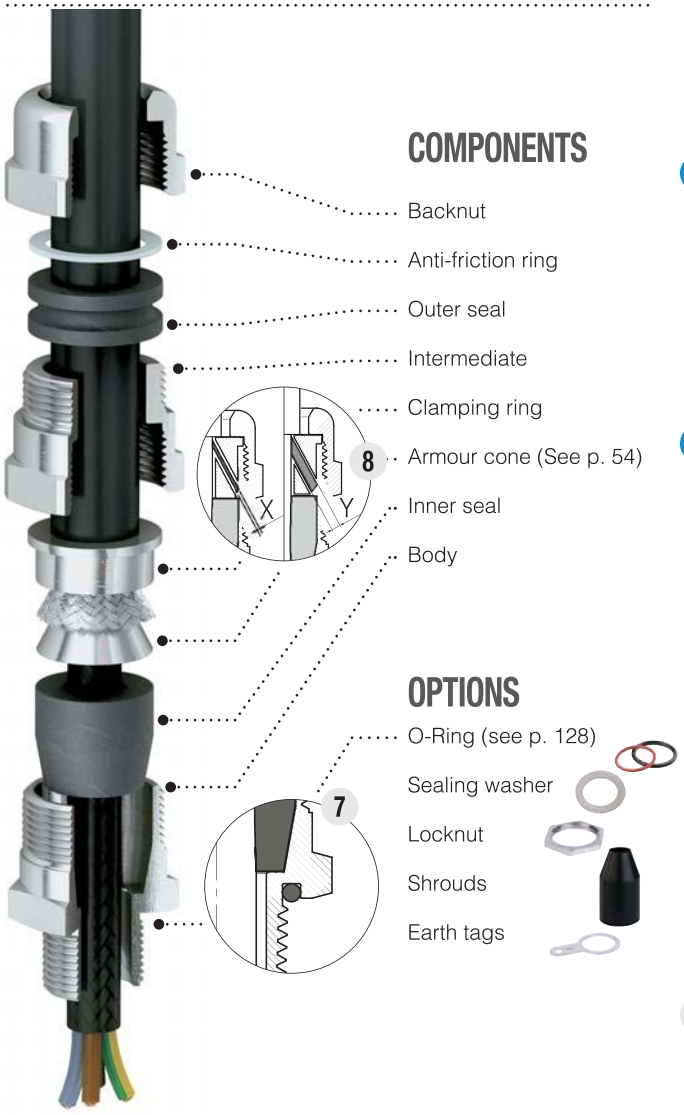
RAD type

IP66/68 · SI Silicone seals °C -65° ÷ +220° · EP EPDM seals °C -40° ÷ +100° · RoHS Compliant · EMC proof · CE · Ex · IECEx · EAC

FLAMEPROOF EX D • INCREASED SAFETY EX E • FOR INDOOR & OUTDOOR APPLICATIONS

FOR ARMOURED CABLES • INNER AND OUTER SEALING



1 **Cable glands RAD type** (code: **RAD**)
The sealing ring blocks the cable on the under armour diameter. The addition of the sealing ring on the outer sheath guarantees a complete protection of the cable armour.
Cable glands EMC tested by triaxial method, according to IEC 62153-4-3, IEC 62153-4-4 standards.
Metric cable glands are made according to EN 62444 standard. Maintenance and installation operations and product selection must be done in accordance with IEC EN 60079-14 and 17 standards.

Application fields Surface - Group II • Mines - Group I

Approvals / Certifications
ATEX INERIS 06 ATEX 0014X
IEC Ex: IEC Ex INE 10.0010X
EAC: RU C-IT.АЯ 45.B.00081

Protection type
Exd IIC • Ex e II (gas) • Ex tb IIIC (dusts) • Ex d I • Ex e I (mines)

EPL (Equipment protection level)
Zone 1-2: Mb mines • Gb, Gc gas
Zone 21-22: Db Dc combustible dusts

Execution
Ex d IIC • Ex e II • Ex tb IIIC • Ex d I • Ex e I Db
according to
ATEX: EN 60079-0:2009 • EN 60079-1:2007 • EN 60079-7:2007 • EN 60079-31:2009 • EN 60529:1991
IEC Ex: IEC 60079-0:2011 • IEC 60079-1:2007 • IEC 60079-7:2006 • IEC 60079-31:2008 • IEC 60529:2001

5 **Ambient temperatures in services: sealing washers materials**
EPDM seals -40°C ÷ + 100°C (code: **EP**)
Silicone seals -65°C ÷ + 220°C (code: **SI**)

Cable type
Armoured: Single armoured cable SWA, Alluminium wire armoured cable AWA,Alluminium strip armoured ASA. Single wire braided cable SWB, Steel tape armored cable STA, Pliable wire armoured cable PWA. Screened flexible wire braided cable CY-SY
Reduced cone available for SWA armoured cables.

6 **Available materials**
Brass (code: **OT**) • Nickel-plated brass (code: **ON**)
AISI316L Stainless steel (code: **S6**) • Aluminium (code: **AL**)
AVP Steel (code: **AVP**)

Available threads
ISO 262 Metrical • ISO 228 • DIN 40430 Pg
ANSI B1.20.1 NPT • EN 10226 Gk (only for ATEX)

Degree of protection
The cable glands degree of protection is **IP66** or **IP66/68**, 30-meters depth for 7 days according to the IEC EN 60529 standard; the degree of protection IP 68 is obtained by using flat sealing rings on cable glands with cylindrical threads. Without gaskets, the degree of protection is IP 66. If the cable glands with cylindrical or tapered threads are screwed on the threaded hole of an apparatus, in order to guarantee an IP66 or IP66/68 degree of protection, threaded parts must be sealed with Loctite or similar. In order to maintain the IPX8 degree of protection, the cable entry shall be fitted on enclosure witch satisfies an immersion test under 30 meters of water during 7 days. Metric cable glands are made in accordance to EN 62444 Standard.

