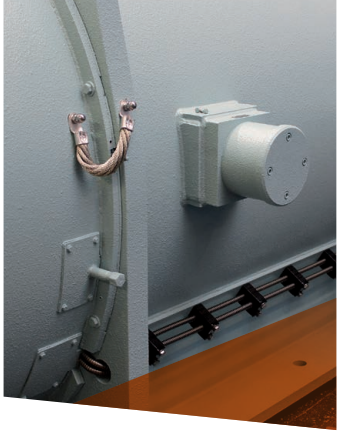
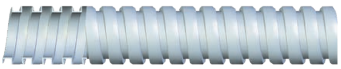
Anaconda Multiflex Schutzschlauch



TYP SLI



FLEXIBEL UND EXTRA KORROSIONSBESTÄNDIG

Der SLI ist aus Edelstahl hergestellt und wird verwendet wenn ein chemischer und mechanischer Schutz gefordert wird, er ist aber nicht flüssigkeitsdicht. Das Anwendungsgebiet sind die Stahlwerke, Aluminium-Giessereien, Marine und Schiffsbauindustrie.

Material und Konstruktion:

Konstruktion: Edelstahlband (AISI-304), Einhakprofil.

Temperaturbereich: -100 °C bis + 600 °C.

Farbe: Metallisch glänzend.

Klassifizierung, nach NEN-EN-IEC 61386:

Druckfestigkeit: Klasse 4, Schwer (1250 N).

Schlagfestigkeit: Klasse 4, Schwer (6 J).

Zugfestigkeit: Klasse 4, Schwer (1000 N).

Schutzklasse: IP 40.

RoHS GOST-R

Einhakprofil

SLI	DURCHMESSER		BIEGERADIUS (CL)		KLEINE KARTONROLLE		STANDARD KARTONROLLE		SPEZIELLE KARTONROLLE		GEWICHT
NW (Zoll)	Innen (mm)	Außen (mm)	Statisch (mm)	Dynamisch (mm)	Meter	Artikel Nr.	Meter	Artikel Nr.	Meter	Artikel Nr.	(kg/m)
5/16"	10,1	12,8	50	65	30	600.010.2	-	-	-	-	0,15
3/8"	12,6	15,5	60	85	30	600.012.2	-	-	-	-	0.24
1/2"	16	18,9	75	110	30	600.016.2	-	-	-	-	0.26
3/4"	21	23,9	90	140	30	600.020.2	-	-	-	-	0.41
1"	26,5	30	120	170	30	600.026.2	-	-	-	-	0.55
1.1/4"	35,1	38,7	135	215	30	600.035.2	-	-	-	-	0.63

* Für die Nennweiten 1.1/2" und größer liefern wir den UI Agraffschlauch (siehe Seite 1 - 30).

Die dazu gehörenden Verschraubungen für Multiflex SLI finden Sie auf den Seiten 1 - 13 bis 1 - 18

MULTIFLEX	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ISO	M12 - M16	M16 - M20	M16 - M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
PG	7	09 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

Compact Verschraubung SL / SLI, IP 40, Messing-vernickelt

MESSING VERNICKELTE ANACONDA COMPACT VERSCHRAUBUNGEN FÜR MULTIFLEX SL / SLI

Diese Compacten Anaconda Verschraubungen sind Universal Verschraubungen die eine gute Korrisionsbeständigkeit und eine hochwertige Oberfläche haben. Bei der Verwendung der Standard-Einschraubhülse mit einem geschlitzen Klemmring, ergibt sich eine äußerst ausreißfeste Verbindung. Neben der normalen geraden Verschraubung, liefern wir ebenso 90° Verschraubungen. Den passenden Klemmring gibt es einzeln oder in der Standard Verpackung.

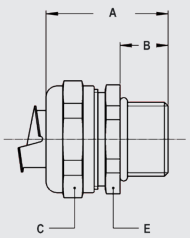
Material und Konstruktion:

Konstruktion: Messing vernickelte Verschraubungen, bestehend aus 4 Teilen (Gehäuse, Einschraubhülse, Metall-Klemmring und Überwurfmutter).
Material: Gehäuse, Klemmring und Überwurfmutter sind Messing vernickelt. Der Einschraubhülse ist aus Verzinktem Stahl. Der O-Ring ist aus NBR Gummi (schwarz für ISO und blau für PG).
Temperaturbereich: -55 °C bis +260 °C Dauertemperatur.
Schutzklasse: IP 40.
Farbe: Metallisch glänzend.

Klemmring, Messing-vernickelt, zur Kombination mit Multiflex Typ SL / SLI

GEWINDE	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	VERSCHRAUBUNGS-GEWINDE			STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			ISO	Pg	NPT			
-	5/16"	-	M16 x 1,5	Pg 9	1/2" NPT	10	817.210.6	0,6
-	3/8"	-	M16 x 1,5	Pg 11	1/2" NPT	10	817.213.6	0,6
-	1/2"	-	M20 x 1,5	Pg 16	1/2" NPT	10	817.216.6	0,6
-	3/4"	-	M25 x 1,5	Pg 21	3/4" NPT	5	817.220.6	1
-	1"	-	M32 x 1,5	Pg 29	1" NPT	5	817.226.6	1,2
-	1.1/4"	-	M40 x 1,5	Pg 36	1.1/4" NPT	2	817.235.6	2

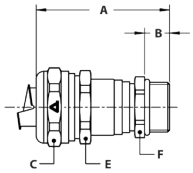
Die oben genannte SL und SLI Klemmringe können mit allen Compact Verschraubungen, wie in Kapitel 5 beschrieben, verwendet werden.



ISO gerade Compact Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

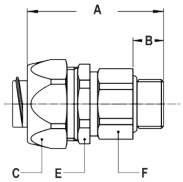
GEWINDE ISO	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
M16 x 1,5	5/16"	8,3	31	10	26	-	24	10	712.015.6	6,1
M20 x 1,5	5/16"	8,3	31	10	26	-	24	10	712.014.6	6,2
M16 x 1,5	3/8"	11	31	10	26	-	24	10	712.016.6	4,5
M20 x 1,5	3/8"	11	31	10	26	-	24	10	712.017.6	4,6
M20 x 1,5	1/2"	14,5	32	10	29	-	27	10	712.020.6	5
M25 x 1,5	3/4"	19,4	33	10	35	-	33	5	712.025.6	7,6
M32 x 1,5	1"	24,7	36	12	45	-	42	5	712.032.6	12,9
M40 x 1,5	1.1/4"	33,3	40	13	53	-	50	2	712.040.6	18

COMPACT VERSCHRAUBUNG SL / SLI, IP 40, MESSING-VERNICKELT



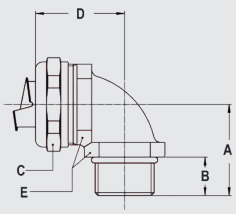
ISO gerade Kabel-Schlauch-Verschraubung, Compact, zweifach Dichtung nach EN45545-2, HL1 / HL2 / HL3, Tabel R22 und R23 (einschl. Klemmring)

GEWINDE ISO	SL / SLI NW (ZOLL)	KLEMM-BEREICH (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	E	F			
M16 x 1,5	5/16"	4,0 - 8,3	50	10	26	24	18	10	712.715.6	9
M20 x 1,5	5/16"	4,0 - 8,3	50	10	26	24	22	10	712.714.6	9,6
M16 x 1,5	3/8"	4,0 - 9,5	50	10	26	24	18	10	712.716.6	7,4
M20 x 1,5	3/8"	4,0 - 9,5	50	10	26	24	22	10	712.717.6	8
M20 x 1,5	1/2"	6,0 - 13,0	53	10	29	27	22	10	712.720.6	8,2
M25 x 1,5	1/2"	6,0 - 13,0	54	10	29	27	27	5	712.722.6	9,6
M25 x 1,5	3/4"	11,0 - 18,0	56	10	35	33	27	5	712.725.6	12,7
M32 x 1,5	3/4"	11,0 - 18,0	58	12	35	33	35	5	712.728.6	16
M32 x 1,5	1"	16,0 - 24,7	61	12	45	42	35	5	712.732.6	21,5
M40 x 1,5	1"	16,0 - 24,7	63	13	45	42	43	2	712.735.6	25,7
M40 x 1,5	1.1/4"	22,0 - 32,0	69	13	53	50	43	2	712.740.6	30,6



ISO drehbare, gerade Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

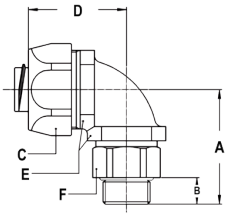
GEWINDE ISO	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	E	F			
M16 x 1,5	5/16"	8,3	48	10	26	24	21	10	813.015.6	10,3
M16 x 1,5	3/8"	10,4	48	10	26	24	21	10	813.016.6	8,7
M20 x 1,5	1/2"	13,9	49	10	29	27	25	10	813.020.6	10,8
M25 x 1,5	3/4"	17,4	49	10	35	33	31	5	813.025.6	14,8
M32 x 1,5	1"	23,4	55	12	45	42	38	5	813.032.6	33,7
M40 x 1,5	1.1/4"	29,4	58	14	54	50	48	2	813.040.6	55



ISO 90° Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

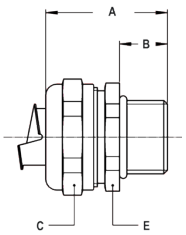
GEWINDE ISO	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
M16 x 1,5	5/16"	8,3	26	10	26	31	22	10	712.915.6	8,8
M20 x 1,5	5/16"	8,3	26	10	26	32	24	10	712.914.6	10,1
M16 x 1,5	3/8"	11	26	10	26	31	22	10	712.916.6	7,2
M20 x 1,5	3/8"	11	26	10	26	32	24	10	712.917.6	8,5
M20 x 1,5	1/2"	14,5	28	10	29	34	27	10	712.920.6	9,8
M25 x 1,5	3/4"	19,4	32	10	35	40	33	5	712.925.6	17,2
M32 x 1,5	1"	24,7	40	12	45	49	42	5	712.932.6	29
M40 x 1,5	1.1/4"	33,3	46	13	53	53	52	2	712.940.6	42,1

COMPACT VERSCHRAUBUNG SL / SLI, IP 40, MESSING-VERNICKELT



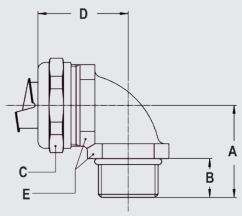
ISO drehbare, 90° Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

GEWINDE ISO	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM						STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E	F			
M16 x 1,5	5/16"	8,3	39	10	26	35	22	21	10	813.915.6	13
M16 x 1,5	3/8"	10,4	39	10	26	35	22	21	10	813.916.6	11,4
M20 x 1,5	1/2"	13,9	39	10	29	37	27	25	10	813.920.6	13,8
M25 x 1,5	3/4"	17,4	46	10	35	44	33	31	5	813.925.6	23,8
M32 x 1,5	1"	23,4	55	12	45	55	42	38	5	813.932.6	42,6



Pg gerade Compact Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

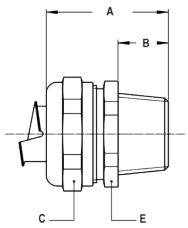
GEWINDE PG	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
Pg 11	5/16"	8,3	31	10	26	-	24	10	710.012.6	6,2
Pg 13,5	5/16"	8,3	31	10	26	-	24	10	710.014.6	6,4
Pg 11	3/8"	11	31	10	26	-	24	10	710.011.6	4,6
Pg 13,5	3/8"	11	31	10	26	-	24	10	710.013.6	4,8
Pg 16	1/2"	14,5	32	10	29	-	27	10	710.016.6	5,1
Pg 21	3/4"	19,4	33	10	35	-	33	5	710.021.6	7,5
Pg 29	1"	24,7	36	12	45	-	44	5	710.029.6	13,4
Pg 36	1.1/4"	33,3	40	13	53	-	52	2	710.036.6	18,4



Pg 90° Compact Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

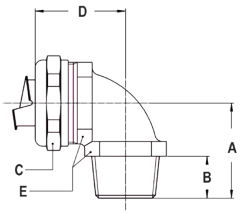
GEWINDE PG	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
Pg 11	5/16"	8,3	26	10	26	32	24	10	710.912.6	9,9
Pg 13,5	5/16"	8,3	26	10	26	32	24	10	710.914.6	10,2
Pg 11	3/8"	11	26	10	26	32	24	10	710.911.6	8,3
Pg 13,5	3/8"	11	26	10	26	32	24	10	710.913.6	8,6
Pg 16	1/2"	14,5	28	10	29	34	27	10	710.916.6	9,8
Pg 21	3/4"	19,4	32	10	35	40	33	5	710.921.6	16,7
Pg 29	1"	24,7	40	12	45	49	42	5	710.929.6	29,8
Pg 36	1.1/4"	33,3	46	13	53	53	52	2	710.936.6	42,1

COMPACT VERSCHRAUBUNG SL / SLI, IP 40, MESSING-VERNICKELT



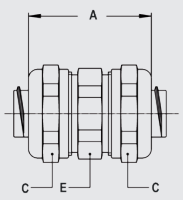
NPT gerade Compact Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

GEWINDE NPT	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
NPT 1/2"	3/8"	11	35	14	26	-	24	10	714.012.6	5,4
NPT 1/2"	1/2"	14,5	36	14	29	-	27	10	714.016.6	5,6
NPT 3/4"	3/4"	19,4	37	14	35	-	33	5	714.020.6	8
NPT 1"	1"	24,7	40	16	45	-	42	5	714.026.6	13,8
NPT 1.1/4"	1.1/4"	33,3	43	16	53	-	50	2	714.035.6	18,8



