

## **COMPREHENSIVE SAFETY WITH ATEX BY CONTROLWELL**

The current international regulations for machine manufacturers (94/9/EC) and operators (99/92/EC) prescribe high safety levels. Therefore, in addition to the traditional field of electrical engineering, legally compliant explosion protection also considers all relevant mechanical components - in order to avoid all ignition sources, including sparks, which can result from electrostatic charges, or hot spots. The ATEX – IECEx Directive besides taking into account the electrical sources of explosion, also considers potentially explosive concentration of gas, vapour or mist along with dust in the air.


**Explosion protection - the danger zones:** According to their risk potential explosion-prone rooms and equipment interiors are divided into zones. For gases, vapours and fogs the zone designations are 0, 1 and 2, for combustible dust they are 20, 21 and 22. Category 1 equipment is safe even in case of rare equipment malfunctions and may be used in zone 0/20. Category 2 equipment must be designed so that safety is assured even in case of expected malfunctions and may be used in zone 1/21. Equipment in protection category 3 is safe in normal operations and suitable for zone 2/22.

The use of ATEX cable glands is one of several technical measures to make ignition sources ineffective. The explosion rating plate of a piece of equipment includes the ignition protection type. Versions for increased safety, inherent safety and pressure-resistant enclosure are of particular significance in this context:

- "Ex d" protection - flame proof enclosure
- "Ex e" protection - increased safety
- "Ex i" protection - intrinsic safety

The Controlwell ATEX explosion protection system features high-grade materials. The use of plastics, nickel-plated brass and bright brass guarantees maximum safety.



  
EXPLOSION  
PROOF  
GLANDS &  
ACCESSORIES  
THE RIGHT PROTECTION WHERE YOU NEED IT  
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EXPLOSION PROOF

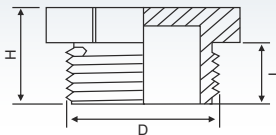
POLYAMIDE CABLE GLAND



These Glands are for use with electrical equipment in potentially explosive areas, specially in chemical and petro - chemical industries. These Glands are produced in accordance with 60079-7:2007

Technical Details :	
Material	Polyamide 6
Colour	RAL 9005 (Black)
Threads available	Metric - EN 60423
Protection Class	IP 66 - IP 68 (EN 60529)
Sealing Ring	Neoprene
Dust Guard	Assembled
Temperature Range	-20° C to +80° C
Certificate Number	IMQ 08 ATEX 012 X
Equipment Marking	Increased Safety Ex e II Intrinsic Safety Ex i II 2 GD / Ex tD A21
Suitable for use in	ZONE 1, ZONE 2 for Gas Groups IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres

Size	Cat. No. Black	Thread Diameter (mm)	Thread Length (mm)	⌀ (mm)	Clamping Range (mm)	Standard Pack (pieces)
M 12 x 1.5	BM-XS	12	8	15	3 - 6.5	100
M 16 x 1.5	BM-X1	16	10	19	4.5 - 10	50
M 20 x 1.5	BM-X2	20	10	24	6 - 12	50
M 20 x 1.5	BM-X3	20	10	27	10 - 14	50
M 25 x 1.5	BM-X5	25	10	33	13 - 18	25
M 32 x 1.5	BM-X7	32	15	42	18 - 25	20
M 40 x 1.5	BM-X8	40	18	53	22 - 32	10
M 50 x 1.5	BM-X9	50	18	60	30 - 38	10
M 63 x 1.5	BM-X10	63	18	65	34 - 44	10



EXPLOSION PROOF

POLYAMIDE BLIND STOPS



Technical Details :	
Material	Polyamide 6
Protection Class	IP 66 - IP 68 (EN 60529)
Flat Washer	Neoprene
Temperature Range	-20° C to +80° C
Threads available	Metric
Certificate No.	IMQ 08 ATEX 012 X
Safety Requirements	EN 60079-0:2006 / EN 60079-7:2007 / EN 60079-11:2007 / EN 61241-0:2006 / EN 61241-1:2004
Suitable for use in	ZONE 1, ZONE 2 for Gas Groups, IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres
Approvals	