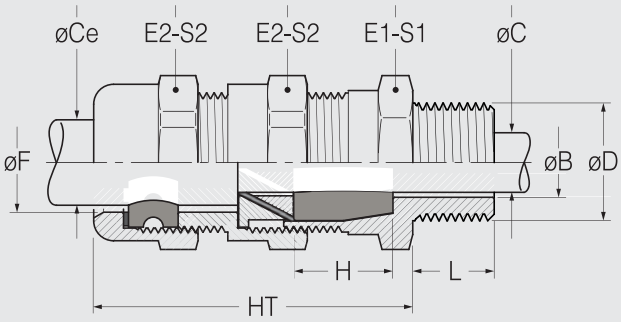
0 **Kit version** (code: **KIT**)
Includes cable glands and the requested complete series of the rubber seals accompanying the size.

EXAMPLE CODE

See page 54

0	1	2	3	3E	4	5	6	7	8
KIT	**RAD.**	**25.**	**13.**	**24.**	**N25.**	**EP.**	**ON.**	**OR.**	**BS**
Optional code	Type	Size	Ø C Max	Ø C Max	Thread code	Seals material code	Material code	Optional code	Optional code
Kit series			**Inner seal (10,5 ÷ 13)**	**Outer seal (19 ÷ 24)**	**See tab. page 55**	**EP•SI**	**OT•ON•S6 AL•AVP**	**O-Ring**	**Reduced cone**

TECHNICAL DRAWING



2	3	3E	8		4					DIMENSIONS							
SIZE	**Ø C** Min - Max Inner seal	**Ø Ce** Min - Max Outer seal	**ARMOUR RANGE** Standard cone X*	Reduced cone Y**	**Ø D - THREADS** Cylindrical ISO 262	Cylindrical ISO 228	Cylindrical DIN 40430	Tapered NPT	Tapered EN 10226	Weight	F	HT	H	E1	S1	E2	S2
16 (EP)	4 ÷ 7 7 ÷ 10	5 ÷ 10 10 ÷ 15	0 ÷ 0,5	0,5 ÷ 0,75	M12x1,5 **M16x1,5** M20x1,5	1 / 4” **3 / 8”** 1 / 2”	Pg7 Pg9 **Pg11** Pg13,5	1 / 4” **3 / 8”** 1 / 2”	1 / 4” **3 / 8”** 1 / 2”	126	16	58	20	24	26	24	26
16 (SI)	4 ÷ 6 6 ÷ 8 8 ÷ 10																
20	5,5 ÷ 8 8 ÷ 10,5 10,5 ÷ 13	10 ÷ 15 14 ÷ 19	0 ÷ 0,5	0,5 ÷ 1,25		3 / 4”		3 / 4”	3 / 4”	228	20	64	20	30	33	32	35
25	8 ÷ 10,5 10,5 ÷ 13 13 ÷ 15,5 15,5 ÷ 18	15 ÷ 20 19 ÷ 24	0 ÷ 0,5	0,5 ÷ 1,25	M20x1,5 **M25x1,5**	**3 / 4”** 1”	**Pg16** Pg21	**3 / 4”** 1”	**3 / 4”** 1”	264	25	64	20	35	38	36	39
32	13 ÷ 15,5 15,5 ÷ 18 18 ÷ 21 21 ÷ 24	20 ÷ 26 25 ÷ 31	0 ÷ 1	1 ÷ 1,6	M25x1,5 **M32x1,5**	**1”**	**Pg21** Pg29	**1”**	**1”**	484	32	83	25	42	47	45	49
40	21 ÷ 24 24 ÷ 27 27 ÷ 30	26 ÷ 32 31 ÷ 37	0 ÷ 1	1 ÷ 1,6	**M40x1,5**	**1” 1/4**	**Pg29**	**1” 1/4**	**1” 1/4**	576	38	83	25	48	53	50	55
50	24 ÷ 27 27 ÷ 30 30 ÷ 33 33 ÷ 36	31 ÷ 37 36 ÷ 43	0 ÷ 1	1 ÷ 2	M40x1,5 **M50x1,5**	**1” 1/2**	**Pg36**	**1” 1/2**	**1” 1/2**	730	44	83	25	55	60	57	62
63	36 ÷ 39 39 ÷ 42 42 ÷ 45	42 ÷ 48 47 ÷ 53	0 ÷ 1	1 ÷ 2	M50x1,5 **M63 x 1,5**	**2”**	**Pg42** Pg48	**2”**	**2”**	961	54	83	25	68	74	67	73
75	45 ÷ 48 48 ÷ 51 51 ÷ 54	52 ÷ 58 52 ÷ 64	0 ÷ 1	1 ÷ 2	M63x1,5 **M75x1,5**	**2” 1/2**	**Pg48**	**2” 1/2**	**2” 1/2**	1392	65	83	25	80	86	80	88
90a	54 ÷ 58 58 ÷ 62	64 ÷ 72	0 ÷ 2	2 ÷ 2,5	M75x1,5 **M90x2**	**3"**	/	**3"**	**3"**	3026	74	115	30	100	107	100	107
90b	60 ÷ 64 64 ÷ 68	70 ÷ 78								2432	80						

• **Standard Threads in bold** • *Dimensions are in millimeters* • *Weight in grams (gr) of brass version*
• *Inside the size, the external rubber seals may be matched with any interior rubber seals, compatible with the cable size. (See on page 55)*
* **Standard cone X:** *Suitable for all approved armour cables except SWA cables* ** 8 **Reduced cone Y:** *Suitable for SWA cables (code:* **BS***)*