

Junction and pulling boxes



S series junction boxes are usually installed for the conduit connection and can be used for the insertion of conductors only (empty boxes) or for the derivation of conductors (boxes with terminals).

The wide range offered includes several models with different sizes and threads.



EMPTY ENCLOSURES



Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex d IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX	CESI 03 ATEX 032U
	IECEX	IECEX CES 15.0012U

For IEC Ex and others certifications data can be downloaded at www.elfit.com

Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2009 e and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2011/65/UE	
Operating temperature:	-40°C (-20°C) +110°C	CESI 03 ATEX 032U
	-40°C (-20°C) +160°C	CESI 03 ATEX 059U
Degree of protection:	IP66/67	

Certificates are available on www.elfit.com

MECHANICAL FEATURES

Body and lid:	Low copper content aluminium alloy. Screw-on lid with safety fastening grub screw
Gasket:	Acid/hydrocarbon-resistant silicone, located between body and lid
Entries:	GAS Rp UNI ISO 7/1 thread
Certification label:	Adhesive label located on lid for size 6 and 9 boxes; on body for size 4
Bolts and screws:	Stainless steel
Earth screws:	Stainless steel. On inside and outside of body complete with anti-rotation brackets
Corrosion Resistance:	The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN 60068-2-30 (hot/humid cycles) and EN 60068-2-11 (salt mist tests)

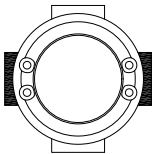
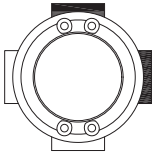
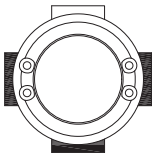
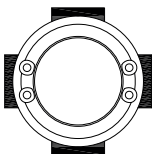
ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

- AISI 316 L stainless steel boxes (Ex. SC16.1S)
 Electropolished AISI 316 L stainless steel boxes (Ex. SC16.1SE)
 Boxes coated with RAL 7035 paint (Ex. SC16.1V)
 External coating in different colour (specify the RAL number)
 Other threads:
- NPT threads ANSI B1.20.1 (Ex. SC26.1N)
 - GAS UNI ISO 228 thread (Ex. SC26.1C)
 - Metric threads ISO 261/965 (Ex. SC26.1I)