**DRACO****Metric Thread**

Size	Cat. No.	Thread Diameter D (mm)	Total Height H (mm)	Thread Length L (mm)	Standard Pack (pieces)
M 12 x 1.5	BP-X02	12	15	8	100
M 16 x 1.5	BP-X01	16	15	10	50
M 20 x 1.5	BP-X1	20	15	10	50
M 25 x 1.5	BP-X2	25	15	10	50
M 32 x 1.5	BP-X3	32	20	15	25
M 40 x 1.5	BP-X4	40	27	18	10
M 50 x 1.5	BP-X5	50	27	18	10
M 63 x 1.5	BP-X6	63	27	18	10

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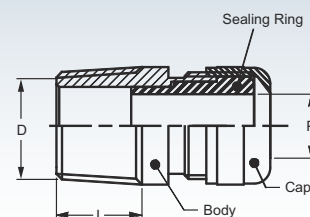


These Glands are produced in accordance to EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/EN 60079-11:2010/EN 60079-31:2009. Because of triple seal they have wide clamping range they are used in mobile offshore, marine application, chemical & petro chemical industry.

Technical Details :	
Material	Brass Nickel Plated (MB / NB Series) Stainless Steel (MX / NX Series)
Protection Class	IP 68 (EN 60529)
O Ring	Chloroprene / Nitrile
Temperature Range	-30°C to +120°C NBR Sealing Ring -40°C to +100°C Neoprene Sealing Ring -60°C to +180°C Silicone Sealing Ring
Threads available	Metric, NPT, (Pg available on request)
Certificate No.	IMQ 11 ATEX 038 X
Equipment Marking	Flameproof Ex-d IIC Gb, Inc. Safety Ex-e EX II 2 Gd / Ex-e IIC Gb
Suitable for use in	ZONE 1,ZONE 2,ZONE 21,ZONE22 for Gas Groups. IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres

EXPLOSION PROOF TRIPLE SEAL

STANDARD BRASS / S.S CABLE GLANDS



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## Metric Thread

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Clamping Range P (mm)	Standard Pack (pieces)
M16X1.5	BU01MB	16	16	22	3.0 - 12	50
M20X1.5	BU1MB	20	16	22	3.0 - 12	50
M20X1.5	BU12MB	20	16	28	10.0 - 16.0	50
M25X1.5	BU2MB	25	16	28	10.0 - 18.0	25
M25X1.5	BU23MB	25	16	35	14.0 - 20.0	25
M32X1.5	BU3MB	32	16	35	14.0 - 24.0	20
M32X1.5	BU34MB	32	16	45	22.0 - 28.0	20
M40X1.5	BU4MB	40	18	45	22.0 - 32.0	10
M40X1.5	BU45MB	40	18	50	26.0 - 34.0	10
M50X1.5	BU5MB	50	18	55 / 50	26.0 - 35.0	10
M50X1.5	BU56MB	50	18	55 / 58	35.0 - 44.0	10
M63X1.5	BU6MB	63	18	68 / 58	35.0 - 45.0	5
M63X1.5	BU67MB	63	18	75 / 80	45.0 - 57.0	5
M75X1.5	BU7MB	75	20	80	46.0 - 62.0	2
M75X1.5	BU78MB	75	20	95	60.0 - 70.0	2
M90X1.5	BU8MB	90	20	95	60.0 - 75.0	2
M90X1.5	BU810MB	90	20	105	75.0 - 85.0	2
M100X1.5	BU10MB	100	20	105	75.0 - 85.0	1
M110X1.5	BU11MB	110	20	150	85.0 - 95.0	1