NPT 90° Compact Verschraubung, Aussengewinde, Messing-vernickelt (einschl. Klemmring)

GEWINDE NPT	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
NPT 1/2"	3/8"	11	30	14	26	32	24	10	714.912.6	8,8
NPT 1/2"	1/2"	14,5	32	14	29	34	27	10	714.916.6	10,2
NPT 3/4"	3/4"	19,4	36	14	35	40	33	5	714.920.6	17,7
NPT 1"	1"	24,7	44	16	45	49	42	5	714.926.6	29,5
NPT 1.1/4"	1.1/4"	33,3	49	16	53	53	52	2	714.935.6	43,4



Schlauchverbinder gerade Compact, Messing-vernickelt (einschl. Klemmring)

SL / SLI NW (ZOLL)	SL / SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
5/16"	5/16"	8,3	41	-	26	-	24	10	784.010.6	11,8
3/8"	3/8"	10,4	41	-	26	-	24	10	784.012.6	8,6
1/2"	1/2"	13,9	45	-	29	-	24	10	784.016.6	10
3/4"	3/4"	18,5	48	-	35	-	33	5	784.020.6	15
1"	1"	23,8	53	-	45	-	44	5	784.026.6	27,6
1.1/4"	1.1/4"	31,9	58	-	53	-	50	2	784.035.6	36,6

Compact Verschraubung SLI, IP 40, Edelstahl AISI-304

COMPACT EDELSTAHL AISI-304 (V2A) VERSCHRAUBUNGEN FÜR MULTIFLEX SLI

Die Edelstahl AISI-304 (V2A) Anaconda Compact Verschraubungen können bei allen Anaconda Multiflex Typen (ausgenommen RWA) verwendet werden. Diese Anaconda Verschraubungen sind die meist benutzten Universal Verschraubungen die eine hohe Korrosionsbeständigkeit und eine hochwertige Oberfläche haben. Bei der Verwendung des SLI Klemmrings, ergibt sich eine äußerst ausreißfeste Verbindung.

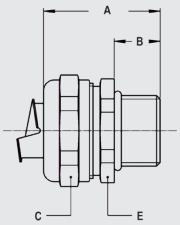
Material und Konstruktion:

Konstruktion: Edelstahl Verschraubungen, bestehend aus 4 Teilen (Gehäuse, Einschraubhülse, Klemmring und Überwurfmutter).
Material: Gehäuse, Überwurfmutter und Einschraubhülse sind Edelstahl AISI-304. Der spezielle Klemmring ist Messing-vernickelt.
Der O-Ring ist aus NBR Gummi (schwarz für ISO und blau für Pg).
Temperaturbereich: -55 °C bis +260 °C Dauertemperatur.
Schutzklasse: IP 40.
Farbe: Metallisch glänzend.

Klemmring, Messing-vernickelt, zur Kombination mit Multiflex Typ SLI

GEWINDE	SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	VERSCHRAUBUNGS-GEWINDE			STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			ISO	Pg	NPT			
-	3/8"	-	M16 x 1,5	Pg 11	1/2" NPT	10	817.213.6	0,6
-	1/2"	-	M20 x 1,5	Pg 16	1/2" NPT	10	817.216.6	0,6
-	3/4"	-	M25 x 1,5	Pg 21	3/4" NPT	5	817.220.6	1
-	1"	-	M32 x 1,5	Pg 29	1" NPT	5	817.226.6	1,2
-	1.1/4"	-	M40 x 1,5	Pg 36	1.1/4" NPT	2	817.235.6	2

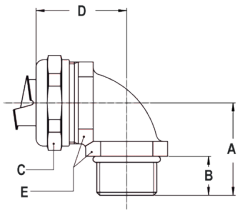
Der oben genannte SLI Klemmring kann mit allen Compact Verschraubungen, wie in Kapitel 5 beschrieben, verwendet werden.



ISO gerade Compact Verschraubung, Aussengewinde, Edelstahl AISI-304 (einschl. Klemmring)

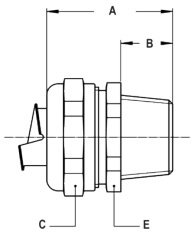
GEWINDE ISO	SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
M16 x 1,5	3/8"	11	31	10	26	-	24	10	712.016.96	4,5
M20 x 1,5	3/8"	11	31	10	26	-	24	10	712.017.96	4,6
M20 x 1,5	1/2"	14,5	32	10	29	-	27	10	712.020.96	5
M25 x 1,5	3/4"	19,4	33	10	35	-	33	5	712.025.96	7,6
M32 x 1,5	1"	24,7	36	12	45	-	42	5	712.032.96	12,9
M40 x 1,5	1.1/4"	33,3	40	13	53	-	50	2	712.040.96	18
M32 x 1,5	1"	24,7	36	12	45	-	42	5	712.032.96	12,9
M40 x 1,5	1.1/4"	33,3	40	13	53	-	50	2	712.040.96	18

COMPACT VERSCHRAUBUNG SLI, IP 40, EDELSTAHL AISI-304



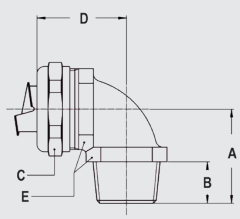
ISO 90° Compact Verschraubung, Aussengewinde, Edelstahl AISI-304 (einschl. Klemmring)

GEWINDE ISO	SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
M16 x 1,5	3/8"	11,0	26	10	26	31	22	10	712.916.96	7,2
M20 x 1,5	3/8"	11,0	26	10	26	32	24	10	712.917.96	8,5
M20 x 1,5	1/2"	14,5	28	10	29	34	27	10	712.920.96	9,8
M25 x 1,5	3/4"	19,4	32	10	35	40	33	5	712.925.96	17,2
M32 x 1,5	1"	24,7	40	12	45	49	42	5	712.932.96	29,0
M40 x 1,5	1.1/4"	33,3	46	13	53	53	52	2	712.940.96	42,1



NPT gerade Compact Verschraubung, Aussengewinde, Edelstahl AISI-304 (einschl. Klemmring)

GEWINDE NPT	SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
NPT 1/2"	3/8"	11,0	35	14	26	-	24	10	714.012.96	5,0
NPT 1/2"	1/2"	14,5	36	14	29	-	27	10	714.016.96	5,6
NPT 3/4"	3/4"	19,4	37	14	35	-	33	5	714.020.96	8,0
NPT 1"	1"	24,7	40	16	45	-	42	5	714.026.96	13,8
NPT 1.1/4"	1.1/4"	33,3	43	16	53	-	50	2	714.035.96	18,8



NPT 90° Compact Verschraubung, Aussengewinde, Edelstahl AISI-304 (einschl. Klemmring)

GEWINDE NPT	SLI NW (ZOLL)	MIN. INNEN DURCHM. (MM)	ABMESSUNGEN IN MM					STANDARD VERPACK.	ARTIKEL NUMMER	GEWICHT (KG/100)
			A	B	C	D	E			
NPT 1/2"	3/8"	11,0	30	14	26	32	24	10	714.912.96	8,8
NPT 1/2"	1/2"	14,5	32	14	29	34	27	10	714.916.96	10,2
NPT 3/4"	3/4"	19,4	36	14	35	40	33	5	714.920.96	17,7
NPT 1"	1"	24,7	44	16	45	49	42	5	714.926.96	29,5
NPT 1.1/4"	1.1/4"	33,3	49	16	53	53	52	2	714.935.96	43,4

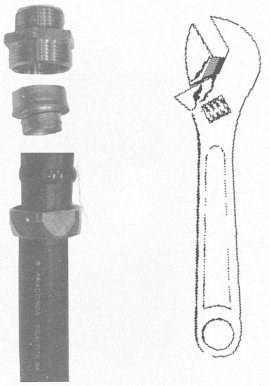
ANACONDA SEALTITE

GUAINE FLESSIBILI PER LA PROTEZIONE DI CAVI ELETTRICI
TUBOS DE PROTECCION FLEXIBLES PARA CABLES ELECTRICOS
GAINES FLEXIBLES POUR CABLES ELECTRIQUES

ISTRUZIONI PER IL MONTAGGIO DEI RACCORDI

INSTRUCCIONES DE MONTAJE

INSTRUCTIONS POUR LE MONTAGE DES RACCORDS



OSSERVARE ATTENTAMENTE LE ISTRUZIONI PER OTTENERE UNA OTTIMALE TENUTA STAGNA DELLA CONNESSIONE RACCORDO-GUAINA

Tagliare in modo netto la guaina SEALTITE con una sega per metalli, evitando la formazione di superfici sporgenti. **Sega da taglio manuale:** i risultati migliori si ottengono con lame da 32 denti per pollice. **Sega elettrica a nastro:** i risultati migliori si ottengono con lame da 13x0,6 mm con 24 denti per pollice e con velocità di circa 100 m/minuto.

Non usare dischi abrasivi!

Sistemare il dado di bloccaggio sopra la guaina (congiuntamente all'ANELLO DI POLIAMMIDE nel caso dei raccordi provvisti del medesimo).

Avvitare la virola di massa il più possibile nella guaina. L'eventuale gioco che può rimanere tra la guaina e la virola, verrà eliminato stringendo successivamente il dado di bloccaggio. Sistemare la guaina con la virola dentro il raccordo e stringere il dado di bloccaggio con una chiave inglese. Un risultato ideale si ottiene fissando il corpo del raccordo in una morsa.

Un montaggio effettuato seguendo queste istruzioni, garantisce un'ottima tenuta e un'alta resistenza allo strappo.

RESPETAR ATENTAMENTE LAS INSTRUCCIONES PARA CONSEGUIR UNA PERFECTA ESTANQUEIDAD DEL CONJUNTO TUBO DE PROTECCIÓN-RACOR

Cortar el tubo Sealtite en manera limpia con una sierra de metales, evitando la formación de rebabas. **Sierra para metal:** los mejor resultados se consiguen con una sierra de 32 dientes/pulgada (32TPI) rectos. **Sierra de banda:** los mejores resultados se consiguen utilizando una sierra 13 x 0,6 mm de 24 TPI. La velocidad de corte aproximada es de 100 mts/minuto.

No usar disco abrasivo.

Pasar la tuerca sobre el tubo Sealtite (junto con el ANILLO DE POLIAMIDA en el caso de los racores que lo incorporan). Atornillar a fondo el casquillo sobre el extremo de tubo Sealtite cortado. Si eventualmente queda holgura esta será eliminada al apretar la tuerca.

Sujetar con ayuda de un tornillo de banco o llave plana, roscar la tuerca contra el cuerpo del racor hasta su bloqueo mediante otra llave.

Respetar estas instrucciones de montaje garantizan una correcta estanqueidad y buena resistencia a la tracción.

VEUILLEZ LIRE ATTENTIVEMENT POUR ASSURER UNE ÉTANCHÉITE PARFAITE

Couper la gaine Sealtite bien droit à l'aide d'une scie très affûtée afin d'éviter les bavures. **Scie à métaux :** Les meilleurs résultats sont obtenus à l'aide d'une scie de 32 dents/pouce. **Scie à bande :** Les meilleurs résultats sont obtenus à l'aide d'une scie de 13 x 0,6 mm comportant 24 dents par pouce. La vitesse de la scie doit être réglée sur 100 mètres à la minute.

N'utilisez pas de disque abrasif.

Passer l'écrou (et éventuellement le JOINT en nylon) sur la gaine. Visser la ferrule à fond sur l'extrémité de la gaine. S'il subsiste éventuellement un peu de jeu, ce dernier sera éliminé lors du blocage définitif de l'écrou. Bloquer par serrage le corps du raccord, la ferrule et l'écrou à l'aide d'une clé. L'opération est facilitée en maintenant le corps du raccord en position par un étau.

Seul le respect de ces instructions de montage garantit un maximum d'étanchéité et de résistance à l'arrachement.

