

# BACS type



**FLAMEPROOF EX D • INCREASED SAFETY EX E • FOR INDOOR & OUTDOOR APPLICATIONS**  
**FOR ARMoured CABLES • UNDER ARMOUR SHEATH SEALING**



## 1 Cable glands BACS type (code: BACS)

Flameproof Ex d Barrier Cable Glands sealed with sealing compound. The sealing ring blocks the cable on the diameter under armour. The cone rings grips and grounds the cable armour. The addition of female thread on the backnut allows the cable gland to be coupled to a conduit fitting. A backnut that is going to be screwed onto the body of the cable gland serves to block in position the intermediate body. 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  
 Type examination certificate: INERIS 17 ATEX 3009X (Ex nR IIC Gc)  
 IEC Ex: IEC Ex INE 10.0010X  
 EAC: RU C-IT.АЯ 45.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 cable ASA. Single wire braided cable SWB, Steel tape armoured 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**) • Nichel-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

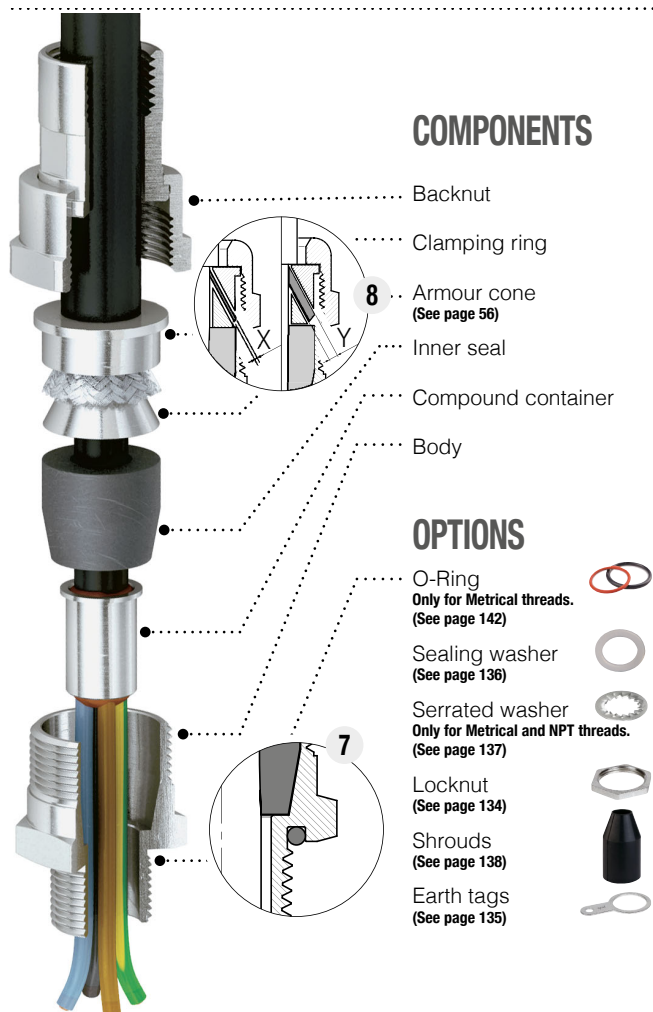
ANSI B1.20.1 NPT • EN 10226 Gk (only for ATEX)

### 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 conical 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
- Clamping ring
- 8 Armour cone (See page 56)
- Inner seal
- Compound container
- Body

## OPTIONS

- O-Ring (See page 142)
- Sealing washer (See page 136)
- Serrated washer (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

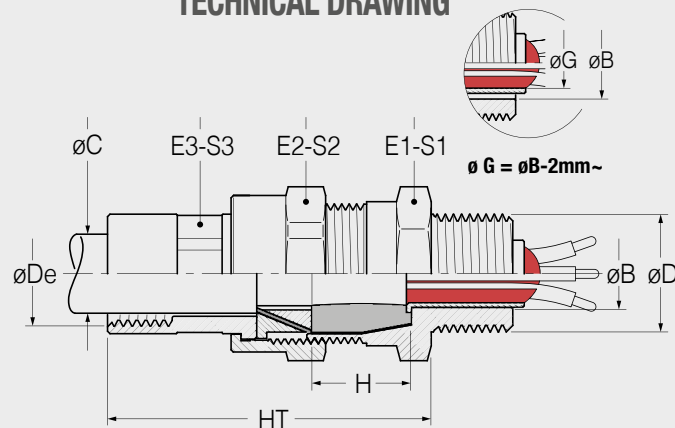
## EXAMPLE CODE

See page 56

0 1 2 3 4 4E 5 6 7 8

<b>KIT</b>	<b>BACS.</b>	<b>25.</b>	<b>13.</b>	<b>N25.</b>	<b>N25.</b>	<b>EP.</b>	<b>ON.</b>	<b>OR.</b>	<b>BS</b>
Optional code	Type	Size	Ø C Max	Thread code	Thread code	Seals material code	Material code	Optional code	Optional code
Kit series			Inner seal (10,5 ÷ 13)	See tab. page 57	See tab. page 57	EP-SI	OT-ON-S6 AL-AVP	O-Ring	Reduced cone