## NPT Thread

NPT 3/8"	BU01NB	16.7	16	22	3.0 - 12	50
NPT 1/2"	BU1NB	20.95	16	22	3.0 - 12	50
NPT 1/2"	BU12NB	20.95	16	28	10.0 - 16.0	50
NPT 3/4"	BU2NB	26.4	16	28	10.0 - 18.0	25
NPT 3/4"	BU23NB	26.4	16	35	14.0 - 20.0	25
NPT 1"	BU3NB	33.2	16	35	14.0 - 24.0	20
NPT 1"	BU34NB	33.2	16	45	22.0 - 28.0	20
NPT 1 1/4"	BU4NB	41.9	18	45	22.0 - 32.0	10
NPT 1 1/4"	BU45NB	41.9	18	50	26.0 - 34.0	10
NPT 1 1/2"	BU5NB	47.5	18	55 / 50	26.0 - 35.0	10
NPT 1 1/2"	BU56NB	47.5	18	55 / 58	35.0 - 44.0	10
NPT 2"	BU6NB	59.37	18	68 / 58	35.0 - 45.0	5
NPT 2"	BU67NB	59.37	18	75 / 80	45.0 - 57.0	5
NPT 2 1/2"	BU7NB	71.87	20	80	46.0 - 62.0	2
NPT 2 1/2"	BU78NB	71.87	20	95	60.0 - 70.0	2
NPT 3"	BU8NB	87.50	20	95	60.0 - 75.0	2
NPT 3"	BU810NB	87.50	20	105	75.0 - 85.0	2
NPT 4"	BU10NB	112.50	20	105	75.0 - 85.0	1
NPT 4"	BU11NB	112.50	20	150	85.0 - 95.0	1



EXPLOSION PROOF Triple Seal

EMC BRASS / S.S CABLE GLANDS



These Glands are produced in accordance to EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/EN 60079-11:2010/EN 60079-31:2009. Because of triple seal they have wide clamping range they are used in mobile offshore, marine application, chemical & petro chemical industry.

Technical Details :	
Material	Brass Nickel Plated (MB / NB Series) Stainless Steel (MX / NX Series)
Protection Class	IP 68 (EN 60529)
O Ring	Chloroprene / Nitrile
Temperature Range	-30°C to +120°C NBR Sealing Ring -40°C to +100°C Neoprene Sealing Ring -60°C to +180°C Silicone Sealing Ring
Threads available	Metric, NPT
Certificate No.	IMQ 11 ATEX 038 X
Equipment Marking	Flameproof Ex d IIC Gb, Increase Safety Ex e EX II 2Gd / EX e IIC Gb / Ex t IIIC Db
Suitable for use in	ZONE 1,ZONE 2,ZONE 21,ZONE22 for Gas Groups. IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres

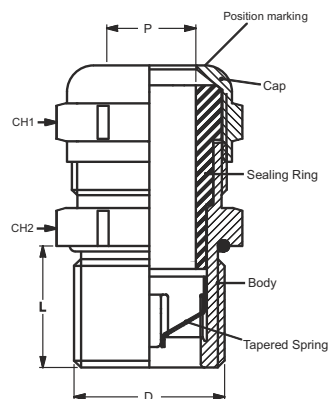
## VELA

### Metric Thread

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Clamping Range P (mm)	Standard Pack (pieces)
M16X1.5	BS01MB	16	16	22	3.0 - 12.0	50
M20X1.5	BS1MB	20	16	22	3.0 - 12.0	50
M25X1.5	BS2MB	25	16	28	10.0 - 18.0	25
M32X1.5	BS3MB	32	20	35	14.0 - 24.0	20
M40X1.5	BS4MB	40	20	45	22.0 - 32.0	10
M50X1.5	BS5MB	50	20	55	26.0 - 35.0	10

### NPT Thread

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Clamping Range P (mm)	Standard Pack (pieces)
NPT 3/8"	BS01NB	16.7	16	22	3.0 - 12.0	50
NPT 1/2"	BS1NB	20.95	16	22	3.0 - 12.0	50
NPT 3/4"	BS2NB	26.4	16	28	10.0 - 18.0	25
NPT 1"	BS3NB	33.2	20	35	14.0 - 24.0	20
NPT 1 1/4"	BS4NB	41.9	20	45	22.0 - 32.0	10
NPT 1 1/2"	BS5NB	47.5	20	55	26.0 - 35.0	10







These Glands are produced in accordance to EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/EN 60079-31:2009