ANAMET EUROPE
www.anamet.nl
sales@anamet.nl

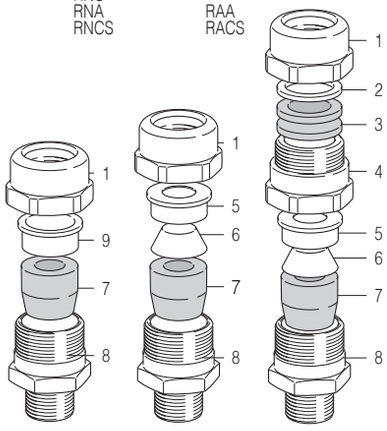
ISTRUZIONI DI MONTAGGIO DEI PRESSACAVI - SERIE R
ASSEMBLY INSTRUCTIONS FOR CABLE GLANDS - R SERIES
INSTRUCTIONS POUR LE MONTAGE DES PRESSE-ÉTOUPES - SERIE R
BAUANLEITUNGEN VON KABELVERSCHRAUBUNGEN - SERIE R

Ref. No. IR RCN20000R1 of 16-11-2020

RN RNT RNM RNC RNA RNCS

RAS RAC RAM RAT RAA RACS

RAD RALD RATD



1	Testa	Backnut	Chapeau	Äußendeckel
2	Anello antifrizione	Antifriction ring	Anneau anti-friction	Antifriktionring
3	Gomino esterno	Outer seal	Bague d'etanchéité externe	Äußerer dichtungsring
4	Intermedio	Middlenut	Chapeau interne	Innendeckel
5	Premiarmatura	Clamping ring	Bague d'amarrage	Klemmring
6	Cono premiarmatura	Armour cone	Cône d'amarrage	Panzerkegel
7	Gommino interno	Inner seal	Bague d'etanchéité interne	Innerer dichtungsring
8	Corpo	Body	Corps	Körper
9	Anello premigommino	Compression seal ring	Bague de compression	Kompressionsring

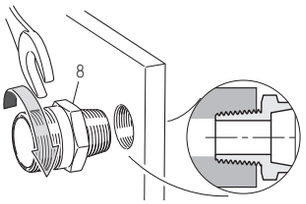
CABLE GLANDS EU DECLARATION OF CONFORMITY IN ACCORDANCE WITH ISO/IEC 17050-1

Identification number of the Notified Body for surveillance referred to ATEX Directive 2014/34/EU and IEC Ex Scheme: 0080 - INERIS Parc Technologique Alata - BP 2 - 60550 Verneuil-en-Halatte, France.
Corresponds to the production series described in the EU series approval, to requirements of ATEX Directive 2014/34/EU and following modifications and to IEC Ex Certification Scheme.
The equipment is comply with the following standards:
EN IEC 60079-0:2018, EN 60079-1:2014,
EN IEC 60079-7:2015/A1:2018, EN 60079-15:2010,
EN 60079-31:2014 IEC 60079-0:2017, IEC 60079-1:2014-06,
IEC 60079-7:2017, IEC 60079-15:2017, IEC 60079-31:2013
IEC Ex Certificate - IEC Ex INE 10.0010X
ATEX Certificate - INERIS 06ATEX0014X
Type examination certificate - INERIS 17ATEX3009X
Provisions of the Directive fulfilled by the Equipment: Groups I and II, category M2 or II 2 GD Ex db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db IP 66, IP 66/68
I the undersigned, hereby declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.
Giulio Tinti (ATEX Authorized Person)

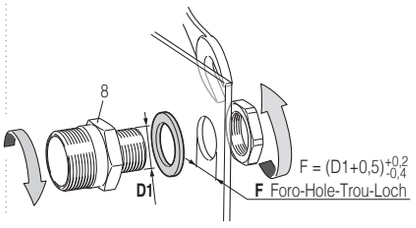
PER TUTTI I PRESSACAVI - FOR ALL CABLE GLANDS
POUR TOUTES LES PRESSE-ÉTOUPES - FÜR ALLE KABELVERSCHRAUBUNGEN

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

Per modo di protezione "d" o "e"
Avvitare il corpo 1 nell'apparecchiatura o...
For "d" and "e" protection modes
Screw the body 1 to the device or...
Pour mode de protection "d" ou "e"
Visser le corps 1 dans l'outil ou...
Für den Schutzmodus "d" oder "e"
den Körper 1 in die Vorrichtung einschrauben oder...

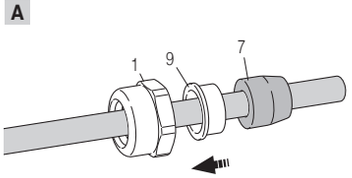


Per modo di protezione "e"
...fissare con dado in caso di foro passante
For "e" protection mode
...secure with a nut in the case of hole
Pour mode de protection "e"
...fixer avec un écrou dans le cas de trou de passage
Für den Schutzmodus "e"
...mit der Schraubenmutter fixieren im Falle einer Lochschlaufe



RN - RNT - RNM - RNC - RNA - RNCS

A



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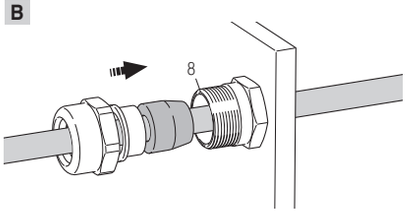

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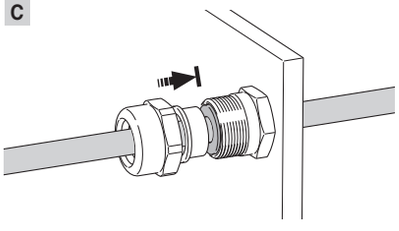

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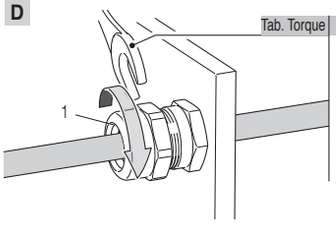
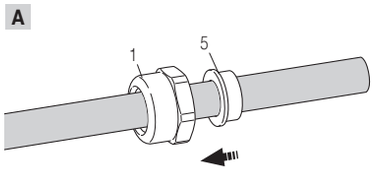


Tab. Torque	Size	[Nm]
	12/16	20
	20	30
	25	50
	32	70
	40	95
	50	115
	63	130
	75	145
	90	160

RAS - RAC - RAM - RAT - RAA - RACS

A



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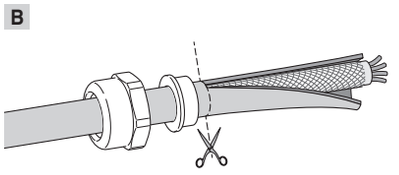

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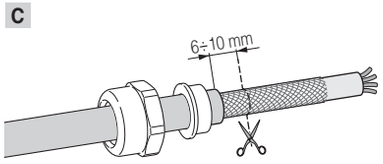

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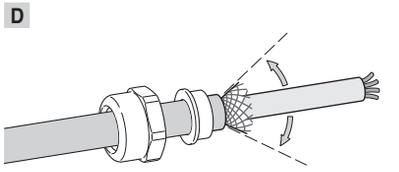

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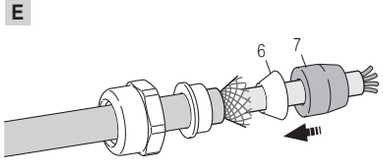

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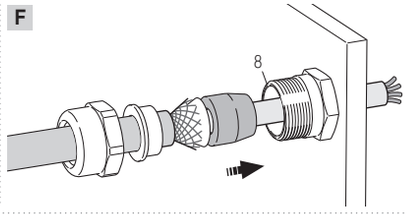

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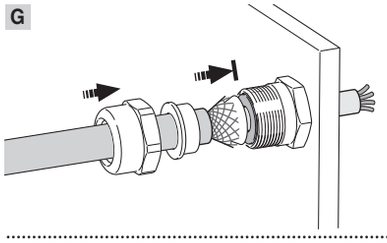

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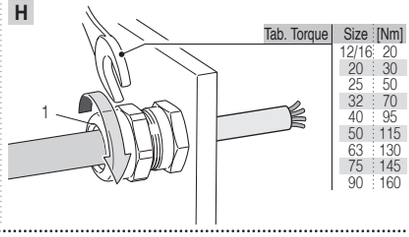

Tab. Torque	Size	[Nm]
	12/16	20
	20	30
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	50	115
	63	130
	75	145
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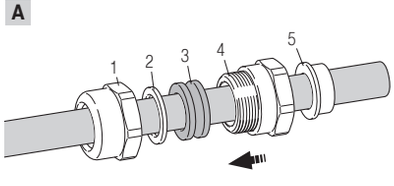
RAD - RALD - RATD

A



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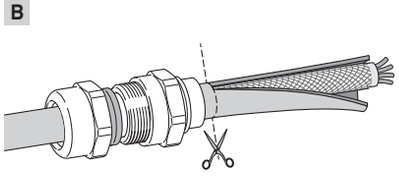

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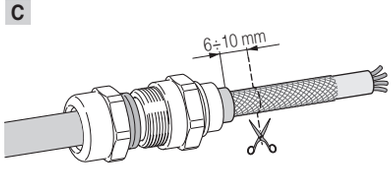

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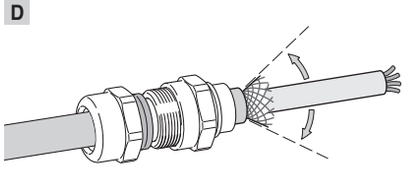

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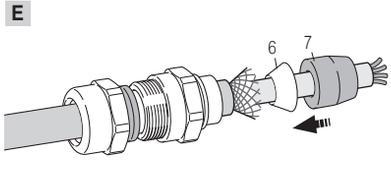

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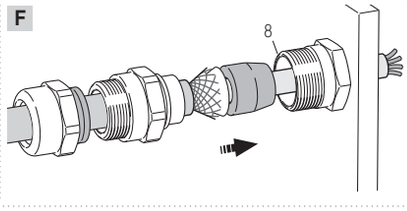

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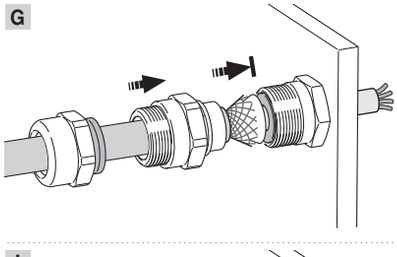

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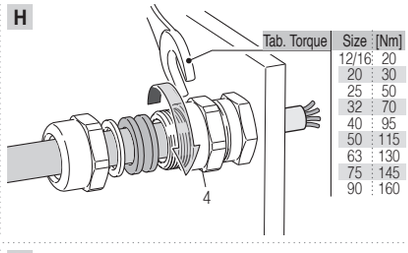

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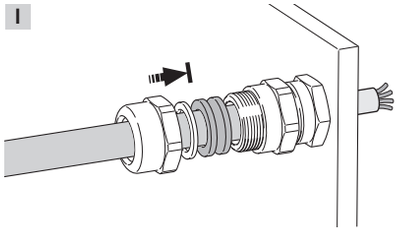
I



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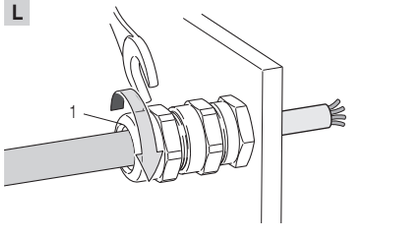

INFORMAZIONI TECNICHE PER TUTTI I PRESSACAVI

SERIE APPARECCHIATURE
Pressacavi tipo RN, RNT, RAT, RNC, RNM, RNA, RAC, RAM, RAS, RAD, RAA, RALD, RATD, RNCS, RACS;
Certificato ATEX: INERIS 06 ATEX0014X, Certificato IEC Ex: INE 10.0010X

• I Pressacavi delle serie sopra menzionate sono idonei per cavi non armati o armati a filo, piattina o nastro e per tutte le entrate di cavo delle costruzioni elettriche di gruppo I e di gruppo II con categoria M2 oppure 2 GD (direttiva ATEX), con modo di protezione Ex db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db IP 66, IP 66/68 (direttiva ATEX e schema IEC Ex); range di temperatura ambiente: -40°C/+100°C con gommini in EPDM o Neoprene, -65°C/+220°C con gommini in SILICONE.
• Esecuzione Ex db I Mb, Ex eb I Mb, Ex db IIA/IIB/IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db in accordo alle Norme 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 (ATEX), 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 (IEC Ex).
• Il grado di protezione assicurato dai pressacavi è IP66 oppure IP66/68 a 30 metri di profondità per 7 giorni secondo le norme IEC EN 60529; il grado di protezione IP 68 è ottenuto utilizzando guarnizioni piane nei pressacavi con filettatura cilindrica. Senza le guarnizioni il grado di protezione è IP 66. Nel caso i pressacavi con filettatura cilindrica o conica, vengano avvitati nel foro filettato di un'apparecchiatura, per garantire il grado di protezione IP66 oppure IP66/68, le filettature di accoppiamento dovranno essere sigillate con Loctite o similare. Per mantenere il grado di protezione IPX8, l'entrata di cavo dovrà essere accoppiata ad una custodia che soddisfi un test di immersione in acqua per 7 giorni alla profondità di 30 m. I pressacavi metrici sono conformi alla norma EN 50262.

MESSA IN SERVIZIO

• Questi prodotti devono essere installati in accordo alle prescrizioni delle Norme IEC EN 60079-14 oppure altre norme o standard nazionali.
Il certificato UE di tipo non copre utilizzi diversi da quanto indicato in queste prescrizioni.
• I pressacavi possono essere installati in qualsiasi custodia di qualsiasi materiale. I pressacavi dovrebbero essere installati in conformità alla norma IEC/EN 60079-14 o altri standard nazionali applicabili.
• Verificare l'idoneità dei pressacavi in relazione alla zona di installazione, gruppo, categoria, classe di temperatura, gruppo di gas e temperatura ambiente.
• L'utilizzatore deve essere a conoscenza dei rischi dovuti alla corrente elettrica ed alle caratteristiche chimico/fisiche dei gas e/o vapori e delle polveri presenti nell'impianto.
• Il montaggio e serraggio dei pressacavi ed accessori non deve compromettere il grado di protezione.
• Devono essere utilizzate solo le parti di ricambio e gli accessori originali RCN conformi al certificato.
• Verificare l'integrità e continuità dei conduttori di terra, di protezione ed equipotenzialità.
Su custodie Ex d la lunghezza di filettatura in presa nei giunti cilindrici filettati deve essere ≥5 mm per custodie con volume ≤100 cm³, e ≥8 mm con volume >100 cm³. Il numero di filetti in presa deve essere ≥5. Nei giunti conici filettati i filetti eseguiti su ciascuna parte devono essere ≥6, considerando le tolleranze massime ammesse, il reale numero di filetti in presa può essere inferiore a 5.
Per installare pressacavi su custodie con altri modi di protezione, lo spessore minimo della parete della custodia deve essere almeno di 1mm. Per fori passanti deve essere previsto un dado di serraggio completamente avvitato.
I pressacavi devono essere installati rispettando la perpendicolarità con la sezione trasversale del foro filettato o passante.
Per installazioni su fori passanti:
Pressacavi con filettatura cilindrica devono essere installati con guarnizioni o O-Rings (se previsto dall'IP desiderato) e dado di serraggio completamente avvitato.
Pressacavi con filettatura conica devono essere installati con guarnizioni (se previsto dall'IP desiderato) e dado di serraggio completamente avvitato.
Verificare i diametri indicati sul gommino e scegliere un cavo con diametro idoneo.

