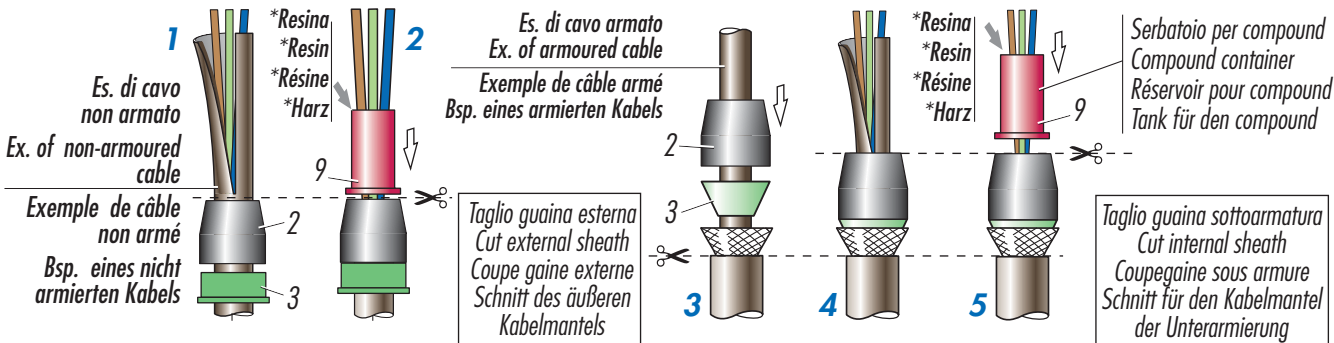


PER TUTTI I PRESSACAVI • FOR ALL CABLE GLANDS
POUR TOUTES LES PRESSE-ÉTOUPES • FÜR ALLE KABELVERSCHRAUBUNGEN

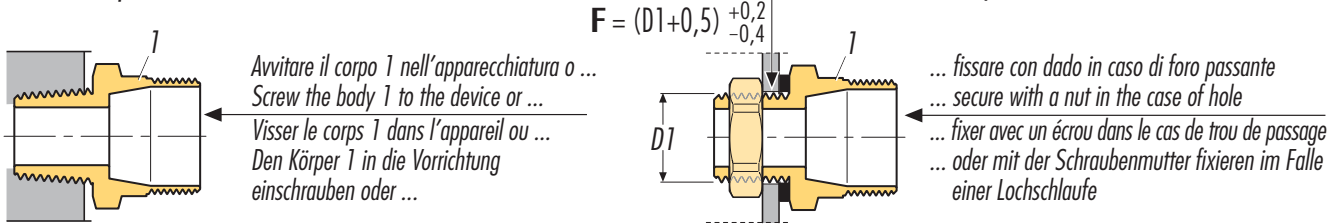
- Fase A** *Predisporre la parte terminale del cavo per l'ancoraggio con la resina prima dell'assemblaggio con il pressacavo, come segue:*
Phase A *Prepare the end section of the cable in order to be fastened with the resin before being assembled with the cable gland, as follows:*
Phase A *Préparer la partie finale du câble pour l'ancrage avec la résine avant l'assemblage avec le presse-étoupe comme suit:*
Phase A *Das Endteil des Kabels für das Ankeren mit dem Harz vor dem Zusammenbau mit der Kabelverschraubung vorbereiten, wie folgt:*



* Per la procedura di resinatura seguire le istruzioni allegate alla resina * For resin procedures, follow the instructions enclosed with the resin
 * Pour la préparation de la résine suivre les instructions jointes à la résine * Für die Prozedur der Harzung die beiliegenden Anleitungen des Harzes befolgen

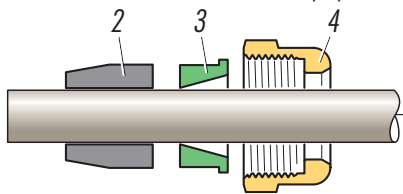
- Fase B** **ATTENZIONE** *Pressacavi in alluminio: prima di riassemblare pulire e ingrassare tutte le filettature.*
Phase B **WARNING** *Aluminium Cable Glands: before re-assembling, clean and lubricate all threads.*
Phase B **ATTENTION** *Presse-étoupes en aluminium: avant l'assemblage nettoyer et graisser tous les filetages.*
Phase B **ACHTUNG** *Bei Kabelverschraubungen in Aluminium vor dem Widerzusammenbau alle Gewinde reinigen und einfetten*

