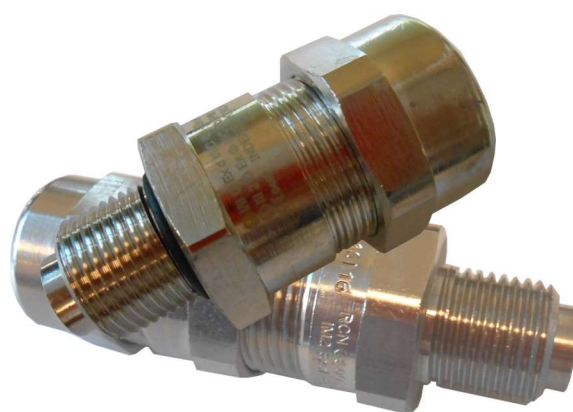




Operation and instruction manual cable glands type IR and IB



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Purpose of these instructions

Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations. Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations. These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff must study.



SAFETY INSTRUCTIONS

Use the explosion-proof cable gland only for its intended purpose. Explosion-proof cable glands are not suitable for Zone 0 and Zone 20 hazardous areas! Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision. No changes to the device impairing its explosion protection are permitted. Use the explosion-proof cable gland only if it is clean and undamaged. Any damage can invalidate the Ex-protection.

Observe the following during installation and operation:

- National safety regulations
- National accident prevention regulations;
- National installation regulations;
- Generally recognized technical regulations;
- Safety guidelines in these operating instructions;

Applicable scope

Transport and storage in original packaging only. National safety and installations regulations and the generally accepted rules of engineering practice must be observed when mounting and operating the cable glands.

Technical data

Ex mark: II 2G Ex db IIC Gb
 II 2G Ex eb IIC Gb
 II 2D Ex tb IIIC Db IP66
 I M2 Ex db I Mb
 I M2 Ex eb I Mb

Can be used in zone 1,2, 21 en 22

Ambient / Service temperature (Ts):

- IRN(C) / IRAD glands with EPDM Seals	-40°C / 100°C
- IRN(C) / IRAD glands with Silicone Seals	-60°C / 200°C
- IBN(C) / IBAD glands with EPDM Seals	-40°C / 100°C
- IBN(C) / IBAD glands with Silicone Seals	-45°C / 160°C

The O-ring which is used metric cable glands, is made of the same material as the seals.

Degree of protection: IP66

Certificate APRAGAZ 24ATEX0238X

Certificate ISSeP10ATEX034X

Conformity to standards

The explosion-proof cable gland is designed and manufactured according to standard of ISO 9001 and EN ISO 80079-34.

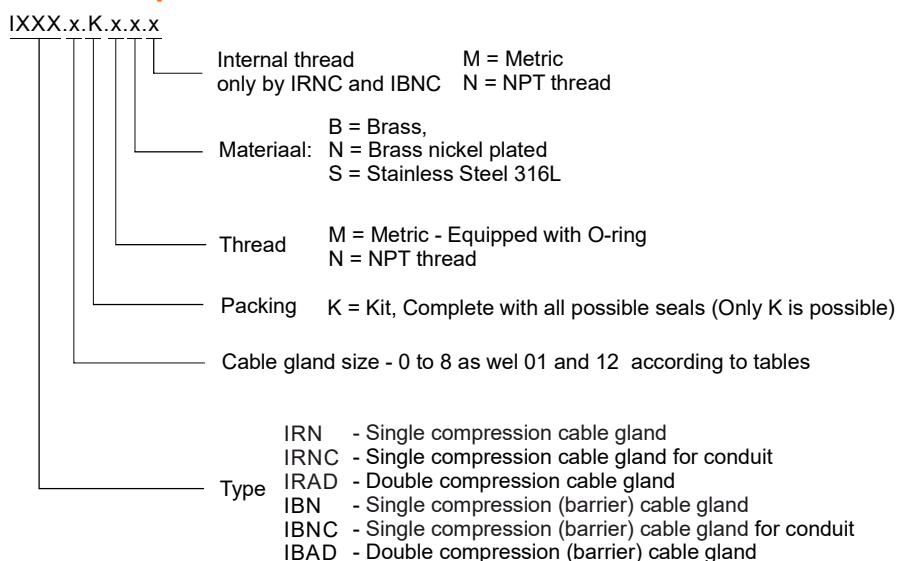
The explosion-proof cable gland is in conformity with ATEX directive and the standards:

EN IEC 60079-0:2018 / AC:2020-02
 EN 60079-1:2014
 EN IEC 60079-7:2015 / A1:2018
 EN 60079-31:2014

Special conditions for safe use:

- The flameproof joints are not intended to be repaired.
- For Group I execution only: The sealing devices must not be exposed to oil.
- Metric threaded glands are delivered with their O-ring and the O-ring is not allowed to be removed.
- For glands used in Ex e certified enclosures or in Ex t certified enclosures, whilst not certified Ex d, the enclosure:
 - * must either have a tolerance class of 6H or higher according to ISO 965-1.
 - * must either contain an ATEX certified Metric to NPT adapter.
 - * for enclosures having plain entries: the use of an O-ring and counter nut is mandatory.
- The internal threading of the IRNC/IBNC models can only be used for mechanical protection of electrical cables

Model and implication of INDEX.Cable Glands





Overview cable glands INDEX ELEKTRO

Our cable glands are suitable for various applications:

The IRN / IRNC types are suitable for:

- For Ex d application with unarmoured cables as per EN-IEC 60079-art.14 - 9.3.2(a)
note: Finely braided shielding < 0.15 mm over an area of at least 70% is allowed
- For Ex e and/or Ex t application



IRN type

IRNC type



IBN type

The IBN / IBNC types are suitable for:

- Ex d application of unarmoured cable, filled with B-Compound
- note: Finely braided shielding < 0.15 mm over an area of at least 70% is allowed, filled with B-compound.
- Ex e and/or Ex t application



IBNC type

The IRAD types are suitable for:

- For Ex d application with armoured cables as per EN-IEC 60079-art.14 - 9.3.2(a)
- For Ex e and/or Ex t application



The IBAD types are suitable for:

- For Ex d application of armoured cable, Filled with B-Compound
- For Ex e and/or Ex t application



Considerations:

- Only use original spare parts from Index Elektro BV.
- Avoid dust accumulation
- Only use the cable glands for their intended purpose.
- If no cable is fed into the cable gland, it must be replaced by an explosion-proof blind plug
- In an Ex d box, a cable gland must not be secured with a nut.

Labeling/Marking standard gland (EPDM)

Ex II 2 G Ex db IIC Gb - Ex II 2 G Ex eb IIC Gb - Ex II 2 D Ex tb IIIC Db
 Ex I M2 Ex db I Mb - Ex I M2 Ex eb I Mb T.amb./T.service -40°C / 100°C
 IP66 - Type xxxxxxxxxxxxxx APRAGAZ 24 ATEX xxxxxx
 CE 2776 - Index Elektro BV - Harregatplein 15 - 3214VP Zuidland (NL)

Labeling/Marking special gland (R-type Silicone)

Ex II 2 G Ex db IIC Gb - Ex II 2 G Ex eb IIC Gb - Ex II 2 D Ex tb IIIC Db
 Ex I M2 Ex db I Mb - Ex I M2 Ex eb I Mb T.amb./T.service -60°C / 200°C
 IP66 - Type IRxxxxxxxxxxxx APRAGAZ 24 ATEX xxxxxx
 CE 2776 - Index Elektro BV - Harregatplein 15 - 3214VP Zuidland (NL)

Labeling/Marking special gland (B-type Silicone)

Ex II 2 G Ex db IIC Gb - Ex II 2 G Ex eb IIC Gb - Ex II 2 D Ex tb IIIC Db
 Ex I M2 Ex db I Mb - Ex I M2 Ex eb I Mb T.amb./T.service -45°C / 160°C
 IP66 - Type IBxxxxxxxxxxxx APRAGAZ 24 ATEX xxxxxx
 CE 2776 - Index Elektro BV - Harregatplein 15 - 3214VP Zuidland (NL)

Labeling/Marking ISSeP certificate

Ex I/II 2 G Ex d I/IIIC Gb - Ex I/II 2 G Ex e IIC Gb - Ex III 2 D Ex tb IIIC Db IP66
 CE 2776 - Type xxxxxxxxxxxxxx ISSeP10ATEX034X IndexElektro.nl

Gebruikte materialen Index kabelwartels

Materialen die worden gebruikt bestaan uit metalen delen en kunststof delen

- | | |
|-----------------------|---|
| - Messing | - Geschikt voor EPL Ga max. 10% aluminium, Magnesium, Titanium, Zirconium en niet meer dan 7,5% Magnesium, Titanium en Zirconium |
| - Messing vernikkeld | - Messing zoals bovenstaand aangegeven voorzien van een laagje nickel ter bescherming van het messing tegen corrosie |
| - Roestvrijstaal 316L | - RVS 316L volgens EN 1.4404 / ASTM A276 |
| - EPDM | - Hardheid ASTM D2240 - Shore A - 60 (+5 -4) / treksterkte min. 10 Mpa / Verlenging bij breuk min.250% Compressie (24h ad 100°C) max.35% - Geschikt voor een omgevings-/servicetemperatuur van -40° tot +100°C |
| - Silicone | - Hardheid ASTM D 2240 - Shore A - 55 (+5 -4) / treksterkte min. 10 Mpa / Verlenging bij breuk min.250% Compressie (24h ad 100°C) max.35% - Geschikt voor een omgevings-/servicetemperatuur van -60° tot +200°C |
| - B-compound | - Araldite CW 1302 - 100 pbw / Aradur HY 1300 - 11 pbw verhouding 4:1 = 32cc - 8cc |
| - Nylon | - Nylon type 6 (PA6) |

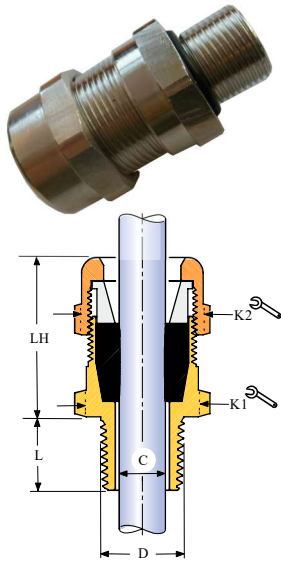


Materials used Index cable glands

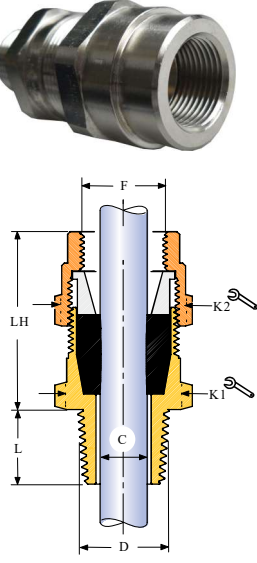
Materials used consist of the following metal and plastic parts

