CABLE ENTRIES POSITION

LATERAL ENTRIES					
CODE:	ROI	ROLI	ROCI	ROTI	ROXI
	N° entries= 1	N° entries= 2		N° entries= 3	N° entries= 4
SCHEME:					

LATERAL AND BOTTOM ENTRIES					
CODE:	ROBI	ROMI	RODI	ROWI	ROXAI
	N° entries= 2	N° entries= 3		N° entries= 4	N° entries= 5
SCHEME:					

ENCLOSURES - INSTRUMENTS & EQUIPMENTS

EQUIPMENT IDENTIFICATION

ORDER CODING				
Code	**Cable entry dimension**	**Box dimension**	**Max internal dimension (with extension)**	**Model**
R..I	1,2,3,4,5,6 20,25,32,40,50,63 See table below	6 6A 7 8 9	120 125 145 125 - 165 140 - 190	See table at page 32

CABLE ENTRY DIMENSION	
Code	**Cable entry dimension**
1	1/2" NPT
2	3/4" NPT
3	1" NPT
4	1.1/4" NPT
5	1.1/2" NPT
6	2" NPT
20	M20x1.5
25	M25x1.5
32	M32x1.5
40	M40x1.5
50	M50x1.5
63	M63x1.5

Example: ROTI26-120MM

RI - ROI SERIES

Electrical equipment boxes sereis ROI are normally used to contain electrical equipment and instrumentation that need to be visible such as ammeter, voltmeter, photocell, etc in classified area Zone 1 and Zone 21.

Features

Material used: stainless steel AISI 316L

Operating temperature: -50°C up to 85°C

NPT thread: from 1/2" to 2"

ISO 262 thread: from M20x1.5 5 to M63x1.5

Degree of protection: IP66

Max rated voltage: 690Vac/440Vdc

Max rated current: 109A

Cross section: 0,5 ÷35 mmq

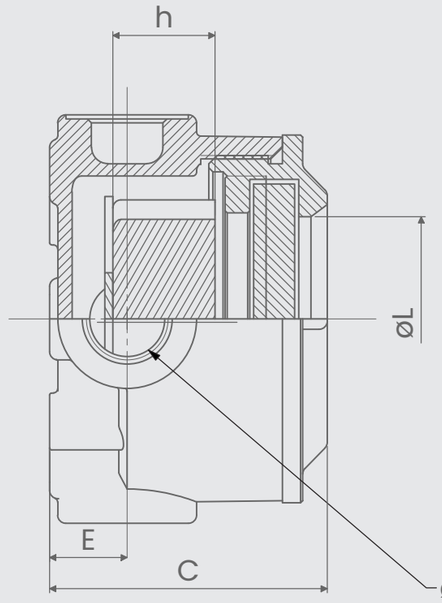
Nominal frequency: 50/60Hz

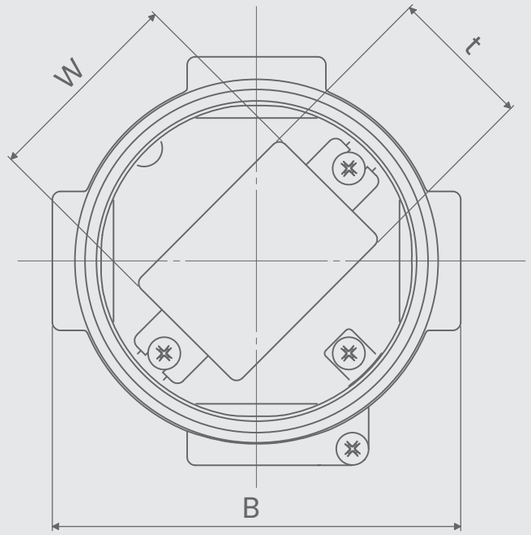
ATEX & IECEx Equipment Data		
Gas	Group II Zone 1	Ex db I Mb Ex db II C T(*) Gb
Dust	Group II Zone 21	Ex tb IIIC T(*) Db IP66