Per modo di protezione "d" o "e" • For "d" or "e" protection modes
 Pour mode de protection "d" ou "e" • Für den Schutzmodus "d" oder "e"

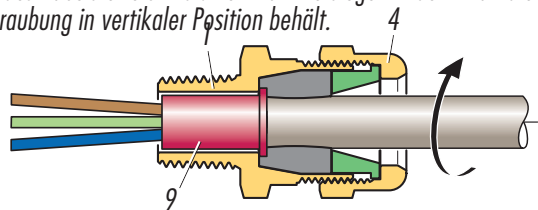


Per pressacavi serie BN - BNT - BNC - BNM • For BN - BNT - BNC - BNM series cable glands
Pour presse-étoupes séries BN - BNT - BNC - BNM • Für kabelverschraubungen serie BN - BNT - BNC - BNM
 • nell'esempio grafico è raffigurata la serie BN • the image represents the BN series • les schémas représentent la série BN • im Beispiel in der Grafik ist die Serie BN dargestellt

- 1°** *Inserire la parte terminale del cavo nei particolari 4, 3, 2.*
1° *Insert the end section of the cable to particulars 4, 3, 2.*
1° *Enfiler la partie finale du câble dans les pièces 4, 3, 2.*
1° *Das Endteil des Kabels in die Details 4, 3, 2 einführen.*



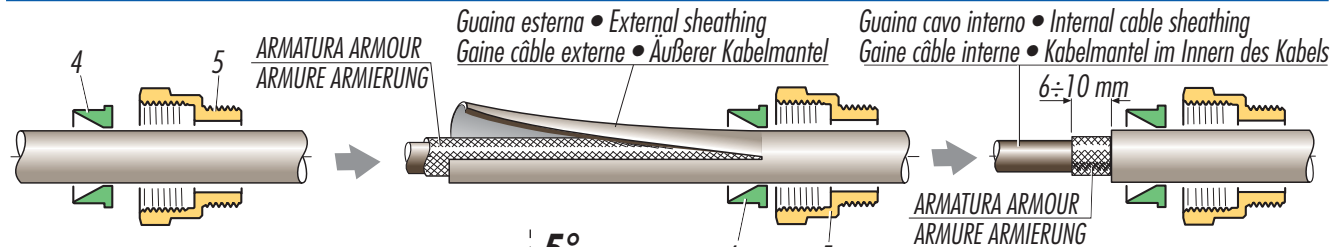
- 3°** *Avvitare la testina 4 sul corpo 1 e serrare fino al bloccaggio del cavo. Sigillare con la resina mantenendo il pressacavo in posizione verticale.*
3° *Screw the head 4 to the body 1 and tighten until locking the cable. Seal with the resin keeping the cable gland in a vertical position.*
3° *Visser la tête 4 sur le corps 1 et serrer jusqu'au blocage du câble. Seller avec de la résine en maintenant le presse-étoupe en position verticale.*
3° *Den Kopf 4 auf den Körper 1 einschrauben und zusammenpressen bis die Blockierung des Kabels erreicht ist. Den Harz versiegeln indem man die Kabelverschraubung in vertikaler Position behält.*



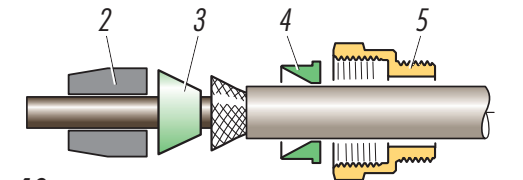
Segue fase B Follow phase B Suit phase B Folgt phase B