- | | |
|------------------------|--|
| - Brass | - Suitable for EPL Ga max. 10% aluminium, Magnesium, Titanium, Zirconium and not more than 7,5% Magnesium, Titanium en Zirconium |
| - Brass nickel plated | - Brass as indicated above, provided with a layer of nickel to protect the brass against and corrosion |
| - Stainless Steel 316L | - SS 316L as per EN 1.4404 / ASTM A276 |
| - EPDM | - Hardness ASTM D2240 - Shore A - 60 (+5 -4) / Tensile Strength min. 10 Mpa / Elongation at Break min. 250% / Compression (24h at 100°C) max.35% - Ambient/service temperature -40° tot +100°C |
| - Silicone | - Hardness ASTM D2240 - Shore A - 55 (+5 -4) / Tensile Strength min. 10 Mpa / Elongation at Break min. 250% / Compression (24h at 100°C) max.35% - Ambient/service temperature -60° tot +200°C |
| - B-compound | - Araldite CW 1302 - 100 pbw / Aradur HY 1300 - 11 pbw ratio 4:1 = 32cc - 8cc |
| - Nylon | - Nylon type 6 (PA6) |



Illustration	Size	D	C cable diameter	LH (mm)	K1 (mm)	K2 (mm)	Type
	0	M16x1.5 3/8"NPT	2 .. 10 mm	38/43	24	24	IRN.0.K.M.□ IRN.0.K.N.□
	01	M20x1.5 1/2"NPT	2 .. 10 mm	38/43	24	24	IRN.01.K.M.□ IRN.01.K.N.□
	1	M20x1.5 1/2"NPT	5.5 .. 13 mm	46/51	30	32	IRN.1.K.M.□ IRN.1.K.N.□
	12	M25x1.5 3/4"NPT	5.5 .. 13 mm	46/51	30	32	IRN.12.K.M.□ IRN.12.K.N.□
	2	M25x1.5 3/4"NPT	8 .. 18 mm	46/51	35	36	IRN.2.K.M.□ IRN.2.K.N.□
	3	M32x1.5 1"NPT	13 .. 24 mm	55/60	41	46	IRN.3.K.M.□ IRN.3.K.N.□
	4	M40x1.5 1 1/4"NPT	21 .. 30 mm	60/65	49	54	IRN.4.K.M.□ IRN.4.K.N.□
	5	M50x1.5 1 1/2"NPT	24 .. 36 mm	62/67	57	61	IRN.5.K.M.□ IRN.5.K.N.□
	6	M63x1.5 2"NPT	36 .. 45 mm	62/67	67	71	IRN.6.K.M.□ IRN.6.K.N.□
	7	M75x1.5 2 1/2"NPT	45 .. 54 mm	62/67	82	84	IRN.7.K.M.□ IRN.7.K.N.□
	8	M90x2 3"NPT	54 .. 68 mm	62/67	102	102	IRN.8.K.M.□ IRN.8.K.N.□

Messing - Brass - B
Vernikkeld - Nickel plated - N
RVS 316 - Stainless Steel 316 - S

Illustration	Size	D	C cable diameter	LH (mm)	K1 (mm)	K2 (mm)	Internal wiring in head	Type
	1	M20x1.5 1/2"NPT	5.5 .. 13 mm	46/51	30	32	M20x1.5 1/2"NPT	IRNC.1.K.M.□ □ IRNC.1.K.N.□ □
	2	M25x1.5 3/4"NPT	8 .. 18 mm	46/51	35	36	M25x1.5 3/4"NPT	IRNC.2.K.M.□ □ IRNC.2.K.N.□ □
	3	M32x1.5 1"NPT	13 .. 24 mm	55/60	41	46	M32x1.5 1"NPT	IRNC.3.K.M.□ □ IRNC.3.K.N.□ □

Brass - messing - B
Vernikkeld - Nickel plated - N
RVS 316 - Stainless Steel 316 - S

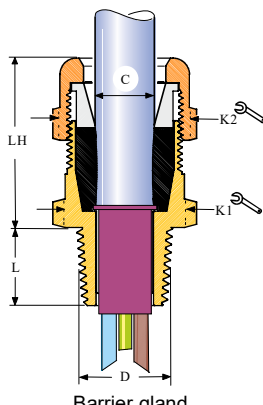
Internal wiring in head M = Metrisch / N = NPT
Intern draad in kop M = Metrical / N = NPT

The internal threading of the IRNC/IBNC models can only be used for mechanical protection of electrical cables