CONDIZIONI SPECIALI PER UN USO SICURO

• I pressacavi e i gommini di tenuta dovranno essere compatibili con i diametri dei cavi installati, dimensionati in funzione dell'intensità di corrente nominale ammissibile nei relativi circuiti elettrici.
• In accordo ai documenti descrittivi del certificato l'amarraggio dei cavi dei pressacavi di dimensione 63 e superiore, dovrà essere realizzato in prossimità del pressacavo.
• I pressacavi tipo RNC, RAC, BNC, BAC, RNCS, RACS, BNCS e BACS, con uscita filettata femmina, devono essere collegati ad un dispositivo filettato per evitare che lo spigolo vivo possa danneggiare il cavo.

TECHNICAL INFORMATION FOR ALL CABLE GLANDS

EQUIPMENT SERIES
Cable gland series: RN, RNT, RAT, RNC, RNM, RNA, RAC, RAM, RAS, RAD, RAA, RALD, RATD, RNCS, RACS;
ATEX Certificate: INERIS 06 ATEX0014X, IEC Ex Certificate: INE 10.0010X.

• Cable glands 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 db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db IP 66, IP 66/68 (ATEX Directive and IEC Ex Scheme); ambient temperature range: -40°C/+100°C with EPDM or Neoprene rubber seals, -65°C/+220 °C with SILICONE seals.
• Ex db I Mb, Ex eb I Mb, Ex db IIA/IIB/IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db execution in accordance with Standards 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 (ATEX), 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 (IEC Ex).
•The cable glands degree of protection is IP66 or IP66/68, 30 meters deep for 7 days according to the 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 have cylindrical or conical threads and 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.

INSTALLATION

• These products must be installed according to the requirements of Standards IEC EN 60079-14or other national laws or standards. The EU type certificate does not cover uses different from what is described in the requirements.
• The cable glands can be installed on any Ex certified enclosure of any material, the cable glands shall be installed in accordance with IEC/EN 60079-14 standard or other applicable national standards.
•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 of the dust present in the plant.
• Assembly and tightening of the cable glands have not to compromise the degree of protection.
• You must use only RCN original spare parts and accessories, in accordance with the certificate.
• 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.
To install cable glands on enclosures with other type of protections, the minimum thickness of the wall enclosure shall be at least 1 mm. For clearance holes a fully engaged locking nut shall be foreseen.
The cable glands shall be installed respecting the perpendicularity to the cross section of the threaded or clearance holes.
For installation on clearance hole:
Cable glands with cylindrical threads shall be installed with gaskets or O-Rings (if requested by the required IP) and fully engaged locknut.
Cable glands with conical threads shall be installed with gaskets Rings (if requested by the required IP) and fully engaged locknut.
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.
• The types RNC, RAC, BNC, BAC, RNCS, RACS, BNCS and BACS, with female threaded exit, must be connected to a threaded device to avoid damaging the cable due to sharp edge.

MARCATURA RCN (Tipo)(Filetto) INERIS17ATEX3009X II3GD Ex nR IIC Gc IP66 IP66/68 IECEx INE 10.0010X CE
0080 INERIS 06ATEX0014X IM2/II2GD Ex db I / Ex eb I Mb Ex db IIC Gb Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db
MARCATURA RIDOTTA RCN (Tipo)(Filetto) INERIS17ATEX3009X II3GD Ex nR IIC Gc IP66/68
IECEx INE 10.0010X CE 0080 INERIS 06ATEX0014X IM2 / II2GD Ex db/eb/nR/tb

Marchio -
Modo di protezione - Ex db IIC / Ex eb IIC / Ex nR IIC Gc (gas)
- Ex db I / Ex eb I (miniera)
- Ex tb IIIC (dust)
EPL - Mb (miniera)
(Equipment protection level) - Gb Gc (gas - zona 1)
- Db (polveri combustibili - zona 21)
Grado di protezione - IP 66 oppure IP 66/68
Certificato IEC Ex - IEC Ex INE 10.0010X
Certificato ATEX - INERIS 06ATEX0014X
Certificato di esame di tipo - INERIS 17ATEX3009X

RUGOSITÀ Ra MASSIMA DELLA SUPERFICIE DELLA CUSTODIA NEL PUNTO DI INGRESSO DEL CAVO			PRESCRIZIONI PER IL MONTAGGIO DELLE PIASTRINE DI TERRA			
			Montaggio esterno alla custodia		Montaggio interno alla custodia	
	Fori passanti non filettati	Fori cilindrici filettati	Fori passanti non filettati	Fori cilindrici filettati	Fori passanti non filettati	Fori cilindrici filettati
Con guarnizione oppure O-Ring	10 µm	10 µm	Montaggio ammesso	Montaggio ammesso	Montaggio ammesso	Montaggio ammesso
Senza guarnizione oppure O-Ring	6,3 µm	10 µm	Montaggio non ammesso	Montaggio non ammesso	Montaggio non ammesso	Montaggio non ammesso

MANUTENZIONE Le operazioni di manutenzione devono essere affidate a personale debitamente qualificato ed istruito sulle caratteristiche specifiche delle apparecchiature in oggetto, in accordo alle norme IEC EN 60079-17.
Io sottoscritto dichiaro che le attrezzature di cui al presente documento sono conformi alla direttiva 2014/34/UE, ed allo Schema IEC Ex. Giulio Tinti - Direttore Tecnico (Persona Autorizzata ATEX)

MARKING RCN (Type)(Thread) INERIS17ATEX3009X II3GD Ex nR IIC Gc IP66 IP66/68 IECEx INE 10.0010X CE
0080 INERIS 06ATEX0014X IM2/II2GD Ex db I / Ex eb I Mb Ex db IIC Gb Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db
REDUCED MARKING RCN (Type)(Thread) INERIS17ATEX3009X II3GD Ex nR IIC Gc IP66/68
IECEx INE 10.0010X CE 0080 INERIS 06ATEX0014X IM2 / II2GD Ex db/eb/nR/tb

Trademark -
Protection mode - Ex db IIC / Ex eb IIC / Ex nR IIC Gc (gas)
- Ex db I / Ex eb I (mine)
- Ex tb IIIC (dust)
EPL - Mb (mine)
(Equipment protection level) - Gb Gc (gas - zone 1)
- Db (combustible dust - zone 21)
Degree of Protection - IP 66 or IP 66/68
IEC Ex Certificate - IEC Ex INE 10.0010X
ATEX Certificate - INERIS 06ATEX0014X
Type examination certificate - INERIS 17ATEX3009X

MAXIMUM Ra ROUGHNESS OF THE ENCLOSURE SURFACE ON THE CABLE ENTRY POINT			EARTH TAGS ASSEMBLY PRESCRIPTIONS			
			Assembly outside of the enclosure		Assembly inside of the enclosure	
	Not threaded blank holes	Cilindrical threaded holes	Not threaded blank holes	Cilindrical threaded holes	Not threaded blank holes	Cilindrical threaded holes
With gasket or O-Ring	10 µm	10 µm	Allowed assembly	Allowed assembly	Allowed assembly	Allowed assembly
Without gasket or O-Ring	6,3 µm	10 µm	Not allowed assembly	Not allowed assembly	Not allowed assembly	Not allowed assembly

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 2014/34/EU directive and to IEC Ex Scheme. Giulio Tinti - Technical Manager (ATEX Authorized Person)

RANGE DIAMETRI DI CAVO DEI GOMMINI INTERNI ED ESTERNI [mm] - INNER AND OUTER SEAL RANGE OF CABLE DIAMETERS [mm]
GAMME DE DIAMÈTRES DE CÂBLE POUR JOINTS INTERNE ET EXTERNE - RANGE DER KABELDURCHMESSER VON INTERNEM UND EXTERNEM GUMMI [mm]

	16 (EP)	16 (SI)	20	25	32	40	50	63	75	90a	90b	
Min - Max Inner seal	4 ÷ 7	4 ÷ 6	5,5 ÷ 8	8 ÷ 10,5	13 ÷ 15,5	21 ÷ 24	24 ÷ 27	36 ÷ 39	45 ÷ 48	54 ÷ 58	60 ÷ 64	Only Inner seal for: RN, RNT, RNM, RNC, RNA, RNCS, RAS, RAC, RAM, RAT, RAA, RACS
	7 ÷ 10	6 ÷ 8	8 ÷ 10,5	10,5 ÷ 13	15,5 ÷ 18	24 ÷ 27	27 ÷ 30	39 ÷ 42	48 ÷ 51	58 ÷ 62	64 ÷ 68	
		8 ÷ 10	10,5 ÷ 13	13 ÷ 15,5	18 ÷ 21	27 ÷ 30	30 ÷ 33	42 ÷ 45	51 ÷ 54			
				15,5 ÷ 18	21 ÷ 24		33 ÷ 36					
Min - Max Outer seal	5 ÷ 10	5 ÷ 10	10 ÷ 15	15 ÷ 20	20 ÷ 26	26 ÷ 32	31 ÷ 37	42 ÷ 48	52 ÷ 58	64 ÷ 72	70 ÷ 78	Inner and outer seal for: RAD, RALD, RATD
	10 ÷ 15	10 ÷ 15	14 ÷ 19	19 ÷ 24	25 ÷ 31	31 ÷ 37	36 ÷ 43	47 ÷ 53	52 ÷ 64			

IEC EN 60079-0		Directive 2014/34/UE		
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

TABELLA delle FILETTATURE STANDARD, SIGLE IDENTIFICATIVE - TABLE of STANDARD SCREW-THREADS, IDENTIFYING ABBREVIATIONS
TABLEAU des FILETAGES STANDARD - SIGLES D'IDENTIFICATION - TABELLE von STANDARDGEWINDEN - IDENTIFIZIERTE KENNZEICHEN

ISO 262	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	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	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	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	**Gk - ISO 10226**				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	****Only for ATEX**				R3"	R90

INFORMATIONS TECHNIQUES POUR TOUTES LES PRESSE- ÉTOUPES

SÉRIES D'APPAREILS.
Presse- étoupes du type RN, RNT, RAT, RNC, RNM, RNA, RAC, RAM, RAS, RAD, RAA, RALD, RATD, RNCS, RACS; Certificat ATEX: INERIS 06 ATEX0014X, Certificat IEC Ex: INE 10.0010X.

• Les presse- étoupes des séries mentionnés ci-dessus sont compatibles pour des câbles non armés ou armés à fil, plaque ou ruban et pour toutes les entrées du câble des constructions électriques de groupe I et de groupe II avec catégorie M2 ou 2 GD (directive ATEX),avec type de protection Ex db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db IP 66, IP 66/68 (directive ATEX et schéma IEC Ex); range de température ambiante : -40°C/+100°C avec les caoutchoucs en EPDM ou Néoprène, -65°C/+220°C avec les caoutchoucs en SILICONE.
• Exécution Ex db I Mb, Ex eb I Mb, Ex db IIA/IIB/IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db selon les Normes 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 (ATEX), 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 (IEC Ex).
• Le degré de protection assuré par les presse-étoupes est IP66 ou IP66/68 à 30 mètres de profondeur pour 7 jours selon les normes IEC EN 60529; le degré de protection IP 68 est obtenu en utilisant des joints plats dans les presse- étoupes avec filetage cylindrique. Sans les joints le degré de protection est IP 66. Si les presse- étoupes ont filetage cylindrique ou conique seront vissées dans l'orifice fileté d'un appareil et afin de garantir le degré de protection IP66 ou IP66/68, les filetages d'accouplement devront être scellés avec Loctite ou équivalent. Pour maintenir le degré de protection IPX8 l'entrée de cable devra être installée sur une enveloppe satisfait une immersion sous 30 mètres d'eau pendant 7 jours. Les presse-étoupes métriques sont conformes à la norme EN 50262.