Per pressacavi serie BAT - BAC - BAM - BAS • For BAT - BAC - BAM - BAS series cable glands
Pour presse-étoupes séries BAT - BAC - BAM - BAS • Für kabelverschraubungen serie BAT - BAC - BAM - BAS
 • nell'esempio grafico è raffigurata la serie BAM • the image represents the BAM series • les schémas représentent la série BAM • im Beispiel in der Grafik ist die Serie BAM dargestellt

- 1°** *Inserire la parte terminale del cavo nei particolari 5 e 4 (sopra l'armatura).*
1° *Insert the end section of the cable to particulars 5 and 4 (above armour).*
1° *Enfiler la partie finale du câble dans les pièces 5 et 4 (sur l'armure).*
1° *Das Endteil des Körpers in die Details 5 und 4 einführen (über der Armierung).*
- 2°** *Rimuovere la guaina esterna del cavo e tagliare l'armatura per una lunghezza di 6-10 mm oltre il taglio della guaina.*
2° *Remove the cable's external sheathing and cut the armour to a length of 6-10 mm in addition to the cut sheathing.*
2° *Enlever la gaine externe du câble et couper l'armure sur une longueur de 6-10mm au-delà de la coupure de la gaine.*
2° *Den äußeren Kabelmantel des Kabels entfernen und die Armierung auf eine Länge von 6-10 mm schneiden über den Schnitt des Kabelmantels hinaus.*



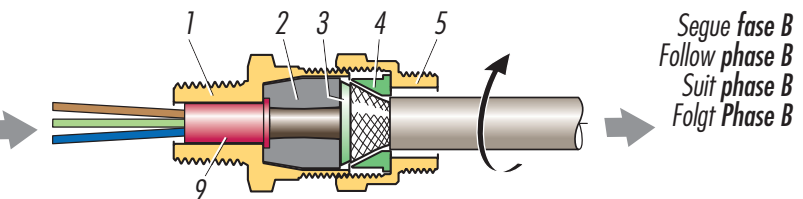
3° Inserire i particolari 3 e 2 sul cavo sottoarmatura.
Insert the particulars 3 and 2 to the cable's internal sheathing.
Placer les pièces 3 et 2 sur le câble sous armure.
Die Details 3 und 2 in das Kabel der Unterarmierung einführen.



5° Avvitare la testina 5 sul corpo 1 e serrare fino al bloccaggio dell'armatura tra i particolari 3 e 4 e del cavo tramite il gommino 2. Sigillare con la resina mantenendo il pressacavo in posizione verticale.
Screw the head 5 to the body 1 and tighten until locking the armour between particulars 3 and 4 and the cable with rubber seal 2. Seal with the resin keeping the cable gland in a vertical position.
Visser la tête 5 sur le corps 1 et serrer jusqu'au blocage de l'armure entre les pièces 3 et 4 et du câble avec le caoutchouc 2. Seller avec de la résine en maintenant le presse-étoupe en position verticale.
Den Kopf 5 auf den Körper 1 einschrauben und zusammenpressen bis die Blockierung der Armierung zwischen den Details 3 und 4 und dem Kabel erreicht ist mittels Gummistöpsel 2. Versiegelung mit dem Harz indem man die Kabelverschraubung in vertikaler Position behält.

4° Fase A • Phase A

Tagliare la guaina del cavo sottoarmatura e inserire il particolare 9.
Cut the cable's internal sheathing and insert to particular 9.
Couper la gaine du câble sous armure et enfiler la pièce 9.
Den Kabelmantel des Kabels der Unterarmierung schneiden und in das Detail 9 einführen.



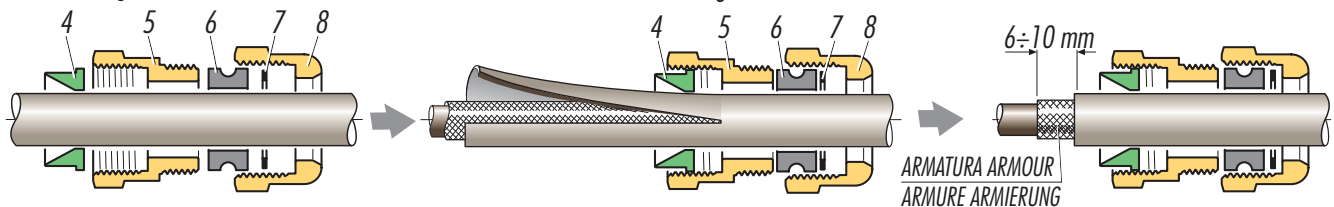
Segue fase B
Follow phase B
Suit phase B
Folgt Phase B