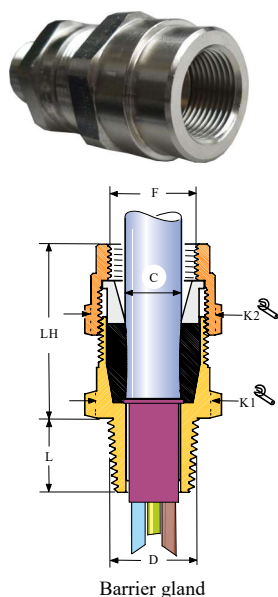
Illustration	Size	D	Ce outside diameter	C Inside diameter	LH (mm)	K1 (mm)	K2 (mm)	Type
	0	M16x1.5 3/8"NPT	5 .. 15 mm	2 .. 10 mm	58/63	24	24	IRAD.0.K.M.□ IRAD.0.K.N.□
	01	M20x1.5 1/2"NPT	5 .. 15 mm	2 .. 10 mm	58/63	24	24	IRAD.01.K.M.□ IRAD.01.K.N.□
	1	M20x1.5 1/2"NPT	10 .. 19 mm	5.5 .. 13 mm	66/71	30	32	IRAD.1.K.M.□ IRAD.1.K.N.□
	12	M25x1.5 3/4"NPT	10 .. 19 mm	5.5 .. 13 mm	66/71	30	32	IRAD.12.K.M.□ IRAD.12.K.N.□
	2	M25x1.5 3/4"NPT	15 .. 24 mm	8 .. 18 mm	66/71	35	36	IRAD.2.K.M.□ IRAD.2.K.N.□
	3	M32x1.5 1"NPT	20 .. 31 mm	13 .. 24 mm	75/80	41	46	IRAD.3.K.M.□ IRAD.3.K.N.□
	4	M40x1.5 1 1/4"NPT	26 .. 37 mm	21 .. 30 mm	80/85	49	54	IRAD.4.K.M.□ IRAD.4.K.N.□
	5	M50x1.5 1 1/2"NPT	31 .. 43 mm	24 .. 36 mm	82/87	57	61	IRAD.5.K.M.□ IRAD.5.K.N.□
	6	M63x1.5 2"NPT	42 .. 53 mm	36 .. 45 mm	82/87	67	71	IRAD.6.K.M.□ IRAD.6.K.N.□
	7	M75x1.5 2 1/2"NPT	52 .. 64 mm	45 .. 54 mm	82/87	82	84	IRAD.7.K.M.□ IRAD.7.K.N.□
	8	M90x2 3"NPT	64 .. 78 mm	54 .. 68 mm	82/87	102	102	IRAD.8.K.M.□ IRAD.8.K.N.□

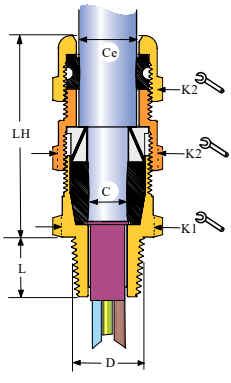
L=Thread length: see table on page 8

Messing - Brass - B
 Vernikkeld - Nickel plated - N
 RVS 316 - Stainless Steel 316 - S

Illustration	Size	D	C cable diameter	LH (mm)	K1 (mm)	K2 (mm)	Type
 Barrier gland Use the type B gland if the cables do not comply with 60079 - 14 (2014) art 9.3.2 or if they are shorter than 3 meters	0	M16x1.5 3/8"NPT	2 .. 10 mm	38/43	24	24	IBN.0.K.M. ☐ IBN.0.K.N. ☐
	01	M20x1.5 1/2"NPT	2 .. 10 mm	38/43	24	24	IBN.01.K.M. ☐ IBN.01.K.N. ☐
	1	M20x1.5 1/2"NPT	5.5 .. 13 mm	46/51	30	32	IBN.1.K.M. ☐ IBN.1.K.N. ☐
	12	M25x1.5 3/4"NPT	5.5 .. 13 mm	46/51	30	32	IBN.12.K.M. ☐ IBN.12.K.N. ☐
	2	M25x1.5 3/4"NPT	8 .. 18 mm	46/51	35	36	IBN.2.K.M. ☐ IBN.2.K.N. ☐
	3	M32x1.5 1"NPT	13 .. 24 mm	55/60	41	46	IBN.3.K.M. ☐ IBN.3.K.N. ☐
	4	M40x1.5 1 1/4"NPT	21 .. 30 mm	60/65	49	54	IBN.4.K.M. ☐ IBN.4.K.N. ☐
	5	M50x1.5 1 1/2"NPT	24 .. 36 mm	62/67	57	61	IBN.5.K.M. ☐ IBN.5.K.N. ☐
	6	M63x1.5 2"NPT	36 .. 45 mm	62/67	67	71	IBN.6.K.M. ☐ IBN.6.K.N. ☐
	7	M75x1.5 2 1/2"NPT	45 .. 54 mm	62/67	82	84	IBN.7.K.M. ☐ IBN.7.K.N. ☐
	8	M90x2 3"NPT	54 .. 68 mm	62/67	102	102	IBN.8.K.M. ☐ IBN.8.K.N. ☐

Messing - Brass - B
Vernikkeld - Nickel plated - N
RVS 316 - Stainless Steel 316 - S