Technical Details :	
Material	Brass Nickel Plated (MB Series) Stainless Steel (MX Series) 316L
Protection Class	IP 66 - IP 68 (EN 60529)
O Ring	Chloroprene / Nitrile
Temperature Range	-30°C to +120°C NBR Sealing Ring -40°C to +100°C Neoprene Sealing Ring -60°C to +180°C Silicone Sealing Ring
Certificate No.	IMQ 11 ATEX 037
Equipment Marking	Flameproof Ex d IIC Gb / EX d I Mb Increase Safety Ex e EX I M2 / ExII 2GD / Ex e I Mb / Ex e IIC Gb / Ex tb IIIC Db
Suitable for use in	ZONE 1,ZONE 2,ZONE 21,ZONE22 for Gas Groups. IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres

EXPLOSION PROOF DOUBLE COMPRESSION

METRIC THREAD BRASS / S.S CABLE GLANDS

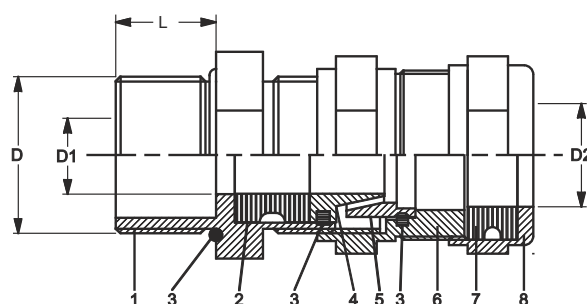


ORION

#### Metric Thread

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Sealing Ring D1 (mm)	Sealing Ring D2 (mm)
M16X1.5	KBA01SMB	16	16	26	3.0 - 8.5	6.0 - 12
M16X1.5	KBA01MB	16	16	29	6.0 - 12	8.5 - 16
M20X1.5	KBA1SMB	20	16	26	3.0 - 8.5	6.0 - 12
M20X1.5	KBA1MB	20	16	29	6.0 - 12	8.5 - 16
M20X1.5	KBA1LMB	20	16	32	8.5 - 14.5	12 - 20
M25X1.5	KBA2SMB	25	16	29	6.0 - 12	8.5 - 16
M25X1.5	KBA2MB	25	18	34	8.5 - 16	12 - 21
M25X1.5	KBA2LMB	25	16	40	12 - 20	16 - 26
M32X1.5	KBA3SMB	32	21	40	12 - 20	16 - 26
M32X1.5	KBA3MB	32	21	52	15 - 26	20 - 33
M40X1.5	KBA4SMB	40	21	52	15 - 26	20 - 33
M40X1.5	KBA4MB	40	21	60	20 - 32	29 - 41
M50X1.5	KBA5SMB	50	21	74	22 - 35	36 - 52
M50X1.5	KBA5MB	50	21	70	27 - 41	33 - 48
M63X1.5	KBA6SMB	63	21	80	35 - 45	43 - 57
M63X1.5	KBA6MB	63	20	85	40 - 52	47 - 60
M75X1.5	KBA7SMB	75	20	85	40 - 52	47 - 60

Item	Item Description
1	Lower Body
2	Lower sealing ring
3	O-Ring
4	Grounding cone
5	Swivel braid retainer
6	Middle body
7	Upper sealing ring
8	Pressure cap





EXPLOSION PROOF DOUBLE COMPRESSION  
NPT THREAD BRASS / S.S CABLE GLANDS



These Glands are produced in accordance to EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/EN 60079-31:2009

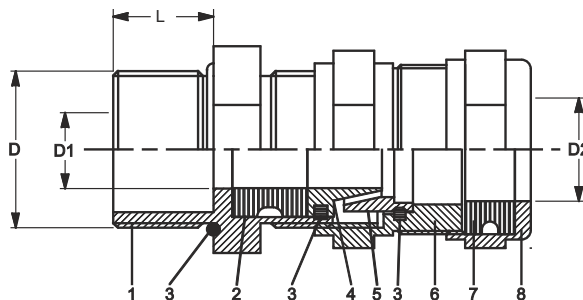
Technical Details :	
Material	Brass Nickel Plated (NB Series) Stainless Steel (NX Series) 316L
Protection Class	IP 66 - IP 68 (EN 60529)
O Ring	Chloroprene / Nitrile
Temperature Range	-30°C to +120°C NBR Sealing Ring -40°C to +100°C Neoprene Sealing Ring -60°C to +180°C Silicone Sealing Ring
Certificate No.	IMQ 11 ATEX 037
Equipment Marking	Flameproof Ex d IIC Gb / EX d I Mb Increase Safety Ex e EX I M2 / ExII 2GD / Ex e I Mb / Ex e IIC Gb / Ex tb IIIC Db
Suitable for use in	ZONE 1,ZONE 2,ZONE 21,ZONE22 for Gas Groups. IIA, IIB, IIC for Gas & Dust potentially explosive atmospheres