Per pressacavi serie BAD - BALD - BATD • For BAD - BALD - BATD series cable glands
Pour presse-étoupes séries BAD - BALD - BATD • Für kabelverschraubungen serie BAD - BALD - BATD

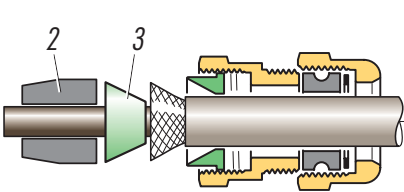
• nell'esempio grafico è raffigurata la serie BAD • the image represents the BAD series • les schémas représentent la série BAD • im Beispiel in der Grafik ist die Serie BAD dargestellt

1° Inserire la parte terminale del cavo nei particolari 8, 7, 6, 5 e 4 (sopra l'armatura).
Insert the end section of the cable to the particulars 8, 7, 6, 5 and 4 (above armour).
Placer la partie finale du câble dans les pièces 8, 7, 6, 5 et 4 (sur l'armure).
Das Endteil des Kabels in die Details 8, 7, 6, 5, und 4 einführen (über der Armierung).

2° Rimuovere la guaina esterna del cavo e tagliare l'armatura per una lunghezza di 6-10 mm oltre il taglio della guaina.
Remove the cable's external sheathing and cut the armour to a length of 6-10 mm in addition to the cut sheathing.
Enlever la gaine externe du câble et couper l'armure sur une longueur de 6-10mm au-delà la coupure de la gaine.
Den äußeren Kabelmantel des Kabels entfernen und die Armierung auf eine Länge von 6-10 mm schneiden über den Schnitt des Kabelmantels hinaus.

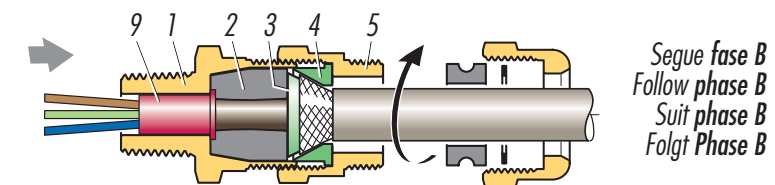


3° Inserire i particolari 3 e 2 sul cavo sottoarmatura.
Insert the particulars 3 and 2 to the cable's.
Placer les pièces 3 et 2 sur le câble sous armure.
Die Details 3 und 2 auf das Kabel der Unterarmierung einführen.



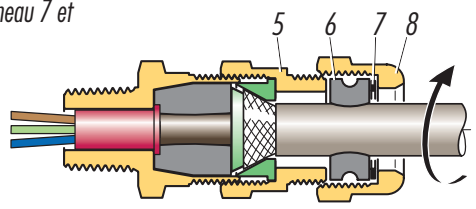
4° Fase A • Phase A
Tagliare la guaina del cavo sottoarmatura e inserire il particolare 9.
Cut the cable's internal sheathing and insert to particular 9.
Couper la gaine du câble sous armure et enfiler la pièce 9.
Den Kabelmantel des Kabels der Unterarmierung schneiden und in das Detail 9 einführen.

5° Avvitare la testina 5 sul corpo 1 e serrare fino al bloccaggio dell'armatura tra i particolari 3 e 4 e del cavo tramite il gommino 2. Sigillare con la resina mantenendo il pressacavo in posizione verticale.
Screw the head 5 to the body 1 and tighten until locking the armour between particulars 3 and 4 and the cable with rubber seal 2. Seal with the resin keeping the cable gland in a vertical position.
Visser la tête 5 sur le corps 1 et serrer jusqu'au blocage de l'armure entre les pièces 3 et 4 et le câble avec le caoutchouc 2. Seller avec de la résine en maintenant le presse-étoupe en position verticale.
Den Kopf 5 auf den Körper 1 einschrauben und zusammenpressen bis die Blockierung der Armierung zwischen den Details 3 und 4 und dem Kabel erreicht ist mittels Gummistöpsel 2. Versiegelung mit dem Harz indem man die Kabelverschraubung in vertikaler Position behält