Illustration	Size	D	C cable diameter	LH (mm)	K1 (mm)	K2 (mm)	Internal wiring in head	Type
 Barrier gland	1	M20x1.5 1/2"NPT	5.5 .. 13 mm	46/51	30	32	M20x1.5 1/2"NPT	IBNC.1.K.M. ☐ ☐ IBNC.1.K.N. ☐ ☐
	2	M25x1.5 3/4"NPT	8 .. 18 mm	46/51	35	36	M25x1.5 3/4"NPT	IBNC.2.K.M. ☐ ☐ IBNC.2.K.N. ☐ ☐
	3	M32x1.5 1"NPT	13 .. 24 mm	55/60	41	46	M32x1.5 1"NPT	IBNC.3.K.M. ☐ ☐ IBNC.3.K.N. ☐ ☐
L=Thread length: see table on page 8 Brass - messing - B Vernikkeld - Nickel plated - N RVS 316 - Stainless Steel 316 - S Internal wiring in head M = Metrical / N = NPT Use the type B gland if the cables do not comply with 60079 - 14 (2014) art 9.3.2 or if they are shorter than 3 meters. The internal threading of the IBNC models can only be used for mechanical protection of electrical cables.								

Afbeelding Illustration	Grootte Size	Type	D	Gewicht Weight (g)	Ce Buiten - outside diameter	C Binnen - Inside diameter	LH (mm)	K1 (mm)	K2 (mm)
 Barrier gland Use the type B gland if the cables do not comply with 60079 - 14 (2014) art 9.3.2 or if they are shorter than 3 meters	0	IBAD.0.K.M.□	M16x1.5	134	5 .. 15 mm	2 .. 10 mm	58/63	24	24
	01	IBAD.01.K.M.□	M20x1.5	155	5 .. 15 mm	2 .. 10 mm	58/63	24	24
		IBAD.01.K.N.□	½"NPT	162					
	1	IBAD.1.K.M.□	M20x1.5	256	10 .. 19 mm	5.5 .. 13 mm	66/71	30	32
		IBAD.1.K.N.□	½"NPT	266					
	12	IBAD.12.K.M.□	M25x1.5	284	10 .. 19 mm	5.5 .. 13 mm	66/71	30	32
		IBAD.12.K.N.□	¾"NPT	294					
	2	IBAD.2.K.M.□	M25x1.5	313	15 .. 24 mm	8 .. 18 mm	66/71	35	36
		IBAD.2.K.N.□	¾"NPT	323					
	3	IBAD.3.K.M.□	M32x1.5	575	20 .. 31 mm	13 .. 24 mm	75/80	41	46
		IBAD.3.K.N.□	1"NPT	586					
	4	IBAD.4.K.M.□	M40x1.5	744	26 .. 37 mm	21 .. 30 mm	80/85	49	54
		IBAD.4.K.N.□	1¼"NPT	756					
	5	IBAD.5.K.M.□	M50x1.5	1109	31 .. 43 mm	24 .. 36 mm	82/87	57	61
		IBAD.5.K.N.□	1½"NPT	1130					
	6	IBAD.6.K.M.□	M63x1.5	1315	42 .. 53 mm	36 .. 45 mm	82/87	67	71
		IBAD.6.K.N.□	2"NPT	1330					
	7	IBAD.7.K.M.□	M75x1.5	1429	52 .. 64 mm	45 .. 54 mm	82/87	82	84
		IBAD.7.K.N.□	2½"NPT	1445					
	8	IBAD.8.K.M.□	M90x2	1559	64 .. 78 mm	54 .. 68 mm	82/87	102	102
		IBAD.8.K.N.□	3"NPT	1585					

Messing - Brass - B
 Vernikkeld - Nickel plated - N
 RVS 316 - Stainless Steel 316 - S

L=Thread length: see table on page 8

Installation Cable Glands

The selection, application and mounting of the cable gland must always be in accordance with EN IEC 60079 part 14

or cable entry in an Ex d housing:

- For unarmoured cable, single-clamping cable glands of the type IRN, IRNC or IBN, IBNC must be used.
If no certified cable is used, or if the cable is shorter than 3 meters, the gland must be suitable for 2-component resin, for this use the cable glands of the IBN or IBNC type
- For armored cable, double clamping cable glands of type IRAD or IBAD must be used.
If no certified cable is used, or if the cable is shorter than 3 meters, the gland must be suitable for 2-component resin, for this you use the cable glands of the IB type

Tabel cable glands, Metric threads

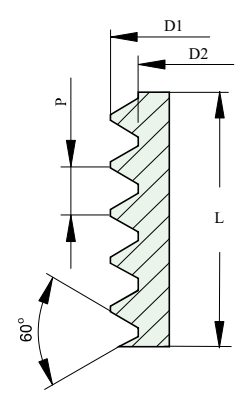
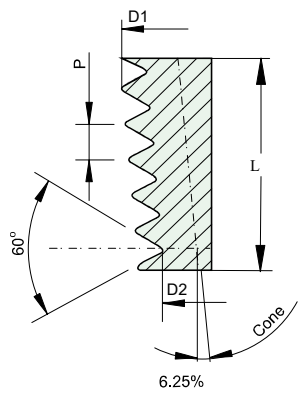
ISO 965-1 + ISO965-3		Size cable glands	Thread	P	L	D1	Hole for tapping Ø D2
		0	M16 x 1,5	1.5	15	16	14.5
		01	M20 x 1,5	1.5	15	20	18.5
		1	M20 x 1,5	1.5	15	20	18.5
		12	M25 x 1,5	1.5	15	25	23.5
		2	M25 x 1,5	1.5	15	25	23.5
		3	M32 x 1,5	1.5	15	32	30.5
		4	M40 x 1,5	1.5	15	40	38.5
		5	M50 x 1,5	1.5	15	50	48.5
		6	M63 x 1,5	1.5	15	63	61.5
		7	M75 x 1,5	1.5	15	75	73.5
		8	M90 x 2	2.0	18	90	88.0