ATEX Certificate	IECEx Certificate
FTZU 14 ATEX 0088X	IECEx FTZU 14.0021X

(*) Temperature class: see table of max power dissipation on page 38

ENCLOSURES - INSTRUMENTS & EQUIPMENTS





Box dimension	External dimensions [mm]					Max equipments size [mm]			Max equipment [dm³]	Weight [Kg]
	B	C	E	ØF	ØL	h	w	t		
6	100	68	22,5	90	50	30	50	35	0,07	1,25
6A	100	73	22,5	90	50	35	50	35	0,078	1,3
7	126	82	24	112	70	40	65	45	0,146	2,2
8	145	99	27	131	85	55	70	60	0,273	3,5
9	161	115	27	146	100	65	85	65	0,414	4,4

øA = See table at page 25

RI - ROI SERIES - With bottom entry

Electrical equipment boxes sereis ROI are normally used to contain electrical equipment and instrumentation that need to be visible such as ammeter, voltmeter, photocell, etc in classified area Zone 1 and Zone 21.

Features

Material used: stainless steel AISI 316L

Operating temperature: -50°C up to 85°C

NPT thread: from 1/2" to 2"

ISO 262 thread: from M20x1.5 5 to M63x1.5

Degree of protection: IP66

Max rated voltage: 690Vac/440Vdc

Max rated current: 109A

Cross section: 0,5 ÷35 mmq

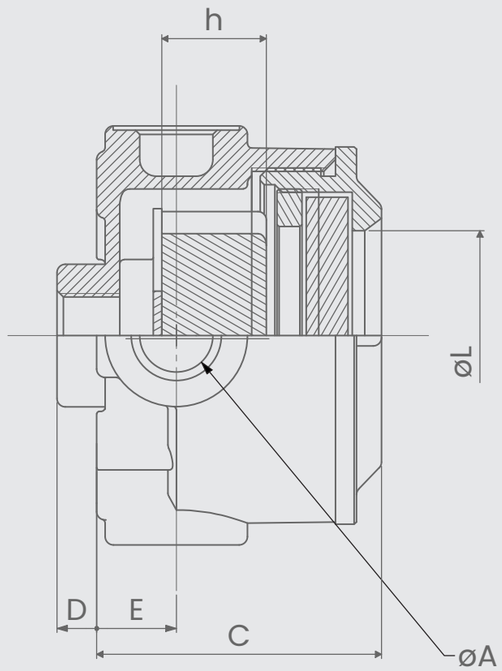
Nominal frequency: 50/60Hz

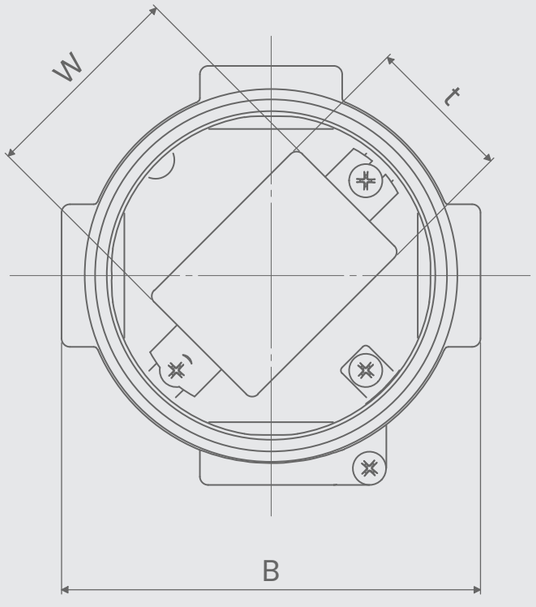
ATEX & IECEx Equipment Data		
Gas	Group II Zone 1	Ex db I Mb Ex db II C T(*) Gb
Dust	Group II Zone 21	Ex tb IIIC T(*) Db IP66

