOX.
- Accessories (see page B07).

- Apparatus mounted inside the box (see page B10).

## NOTES

A. 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.

B. See page B07.

(\*) Diameter refers to the diagram for single entry only (see diagrams in the table).

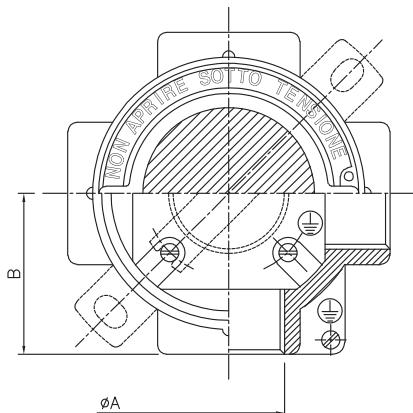
(\*) Data refer to boxes with no extension, with short and long extension respectively.

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.

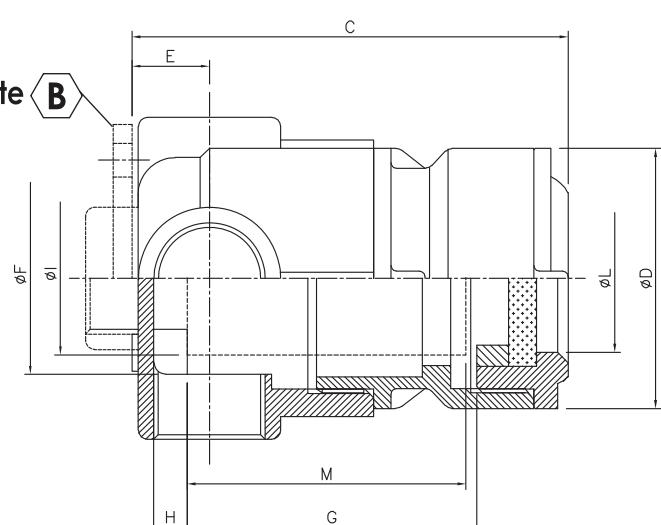
The extended A.T. is -40°C÷+85°C for boxes with EPDM O-Ring (temperature class T6/T5). The extended A.T. is -50°C÷+85°C for boxes with Silicone O-Ring (temperature class T6/T5/T4).

More information on first page (B01).

note A



note B



## Entries Diagram

Type	Size	ØA [NPT]	External Dimensions (mm)			Internal Dimensions (mm)			Electrical Apparatus (mm)		Max Dissipated Power	Open ØL	Weight (*) (g)
			B	C (*)	ØD	E	ØF	G (*)	H	ØI			
SO 14	1/2"	40	61 / 121	70	20	48	24 / 84	8	44	22 / 82	38	415/715	
SO 24	3/4"	40	61 / 121	70	20	48	24 / 84	8	44	22 / 82	38	390/690	
SO 26	3/4"	50	66 / 121 / 141	90	20	68	25 / 85 / 100	8	64	23 / 78 / 98	See table	525/815/885	
SO 36	1"	50	73 / 128 / 148	90	23	68	32 / 87 / 107	8	64	30 / 85 / 105	page B8	570/860/930	
SO 57	3/4"(*)-1.1/2"	75	100 / 155 / 185	130	32	100	48 / 110 / 140	8	96	46 / 108 / 138	83	1305/1865/2045	
SO 69	1"(*)-2"	83	104 / 165 / 205	145	36	112	54 / 115 / 155	9	106	52 / 113 / 153	96	1635/2215/2455	

Example: SOC 36/87

Order Coding

Type  
SO

Diagram  
C

Size  
36

Internal Depth G (with extension only)

87

Cable entries threading if different from std. (NPT)

