

BALD

type



FLAMEPROOF EX D • INCREASED SAFETY EX E • FOR INDOOR & OUTDOOR APPLICATIONS
FOR ARMoured CABLES • INNER LEAD SHEATED



1 Cable glands BALD type (code: BALD)

Flameproof Ex d Barrier Cable Glands sealed with sealing compound. 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. The lead ring grounds the lead sheath of the cable. 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 standards. 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 certificate: INERIS 06 ATEX 0014X
 Type examination certificate: INERIS 17 ATEX 3009X (Ex nR IIC Gc)
 IEC Ex certificate: IEC Ex INE 10.0010X
 UKCA certificate: CML 21UKEX1590X;
 UKCA certificate (Cat 3): CML 21UKEX1591X
 EAC certificate: НАСТХОЛ RU C-IT. АЯ45.В.00909
 CCC Ex NEPSI Certificate: Nr. 2021322313003706

Protection type

Ex db IIC • Ex eb II (gas) • Ex tb IIIC (dusts) • Ex db I • Ex eb I (mines)

EPL (Equipment protection level)

Zone 1-2: Mb mines • Gb, Gc gas

Zone 21-22: Db Dc combustible dusts

Execution

Ex db IIC • Ex eb II • Ex tb IIIC • Ex db I • Ex eb I Db according to
ATEX: EN IEC 60079-0:2018 • EN 60079-1:2014 •
 EN IEC 60079-7:2015/A1:2018 • EN 60079-15:2010 •
 EN 60079-31:2014 • EN 60529:1991
IEC Ex: IEC 60079-0:2017 • IEC 60079-1:2014 •
 IEC 60079-7:2015/A1:2017 • IEC 60079-15:2017 •
 IEC 60079-31:2013 • IEC 60529:1989+A1:1999+A2:2013

5 Ambient temperatures in services: sealing washers materials

EPDM seals + Resin RCN SFR+SFH: -40°C ÷ +100°C (code: **EP**)
 Silicone seals + Resin RCN SFR+SFH: -50°C ÷ +149°C (code: **SI**)
 EPDM seals + Resin RCN EPR+EPH: -40°C ÷ +100°C (code: **EP**)
 Silicone seals + Resin RCN EPR+EPH: -60°C ÷ +150°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

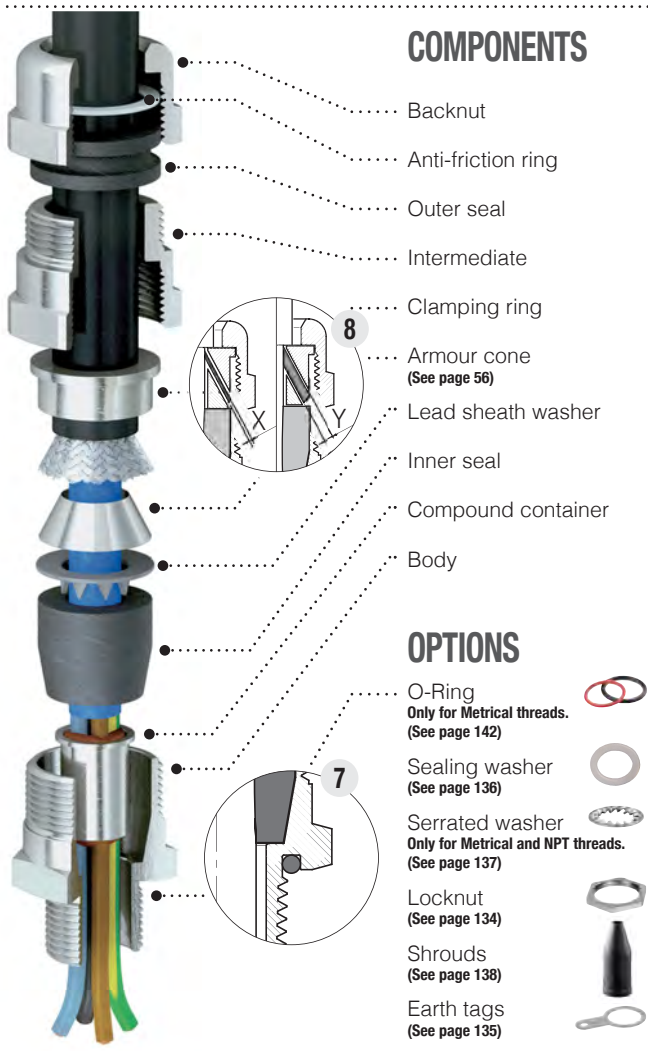
ISO 262 Metrical • ISO 228 • DIN 40430 Pg
 ANSI B1.20.1 NPT • EN 10226 Gk (only for ATEX)

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.



COMPONENTS

- Backnut
- Anti-friction ring
- Outer seal
- Intermediate
- Clamping ring
- Armor cone (See page 56)
- Lead sheath washer
- Inner seal
- Compound container
- Body

OPTIONS

- O-Ring (Only for Metrical threads. (See page 142))
- Sealing washer (See page 136)
- Serrated washer (Only for Metrical and NPT threads. (See page 137))
- Locknut (See page 134)
- Shrouds (See page 138)
- Earth tags (See page 135)

COMPOUND
 Application
 Mixing time
 Full cure time
 Installation

LIQUID

Gun
 -
 16 to 24 min at 24°C
 Vertical position

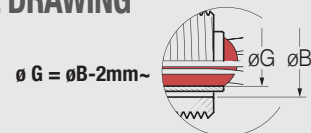
SOLID

By hand
 30 min
 4 hours
 Any Orientation

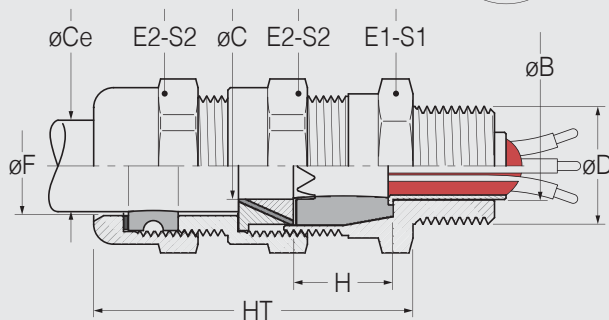
EXAMPLE CODE

See page 56

TECHNICAL DRAWING



0	1	2	3	3E	4	5	6	7	8
KIT.	BALD	25.	13.	24.	N25.	EP.	ON.	OR.	BS
Optional code	Type	Size	Ø C Max	Ø Ce Max	Ø D 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 57	EP-SI	OT-ON-S6 AL-AVP	O-Ring	Reduced cone



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

• 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 57)

* Standard cone X: Suitable for all approved armour cables except SWA cables ** 8 Reduced cone Y: Suitable for SWA cables (code: BS)