ATEX Certificate	IECEx Certificate
FTZU 14 ATEX 0088X	IECEx FTZU 14.0021X

(*) Temperature class: see table of max power dissipation on page 38

ENCLOSURES - INSTRUMENTS & EQUIPMENTS

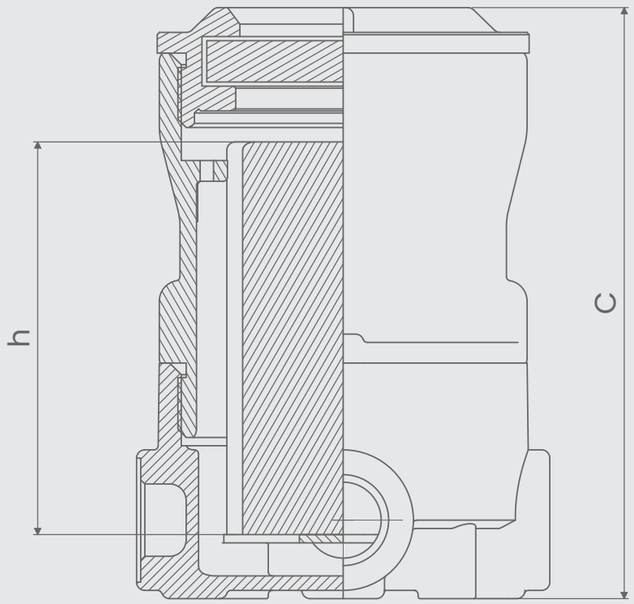




Box dimension	External dimensions [mm]						Max equipments size [mm]			Max equipment [dm³]	Weight [Kg]
	B	C	D	E	ØF	ØL	h	w	t		
6	100	68	9,5	22,5	90	50	30	50	35	0,07	1,25
6A	100	73	9,5	22,5	90	50	35	50	35	0,078	1,3
7	126	82	11	24	112	70	40	65	45	0,146	2,2
8	145	99	9,5	27	131	85	55	70	60	0,273	3,5
9	161	115	9,5	27	146	100	65	85	65	0,414	4,4

øA = See table at page 25

EXTENSION FOR ENCLOSURES



Code with extension	Box Dimension	External Dim. [mm] C	Max equip. size [mm] h	Max equip . Vol. [dm³]	Weight [Kg]
R.. - 110	6	143	95	0,15	2,1
R.. - 115	6A	148	100	0,15	2,2
R.. - 135	7	172	120	0,3	3,5
R.. - 155	8	189	130	0,55	5,1
R.. - 175	9	215	150	0,8	6,8

ENCLOSURES - INSTRUMENTS & EQUIPMENTS

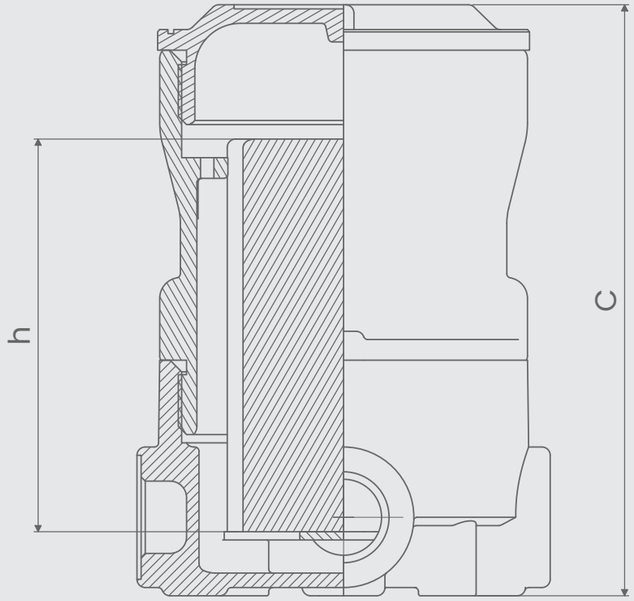
MAXIMUM ELECTRICAL VALUES ADMITTED

- Maximum Tension: 660 Vac / 440 Vdc
- Maximum Current: 109A
- Frequency: 50 / 60 Hz
- Cross section: 0,5 ÷ 35 mm²