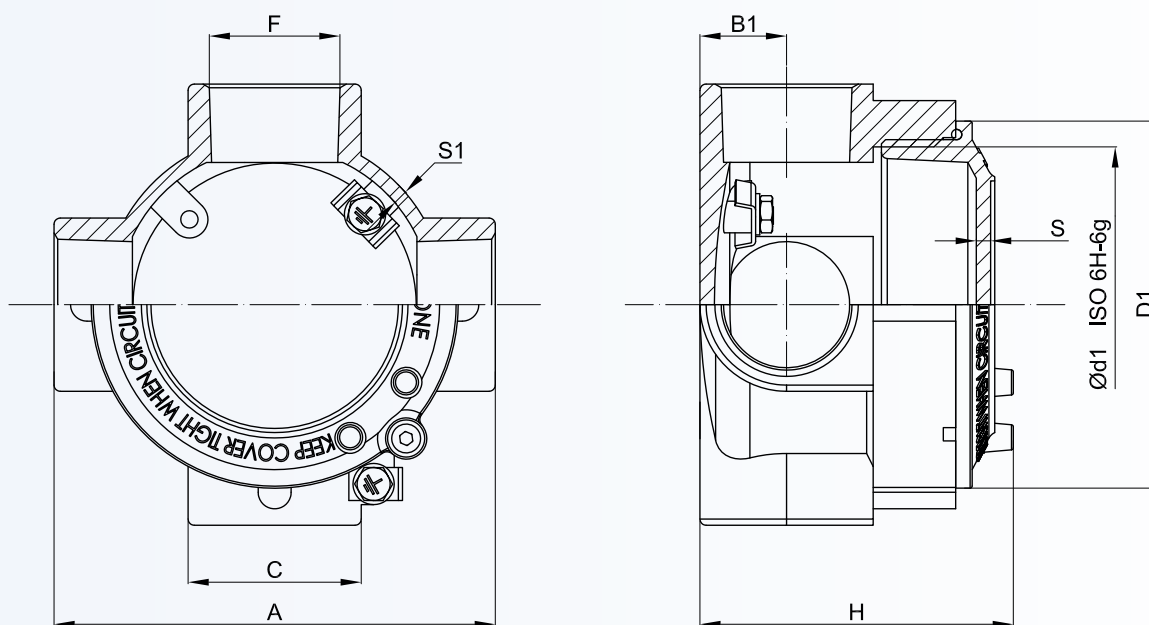


AISI 316 L stainless steel box code SX-36.1SE with electropolished finish

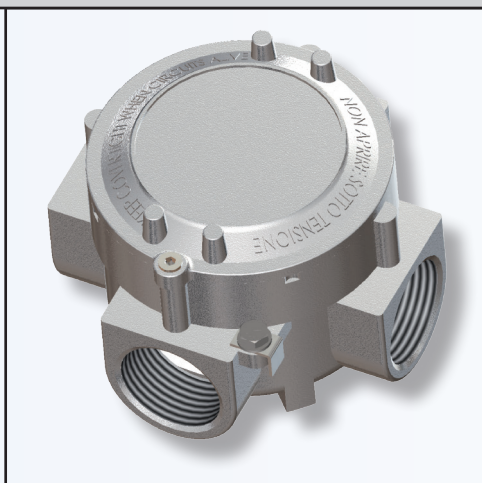
S SERIES ENCLOSURE SELECTION CHART

Code	Position of entries	GAS UNI ISO 7/1	Model	A	Outside dimensions mm				Inside dimensions mm			Weight kg
					D1	H	C	B1	Ød1	S	S1	
SC14.1		2 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,27
SC24.1		2 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,25
SC16.1		2 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,41
SC26.1		2 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,38
SC36.1		2 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,48
SC29.1		2 x 3/4"	B	190	146	105	60	30	130x2	4	7	
SC39.1		2 x 1"	B	190	146	105	60	30	130x2	4	7	1,30
SC59.1		2 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	
SC69.1		2 x 2"	B	190	146	110	70	35	130x2	4	7	1,54
SL14.1		2 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,28
SL24.1		2 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,24
SL16.1		2 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	
SL26.1		2 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,40
SL36.1		2 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,49
SL29.1		2 x 3/4"	B	166	146	105	60	30	130x2	4	7	1,61
SL39.1		2 x 1"	B	166	146	105	60	30	130x2	4	7	1,20
SL59.1		2 x 1 1/2"	B	166	146	105	60	30	130x2	4	7	1,45
SL69.1		2 x 2"	B	166	146	110	70	35	130x2	4	7	1,51
ST14.1		3 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,27
ST24.1		3 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,25
ST16.1		3 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,40
ST26.1		3 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,38
ST36.1		3 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,48
ST29.1		3 x 3/4"	B	190	146	105	60	30	130x2	4	7	1,77
ST39.1		3 x 1"	B	190	146	105	60	30	130x2	4	7	1,70
ST59.1		3 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	1,48
ST69.1		3 x 2"	B	190	146	110	70	35	130x2	4	7	1,53
SX14.1		4 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,26
SX24.1		4 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	
SX16.1		4 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,39
SX26.1		4 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,36
SX36.1		4 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,43
SX29.1		4 x 3/4"	B	190	146	105	60	30	130x2	4	7	1,94
SX39.1		4 x 1"	B	190	146	105	60	30	130x2	4	7	1,85
SX59.1		4 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	1,51
SX69.1		4 x 2"	B	190	146	110	70	35	130x2	4	7	1,63