**ORION**

**NPT Thread**

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Sealing Ring D1 (mm)	Sealing Ring D2 (mm)
NPT 3/8"	KBA01SNB	16.7	16	26	3.0 - 8.5	6.0 - 12
NPT 3/8"	KBA01NB	16.7	16	29	6.0 - 12	8.5 - 16
NPT 1/2"	KBA1SNB	20.95	16	26	3.0 - 8.5	6.0 - 12
NPT 1/2"	KBA1NB	20.95	16	29	6.0 - 12	8.5 - 16
NPT 1/2"	KBA1LNB	20.95	16	32	8.5 - 14.5	12 - 20
NPT 3/4"	KBA2SNB	26.4	16	29	6.0 - 12	8.5 - 16
NPT 3/4"	KBA2NB	26.4	18	34	8.5 - 16	12 - 21
NPT 3/4"	KBA2LNB	26.4	16	40	12 - 20	16 - 26
NPT 1"	KBA3SNB	33.2	21	40	12 - 20	16 - 26
NPT 1"	KBA3NB	33.2	21	52	15 - 26	20 - 33
NPT 1 1/4"	KBA4SNB	41.9	21	52	15 - 26	20 - 33
NPT 1 1/4"	KBA4NB	41.9	21	60	20 - 32	29 - 41
NPT 1 1/2"	KBA5SNB	47.5	21	74	22 - 35	36 - 52
NPT 1 1/2"	KBA5NB	47.5	21	70	27 - 41	33 - 48
NPT 2"	KBA6SNB	59.37	21	80	35 - 45	43 - 57
NPT 2"	KBA6NB	59.37	20	85	40 - 52	47 - 60
NPT 2 1/2"	KBA7SNB	71.87	20	85	40 - 52	47 - 60

Item	Item Description
1	Lower Body
2	Lower sealing ring
3	O-Ring
4	Grounding cone
5	Swivel braid retainer
6	Middle body
7	Upper sealing ring
8	Pressure cap





Blind Stops made of Brass are used wherever threads previously cut must be closed for preventing dust, dirt and foreign matters from entering the enclosure or equipment.

Technical Details :	
Material	Brass (MB / NB Series) Stainless Steel (MX / NX Series)
Protection Class	IP 66 - IP 68 (EN 60529)
O Ring	Neoprene / NBR / Silicone
Threads available	Pg, Metric and NPT
Certificate No.	IMQ ATEX 16 U
Safety Requirements	Flameproof Ex d IIC Gb Increase Safety Ex e II 2 Gd / Ex Td A21

EXPLOSION PROOF BLIND STOPS

BRASS / STAINLESS STEEL

**AQUILA****Pg Thread**

Size	Cat. No.	Thread Diameter D (mm)	Total Height H (mm)	Thread Length L (mm)	Standard Pack (pieces)
Pg 7	B-TS1PB	12.5	22	15	50
Pg 9	B-TS2PB	15.2	22	15	25
Pg 11	B-TS3PB	18.6	22	15	20
Pg 13.5	B-TS4PB	20.4	22	15	20
Pg 16	B-TS5PB	22.5	22	15	10
Pg 21	B-TS6PB	28.3	22	15	10
Pg 29	B-TS7PB	37	22	15	10
Pg 36	B-TS8PB	47	22	15	5
Pg 42	B-TS9PB	54	22	15	5
Pg 48	B-TS10PB	59.3	22	15	5