Table NPT threads

ANSI B1.20.1		Size cable glands	Thread	P	L	D1	Hole for tapping Ø D2
		0	3/8"NPT	1.411	15	17.055	14.5
		01	1/2"NPT	1.814	18	21.223	18
		1	1/2"NPT	1.814	18	21.223	18
		12	3/4"NPT	1.814	18	26.568	23
		2	3/4"NPT	1.814	18	26.568	23
		3	1"NPT	2.208	22	33.227	29
		4	1.1/4"NPT	2.208	22	41.984	38
		5	1.1/2"NPT	2.208	24	48.053	44
		6	2"NPT	2.208	24	60.091	56
		7	2.1/2"NPT	3.175	28	72.699	71
		8	3"NPT	3.175	28	88.608	84

Install cable glands for Ex e, Ex t or Ex d applications until tight. note that glands with metric threads are tightened to the o-ring and comply with the tables below.

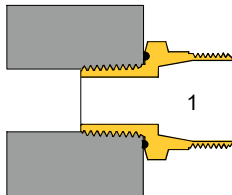
For Ex d versions - Figure 1 - the thread must be screwed into the enclosure a minimum of 5 passes.

For Ex e or Ex t versions, if the number of turns is less than 3, (or with through-holes) the cable glands must be tightened with a locknut - figure 2.

Materials required for this, such as nuts, earthtags, etc. can be purchased from us.

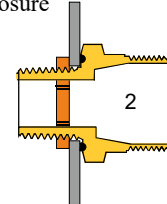
NPT thread always tighten without O-ring and/or gasket, never use NPT thread in plastic (polyester o.e.) boxes

Make sure that the cable gland is fitted perpendicular to the enclosure wall.



Tabel / Table

Grootte Size	Torque (NM)
0	10
01	12
1	12
12	15
2	15
3	18
4	22
5	26
6	30
7	35
8	40



Tabel / Table

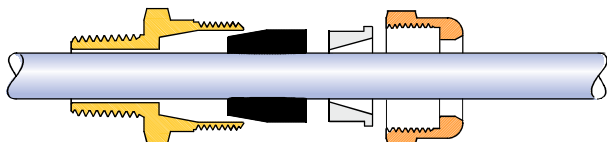
Grootte Size	Torque (NM)
0	10
01	10
1	10
12	10
2	12
3	14
4	16
5	18
6	20
7	22
8	25

Type IRN + Type IRNC

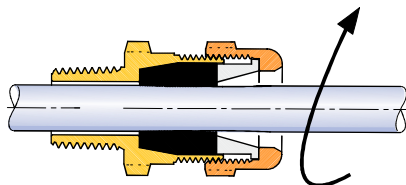
Use the type R gland if the cables comply with 60079 - 14 (2014) art 9.3.2 and if they are longer than 3 meters

1. Selecteer de juiste seal (tabel 1)
1. Select the right seal (table 1)

2. Voer de kabel door de kabelwartel
2. Feed the cable through the gland



3. Draai de kop totdat de kabel vast zit
3. Turn the head untill the cable is locked

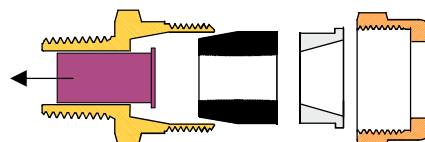


Type IBN + Type IBNC

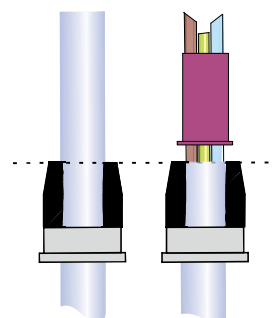
Use the type B gland if the cables do not comply with 60079 - 14 (2014) art 9.3.2 or if they are shorter than 3 meters



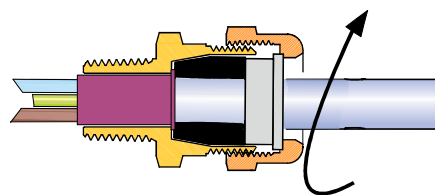
1. Plaats de bus in de kabelwartel en selecteerd de juiste seal
1. Place the bus in the cable gland and select the right seal
zie tabel 1 / see table 1



2. Snij de kabel aan tot net boven het rubber
2. Cut the cable to just above the rubber



3. Draai de kop totdat de kabel vast
3. Turn the head untill the cable is locked

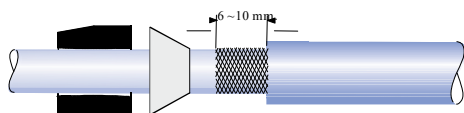


4. Afvullen met 2 componenten resin - blad 12
4. Fill with 2 componenten resin - Blad 12

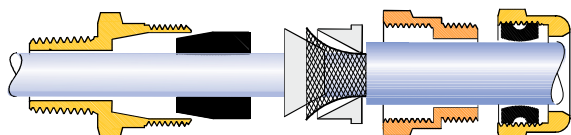
Type IRAD

Use the type R gland if the cables comply with 60079 - 14 (2014) art 9.3.2 and if they are longer than 3 meters