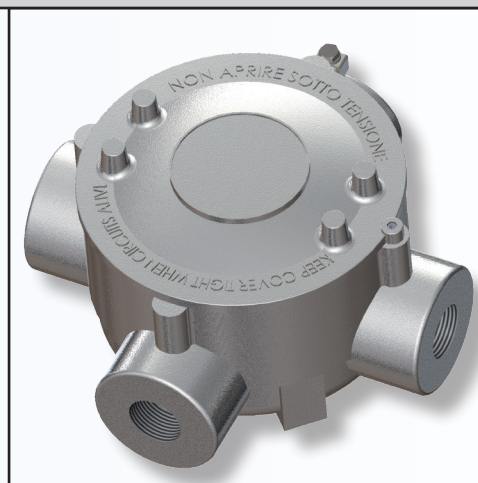
DIMENSIONAL DRAWING



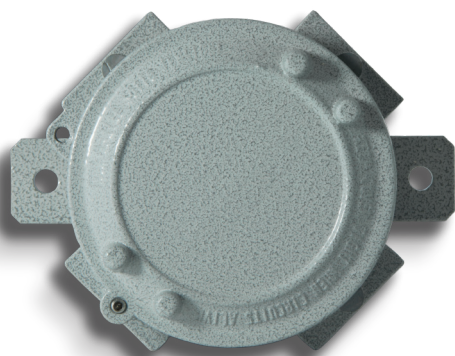
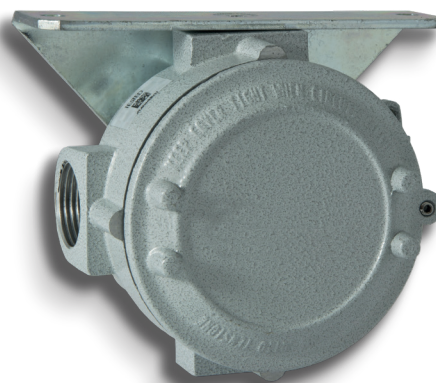
MODEL A



MODEL B



Code	MODEL	F GAS UNI ISO 7/1	Outside dimensions mm				Inside dimensions mm				Weight kg
			A	D1	H	C	B1	Ød1	S	S1	
SB14		2 x 1/2"	90	65	90	39	43	54x2	3,5	3,5	0,34
SB24		2 x 3/4"	90	65	90	39	43	54x2	3,5	3,5	0,34
SB16		2 x 1/2"	110	90	90	45	43	80x2	3,5	5	0,34
SB26		2 x 3/4"	110	90	90	45	43	80x2	3,5	5	0,48
SB36		2 x 1"	114	90	96	45	52	80x2	3,5	5	0,54
SB49		2 x 1 1/4"	180	150	114	60	59	130x2	4	5	0,98
SB59		2 x 1 1/2"	180	150	114	60	59	130x2	4	5	1,25
SB69		2 x 2"	180	150	114	74	71	130x2	4	5	1,58


MODEL SF

MODEL SSC

SF series enclosures (with wall-mounting bracket) and SSC series (with ceiling-mounting bracket) are installed on ducting paths as junction boxes for connecting and branching conductors.

Various different models are available and they can be supplied with multi-pole terminal strips or modular terminals.

MECHANICAL AND ELECTRICAL FEATURES

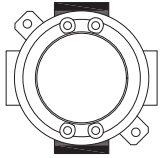
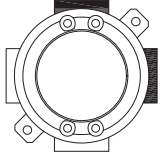
MOUNTING BRACKETS: Galvanized steel for SSC. Aluminium for SF.

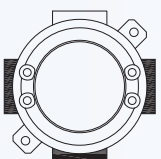
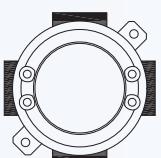
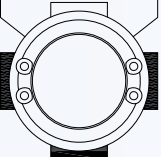
Other features are identical to S series boxes

ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

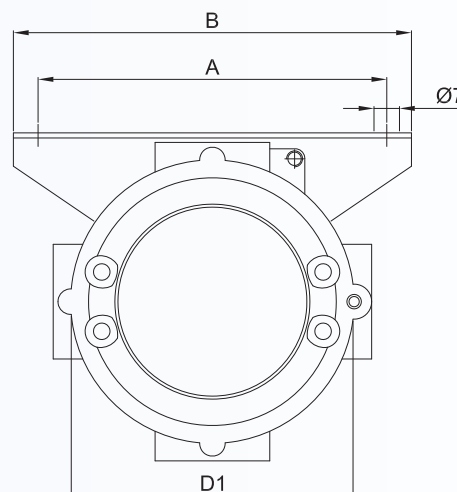
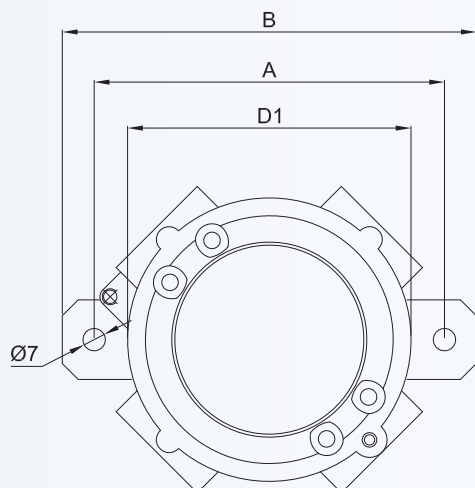
See S series boxes

SF... SSC... SERIES ENCLOSURE SELECTION CHART

Code	Position of entries	GAS UNI ISO 7/1	Outside dimensions mm			Weight kg
		F	D1	A	B	
SFC14.1		2 x 1/2"	65	75	90	0,30
SFC24.1		2 x 3/4"	65	75	90	0,28
SFC16.1		2 x 1/2"	89	110	130	0,45
SFC26.1		2 x 3/4"	89	110	130	0,42
SFC36.1		2 x 1"	89	110	130	0,52
SFC29.1		2 x 3/4"	146	160	180	1,37
SFC39.1		2 x 1"	146	160	180	1,35
SFC59.1		2 x 1 1/2"	146	160	180	
SFC69.1		2 x 2"	146	160	180	1,59
SFL14.1		2 x 1/2"	65	75	90	0,31
SFL24.1		2 x 3/4"	65	75	90	0,27
SFL16.1		2 x 1/2"	89	110	130	0,45
SFL26.1		2 x 3/4"	89	110	130	0,44
SFL36.1		2 x 1"	89	110	130	0,53
SFL29.1		2 x 3/4"	146	160	180	1,66
SFL39.1		2 x 1"	146	160	180	1,25
SFL59.1		2 x 1 1/2"	146	160	180	1,50
SFL69.1		2 x 2"	146	160	180	1,56

Code	Position of entries	GAS UNI ISO 7/1 F	Outside dimensions mm			Weight kg
			D1	A	B	
SFT14.1		3 x 1/2"	65	75	90	0,30
SFT24.1		3 x 3/4"	65	75	90	0,28
SFT16.1		3 x 1/2"	89	110	130	0,44
SFT26.1		3 x 3/4"	89	110	130	0,42
SFT36.1		3 x 1"	89	110	130	0,52
SFT29.1		3 x 3/4"	146	160	180	1,82
SFT39.1		3 x 1"	146	160	180	1,75
SFT59.1		3 x 1 1/2"	146	160	180	1,53
SFT69.1		3 x 2"	146	160	180	1,58
SFX14.1		4 x 1/2"	65	75	90	0,29
SFX24.1		4 x 3/4"	65	75	90	
SFX16.1		4 x 1/2"	89	110	130	0,43
SFX26.1		4 x 3/4"	89	110	130	
SFX36.1		4 x 1"	89	110	130	0,47
SFX29.1		4 x 3/4"	146	160	180	1,98
SFX39.1		4 x 1"	146	160	180	1,90
SFX59.1		4 x 1 1/2"	146	160	180	1,56
SFX69.1		4 x 2"	146	160	180	1,68
SSC14.1		3 x 1/2"	65	65	80	0,38
SSC24.1		3 x 3/4"	65	65	80	0,36
SSC16.1		3 x 1/2"	89	110	125	0,57
SSC26.1		3 x 3/4"	89	110	125	0,54
SSC36.1		3 x 1"	89	110	125	0,64
SSC29.1		3 x 3/4"	146	130	150	1,94
SSC39.1		3 x 1"	146	130	150	1,91
SSC59.1		3 x 1 1/2"	146	130	150	
SSC69.1		3 x 2"	146	130	150	2,15