Segue fase B
Follow phase B
Suit phase B
Folgt Phase B

6° Posizionare il gommino esterno 6, l'anello 7 ed avvitare la testina 8 sull'intermedio 5 fino al bloccaggio.
Position the external rubber seal 6, ring 7 and screw the head 8 to the middle 5 until locked.
Placer le caoutchouc externe 6, l'anneau 7 et visser la tête 8 sur l'intermédiaire 5 jusqu'au blocage.
Den äußeren Gummistöpsel 6 positionieren, den Ring 7 und den Kopf 8 auf das Zwischenstück 5 bis zur Blockierung einschrauben.



EQUIPMENT SERIES

Cable gland series: BN, BNT, BAT, BNC, BNM, BAC, BAM, BAS, BAD, BALD, BATD; ATEX Certificate: INERIS 06 ATEX0014X, IEC Ex Certificate: INE 10.0010X.
 • Cable glands and accessories for the above-mentioned series are suitable for unarmored or armored cables, flat twin cables or tape and for all of the cable entries a part of the electrical equipments of groups I and II, category M2 or II 2 GD (ATEX Directive), with protection modes Ex e I, Ex d I, Ex d IIA/IIB/IIC, Ex e II and Ex tb IIC Db (ATEX Directive and IEC Ex Scheme); ambient temperature range: see chart below. Such cable glands are suitable for the use of Ex d IIC enclosures with volumes higher 2 dm³.
 • Ex d IIC / Ex e II / Ex tb IIC Db / Ex d I / Ex e I execution in accordance with Standards EN 60079-0:2009 / EN 60079-1:2007 / EN60079-7:2007 / EN60079-31:2009 / EN60529:1991 (ATEX), IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-7:2006, IEC 60079-31:2008, IEC 60529:2001 (IEC Ex).
 • The cable glands degree of protection is IP66 or IP66/68, 30 meters deep 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 50262 Standard.

Cable Glands Series	Temperature	Rubber Material	Resin Type
R	-40°C ≤ T _a ≤ +100°C	EPDM	-
R	-65°C ≤ T _a ≤ +220°C	Silicone	-
B	-40°C ≤ T _a ≤ +100°C	EPDM	CW5631+HY5610
B	-65°C ≤ T _a ≤ +155°C	Silicone	CW5631+HY5610
B	-40°C ≤ T _a ≤ +100°C	EPDM	CW1302+HY1300
B	-65°C ≤ T _a ≤ +180°C	Silicone	CW1302+HY1300
B	-65°C ≤ T _a ≤ +200°C	Silicone	MM4400+CAT4400
B	-40°C ≤ T _a ≤ +100°C	EPDM	RCN EPR+EPH
B	-60°C ≤ T _a ≤ +150°C	Silicone	RCN EPR+EPH

INSTALLATION

• These products must be installed according to the requirements of Standards IEC EN 60079-14 or other national laws or standards. The CE type certificate does not cover uses different from what is described in the requirements.
 • Verify the suitability of the cable glands in respects to the installation zone, group, category, temperature class, gas group and ambient temperatures.
 • User must be aware of the risks related to electrical current and chemical / physical characteristics of the gases and / or vapors and dusts present in the plant.
 • Assembly and tightening of the cable glands have not to compromise the degree of protection.
 • Verify the integrity and the continuity of the earthing, protection and equipotential conductors.
 On Ex d enclosures, the length of the engaged parallel threads must be ≥ 5 mm on enclosures with a volume < 100 cm³, and ≥ 8 mm if the volume is > 100 cm³. Engaged threads must be ≥ 5. On conical threaded joints, the threads for each part must be ≥ 6, considering the maximum tolerance accepted, the real number of engaged threads, might be less than 5. Check the cable diameter range printed onto the rubber seal, and choose the suitable cable.