MISE EN SERVICE

• Ces produits doivent être installés en accord avec les prescriptions des Normes IEC EN 60079-14, ou d'autres normes ou standards nationaux.
Le certificat EU type ne couvre pas des utilisations différentes de celles indiquées par ces prescriptions.
• Les presse-étoupes peuvent être installés dans un etui de tout type de matérial. Les presse-étoupes doivent être installés conformément à la norme EN IEC 60079-14 ou à d'autres standards nationales applicables.
• Vérifier la compatibilité des presse- étoupes avec la zone d'installation, le groupe, la catégorie, la classe de température, le groupe de gaz et la température ambiante.
• L'utilisateur doit être conscient des risques dus au courant électrique et aux caractéristiques physico/chimiques des gaz ainsi qu'aux vapeurs et poussières présentes dans l'installation.
• Le montage et le serrage des presse- étoupes ne doivent pas compromettre le degré de protection.
• Il faut utiliser seulement les accessoires et les pièces de rechange originels RCN, conformément au certificat.
• Vérifier l'intégrité et la continuité des conducteurs de terre, de protection et le caractère équipotentiel.
Sur les etuis Ex d la longueur de filetage dans la douille dans les joints cylindriques filetés doit être ≥ 5 mm pour les etuis d'un volume ≤ 100 cm³ et ≥ 8 mm pour un volume> 100 cm³.
Le nombre de filets dans la douille doit être ≥5. Dans les joints coniques filetés, les filetages réalisés sur chaque pièce doivent être ≥ 6, compte tenu des tolérances maximales admises, le nombre réel de filetages dans la prise peut être inférieur à 5.
Pour installer des presse-étoupes sur des etuis dotés d'autres moyens de protection, l'épaisseur minimale de la paroi de l' etuis doit être d'au moins 1 mm. Pour les trous passants dois etre prevu un écrou de serrage entièrement vissé.
Les presse-étoupes doivent être installés en respectant la perpendicularité avec la section transversale du trou fileté ou traversant.
Pour les installations sur trous passants:
Les presse-étoupes à filetage cylindrique doivent être installés avec des joints ou des joints toriques (si requis par l'IP souhaité) et l'écrou de serrage complètement vissé.
Les presse-étoupes à filetage conique doivent être installés avec des joints (si requis par l'IP souhaité) et avec l'écrou de serrage complètement vissé.
Vérifier les diamètres indiqués sur le caoutchouc et choisir un câble avec un diamètre compatible.

CONDITIONS SPÉCIALES POUR UNE UTILISATION SURE

• Les presse- étoupes et les caoutchoucs d'étanchéité devront être compatibles avec les diamètres des câbles installés, remis aux dimensions selon l'intensité nominale admissible dans les circuits électriques correspondants.
• En accord avec les documents décrits dans le certificat, l'ammarage des câbles des presse- étoupes de dimension 63 et supérieure, devra être effectué à proximité du presse- étoupe.
• Les types RNC, RAC, BNC, BAC, RNCS, RACS, BNCS et BACS, avec sortie filetée femelle, doivent être connectés à un dispositif fileté pour éviter d'endommager le câble dû aux arêtes vives.

MARQUAGE RCN (Type)(Fil.) INERIS17ATEX3009X Ⓔx II3GD Ex nR IIC Gc IP66 IP66/68 IECEx INE 10.0010X CE
0080 INERIS 06ATEX0014X Ⓔx IM2/II2GD Ex db I / Ex eb I Mb Ex db IIC Gb Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db
MARQUAGE REDUIT RCN (Type)(Fil.) INERIS17ATEX3009X Ⓔx II3GD Ex nR IIC Gc IP66/68
IECEx INE 10.0010X CE 0080 INERIS 06ATEX0014X IM2 / II2GD Ex db/eb/nR/tb

Marque - Ⓔx
Mode de protection - Ex db IIC / Ex eb IIC / Ex nR IIC Gc (gas)
- Ex db I / Ex eb I (mine)
- Ex tb IIIC (poudre)

EPL - Mb (mine)
(Equipment protection level) - Gb Gc (gas - zona 1)
- Db (poudres combustibles - zone 21)

Degré de protection - IP 66 ou IP 66/68
Certificat IEC Ex - IEC Ex INE 10.0010X
Certificat ATEX - INERIS 06ATEX0014X
Attestation d'examen de type - INERIS 17ATEX3009X

RUGOSITÉ Ra MAXIMALE DE LA SURFACE DE L'ETUI AU POINT D'ENTRÉE DU CÂBLE			PRESCRIPTIONS POUR L'ASSEMBLAGE DES PLAQUETTES DE TERRE			
			Montage à l'extérieur de l'etui		Montage à l'intérieur de l'etui	
	Trous traversants non filetés	Trous cylindriques filetés	Trous traversants non filetés	Trous cylindriques filetés	Trous traversants non filetés	Trous cylindriques filetés
Avec joint ou O-Ring (joint torique)	10 µm	10 µm	Assemblage autorisé	Assemblage autorisé	Assemblage autorisé	Assemblage autorisé
Sans joint ni O-Ring (joint torique)	6,3 µm	10 µm	Assemblage non autorisé	Assemblage non autorisé	Assemblage non autorisé	Assemblage non autorisé

MAINTENANCE Les opérations de maintenance doivent être exécutées par du personnel hautement qualifié et connaissant les caractéristiques spécifiques des appareils, en accord avec les normes IEC EN60079-17.

Je soussigné déclare que les équipements mentionnés dans le présent document sont conformes à la directive 2014/34/EU et selon le schéma CEI Ex. Giulio Tinti - Directeur Technique (Personne Autorisée ATEX)

TECHNISCHE INFORMATIONEN FÜR ALLE KABELVERSCHRAUBUNGEN

VORRICHTUNGSSERIEN
Kabelverschraubungen Typ RN, RNT, RAT, RNC, RNM, RNA, RAC, RAM, RAS, RAD, RAA, RALD, RATD, RNCS, RACS; ATEX Zertifizierung: INERIS 06 ATEX0014X, IEC Ex Zertifizierung: INE 10.0010X.

• Die Kabelverschraubungen in den oben genannten Serien sind geeignet für Kabel ohne und mit Armierung, mit Kabel, Flachkabel oder Flachband, und für alle Öffnungen für Kabel elektrischer Konstruktion der Gruppe I und Gruppe II mit der Kategorie M2 oder 2 GD (ATEX Vorschrift), mit dem Schutzmodus Ex db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db IP 66, IP 66/68 (ATEX Vorschrift und IEC Ex Schema); Temperaturbereich: -40°C/+100 °C mit Gummistöpseln aus EPDM oder Neopren, -65°C/+220°C mit Gummistöpseln aus Silikon.
• Verwendung vonEx db I Mb, Ex eb I Mb, Ex db IIA/IIB/IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Dberfolgt in bereinstimmung mit den Normen 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 (ATEX), 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 (IEC Ex).
• Der versicherte Schutzgrad der Kabelverschraubungen ist IP66 oder IP66/68 mit einer Tiefe von 30 Metern für 7 Tagen. Gemäß der Normen IEC EN 60529; den Schutzgrad IP 68 erhält man indem ebene Dichtungen, bei den Kabelverschraubungen Zylindergewinde benutzt werden. Ohne die Dichtungen ist der Schutzgrad IP 66. Im Falle zylindrischer oder kegelförmiger Gewinde, werden diese in den Gewindelöchern einer Vorrichtung eingeschraubt, um so den Schutzgrad IP66 oder IP66/68 zu garantieren, die Kopplungsgewinde müssen mit Loctite oder ähnlichem versiegelt werden. Die Schutzgrad IPX8 aufrechtzuerhalten, muss das Kabel auf eine Gehäuse mit einem Test der Wasserlagerung von 7 Tagen bei einer Tiefe von 30 Metern gekoppelt sein. Die metrischen Kabelverschraubungen sind entsprechend der Norm EN 50262.

INBETRIEBNAHME

• Diese Produkte müssen gemäß Vorschrift der Norm IEC EN 60079-14 oder auch andere Normen oder Nationaler Standard, installiert werden.
Die Zertifizierung EU des Typs schließt keinen anderen Gebrauch ein als diese die in dieser Vorschrift aufgeführt sind.
• Die Kabelverschraubungen können in jedes Gehäuse aus jedem Material eingebaut werden. Kabelverschraubungen sollten gemäß IEC / EN 60079-14 oder anderen geltenden nationalen Normen installiert werden.
• Die Eignung der Kabelverschraubungen in Bezug auf die Installationszone nach Gruppe, Kategorie, Temperaturklasse, Gasgruppe und der Temperatur der Umgebung überprüfen.
• Der Benutzer muss über die Risiken Bescheid wissen die wegen dem Strom und der chemischen/physikalischen Charakteristiken des Gas und/oder Dämpfe vom Pulver die sich in der Anlage befinden, auftreten können.
• Die Montage und das Klemmen der Kabelverschraubungen dürfen nicht den Schutzgrad gefährden.
• Achten Sie darauf, nur Ersatzteile und Originalzubehör RCN in Übereinstimmung mit dem Zertifikats verwenden.
• Die Unversehrtheit und die Stetigkeit der Erdleitungen, den Schutz und das äquivalente Potenzial überprüfen.
Bei Ex d-Gehäusen muss die Gewindelänge in den zylindrischen Gewindeverbindungen bei Gehäusen mit einem Volumen von ≤ 100 cm³ ≥ 5 mm und bei einem Volumen von> 100 cm³ ≥ 8 mm betragen.
Die Anzahl der Filetierfäden muss ≥5 sein. Bei konischen Gewindeverbindungen müssen die Gewinde an jedem Teil ≥6 sein. Unter Berücksichtigung der maximal zulässigen Toleranzen kann die tatsächliche Anzahl der Gewinde weniger als 5 betragen.
Um Kabelverschraubungen an Gehäusen mit anderen Schutzarten zu installieren muss die Mindeststärke der Gehäusewand mindestens 1 mm betragen. Für Durchgangslöcher muss eine fest verschraubte Spannmutter vorgesehen werden.
Die Kabelverschraubungen müssen unter Berücksichtigung der Rechtwinkligkeit zum Querschnitt des Gewinde- oder Durchgangslochs installiert werden.
Für Installationen an Durchgangslöchern:
Kabelverschraubungen mit zylindrischem Gewinde müssen mit Dichtungen oder O-Ringen (falls von der gewünschten IP gefordert) installiert und die Anzugsmutter vollständig verschraubt werden.
Kabelverschraubungen mit konischem Gewinde müssen mit Dichtungen (falls durch die gewünschte IP erforderlich) und fest angezogener Befestigungsmutter installiert werden.
Die Diameter die auf dem Gummistöpsel angezeigt sind überprüfen und einen Kabel mit geeignetem Diameter auswählen.

SPEZIELLE KONDITIONEN FÜER EINEN SICHEREN GEBRAUCH

• Die Kabelverschraubungen und die Gummistöpsel müssen mit den Diametern der installierten Kabel kompatibel sein, dimensioniert in der Funktion der nominalen, zugelassenen Stärke der relativen Stromkreise.
• Laut den Dokumenten beschreibt das Zertifikat, der Notwasserung Kabelverschraubung Größe 63 und höher, wird in der Nähe der Kabelverschraubung gebaut werden.
• Die Typen RNC, RAC, BNC, BAC, RNCS, RACS, BNCS und BACS mit Innengewindeausgang müssen an ein Gewindegerät angeschlossen werden, um eine Beschädigung des Kabels durch scharfe Kanten zu vermeiden.

MARKIERUNG RCN (Typ)(Gew.) INERIS17ATEX3009X Ⓔx II3GD Ex nR IIC Gc IP66 IP66/68 IECEx INE 10.0010X CE
0080 INERIS 06ATEX0014X Ⓔx IM2/II2GD Ex db I / Ex eb I Mb Ex db IIC Gb Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db
REDUZIERTE MARKIERUNG RCN (Typ)(Gew.) INERIS17ATEX3009X Ⓔx II3GD Ex nR IIC Gc IP66/68
IECEx INE 10.0010X CE 0080 INERIS 06ATEX0014X IM2 / II2GD Ex db/eb/nR/tb

Marke - Ⓔx
Schutzmodus - Ex db IIC / Ex eb IIC / Ex nR IIC Gc (gas)
- Ex db I / Ex eb I (Mine)
- Ex tb IIIC (Staub)

EPL - Mb (Mine)
(Equipment protection level) - Gb Gc (Gas - zona 1)
- Db (combustible dust- zone 21)

Schutzgrad - IP 66 oder IP 66/68
IEC Ex Zertifizierung - IEC Ex INE 10.0010X
ATEX Zertifizierung - INERIS 06ATEX0014X
Baumusterprüfbescheinigung - INERIS 17ATEX3009X

RAUHEIT Ra MAXIMAL DER OBERFLÄCHE DES GEHÄUSES AM KABELEINGANGSPUNKT			ANFORDERUNGEN FÜR DIE MONTAGE VON ERDUNGSKLEMME			
			Montage außerhalb des Gehäuses		Montage im Gehäuse	
	Nicht filetierte Durchgangslöcher	Zylindrische Gewindebohrungen	Nicht filetierte Durchgangslöcher	Zylindrische Gewindebohrungen	Nicht filetierte Durchgangslöcher	Zylindrische Gewindebohrungen
Mit Dichtung oder O-Ring	10 µm	10 µm	Montage erlaubt	Montage erlaubt	Montage erlaubt	Montage erlaubt
Ohne Dichtung oder O-Ring	6,3 µm	10 µm	Montage nicht erlaubt	Montage nicht erlaubt	Montage nicht erlaubt	Montage nicht erlaubt

WARTUNG Die Ausführung der Wartung muss von qualifiziertem Personal ausgeführt werden, dass mit den spezifischen charakteristiken der jeweiligen Anlage gemäß der Normierung IEC EN60079-17 ausgebildet wird.