DIMENSIONAL DRAWING



TERMINAL BOXES

Classification:
 2014/34/UE

Group II
Category 2GD
Installation:
 EN 60079.14

zone 1 - zone 2 (Gas)
zone 21 - zone 22 (Dust)
Marking:
CE 0722 Ex II 2 GD Ex db IIC T.. - Ex tb IIIC T..°C Db IP66/67
Certification:
ATEX CESI 01 ATEX 105X
IECEX IECEX CES 22.0011

 All IEC Ex and certification
 data can be downloaded at
www.elfit.com
Standards:

 CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015/18, EN 60079-11: 2012, EN 60079-1: 2014 ed alla DIRETTIVA EUROPEA 2014/34/UE
 IEC60079-0: 2018, IEC60079-1: 2014, IEC60079-7: 2015/18, Direttiva RoHS 2011/65/UE

Operating temperature:
-40°C +150°C
Degree of protection:
IP66/67
ELECTRICAL FEATURES
Rated voltage:
Terminal boxes "Ex d"

750 Vac/dc

Terminal boxes "Ex e" e "Ex i"

630 Vac/dc

Rated frequency:

50 ÷ 60 Hz

50 ÷ 60 Hz

Terminal cross-sectional area:

 1,5 mm² ÷ 70 mm²

 5 mm² ÷ 25 mm²
Rated current:

8 A ÷ 175 A

5,5 A ÷ 65 A

Max. current density:

 2.5 ÷ 6.6 A/mm²

 3 ÷ 6.6 A/mm²
CHART 1

Ex db rated terminal strips			
Ambient temperature	Terminal material	Temperature class	Maximum surface temperature
-20°C +40°C -40°C +40°C	Polyamide (PA)	T6	T85°C
-20°C +65°C -40°C +65°C	Melamine (KrG) Wemid Stamin (KrS)	T5	T100°C
-20°C +150°C -40°C +150°C	Ceramic (Steatite)	T3	T200°C

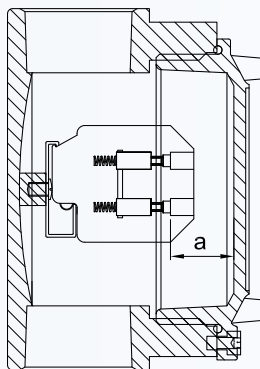
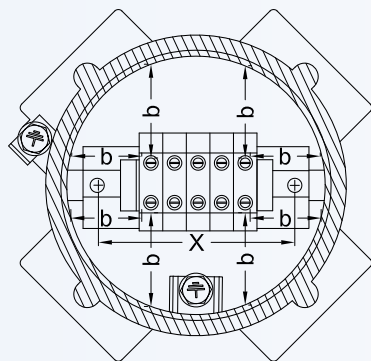
CHART 2

Ex eb or Ex i rated terminal strips (ATEX-certified terminals)			
Ambient temperature	Terminal material	Temperature class	Maximum surface temperature
-20°C +40°C -40°C +40°C	Polyamide (PA)	T6	T85°C
-20°C +65°C -40°C +65°C	Melamine (KrG) Wemid Stamin (KrS)	T5	T100°C
-20°C +80°C -40°C +80°C	Melamine (KrG) Stamin (KrS) Ceramic (Steatite)	T4	T135°C

Ex d IIC rated enclosures		CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS								
Enclosure type	Size	1,5	2,5	4	6	10	16	25	35	70
S.1 - SB	14-24	-	-	3	-	-	-	-	-	-
S.1 - SB	16-26-36	8	8	6	-	-	-	-	-	-
S.1	29-39-59-69	16	16	12	9	7	6	4	4	3
SB	49-59-69	16	16	12	10	8	7	5	5	4
Maximum current (A)	at 40°C	10	12,5	20	24	30	48	75	105	175
	at 65°C	8	10,5	16	20	24	40	65	88	150
	at 150°C									
Maximum current density (A/mm ²) for terminals and cables		6,6	5	5	4	3	3	3	3	2,5
Maximum current (A) referring to 35% of the max. number of terminals as given in the table	at 40°C	13	19,5	24	30	50	64	100	140	210
	at 65°C	10	12,5	20	24	30	48	75	105	175
	at 150°C									
Maximum current density (A/mm ²) for terminals and cables referring to 35% of the max. number of terminals as given in the table		8,5	7	6	5	5	4	4	4	3
Min.-max. rated voltage (V)		420 - 750								