NOTES

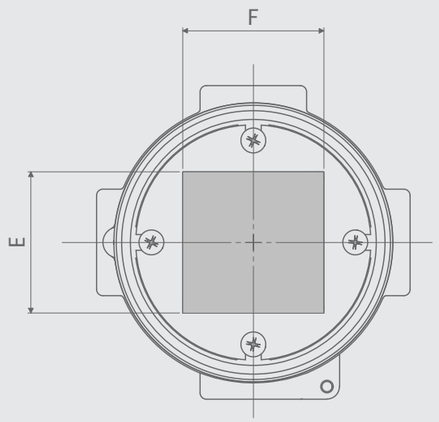
- The electrical equipments must have such dimensions that guarantee, in every trasversal section, at least the 40% of free surface.
- Max power dissipation must be in accordance with the value written at pag.
- No batteries are allowed inside the enclosure.
- Electrical equipment contained in the enclosure shall not be intrinsically safe and it shall not include capillaries or other non electric connections.
- In case of presence of capacitors, when the voltage goes off they must be discharged within their own circuit in less than one second.
- When the deviceis used for Group I (Mines), insulating ,material subject to electrical stresses capable of causing arc in the air and which result from rated currents of more than 16A shall have a comparative tracking index equal to or greater than CTI 400 M, according to IEC 60112.

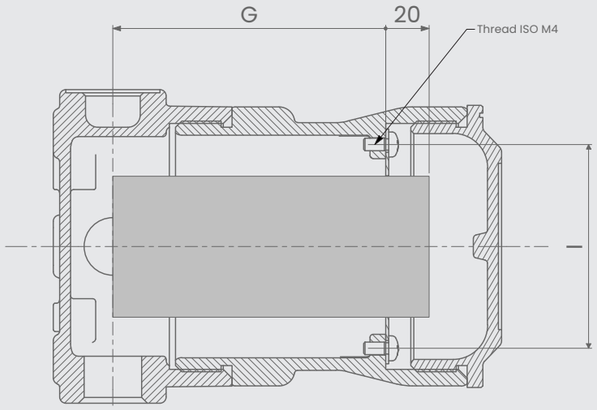
EXTENSION FOR ENCLOSURES

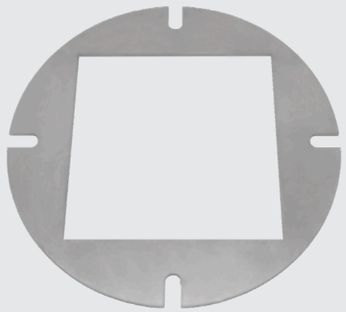


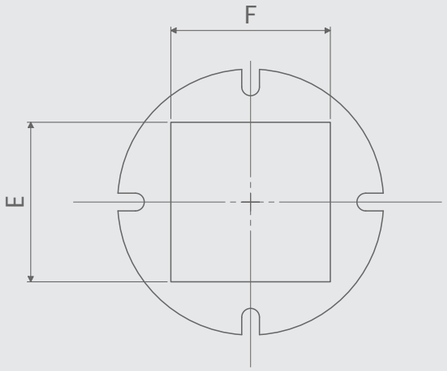
Code with extension	Box Dimension	External Dim. [mm] C	Max equip. size [mm] h	Max equip . Vol. [dm³]	Weight [Kg]
R.. - 110	6	143	105	0,18	2,1
R.. - 115	6A	148	110	0,18	2,2
R.. - 135	7	172	130	0,35	3,5
R.. - 155	8	189	140	0,58	5,1
R.. - 175	9	215	160	0,88	6,8