M = Metric



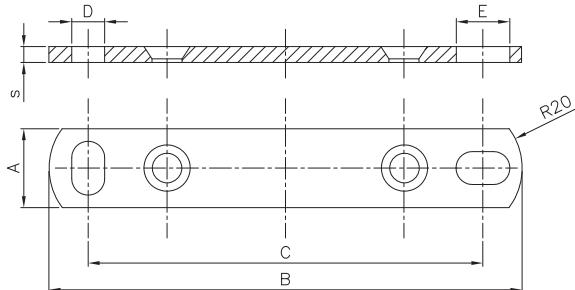
comm@antideflagrantigce.com

# ACCESSORIES for JUNCTION BOXES

Options

## EXTERNAL BRACKET KF for Series SF... - SOF...

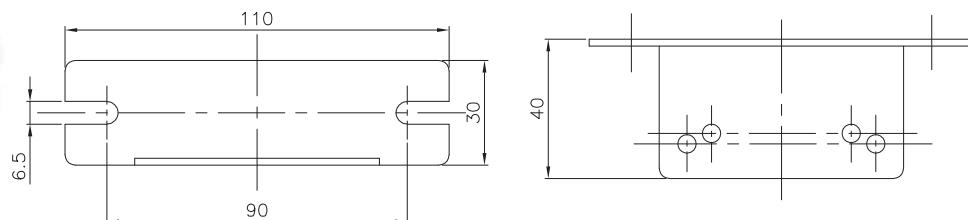
Materials: - Aluminum and relevant screws in galvanized Steel (suffix "A"),  
- Stainless Steel AISI 316 and relevant screws in Stainless Steel (suffix "I").



Order Code	Box Size	Dimensions (mm)						Weight (g)	
		A	B	C	D	E	S	KF...A	KF...I
KF 4A / KFI4	14/24	18	105	87	6,5	10	3	12	36
KF 6A / KFI6	16/26/36/236	18	126	108	6,5	10	3	15	45
KF 7A / KFI7	47/57	20	162	142	7	11	4	32	96
KF 9A / KFI9	69	20	176	156	7	11	4	35	105

## EXTERNAL BRACKET KE 46I for Series S.. - SL.. - ST.. - SO... - SOL... - SOT...

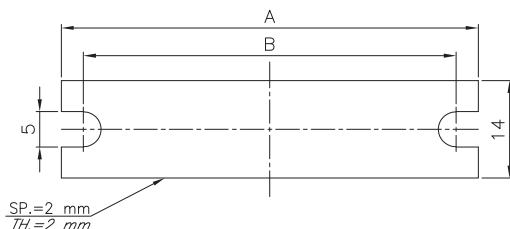
Material: Stainless Steel AISI 316. For Junction Boxes Size 14-24 and 16-26-36 only



KE 46I

## INTERNAL PLATE for Series S... - SF...

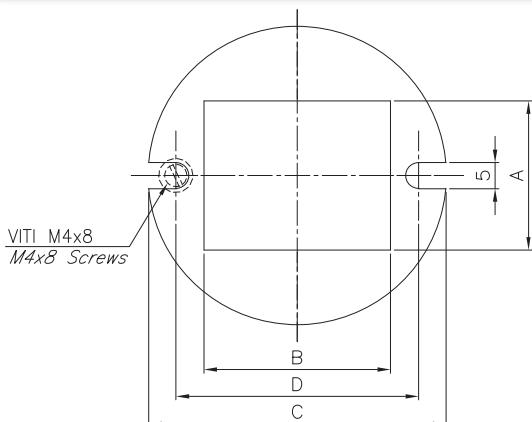
Material: Aluminum



Order Code	Box size	Dimensions (mm)		Weight (g)
		A	B	
KS 4	14/24	52	44	10
KS 6	26/36	70	63	12
KS 7	47/57	100	93	22
KS 9	69	110	102	24

## KIT for INSTRUMENT MOUNTING into Series S... / SO...

Material: galvanized Steel Painted Black (RAL 9005).