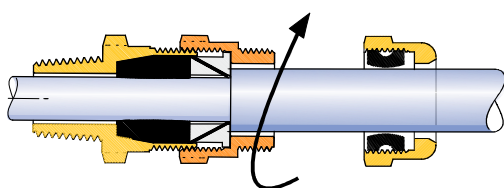
1. Verwijder de buitenmantel en knip de afscherming op een lengte van 6~10 mm. en selecteer de juiste rubbers (tabel 1)
1. Remove the external sheath of the cable and cut the armour to a length of 6~10 mm and select the right seals (table 1)



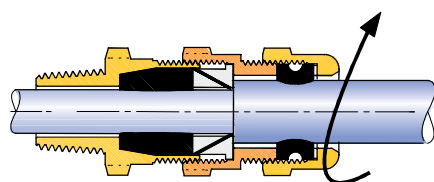
2. Voer de kabel door de kabelwartel en leg het scherm tussen de conische ringen
2. Feed the cable through the gland and insert sheath between the conical rings



3. Draai het binnendeel totdat de kabel onder het scherm vast zit
3. Turn the middle part until the cable under the sheath is locked

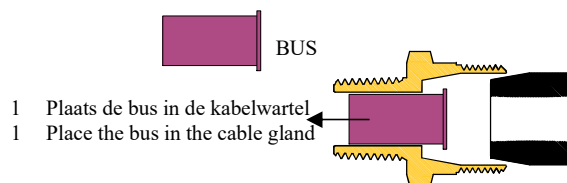


4. Draai de kop totdat de kabel vast zit
4. Turn the head until the cable is locked

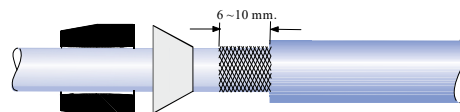


Type IBAD

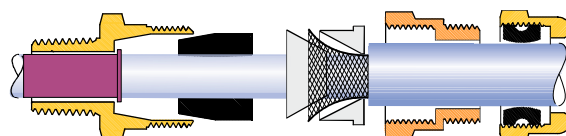
Use the type B gland if the cables do not comply with 60079 - 14 (2014) art 9.3.2 or if they are shorter than 3 meters



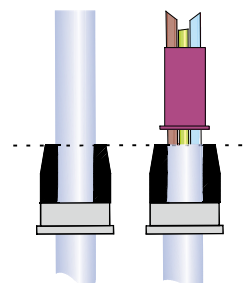
2. Verwijder de buitenmantel en knip de afscherming op een lengte van 6~10 mm. en selecteer de juiste rubbers (tabel 1)
2. Remove the external sheath of the cable and cut the armour to a length of 6~10 mm and select the right seals (table 1)



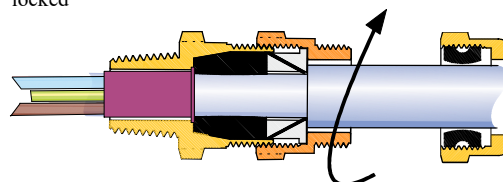
3. Voer de kabel door de kabelwartel en leg het scherm tussen de conische ringen
3. Feed the cable through the gland and insert sheath between the conical rings



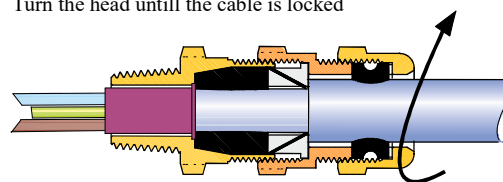
4. Snij de kabel aan tot net boven het rubber
4. Cut the cable to just above the rubber



5. Draai het binnendeel totdat de kabel onder het scherm vast zit
5. Turn the middle part until the cable under the sheath is locked



6. Draai de kop totdat de kabel vast zit
6. Turn the head until the cable is locked

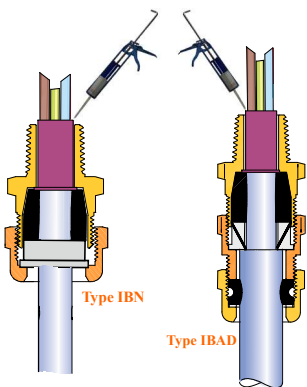


7. Afvullen met 2 componenten resin - blad 12
7. Fill with 2 componenten resin - Blad 12



The cable glands of type IBN, IBNC and IBAD must be provided with 2-component resin when used in an Ex d application

Illustration	Description	Additional information	Type
	Set 2 component compound with mixer	40 cc	B - compound S
	Mixer	Spare Part	B - compound M
	Special compound gun	For direct use with B - compound S	B - compound G
	Universal silicone gun	Use together with: - B - compound P and - B - compound S	B - compound U
	Plunger with adapter		B - compound P