BRACKET FOR DIN 43700 - KH









Dimension Box	DIN 43700	KH	E	F	s	G	I
6 - 95 ÷ 120	36 x 36	KH6-3636	33	33	1,5	55 ÷ 85	66
6 - 95 ÷ 120	48 x 24	KH6-4824	45	22,2	1,5	55 ÷ 85	66
6A - 100 ÷ 125	36 x 36	KH6-3636	33	33	1,5	60 ÷ 90	66
6A - 100 ÷ 125	48 x 24	KH6-4824	45	22,2	1,5	60 ÷ 90	66
7 - 105 ÷ 145	48 x 48	KH7-4848	45	45	1,5	60 ÷ 110	84
8 - 125 ÷ 165	72 x 36	KH8-7236	68	33	1,5	70 ÷ 120	96
8 - 140 ÷ 190	72 x 72	KH8-7272	68	68	1,5	80 ÷ 140	96
9 - 140 ÷ 190	96 x 24	KH9-9624	92	22,2	1,5	80 ÷ 140	112
9 - 140 ÷ 190	96 x 48	KH9-9648	92	45	1,5	80 ÷ 140	112

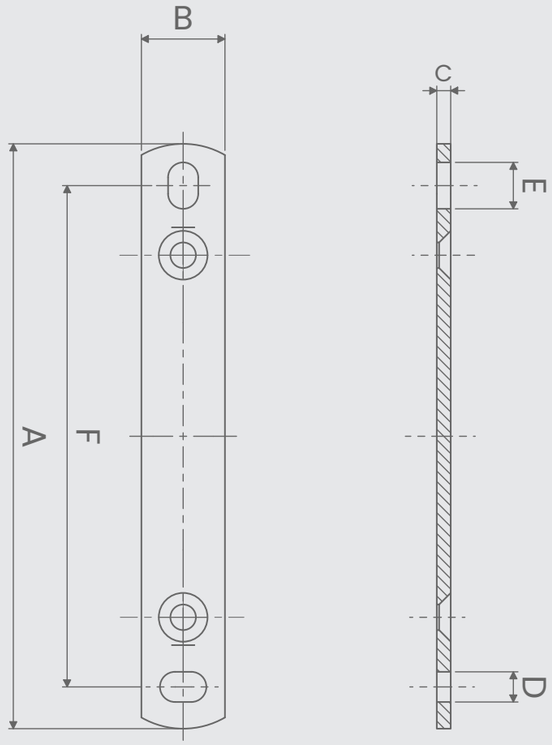
ENCLOSURES - INSTRUMENTS & EQUIPMENTS

TYPE OF SUITABLE EQUIPMENTS

SUITABLE EQUIPMENTS	
Code	**Model**
A	Ammeter
ADC	Analogic to digital signal converter
CI	Phase insulation controller
CO	Hours Counter
CP	Pulse counter
DAC	Digital to analogic signal converter
DE	LCD indicator panel
F	Frequencymeter
FM	Single phase power factor meter
FT	Three phase power factor meter
IC	Twilight switch
ICA	Load cell indicator
IO	Clock switch
LVM	Single phase overload voltage
LVT	Three phase overload voltage
MI	Phase insulation meter
MM	Multifunction meter
O	Digital electronic clock
PC	Cam programmer
PE	Electronic programmer
PF	Fuse holder
RC	Control relay
RP	Stop relay
RT	Time dealy relay
SCM	Control, measuring and regulation electronic board
SL	Light sensor
TL	Camera
TP	Programmable timer switch
TR	Thermoregulator
W	Wattmeter / Voltmeter