Order Code	Box Size	Tab Dimensions (mm)	Dimensions (mm)			
			A	B	C	D
K06-00	SO 26 - SO 36	48x48	45	45	76	70
K0-00	SO 57	48x48	45	45	111	102
K0-01	SO 57	48x72	45	68	111	102
K0-11	SO 57	72x72	68	68	111	102
K1-11	SO 69	72x72	68	68	126	117
K1-02	SO 69	48x96	45	92	126	117
K1-12	SO 69	72x96	68	92	126	117

## BOXES for INSTRUMENTS

type  
**EMH 90**

Protection Gas	Zone 21-22	1-2	II2G	Ex d IIC T6÷T4 Gb
Dust		II2D	Ex tb IIIC T85°C÷T135°C Db	

Degree of Protection	IP66/67
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Amb. Temp.	Standard	-20°C
Extended		-50°C



Entries Threading	NPT ANSI B1.20
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Material	Aluminum Light Alloy
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Painting	External epoxy RAL 7000
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Standards and Certificates	Directive 2014/34/EU (ATEX)
	EN 60079-0 • EN 60079-1 • EN 60079-31

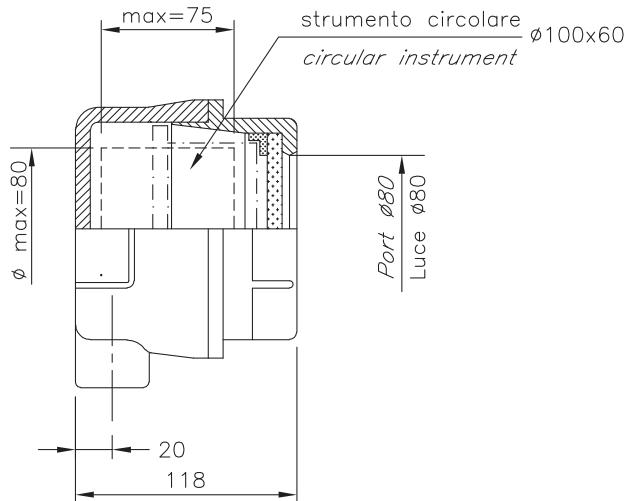
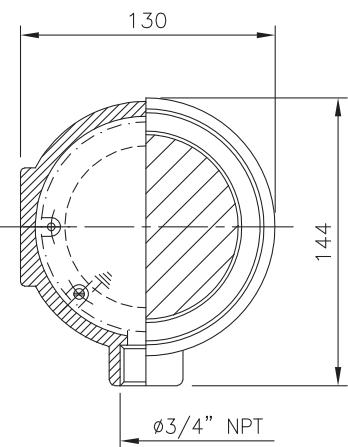
Standards and Certificates	CE	BVI 14 ATEX 0068X
	U	BVI 14 ATEX 0067U

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

- Screw cap with heat-resistant tempered glass and O-ring which ensures both IP66/67 protection and protection against dusts (2D)
- Complete with Stainless Steel screws

### Options

- Cable entry threading: METRIC ISO 262 (M).
- Different RAL colours.
- Anti-corrosion technology: ALUMINOX.
- Accessories (see page B07).
- Apparatus mounted inside the box (see page B10).

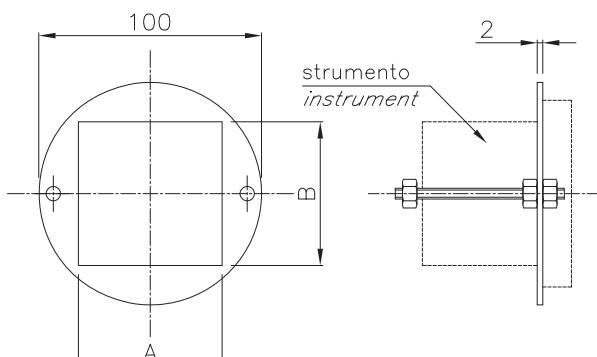


### NOTE

No external mounting bracket is available

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.

### INSTRUMENT MOUNTING KIT 72x72 mm - Model KH... Material: Tropicalized Steel



Code	Dimensions (mm)	
	A	B
KH-00	45	45
KH-11	68	68

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).

More information on first page (B01).