Minimum distances for Ex db rated enclosures with terminals

Enclosure type	Size	Minimum surface distance		S.1	SB
		a min.	b+b min.	x	x
S.1 - SB	14-24	6	20	40	40
S.1 - SB	16-26-36			58.5	50
S.1	29-39-59-69			100	85
SB	49-59-69				



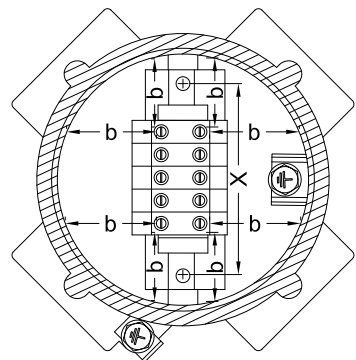
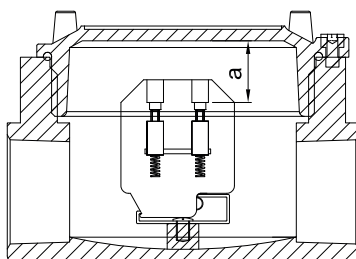
Enclosure code SFL-36.1 with 3 x AKZ-2.5 terminals and 1 x AKE2.5 earth terminal

Ex eb rated enclosures		CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS																	
Enclosure type	Size	1,5			2,5			4			6			10					
		Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3			
S.1 - SB	14-24	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-			
S.1 - SB	16-26-36	8	8	8	8	8	8	6	6	6	-	-	-	-	-	-			
S.1	29-39-59-69	16	16	16	16	16	16	16	14	14	9	9	9	7	7	7			
SB	49-59-69	16	16	16	16	16	16	16	14	14	10	10	9	8	7	7			
Maximum current (A)		at 40°C			8			10,5			17			20			24		
		at 65°C			5,5			7,5			12			14			17		
		at 150°C																	
Maximum current density (A/mm²) for terminals and cables		6,6			5			5			4			3					
Min.-max. rated voltage (V)		275 - 630																	

Ex eb rated enclosures		CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS					
Enclosure type	Size	16			25		
		Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3
S.1 - SB	14-24	-	-	-	-	-	-
S.1 - SB	16-26-36	-	-	-	-	-	-
S.1	29-39-59-69	6	6	6	4	4	4
SB	49-59-69	7	6	6	5	4	4
Maximum current (A) at 40°C at 65°C at 150°C		40			65		
		29			47		
Maximum current density (A/mm²) for terminals and cables		3			3		
Min.-max. rated voltage (V)		275 - 630					



Enclosure code SFL-26.1 with 3 x RP-4 terminals and 1 x TR-2 earth terminal



NOTES:

Tab 1 for operating voltage $U \leq 400$

Tab 2 for operating voltage $U \leq 500$

Tab 3 for operating voltage $U \leq 630$

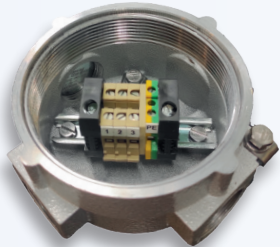
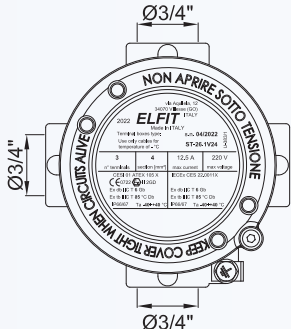
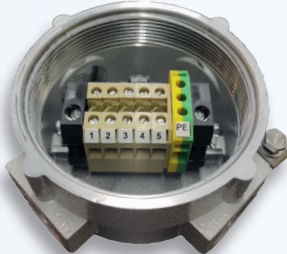
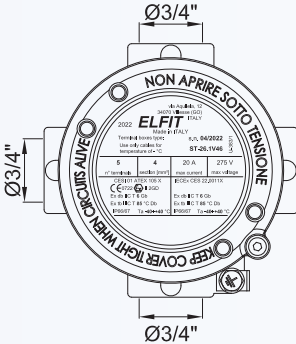
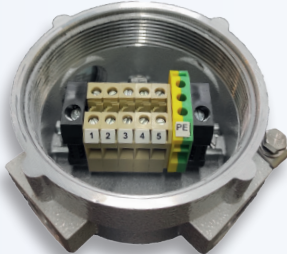
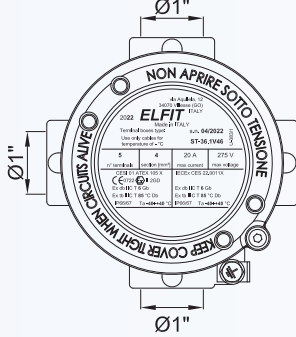
Minimum distances for Ex eb rated enclosures with terminals