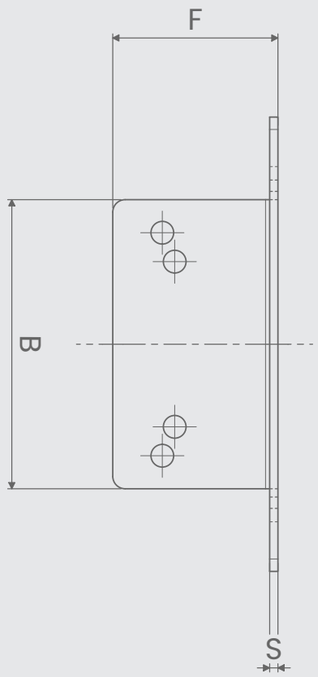
2021 REV.01

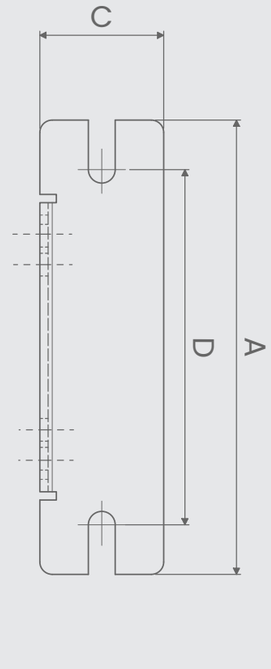
Fixing bracket



Code	A	B	C	D	E	F	Weight[Kg]
KF6S	126	18	3	6,5	10	108	0,05
KF7S	142	18	3	6,5	10	124	0,057
KF8S	158	20	4	6,5	12	138	0,092
KF9S	174	20	4	6,5	12	154	0,1

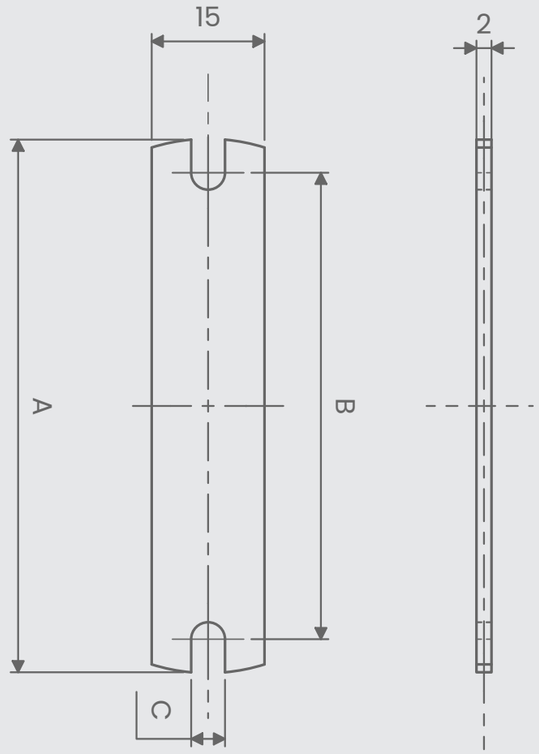
Fixing bracket





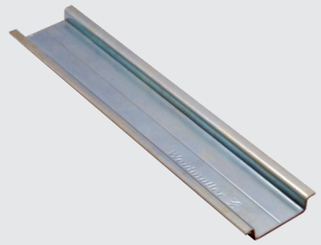
Code	A	B	C	D	E	F	S	Weight [kg]
KE46S	110	70	30	86	6.5	40	2	0.09