Ich, als Unterzeichnender, erkläre hiermit, dass die Geräte, die in diesem Dokument erwähnt werden, der Direktive 2014/34/EU konform sind und zum IEC Ex Scheme. Giulio Tinti - Technischer Direktor (Autorisierte Person ATEX)

RANGE DIAMETRI DI CAVO DEI GOMMINI INTERNI ED ESTERNI [mm] - INNER AND OUTER SEAL RANGE OF CABLE DIAMETERS [mm] GAMME DE DIAMÈTRES DE CÂBLE POUR JOINTS INTERNE ET EXTERNE - RANGE DER KABELDURCHMESSER VON INTERNEM UND EXTERNEM GUMMI [mm]												
	16 (EP)	16 (SI)	20	25	32	40	50	63	75	90a	90b	
Min - Max Inner seal	4 ÷ 7 7 ÷ 10	4 ÷ 6 6 ÷ 8 8 ÷ 10	5,5 ÷ 8 8 ÷ 10,5 10,5 ÷ 13	8 ÷ 10,5 10,5 ÷ 13 13 ÷ 15,5 15,5 ÷ 18	13 ÷ 15,5 15,5 ÷ 18 18 ÷ 21 21 ÷ 24	21 ÷ 24 24 ÷ 27 27 ÷ 30	24 ÷ 27 27 ÷ 30 30 ÷ 33 33 ÷ 36	36 ÷ 39 39 ÷ 42 42 ÷ 45	45 ÷ 48 48 ÷ 51 51 ÷ 54	54 ÷ 58 58 ÷ 62	60 ÷ 64 64 ÷ 68	Only Inner seal for: RN, RNT, RNM, RNC, RNA, RNCS, RAS, RAC, RAM, RAT, RAA, RACS
Min - Max Outer seal	5 ÷ 10 10 ÷ 15	5 ÷ 10 10 ÷ 15	10 ÷ 15 14 ÷ 19	15 ÷ 20 19 ÷ 24	20 ÷ 26 25 ÷ 31	26 ÷ 32 31 ÷ 37	31 ÷ 37 36 ÷ 43	42 ÷ 48 47 ÷ 53	52 ÷ 58 52 ÷ 64	64 ÷ 72	70 ÷ 78	Inner and outer seal for: RAD, RALD, RATD

IEC EN 60079-0		Directive 2014/34/UE		
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

TABELLA delle FILETTATURE STANDARD, SIGLE IDENTIFICATIVE - TABLE of STANDARD SCREW-THREADS, IDENTIFYING ABBREVIATIONS
TABLEAU des FILETAGES STANDARD - SIGLES D'IDENTIFICATION - TABELLE von STANDARDGEWINDEN - IDENTIFIZIERTE KENNZEICHEN

ISO 262	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	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	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	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	**Gk - ISO 10226 **Only for ATEX**				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

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CERTIFICATE

EC-TYPE EXAMINATION CERTIFICATE

[1]

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 14 ATEX 069 X

[4] Equipment: **Barrier cable glands series BXA.., BXC.. and BXN..**

[5] Manufacturer: **RCN S.r.l.**

[6] Address: **Regione Torame, via Crevacuore, I-13011 Borgosesia (Vercelli-Italy)**

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report n. EX- B4031063.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 EN 60079-1: 2007 EN 60079-7: 2007 EN 60079-31: 2009

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

Ex I M2	**Ex d I Mb** *and* **Ex e I Mb**
	and
Ex II2GD	**Ex d IIC Gb** *and* **Ex e IIC Gb** *and* **Ex tb IIIC Db IP66** or **IP66/68**

Date 2014.12.29 - Translation issued the 2014.12.29

Prepared
Mirko Balaz

Approved
Fiorenzo Bregani

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
Fiorenzo Bregani

Schema di certificazione CESI-ATEX

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO
PRD N. 018B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X**

[15] **Description of equipment**

Barrier cable glands series **BXA..**, **BXN..** and **BXC..** are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series **BXA..**, **BXN..** and **BXC..** are suitable for inserting circular cables with single or multiple cores into Ex-d enclosures having threaded entries and Ex-e or Ex-tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP 66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The composition of Barrier cable gland series is as follow:

- Type **BXA..**: Barrier cable gland for non armoured cable with male insert for flexible conduit;
- Type **BXC..**: Barrier cable gland for non armoured cable with female threaded hub at exit;
- Type **BXN..**: Barrier cable gland for non armoured cable with standard back-nut.

The Barrier cable glands series **BXA..**, **BXC..** and **BXN..** have an operating temperature range from -60°C up to +80°C, while the ambient temperature range should be from -60°C up to +60°C. Barrier cable glands types made of AVP steel are restricted to the lower temperature range of -20°C..

The Barrier cable glands standard thread sizes are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M50x1.5 or tapered NPT ANSI/ASME B1.20.1 from 3/8" up to 1-½". Alternative available threads are cylindrical ISO 228/1 or Pg (DIN 40430), tapered Gk CEI EN 60079-1 Annex 1 or ISO 10226.

The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.

The IP66 degree of protection for Barrier cable glands with cylindrical threads is achieved with sealant put at least on two complete threads engaged of the threaded coupling while the IP 68 (30 m for 7 days) degree of protection is achieved with a Silicon flat washer. For all other threads (taper) the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Barrier cable glands are generally made of brass. The alternative materials Stainless steel, Free-cutting leaded steel (AVP) or Aluminium alloy can be supplied on demand.

The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X**

Identification of Barrier cable glands

*** ***.***.***.***

Code which identifies the series:
- **BXA:** Barrier cable gland with male insert for flexible conduit
- **BXC:** Barrier cable gland with female threaded hub at exit
- **BXN:** Barrier cable gland with standard back-nut

Size (*see Table 1*)

Male thread:
- **I (16÷50):** ISO metric pitch 1,5mm
- **B (16÷50):** GAS 228-1
- **N (16÷50):** NPT ANSI/ASME B1.20.1
- **P (16÷50):** PG DIN 40430
- **U (20÷50):** Gk CEI EN 60079-1 Annex 1
- **R (16÷50):** ISO 10226

Female thread (*BXC series only*):
- **I (16÷50):** ISO metric pitch 1,5mm
- **B (16÷50):** GAS 228-1
- **N (16÷50):** NPT ANSI/ASME B1.20.1
- **P (16÷50):** PG DIN 40430
- **U (20÷50):** Gk CEI EN 60079-1 Annex 1
- **R (16÷50):** ISO 10226

Manufacturing material:
- **OT:** Brass
- **ON:** Nickel plated brass
- **S3,S4,S6:** AISI 303, 304, 316L
- **AVP:** AVP steel (only for Group II)
- **AL:** Aluminium alloy Al11S (only for Group II)

Sizes and cable characteristics of barrier cable glands are listed on the following Table 1:

Table 1:

Barrier cable glands type BX..								
Size	**Thread size**				**Cable dia. ranges**			**Max. cross sectional area of cores admitted (mm^2)**
	ISO 262 pitch 1.5	**NPT, ISO 228, ISO 10226**	**Pg DIN 40430**	**Gk**	**Max Over multi cores (mm)**	**Max Over single core (mm)**	**Max. No. of cores (*) (mm)**	
16	M 16 (**)	3/8" (**)	11 (**)	-	9.4	8.0	10	50.2
	M 20	1/2"	13,5					
20	M 20	1/2"	13,5	1/2"	12.4	10.5	15	86.5
			16					
25	M 25	3/4"	21	3/4"	17.6	14.0	30	153.9
32	M 32	1"	29	1"	22.8	18.5	50	268.7
40	M 40	1" ¼	36	1" ¼	28.0	24.5	75	471.2
50	M 50	1" ½	36	1" ½	34.5	29.5	80	683.1

(*) – For *Conductor diameter - Max. No. of cores* limits relationship details, referring to the manufacturer's documents.

(**) – The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X**

Constructional characteristics

Degree of protection (EN 60529):	IP 66 or IP 68 (30 m for 7 days).
Service temperature range:	- 60 up to + 80 °C for all models.
Service temperature range for types made of AVP steel:	minimum temp. restricted from -20C°.

[16] **Report n.** EX- B4031063

Routine tests
None.

Descriptive documents (prot. EX- B4031067)

- Technical note TF RCN14000R0 (126 pg.)	rev.0	dated	2014.11.10
- Flameproof barrier cable gland assembly instructions (4 pg.)	rev.0	dated	2014.11.10
- Declaration of Conformity FACSIMILE (1 pg.)	rev.0	dated	2014.10.27

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use (X)**

- The coupling of the Barrier cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which Barrier cable glands are mounted.
- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instruction.
- When the Barrier cable glands type **BXA** and **BXC** are designed for use in Group I (mines) applications:
  - the cables should be installed in compliance with the requirements of the local code of practice;
  - conduits should provide additional mechanical protection only.
- The Barrier cable glands series **BXA..**, **BXC..** and **BXN..** have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.
- The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.
- The Barrier cable glands should be installed within the following service temperature range:
  - **from - 60°C up to +80°C**.
  - **from - 20°C up to +80°C** for types made of AVP steel.
- The degree of protection IP66 or IP 66/68 (30 m for 7 days) according to the EN 60529 standard will be guaranteed for the Barrier cable glands if the holes into which Barrier cable glands are mounted are suitably sealed. To this scope the correct application of sealant which guaranties an **IP66** degree of protection on **cylindrical threads** and an **IP66/68** degree of protection on **tapered threads**, or the correct positioning of the plain gaskets (for **cylindrical threads only**) which guaranties an **IP66/68** degree of protection, shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**
The Essential Health and Safety Requirements are assured by compliance to the following standards:

EN 60079-0: 2012	Explosive atmospheres – Part 0: Equipment - General requirements;
EN 60079-1: 2007	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";
EN 60079-7: 2007	Explosive atmospheres – Part 7: Equipment protection by increased safety "e";
EN 60079-31: 2009	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

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Schema di certificazione CESI-ATEX

CERTIFICATE

[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 14 ATEX 069 X /01

[4] Product: **Barrier cable glands series BXA.., BXC.. and BXN..**

[5] Manufacturer: **RCN S.r.l.**

[6] Address: **Regione Torame, via Crevacuore, I-13011 Borgosesia (Vercelli-Italy)**

[7] This supplementary certificate extends EC–Type Examination Certificate CESI 14 ATEX 069X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to..

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-B6012940.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

Ex **I M2** **Ex db I Mb** *and* **Ex eb I Mb**
and
Ex **II2GD** **Ex db IIC Gb** *and* **Ex eb IIC Gb** *and*
Ex tb IIIC Db
IP66 or **IP66/68**

Date 2016.06.16 - Translation issued the 2016.06.16

Prepared	**Verified**	**Approved**
Alessandro Fedato	Mirko Balaz	Roberto Piccin

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
(Roberto Piccin)

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /01**

[15] **Description of the variation to the product**

- Updating to standards EN60079-1:2014, EN60079-7:2015, EN60079-31:2014.
- New service temperature range from -60°C up to +130°C.
- New ambient temperature range from -60°C up to +110°C.

Description of equipment

Barrier cable glands series **BXA..**, **BXN..** and **BXC..** are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series **BXA..**, **BXN..** and **BXC..** are suitable for inserting circular cables with single or multiple cores into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP 66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The composition of Barrier cable gland series is as follow:

- Type **BXA..**: Barrier cable gland for non armoured cable with male insert for flexible conduit;
- Type **BXC..**: Barrier cable gland for non armoured cable with female threaded hub at exit;
- Type **BXN..**: Barrier cable gland for non armoured cable with standard back-nut.

The Barrier cable glands series **BXA..**, **BXC..** and **BXN..** have an operating temperature range from -60°C up to +130°C, while the ambient temperature range should be from -60°C up to +110°C. Barrier cable glands types made of AVP steel are restricted to the lower temperature range of -20°C.

The Barrier cable glands standard thread sizes are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M50x1.5 or tapered NPT ANSI/ASME B1.20.1 from 3/8" up to 1-½". Alternative available threads are cylindrical ISO 228/1 or Pg (DIN 40430), tapered Gk CEI EN 60079-1 Annex 1 or ISO 10226.

The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.

The IP66 degree of protection for Barrier cable glands with cylindrical threads is achieved with sealant put at least on two complete threads engaged of the threaded coupling while the IP 68 (30 m for 7 days) degree of protection is achieved with a Silicon flat washer. For all other threads (taper) the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Barrier cable glands are generally made of brass. The alternative materials Stainless steel, Free-cutting leaded steel (AVP) or Aluminium alloy can be supplied on demand.

The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /01**

Identification of Barrier cable glands

*** ***.***.***.***

Code which identifies the series:
- **BXA**: Barrier cable gland with male insert for flexible conduit
- **BXC**: Barrier cable gland with female threaded hub at exit
- **BXN**: Barrier cable gland with standard back-nut

Size (*see Table 1*)

Male thread:
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)**: NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO 10226

Female thread (*BXC series only*):
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)**: NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO 10226

Manufacturing material:
- **OT**: Brass
- **ON**: Nickel plated brass
- **S3,S4,S6**: AISI 303, 304, 316L
- **AVP**: AVP steel (only for Group II)
- **AL**: Aluminium alloy Al11S (only for Group II)

Sizes and cable characteristics of barrier cable glands are listed on the following Table 1:

Table 1:

Barrier cable glands type BX..								
Size	**Thread size**				**Cable dia. ranges**			**Max. cross sectional area of cores admitted (mm^2)**
	ISO 262 pitch 1.5	**NPT, ISO 228, ISO 10226**	**Pg DIN 40430**	**Gk**	**Max Over multi cores (mm)**	**Max Over single core (mm)**	**Max. No. of cores (*) (mm)**	
16	M 16 (**)	3/8" (**)	11 (**)	-	9.4	8.0	10	50.2
	M 20	1/2"	13,5					
20	M 20	1/2"	13,5	1/2"	12.4	10.5	15	86.5
			16					
25	M 25	3/4"	21	3/4"	17.6	14.0	30	153.9
32	M 32	1"	29	1"	22.8	18.5	50	268.7
40	M 40	1" ¼	36	1" ¼	28.0	24.5	75	471.2
50	M 50	1" ½	36	1" ½	34.5	29.5	80	683.1

(*) – For *Conductor diameter - Max. No. of cores* limits relationship details, referring to the manufacturer's documents.