## TECHNICAL DRAWING



SIZE	Ø C Min - Max Inner seal	ARMOUR RANGE		Ø D - THREADS						Ø De - THREADS				DIMENSIONS										
		Standard cone X*	Reduced cone Y**	Cylindrical			Tapered			Cylindrical		Tapered		Weight	HT	H	E1	S1	E2	S2	E3	S3		
				ISO 262	ISO 228	DIN 40430	NPT	EN 10226	ISO 262	ISO 228	DIN 40430	NPT	EN 10226											
16 (EP)	4 ÷ 7 7 ÷ 10																							
16 (SI)	4 ÷ 6 6 ÷ 8 8 ÷ 10	0 ÷ 0,5	0,5 ÷ 0,75	M12x1,5 <b>M16x1,5</b> M20x1,5	1/4" <b>3/8"</b> 1/2"	Pg7 Pg9 <b>Pg11</b> Pg13,5	1/4" <b>3/8"</b> 1/2"	1/4" <b>3/8"</b> 1/2"		M16x1,5	<b>3/8"</b>	/	3/8"	/	119	62	20	24	26	24	26	17	18,5	
20	5,5 ÷ 8 8 ÷ 10,5 10,5 ÷ 13	0 ÷ 0,5	0,5 ÷ 1,25	M16x1,5 <b>M20x1,5</b> M25x1,5	1/2" <b>3/4"</b>	Pg11 <b>Pg13,5</b> Pg16	1/2" <b>3/4"</b>	1/2" <b>3/4"</b>		M20x1,5	<b>1/2"</b>	/	1/2"	/	197	65	20	30	33	32	35	22	23,5	
25	8 ÷ 10,5 10,5 ÷ 13 13 ÷ 15,5 15,5 ÷ 18	0 ÷ 0,5	0,5 ÷ 1,25	M20x1,5 <b>M25x1,5</b>	3/4" 1"	Pg16 Pg21	3/4" 1"	3/4" 1"		M25x1,5	<b>3/4"</b>	/	3/4"	/	250	67	20	35	38	36	39	27	29	
32	13 ÷ 15,5 15,5 ÷ 18 18 ÷ 21 21 ÷ 24	0 ÷ 1	1 ÷ 1,6	M25x1,5 <b>M32x1,5</b>	1"	Pg21 Pg29	1"	1"		M32x1,5	<b>1"</b>	/	1"	/	433	82	25	42	47	45	49	34	36	
40	21 ÷ 24 24 ÷ 27 27 ÷ 30	0 ÷ 1	1 ÷ 1,6	<b>M40x1,5</b>	<b>1" 1/4</b>	Pg29	<b>1" 1/4</b>	<b>1" 1/4</b>		M40x1,5	<b>1" 1/4</b>	/	1" 1/4	/	665	86	25	52	57,2	55	60	42	45	
50	24 ÷ 27 27 ÷ 30 30 ÷ 33 33 ÷ 36	0 ÷ 1	1 ÷ 2	M40x1,5 <b>M50x1,5</b>	<b>1" 1/2</b>	Pg36	<b>1" 1/2</b>	<b>1" 1/2</b>		M50x1,5	<b>1" 1/2</b>	/	1" 1/2	/	744	86	25	57	62	60	66	47	50,5	
63	36 ÷ 39 39 ÷ 42 42 ÷ 45	0 ÷ 1	1 ÷ 2	M50x1,5 <b>M63x1,5</b>	<b>2"</b>	Pg42 Pg48	<b>2"</b>	<b>2"</b>		M63 x 1,5	<b>2"</b>	/	2"	/	1083	89	25	70	77	73	80	59	62,5	
75	45 ÷ 48 48 ÷ 51 51 ÷ 54	0 ÷ 1	1 ÷ 2	M63x1,5 <b>M75x1,5</b>	<b>2" 1/2</b>	Pg48	<b>2" 1/2</b>	<b>2" 1/2</b>		M75x1,5	<b>2" 1/2</b>	/	2" 1/2	/	1927	89	25	88	96,8	92	100	74	78	
90a	54 ÷ 58 58 ÷ 62	0 ÷ 2	2 ÷ 2,5	M75x1,5 <b>M90x2</b>	<b>3"</b>	/	<b>3"</b>	<b>3"</b>		M90x2	<b>3"</b>	/	<b>3"</b>	/	3167	104	30	105	115,5	108	115,5	88	94	
90b	60 ÷ 64 64 ÷ 68														2986									

• Standard Threads in bold • Dimensions are in millimeters • Weight in grams (gr) of brass version

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