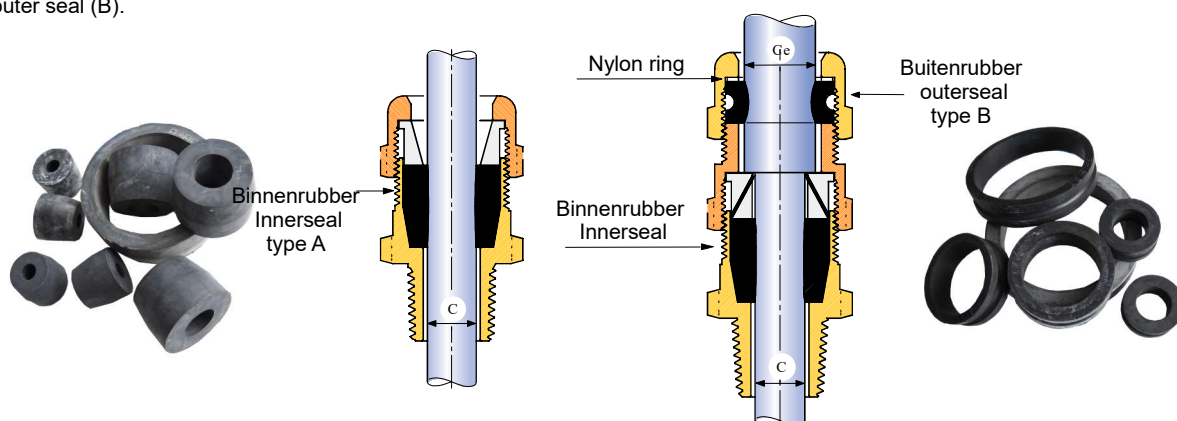
Illustration	Size	seal	number of glands per tube compound	Size	seal	number of glands per tube compound
Completely fill with 2 component resin type B-compound S  Type IBN Type IBAD	0	4 mm 7 mm 10 mm	20 pcs 30 pcs 60 pcs	4	24 mm 27 mm 30 mm	4 pcs 5 pcs 9 pcs
	01	4 mm 7 mm 10 mm	20 pcs 30 pcs 60 pcs	5	27 mm 30 mm 33 mm 36 mm	2 pcs 3 pcs 4 pcs 6 pcs
	1	8 mm 10,5 mm 13 mm	15 pcs 20 pcs 30 pcs	6	39 mm 42 mm 45 mm	2 pcs 2 pcs 4 pcs
	12	8 mm 10,5 mm 13 mm	15 pcs 20 pcs 30 pcs	7	48 mm 51 mm 54 mm	1 pcs 1 pcs 2 pcs
	2	10,5 mm 13 mm 15 mm 18 mm	8 pcs 10 pcs 14 pcs 17 pcs	8	56 mm 59 mm 62 mm 65 mm 68 mm	0,5 pcs 0,5 pcs 1 pcs 1 pcs 1 pcs
	3	15 mm 18 mm 21 mm 24 mm	5 pcs 6 pcs 8 pcs 12 pcs			

Notes:

- At least 20% of the volume must be filled with the resin,
- Fill the resin to the top
- Minimum curing time - 48 hours by 25°C / 24 hours by 40°C and 8 hours by 60°C
- Storage conditions, in a dry place between 5°C and 25°C

All cable glands are supplied including all associated seals. Always choose the smallest seal that just fits over the cable.

For unarmoured cables (glands types IRN, IBN, IRNC and IBNC) use only the inner seals (A) and for armoured cables (type IRAD and IBAD) use the inner seals (A) for the inner sheath (under the shield) and for the outer sheath of the cable you use the outer seal (B).



Kabelwartel grootte Cable gland size	diameter kabel / cable C	type binnenrubber innerseal - A	diameter kabel / cable Ce	type buitenrubber outer seal - B
0 + 01	2 .. 4 4 .. 7 7 .. 10	A0 - 4 A0 - 7 A0 - 10	5 .. 10 10 .. 15	B0 - 10 B0 - 15
1 + 12	5.5 .. 8 8 .. 10.5 10.5 .. 13	A1 - 8 A1 - 10 A1 - 13	10 .. 15 14 .. 19	B1 - 15 B1 - 19
2	8 .. 10.5 10.5 .. 13 13 .. 15 15 .. 18	A2 - 10 A2 - 13 A2 - 15 A2 - 18	15 .. 20 19 .. 24	B2 - 20 B2 - 24
3	13 .. 15.5 15 .. 18 18 .. 21 21 .. 24	A3 - 15 A3 - 18 A3 - 21 A3 - 24	20 .. 26 25 .. 31	B3 - 26 B3 - 31
4	21 .. 24 24 .. 27 27 .. 30	A4 - 24 A4 - 27 A4 - 30	26 .. 32 31 .. 37	B4 - 32 B4 - 37
5	24 .. 27 27 .. 30 30 .. 33 33 .. 36	A5 - 27 A5 - 30 A5 - 33 A5 - 36	31 .. 37 36 .. 43	B5 - 37 B5 - 43
6	36 .. 39 39 .. 42 42 .. 45	A6 - 39 A6 - 42 A6 - 45	42 .. 48 47 .. 53	B6 - 48 B6 - 53
7	45 .. 48 48 .. 51 51 .. 54	A7 - 48 A7 - 51 A7 - 54	52 .. 58 58 .. 64	B7 - 58 B7 - 64
8	54 .. 56 56 .. 59 59 .. 62 62 .. 65 65 .. 68	A8 - 56 A8 - 59 A8 - 62 A8 - 65 A8 - 68	64 .. 72 70 .. 78	B8 - 72 B8 - 78