(**) – The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /01**

Constructional characteristics

Degree of protection (EN 60529):	IP 66 or IP 68 (30 m for 7 days).
Service temperature range:	- 60 up to + 130 °C for all models.
Service temperature range for types made of AVP steel:	minimum temp. restricted up to -20C°.

[16] **Report n.** EX- B6012940.

Routine tests

None.

[17] **Special conditions for safe use (X)**

- The coupling of the Barrier cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which Barrier cable glands are mounted.
- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instruction.
- When the Barrier cable glands type **BXA** and **BXC** are designed for use in Group I (mines) applications:
  - the cables should be installed in compliance with the requirements of the local code of practice;
  - conduits should provide additional mechanical protection only.
- The Barrier cable glands series **BXA..**, **BXC..** and **BXN..** have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.
- The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.
- The Barrier cable glands should be installed within the following service temperature range:
  - **from - 60°C up to +130°C**.
  - **from - 20°C up to +130°C** for types made of AVP steel.
- The degree of protection IP66 or IP 66/68 (30 m for 7 days) according to the EN 60529 standard will be guaranteed for the Barrier cable glands if the holes into which Barrier cable glands are mounted are suitably sealed. To this scope the correct application of sealant which guaranties an **IP66** degree of protection on **cylindrical threads** and an **IP66/68** degree of protection on **tapered threads**, or the correct positioning of the plain gaskets (for **cylindrical threads only**) which guaranties an **IP66/68** degree of protection, shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-0/A11: 2013 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-1: 2014 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";

EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e";

EN 60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /01**

[19] **Descriptive documents** (prot. EX- B6012945).

- Technical note TF RCN14000R1 (133 pg.)	rev.1	dated	2016.03.01
- Safety and mounting instructions IBX RCN16000R1 (4 pg.)	rev.1	dated	2016.03.01
- Declaration of Conformity FACSIMILE (1 pg.)		dated	2016.04.20

One copy of all documents is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
01	2016.06.16	Updating to standards EN60079-1:2014, EN60079-7:2015 and EN60079-31:2014. New service and ambient temperature ranges.
00	2014.12.29	First Issue of the Certificate.

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Schema di certificazione CESI-ATEX

CERTIFICATE

[1] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 14 ATEX 069 X /02

[4] Product: **Barrier cable glands series BXA.., BXC.., BXN.. and BXM..**

[5] Manufacturer: **RCN S.r.l.**

[6] Address: **Regione Torame, via Crevacuore, I-13011 Borgosesia (Vercelli-Italy)**

[7] This supplementary certificate extends EC–Type Examination Certificate CESI 14 ATEX 069X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to..

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-B8011005.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

Ex	**I M2**	**Ex db I Mb** *and* **Ex eb I Mb**
		and
Ex	**II2GD**	**Ex db IIC Gb** *and* **Ex eb IIC Gb** *and* **Ex tb IIIC Db** **IP66** or **IP66/68**

Date 2018.05.31 - Translation issued the 2018.05.31

Prepared	**Verified**	**Approved**
Alessandro Fedato	Mirko Balaz	Roberto Piccin

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
(Roberto Piccin)

[13] # Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /02**

[15] **Description of the variation to the product**

- New Barrier cable glands **BXM..** type was added.

Description of equipment

Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** are suitable for inserting circular cables with single or multiple cores into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP 66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The composition of Barrier cable gland series is as follow:

- Type **BXA..**: Barrier cable gland for non armoured cable with male insert for flexible conduit;
- Type **BXC..**: Barrier cable gland for non armoured cable with female threaded hub at exit;
- Type **BXN..**: Barrier cable gland for non armoured cable with standard back-nut.
- Type **BXM..** : Barrier cable gland for non armoured cable with male threaded hub at exit.

The Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** have an operating temperature range from -60°C up to +130°C, while the ambient temperature range should be from -60°C up to +110°C. Barrier cable glands types made of AVP steel are restricted to the lower temperature range of -20°C.

The Barrier cable glands standard thread sizes are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M50x1.5 or tapered NPT ANSI/ASME B1.20.1 from 3/8" up to 1-½". Alternative available threads are cylindrical ISO 228/1 or Pg (DIN 40430), tapered Gk CEI EN 60079-1 Annex 1 or ISO 10226.

The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.

The IP66 degree of protection for Barrier cable glands with cylindrical threads is achieved with sealant put at least on two complete threads engaged of the threaded coupling while the IP 68 (30 m for 7 days) degree of protection is achieved with a Silicon flat washer. For all other threads (taper) the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Barrier cable glands are generally made of brass. The alternative materials Stainless steel, Free-cutting leaded steel (AVP) or Aluminium alloy can be supplied on demand.

The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /02**

Identification of Barrier cable glands

*** *** . *** . *** . ***

Code which identifies the series:
- **BXA**: Barrier cable gland with male insert for flexible conduit
- **BXC**: Barrier cable gland with female threaded hub at exit
- **BXN**: Barrier cable gland with standard nut
- **BXM**: Barrier cable gland with male threaded hub at exit

Size (*see Table 1*)

Male thread:
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO10226

Female thread (*for BXC only*) or Male thread (*for BXM only*):
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO10226

Manufacturing material:
- **OT**: Brass
- **ON**: Nickel plated brass
- **S3,S4,S6**: AISI 303, 304, 316L
- **AVP**: AVP steel (only for Group II)
- **AL**: Aluminium alloy Al11S (only for Group II)

Sizes and cable characteristics of barrier cable glands are listed on the following Table 1:

Table 1:

Barrier cable glands type BX..								
Size	**Thread size**				**Cable dia. ranges**			**Max. cross sectional area of cores admitted** (mm^2)
	ISO 262 pitch 1.5	**NPT, ISO 228, ISO 10226**	**Pg DIN 40430**	**Gk**	**Max Over multi cores** (mm)	**Max Over single core** (mm)	**Max. No. of cores (*)** (mm)	
16	M 16 (**)	3/8" (**)	11 (**)	-	9.4	8.0	10	50.2
	M 20	1/2"	13,5					
20	M 20	1/2"	13,5	1/2"	12.4	10.5	15	86.5
			16					
25	M 25	3/4"	21	3/4"	17.6	14.0	30	153.9
32	M 32	1"	29	1"	22.8	18.5	50	268.7
40	M 40	1" ¼	36	1" ¼	28.0	24.5	75	471.2
50	M 50	1" ½	36	1" ½	34.5	29.5	80	683.1

(*) – For *Conductor diameter - Max. No. of cores* limits relationship details, referring to the manufacturer's documents.

(**) – The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications

[13] # Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /02**

Constructional characteristics

Degree of protection (EN 60529):	IP 66 or IP 68 (30 m for 7 days).
Service temperature range:	- 60 up to + 130 °C for all models.
Service temperature range for types made of AVP steel:	minimum temp. restricted up to -20C°.

[16] **Report n.** EX- B8011005.

Routine tests

None.

[17] **Special conditions for safe use (X)**

- The coupling of the Barrier cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which Barrier cable glands are mounted.
- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instruction.
- When the Barrier cable glands **BXA, BXM** and **BXC** are designed for use in Group I (mines) applications:
  - the cables should be installed in compliance with the requirements of the local code of practice;
  - conduits should provide additional mechanical protection only.
- The Barrier cable glands series **BXA, BXN, BXM** and **BXC** have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.
- The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.
- The Barrier cable glands should be installed within the following service temperature range:
  - **from - 60°C up to +130°C.**
  - **from - 20°C up to +130°C** for types made of AVP steel.
- The degree of protection IP66 or IP 66/68 (30 m for 7 days) according to the EN 60529 standard will be guaranteed for the Barrier cable glands if the holes into which Barrier cable glands are mounted are suitably sealed. To this scope the correct application of sealant which guaranties an **IP66** degree of protection on **cylindrical threads** and an **IP66/68** degree of protection on **tapered threads**, or the correct positioning of the plain gaskets (for **cylindrical threads only**) which guaranties an **IP66/68** degree of protection, shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-0/A11: 2013 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-1: 2014 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";

EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e";

EN 60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /02**

[19] **Descriptive documents** (prot. EX- B8011008).

- Technical note TF RCN14000R1 (153 pg.)	rev.2	dated	2018.03.19
- Safety and mounting instructions IBX RCN16000R2 (4 pg.)		dated	2018.03.19
- Declaration of Conformity FACSIMILE (1 pg.)		dated	2018.05.29

One copy of all documents is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
02	2018.05.31	New Barrier cable glands BXM.. type was added.
01	2016.06.16	Updating to standards EN60079-1:2014, EN60079-7:2015 and EN60079-31:2014. New service and ambient temperature ranges.
00	2014.12.29	First Issue of the Certificate.

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Schema di certificazione CESI-ATEX

CERTIFICATE

[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 14 ATEX 069 X /03

[4] Product: **Barrier cable glands series BXA.., BXC.., BXN.. and BXM..**

[5] Manufacturer: **RCN S.r.l.**

[6] Address: **Regione Torame, via Crevacuore, I-13011 Borgosesia (Vercelli-Italy)**

[7] This supplementary certificate extends EC–Type Examination Certificate CESI 14 ATEX 069X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to..

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-C1001485.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

Ex	**I M2**	**Ex db I Mb** *and* **Ex eb I Mb**
		and
Ex	**II2GD**	**Ex db IIC Gb** *and* **Ex eb IIC Gb** *and* **Ex tb IIIC Db** **IP66** or **IP66/68**

Date 09.02.2021- Translation issued the 09.02.2021

Prepared	**Verified**	**Approved**
Adrián Lucas Vagni	Alessandro Fedato	Roberto Piccin

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /03**

[15] **Description of the variation to the product**

Variation 3.1:

The certificated Barrier cable glands types **BXA.., BXC.., BXN** and **BXM..**, originally assessed in compliance to EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-7:2015 and EN 60079-31:2014 have been re-assessed on the basis of the Standards shown in paragraph **[18]**.

Description of equipment

Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** are suitable for inserting circular cables with single or multiple cores into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP 66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The composition of Barrier cable gland series is as follow:

- Type **BXA..**: Barrier cable gland for non armoured cable with male insert for flexible conduit;
- Type **BXC..**: Barrier cable gland for non armoured cable with female threaded hub at exit;
- Type **BXN..**: Barrier cable gland for non armoured cable with standard back-nut.
- Type **BXM..** : Barrier cable gland for non armoured cable with male threaded hub at exit.

The Barrier cable glands series **BXA.., BXN.., BXM..** and **BXC..** have an operating temperature range from -60°C up to +130°C, while the ambient temperature range should be from -60°C up to +110°C. Barrier cable glands types made of AVP steel are restricted to the lower temperature range of -20°C.

The Barrier cable glands standard thread sizes are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M50x1.5 or tapered NPT ANSI/ASME B1.20.1 from 3/8" up to 1-½". Alternative available threads are cylindrical ISO 228/1 or Pg (DIN 40430), tapered Gk CEI EN 60079-1 Annex 1 or ISO 10226.

The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.

The IP66 degree of protection for Barrier cable glands with cylindrical threads is achieved with sealant put at least on two complete threads engaged of the threaded coupling while the IP 68 (30 m for 7 days) degree of protection is achieved with a Silicon flat washer. For all other threads (taper) the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

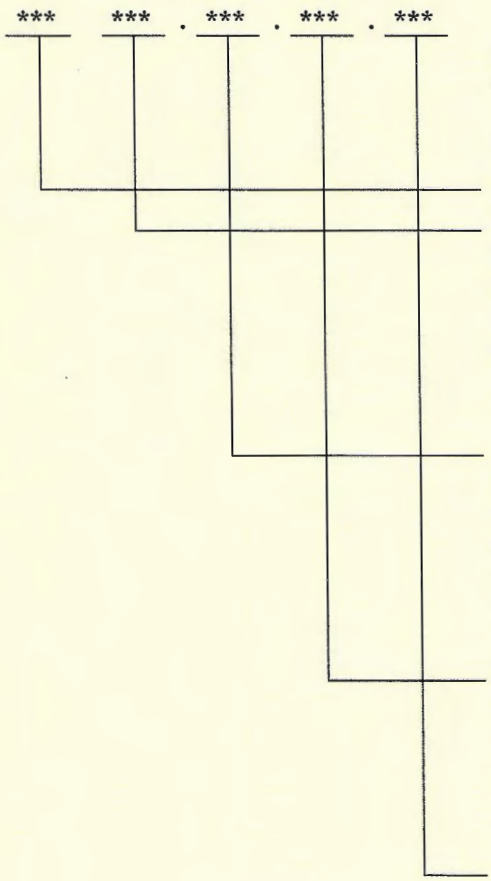
The Barrier cable glands are generally made of brass. The alternative materials Stainless steel, Free-cutting leaded steel (AVP) or Aluminium alloy can be supplied on demand.