SPECIAL CONDITIONS FOR SAFE USE

• The cable glands and rubber seals must be suitable for installed cables diameter, sized according to the nominal current intensity allowed in the electrical circuits.
 • In accordance to the certificate's descriptive documentation, the clamping of the cables, for the cable entries size 63 and higher must be realized outside of the enclosure, nearby to the enclosure on which the cable glands are installed.

MARKING

RCN (Type) (Thread) Ex d I / Ex e I Mb / Ex d IIC / Ex e IIC Gb / Ex tb IIC Db
 IP66/68 CE 0080 INERIS IEC Ex INE 10.0010X-06ATEX0014X IM2/II2GD

REDUCED MARKING

RCN (Type) (Thread) IEC Ex INE 10.0010X Ex e/d I Mb IIC Gb Ex tb IIC Db
 IP66/68 CE 0080 INERIS 06ATEX0014X IM2/II2GD

Trademark

Protection mode

- Ex
- Ex d IIC / Ex e IIC (gas)
- Ex d I / Ex e I (mine)
- Ex tb IIC (dust)
- Mb (mine)
- Gb (gas - zone 1)
- Db (combustible dust- zone 21)
- IP 66 or IP 66/68
- IEC Ex INE 10.0010X
- INERIS 06ATEX0014X

*Only for ATEX

The gas conical threads Gk/ISO 10226 are valid only for ATEX certificate

EPL

(Equipment protection level)

Degree of Protection

IEC Ex Certificate

ATEX Certificate

IEC EN 60079-0				Directive 94/9/EC				
EPL	Group	Equipment Group	Equipment Category	Zones				
Ma	I	I	M1	NA				
Mb	I	I	M2	NA				
Ga	II	II	1G	0				
Gb	II	II	2G	1				
Gc	II	II	3G	2				
Da	III	II	1D	20				
Db	III	II	2D	21				
Dc	III	II	3D	22				

TABLE of STANDARD SCREW-THREADS - IDENTIFYING ABBREVIATIONS • TABLE of STANDARD SCREW-THREADS - IDENTIFYING ABBREVIATIONS

ISO 262-M	M12x1,5	I12	M16x1,5	I16	M20x1,5	I20	M25x1,5	I25	M32x1,5	I32	M40x1,5	I40	M50x1,5	I50	M63x1,5	I63	M75x1,5	I75	M80x2	I80	M85x2	I85	M90x2	I90
ISO 228-G	G1/4	B12	G3/8	B16	G1/2	B20	G3/4	B25	G1"	B32	G1 1/4	B40	G1 1/2	B50	G2"	B63	G2 1/2	B75	-	-	-	-	G3"	B90
DIN 40430-Pg	Pg7	P12	Pg9	P16	Pg11	P20	Pg13,5	P25	Pg16	P32	Pg21	P40	Pg29	P50	Pg36	P63	Pg42	P75	-	-	-	-	Pg48	P90
ANSI B1.20.1-NPT	1/4 NPT	N12	3/8 NPT	N16	1/2 NPT	N20	3/4 NPT	N25	1" NPT	N32	1 1/4 NPT	N40	1 1/2 NPT	N50	2" NPT	N63	2 1/2 NPT	N75	-	-	-	-	3" NPT	N90
*Gk	-	-	-	-	Gk1/2	U20	Gk3/4	U25	Gk1"	U32	Gk1 1/4	U40	Gk1 1/2	U50	Gk2"	U63	Gk2 1/2	U75	-	-	-	-	Gk3"	U90
*ISO 10226	R1/4	R12	R3/8	R16	R1/2	R20	R3/4	R25	R1"	R32	R1 1/4	R40	R1 1/2	R50	R2"	R63	R2 1/2	R75	-	-	-	-	R3"	R90

MAINTENANCE

Maintenance works must be entrusted to staff-members properly qualified and instructed on the specific characteristics of the equipment, in accordance to IEC EN60079-17 standards.

I, the undersigned, hereby declare that the equipment referred to herein conforms to 94/9/EC directive.

Giulio Tinti Giulio Tinti - Technical Manager (ATEX Authorized Person)