### Example: EMH 90

#### Order Coding

Box  
**EMH 90**

Model  
See table on page B9

Cable entries threading if different from std. (NPT)  
**M = Metric**

**MAX DISSIPATED POWER and TEMPERATURE CLASS  
relating to AMBIENT TEMPERATURE RANGE**

B

ENCLOSURE	MAX. AMBIENT TEMPERATURE	MAX. DISSIPATED POWER	TEMPERATURE CLASS	MAXIMUM SURFACE TEMPERATURE	CABLE ENTRY POINT TEMPERATURE	O-RING TYPE
S..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				
	40°C	19,5 W	T4	T135°C	130°C	SILICONE
	50°C	17,0 W				
	60°C	14,0 W				
	70°C	12,0 W				
	85°C	8,5 W				
S..6	40°C	8,0 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	11,5 W	T5	T100°C	95°C	EPDM / SILICONE
	50°C	9,0 W				
	60°C	6,5 W				
	70°C	4,5 W				
	85°C	1,0 W				
	40°C	20,5 W	T4	T135°C	130°C	SILICONE
	50°C	18,0 W				
	60°C	15,0 W				
	70°C	12,5 W				
	85°C	9,0 W				
S..7	40°C	11,0 W	T6	T85°C	80°C	EPDM / SILICONE
	50°C	7,5 W				
	60°C	4,5 W				
	70°C	2,0 W				
	40°C	16,0 W	T5	T100°C	95°C	EPDM / SILICONE
	50°C	12,5 W				
	60°C	9,0 W				
	70°C	6,0 W				
	85°C	2,0 W				
	40°C	31,0 W	T4	T135°C	130°C	SILICONE
	50°C	27,0 W				
	60°C	22,0 W				
	70°C	18,0 W				
	85°C	12,5 W				
S..9	40°C	14,0 W	T6	T85°C	80°C	EPDM / SILICONE
	50°C	10,0 W				
	60°C	6,0 W				
	70°C	2,5 W				
	40°C	21,0 W	T5	T100°C	95°C	EPDM / SILICONE
	50°C	16,0 W				
	60°C	12,0 W				
	70°C	8,0 W				
	85°C	2,5 W				
	40°C	42,0 W	T4	T135°C	130°C	SILICONE
	50°C	35,0 W				
	60°C	29,0 W				
	70°C	24,0 W				
	85°C	16,0 W				



# TYPES of EQUIPMENT / INSTRUMENTS to be HOUSED inside the JUNCTION BOXES

series  
S  
SO  
EMH90

B

General Instruments Types Definitions	MOD. (°)
• Alarm & Alerting Module	
• Ambient thermostat	
• Amperometer (Analog / Digital)	
• Amperometric Relay (electronic)	
• Anti-surge device (single-phase)	
• Anti-surge device (three-phase)	
• Control Relay	
• Cosfimeter 0,1 to 1 or Cosfimeter 0,2 to 1 (electrodynamic)	
• Current Relay	
• Cycles Programmer	
• Digital Clock (electronic)	
• Electromechanical Timer (Elettronic, Analog/Digital)	
• Electronic Control & Measurement Board	
• Frequency meter 5 to 500 Hz and 36 to 66 Hz	
• Fuse-holder (for fuses 8,5 x 31,5 or 10,3 x 38 mm)	
• Hour Counter (electric)	
• Isolation Controller	
• LCD Indicator Mod. E4... (self-powered)	
• Light Barrier (with built-in relay)	
• Light Intensity Switch	
• Programmable Switch (hourly, daily, weekly)	
• Programmer (electronic digital)	
• Programmer (Analog, with up to 10 LED's)	
• Programmer (electronic with transponder)	
• Pulse Counter (electric)	
• Pulse Counter (electronic, with built-in relay)	
• Stepping Relay	
• Strain gauge Signal Converter Series ICA ...	
• Temperature Controller (Electronic, Digital, adjustable up to 1600°C)	
• Temperature Transmitter (2-wires Series T...)	
• Thermometer (electronic, digital up to 1600°C)	
• Time Relay (electronic)	
• Transmitter (2-wires series PR)	
• Twilight switch	
• Voltage Relay	
• Voltmeter (electromagnetic or with permanent magnet up to 600 V)	
• Wattmeter up to 999 kW or elecrodynamic up to 300 kW	

K

NOTES

- 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 according to table reported on page B9.
- 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.

(°) I.D. on the external plate