Tab 1	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.		
	S.1 - SB	14-24	6	20	x	x
	S.1 - SB	16-26-36			40	40
	S.1	29-39-59-69			58.5	50
	SB	49-59-69			100	85

Tab 2	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.		
	S.1 - SB	14-24	8	25	x	x
	S.1 - SB	16-26-36			40	40
	S.1	29-39-59-69			58.5	50
	SB	49-59-69			100	85

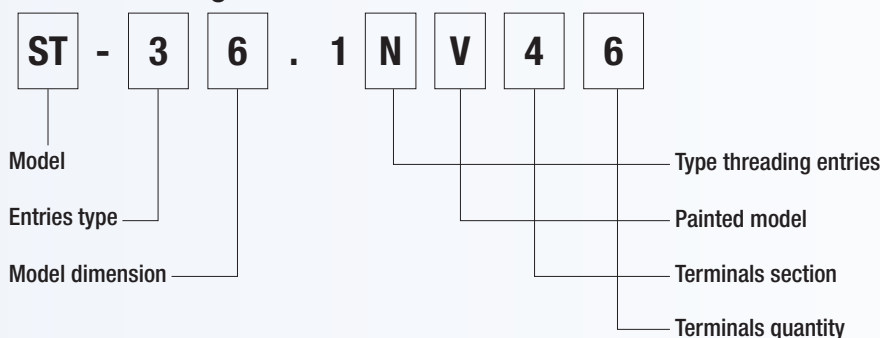
Tab 3	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.		
	S.1 - SB	14-24	10	32	x	x
	S.1 - SB	16-26-36			40	40
	S.1	29-39-59-69			58.5	50
	SB	49-59-69			100	85

STANDARD JUNCTION BOX WITH TERMINALS

ILLUSTRATION	DRAWING	DESCRIPTION	CODE
		Junction box type ST-26.1V in aluminium alloy with polyester coating RAL 7035, with n.3 threading holes Ø 3/4", complete with n.3 terminals sect. 2.5sqmm + n.1 earth terminal, numbered 1-2-3-PE.	ST-26.1V24 Entries GAS UNI 7/1 ST-26.1NV24 Entries NPT
		Junction box type ST-26.1V in aluminium alloy with polyester coating RAL 7035, with n.3 threading holes Ø 3/4", complete with n.5 terminals sect. 4sqmm + n.1 earth terminal, numbered 1-2-3-4-5-PE.	ST-26.1V46 Entries GAS UNI 7/1 ST-26.1NV46 Entries NPT
		Junction box type ST-36.1V in aluminium alloy with polyester coating RAL 7035, with n.3 threading holes Ø 1", complete with n.5 terminals sect. 2.5sqmm + n.1 earth terminal, numbered 1-2-3-4-5-PE.	ST-36.1V46 Entries GAS UNI 7/1 ST-36.1NV46 Entries NPT

Label detail mod. ST36.1V46

Order code logic



Notes:

- Other combinations are available on request (diameters, holes, terminal sections), contact the sales office.
- For the construction features see page pagina E.108
- Available on request the version with bracket for fixing the junction box, e.g. code **SFT**-26.1NV46 (painted box 3x3/4"NPT, n.5+1 terminals 4mmq + fixing bracket).