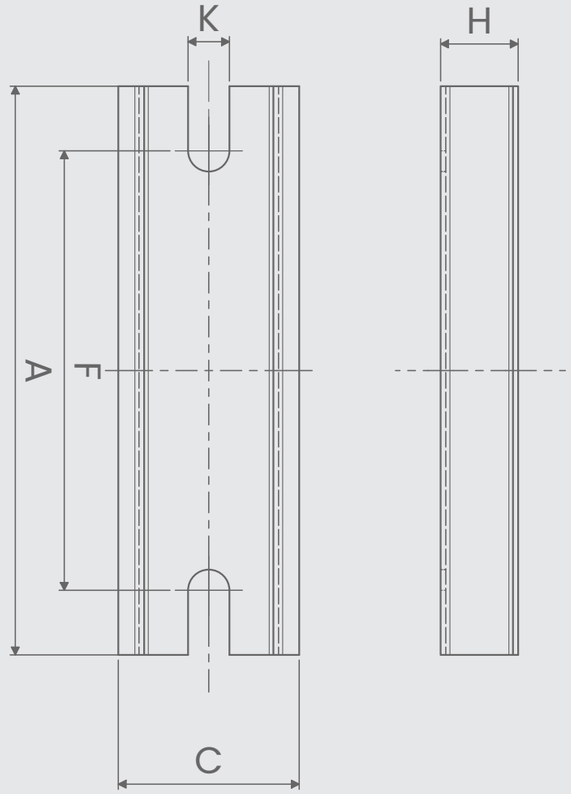
Accessories



Code	A	B	C
KS6S	71	62	4.5
KS7S	90	76	4.5
KS8S	100	82	4.5
KS9S	110	98	4.5

TERMINAL BOXES - ACCESSORIES





Code	A	B	C	F	K
		FOR ENCLOSURE SIZE 6/6A			
TS15	71	15	5,5	62	4,5
		FOR ENCLOSURE SIZE 7			
TS15	71	15	5,5	62	4,5
		FOR ENCLOSURE SIZE 8			
TS32	100	32	15	82	5,5
TS35	100	35	7,5/15	98	5,5
		FOR ENCLOSURE SIZE 9			
TS32	110	32	15	82	5,5
TS35	110	35	7,5/15	98	5,5

TABLE OF MAXIMUM DISSIPATED POWER

Enclosure size	Temp. Class	Max surface temp.	Cable / cable gland temp. for class I & class II equipment	O-ring material	Max ambient temp.	Max dissipated power
6 / 6A	T6	T 85° C	80° C	Silicone or EPDM	40° C	8 W
					50° C	5,5 W
					60° C	3 W
					70° C	1 W
	T5	T 100° C	95° C	Silicone or EPDM	40° C	11,5 W
					50° C	9 W
					60° C	6,5 W
					70° C	4,5 W
					85° C	1 W
	T4	T 135° C	130° C	Silicone	40° C	20,5 W
					50° C	18 W
					60° C	15 W
					70° C	12,5 W
					85° C	9 W
7	T6	T 85° C	80° C	Silicone or EPDM	40° C	10 W
					50° C	7 W
					60° C	4 W
					70° C	1,5 W
	T5	T 100° C	95° C	Silicone or EPDM	40° C	15 W
					50° C	11,5 W
					60° C	8,5 W
					70° C	5 W
					85° C	1,5 W
	T4	T 135° C	130° C	Silicone	40° C	30 W
					50° C	26 W
					60° C	21 W
					70° C	17 W
					85° C	11,5 W

TABLE OF MAXIMUM DISSIPATED POWER

Enclosure size	Temp. Class	Max surface temp.	Cable / cable gland temp. for class I & class II equipment	O-ring material	Max ambient temp.	Max dissipated power
8	T6	T 85° C	80° C	Silicone or EPDM	40° C	11 W
					50° C	7,5 W
					60° C	4,5 W
					70° C	2 W
	T5	T 100° C	95° C	Silicone or EPDM	40° C	16 W
					50° C	12,5 W
					60° C	9 W
					70° C	6 W
					85° C	2 W
	T4	T 135° C	130° C	Silicone	40° C	31 W
					50° C	27 W
					60° C	22 W
					70° C	18 W
					85° C	12,5 W
9	T6	T 85° C	80° C	Silicone or EPDM	40° C	14 W
					50° C	10 W
					60° C	6 W
					70° C	2,5 W
	T5	T 100° C	95° C	Silicone or EPDM	40° C	21 W
					50° C	16 W
					60° C	12 W
					70° C	8 W
					85° C	2,5 W
	T4	T 135° C	130° C	Silicone	40° C	42 W
					50° C	35 W
					60° C	29 W
					70° C	24 W
					85° C	16 W