The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /03**

Identification of Barrier cable glands



Code which identifies the series:
- **BXA**: Barrier cable gland with male insert for flexible conduit
- **BXC**: Barrier cable gland with female threaded hub at exit
- **BXN**: Barrier cable gland with standard nut
- **BXM**: Barrier cable gland with male threaded hub at exit

Size (*see Table 1*)

Male thread:
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO10226

Female thread (*for BXC only*) or Male thread (*for BXM only*):
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430
- **U (20÷50)**: Gk CEI EN 60079-1 Annex 1
- **R (16÷50)**: ISO10226

Manufacturing material:
- **OT**: Brass
- **ON**: Nickel plated brass
- **S3,S4,S6**: AISI 303, 304, 316L
- **AVP**: AVP steel (only for Group II)
- **AL**: Aluminium alloy Al11S (only for Group II)

Table 1: Sizes and cable characteristics of barrier cable glands

Barrier cable glands type BX..								
Size	**Thread size**				**Cable dia. ranges**			**Max. cross sectional area of cores admitted** (mm^2)
	ISO 262 pitch 1.5	**NPT, ISO 228, ISO 10226**	**Pg DIN 40430**	**Gk**	**Max Over multi cores** (mm)	**Max Over single core** (mm)	**Max. No. of cores (*)** (mm)	
16	M 16 (**)	3/8" (**)	11 (**)	-	9.4	8.0	10	50.2
	M 20	1/2"	13,5					
20	M 20	1/2"	13,5	1/2"	12.4	10.5	15	86.5
			16					
25	M 25	3/4"	21	3/4"	17.6	14.0	30	153.9
32	M 32	1"	29	1"	22.8	18.5	50	268.7
40	M 40	1" ¼	36	1" ¼	28.0	24.5	75	471.2
50	M 50	1" ½	36	1" ½	34.5	29.5	80	683.1

(*) – For *Conductor diameter - Max. No. of cores* limits relationship details, referring to the manufacturer's documents.

(**) – The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /03**

Constructional characteristics

Degree of protection (EN 60529):	IP 66 or IP 68 (30 m for 7 days).
Service temperature range:	- 60 up to + 130 °C for all models.
Service temperature range for types made of AVP steel:	minimum temp. restricted up to -20C°.

[16] **Report n.** EX-C1001485.

Routine tests

None.

[17] **Special conditions for safe use (X)**

- The coupling of the Barrier cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which Barrier cable glands are mounted.
- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instruction.
- When the Barrier cable glands **BXA, BXM** and **BXC** are designed for use in Group I (mines) applications:
  - the cables should be installed in compliance with the requirements of the local code of practice;
  - conduits should provide additional mechanical protection only.
- The Barrier cable glands series **BXA, BXN, BXM** and **BXC** have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.
- The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.
- The Barrier cable glands should be installed within the following service temperature range:
  - **from - 60°C up to +130°C**.
  - **from - 20°C up to +130°C** for types made of AVP steel.
- The degree of protection IP66 or IP 66/68 (30 m for 7 days) according to the EN 60529 standard will be guaranteed for the Barrier cable glands if the holes into which Barrier cable glands are mounted are suitably sealed. To this scope the correct application of sealant which guaranties an **IP66** degree of protection on **cylindrical threads** and an **IP66/68** degree of protection on **tapered threads**, or the correct positioning of the plain gaskets (for **cylindrical threads only**) which guaranties an **IP66/68** degree of protection, shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

• EN IEC 60079-0:2018	Explosive atmospheres – Part 0: Equipment - General requirements;
• EN 60079-1:2014	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";
• EN IEC 60079-7:2015/A1:2018	Explosive atmospheres – Part 7: Equipment protection by increased safety "e";
• EN 60079-31:2014	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 069 X /03**

[19] **Descriptive documents** (prot. EX-C1001486).

*Technical note TF RCN2000BXR0 (153 pag.) rev.0 dated 02.11.2020

*Safety and mounting instructions IBX RCN20000R0 (4 pag.) rev.0 dated 02.11.2020

*Note: an * is included before the title of documents that are new or revised annexed to this supplement.*

One copy of all documents is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
03	09.02.2021	Standard update
02	31.05.2018	New Barrier cable glands BXM.. type was added.
01	16.06.2016	Updating to standards EN60079-1:2014, EN60079-7:2015 and EN60079-31:2014. New service and ambient temperature ranges.
00	29.12.2014	First Issue of the Certificate.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CES 15.0001X**

Page 1 of 4

Certificate history:
Issue 2 (2018-06-06)
Issue 1 (2016-06-24)
Issue 0 (2015-02-10)

Status: **Current**

Issue No: 3

Date of Issue: 2021-02-19

Applicant: **RCN S.r.l.**
Regione Torame, via Crevacuore
I-13011, Borgosesia (VC)
Italy

Equipment: **Barrier cable glands, series BXA.., BXC.., BXN.. and BXM..**

Optional accessory:

Type of Protection: **Flameproof enclosures ‘d’; increased safety 'e'; Dust ignition protection 't'**

Marking: **Ex db I Mb and Ex eb I Mb;**

Ex db IIC Gb and Ex eb IIC Gb

Ex tb III C Db

IP66 or IP66/68

Approved for issue on behalf of the IECEx Certification Body: **Mirko Balaz**

Position: **Head of IECEx CB**

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy

IECEx Certificate of Conformity

Manufacturer: **RCN S.r.l.**
Regione Torame, via Crevacuore
I-13011, Borgosesia (VC)
Italy

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

IT/CES/ExTR14.0036/00 IT/CES/ExTR14.0036/01 IT/CES/ExTR14.0036/02
IT/CES/ExTR14.0036/03

Quality Assessment Report:

FR/INE/QAR10.0003/09

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Barrier cable glands series BXA.., BXN.., BXM.. and BXC.. are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series BXA.., BXN.., BXM.. and BXC.. are suitable for inserting circular cables with single or multiple cores into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The cable glands characteristics are further described in the Annexe of this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:
- The coupling of the Barrier cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which Barrier cable glands are mounted.

- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.

- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instructions.

- When the Barrier cable glands series BXA, BXM and BXC are designed for use in Group I (mines) applications:

  - the cables should be installed in compliance with the requirements of the local code of practice;
  - conduits should provide additional mechanical protection only.

- The Barrier cable glands series BXA, BXN, BXM and BXC have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.

- The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

- The Barrier cable glands should be installed within the following operative temperature range:

  - from - 60°C up to + 130°C.
  - from - 20°C up to + 130°C for types made of AVP steel.

- The flameproof joints are not intended to be repaired.

- The degree of protection IP66 or IP 66/68 (30 m for 7 days) according to the IEC 60529 standard will be guaranteed for the Barrier cable glands if the holes into which Barrier cable glands are mounted are suitably sealed. To this scope the correct application of sealant (for cylindrical and tapered threads) which guaranties an IP66 degree of protection on cylindrical threads and an IP66/68 degree of protection on tapered threads, or the correct positioning of the plain gaskets (for cylindrical threads only) which guaranties an IP66/68 degree of protection, shall be done as indicated in the manufacturer instructions.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 3.1
The cable glands BXA.., BXN.., BXM.. and BXC... series originally assessed in compliance with IEC 60079-0: 2011 and IEC 60079-7:2015, have been re-assessed on the basis of the new edition of IEC 60079-0:2017 and IEC 60079-7:2017 Standards.

Annex:

RCN - IECEx CES 15.0001X - issue 03 - ANNEX BXA-BXC-BXN-BXM.pdf

IECEx Certificate of Conformity

Prot: C1003463

Annex to certificate: **IECEx CES 15.0001X Issue No.:3** of 2021-02-19

Applicant: **RCN S.r.l.,**
Regione Torame, via Crevacuore, I-13011 Borgosesia (VC), Italy

Electrical Apparatus: **Barrier Cable Glands, series BXA.., BXC.., BXN.. and BXM..**

General product information:

Barrier cable glands series **BXA..**, **BXN.., BXM..** and **BXC..** are similar to normal cable glands, except a filling compound material is used to seal and clamp the individual cores of the cable, to prevent the transmission of an accidental internal ignition to the outside of the enclosure of the equipment on which they are mounted.

The Barrier cable glands series **BXA..**, **BXN.., BXM..** and **BXC..** are suitable for inserting circular cables with single or multiple cores into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

The epoxy resin is used to facilitate sealing between the cores and the filling pot and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors connections too. Ingress protection of IP66 or IP66/68 (30 m for 7 days) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The composition of Barrier cable gland series is as follow:

- Type **BXA..**: Barrier cable gland for non armoured cable with male insert for flexible conduit;
- Type **BXC..**: Barrier cable gland for non armoured cable with female threaded hub at exit;
- Type **BXN..**: Barrier cable gland for non armoured cable with standard back-nut;
- Type **BXM..** : Barrier cable gland for non armoured cable with male threaded hub at exit.

The Barrier cable glands series **BXA..**, **BXN.., BXM..** and **BXC..** have an operating temperature range from -60°C up to +130°C, while the ambient temperature range should be from -60°C up to +110°C. Barrier cable glands types made of AVP steel are restricted to the lower temperature range of -20°C.

The Barrier cable glands standard thread sizes are cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M50x1.5 or tapered NPT ANSI/ASME B1.20.1 from 3/8" up to 1-½". Alternative available threads are cylindrical ISO 228/1 or Pg (DIN 40430).
The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.

The IP66 degree of protection for Barrier cable glands with cylindrical threads is achieved with sealant put at least on two complete threads engaged of the threaded coupling while the IP 66/68 degree of protection is achieved with a Silicon flat washer. For all other threads (taper) the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Barrier cable glands are generally made of brass. The alternative materials Stainless steel, Free-cutting leaded steel (AVP) or Aluminium alloy can be supplied on demand.

The Barrier cable glands made of Free-cutting leaded steel (AVP) or Aluminium alloy are admitted for Group II applications only.

Constructional characteristics

Degree of protection (EN 60529):	IP 66 or IP 68 (30 m for 7 days).
Service temperature range:	- 60°C up to + 130 °C.
Service temperature range for types made of AVP steel:	minimum temp. restricted to -20C°.

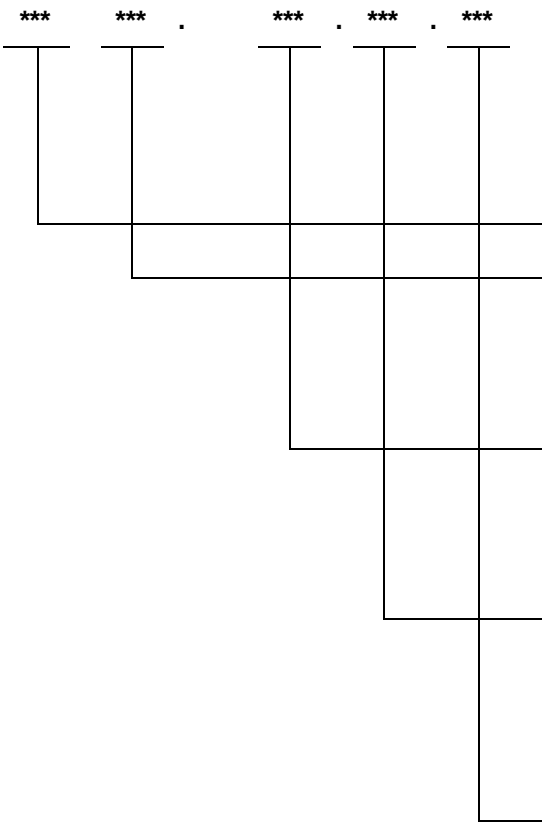
Prot: C1003463

Annex to certificate: **IECEx CES 15.0001X Issue No.:3** of 2021-02-19

Applicant: **RCN S.r.l.,**
Regione Torame, via Crevacuore, I-13011 Borgosesia (VC), Italy

Electrical Apparatus: **Barrier Cable Glands, series BXA.., BXC.., BXN.. and BXM..**

Identification of Barrier cable glands



Code which identifies the series:
- **BXA**: Barrier cable gland with male insert for flexible conduit
- **BXC**: Barrier cable gland with female threaded hub at exit
- **BXN**: Barrier cable gland with standard nut
- **BXM**: Barrier cable gland with male threaded hub at exit

Size (*see Table 1*)

Male thread:
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430

Female thread (*for BXC only*) or Male thread (*for BXM only*):
- **I (16÷50)**: ISO metric pitch 1,5mm
- **B (16÷50)**: GAS 228-1
- **N (16÷50)** : NPT ANSI/ASME B1.20.1
- **P (16÷50)**: PG DIN 40430

Manufacturing material:
- **OT**: Brass
- **ON**: Nickel plated brass
- **S3,S4,S6**: AISI 303, 304, 316L
- **AVP**: AVP steel (only for Group II)
- **AL**: Aluminium alloy Al11S (only for Group II)

Standard sizes, thread sizes and cable characteristics are listed on the following Table 1:

Table 1:

Barrier cable glands type BX..							
Size	**Thread size**			**Cable dia. ranges**			**Max. cross sectional area of cores admitted** (mm^2)
	ISO 262 pitch 1.5	**NPT** or **ISO 228**	**Pg DIN 40430**	**Max Over multi cores** (mm)	**Max Over single core** (mm)	**Max. No. of cores** (*) (mm)	
16	M 16 (**) M 20	3/8" (**) 1/2"	11 (**) 13,5	9.4	8.0	10	50.2
20	M 20	1/2"	13,5 16	12.4	10.5	15	86.5
25	M 25	3/4"	21	17.6	14.0	30	153.9
32	M 32	1"	29	22.8	18.5	50	268.7
40	M 40	1" ¼	36	28.0	24.5	75	471.2
50	M 50	1" ½	36	34.5	29.5	80	683.1

(*) – For *Conductor diameter - Max. No. of cores* limits relationship details, referring to the manufacturer's documents.

(**) – The Barrier cable glands with M16, 3/8" and Pg11 threads are not admitted for Group I (mines) applications.