**Metric Thread**

Size	Cat. No.	Thread Diameter D (mm)	Total Height H (mm)	Thread Length L (mm)	Standard Pack (pieces)
M 12 x 1.5	B-TS02MB	12	21	14	50
M 16 x 1.5	B-TS01MB	16	21	14	25
M 20 x 1.5	B-TS1MB	20	21	14	25
M 25 x 1.5	B-TS2MB	25	21	14	20
M 32 x 1.5	B-TS3MB	32	21	14	20
M 40 x 1.5	B-TS4MB	40	23	16	10
M 50 x 1.5	B-TS5MB	50	23	16	10
M 63 x 1.5	B-TS6MB	63	23	16	10
M 75 x 1.5	B-TS7MB	75	25	18	5
M 90 x 1.5	B-TS8MB	90	25	18	5
M 110 x 1.5	B-TS10MB	110	25	18	5

**NPT Thread**

Size	Cat. No.	Thread Diameter D (mm)	Total Height H (mm)	Thread Length L (mm)	Standard Pack (pieces)
NPT 1/4"	B-TS02NB		20	16	50
NPT 3/8"	B-TS01NB	16.7	20	16	25
NPT 1/2"	B-TS1NB	20.95	22	18	25
NPT 3/4"	B-TS2NB	26.4	22	18	20
NPT 1"	B-TS3NB	33.2	25	21	20
NPT 1 1/4"	B-TS4NB	41.9	25	21	10
NPT 1 1/2"	B-TS5NB	47.5	26	21	10
NPT 2"	B-TS6NB	59.37	26	21	10
NPT 2 1/2"	B-TS7NB	71.87	33	28	5
NPT 3"	B-TS8NB	87.5	33	28	5
NPT 4"	B-TS10NB	112.5	33	28	5





EXPLOSION PROOF ADAPTORS

BRASS / STAINLESS STEEL



These are used for threaded holes on machines or equipment housing where the threads are to be changed from Metric to NPT or from NPT to Metric.

Technical Details :	
Material	Brass Nickel Plated (NB / MB Series) Stainless Steel (NX / MX Series)
Protection Class	IP 66 - IP 68 (EN 60529)
Temperature Range	-30° C to +120° C
Certificate No.	IMQ 12 ATEX 003 U
Equipment Marking	Flameproof Ex d IIC Gb Increase Safety Ex e II 2GD / Ex e IIC Gb

## APUS

### NPT / Metric Thread

Cat. No.	Male Thread Size	Female Thread Size	Thread Length L (mm)	Total Height H (mm)	Standard Pack (pieces)
B-RB02M02NB	NPT 1/4"	M 12 x 1.5	15	33	50
B-RB01M02NB	NPT 1/4"	M 16 x 1.5	15	33.5	50
B-RB01M01NB	NPT 3/8"	M 16 x 1.5	15	33.5	50
B-RB1M01NB	NPT 3/8"	M 20 x 1.5	15	34	50
B-RB1M1NB	NPT 1/2"	M 20 x 1.5	15	34	25
B-RB2M1NB	NPT 1/2"	M 25 x 1.5	15	34	25
B-RB2M2NB	NPT 3/4"	M 25 x 1.5	15	34	25
B-RB3M2NB	NPT 3/4"	M 32 x 1.5	15	34	25
B-RB3M3NB	NPT 1"	M 32 x 1.5	15	34	10
B-RB4M3NB	NPT 1"	M 40 x 1.5	18	37	10
B-RB4M4NB	NPT 1 1/4"	M 40 x 1.5	18	40	10
B-RB5M4NB	NPT 1 1/4"	M 50 x 1.5	18	40	10
B-RB5M5NB	NPT 1 1/2"	M 50 x 1.5	18	40	5
B-RB6M5NB	NPT 1 1/2"	M 63 x 1.5	18	40.5	5
B-RB6M6NB	NPT 2"	M 63 x 1.5	18	40.5	5
B-RB7M6NB	NPT 2"	M 75 x 1.5	18	40.5	5
B-RB7M7NB	NPT 2 1/2"	M 75 x 1.5	18	40.5	3
B-RB8M7NB	NPT 2 1/2"	M 90 x 1.5	21	44	3
B-RB8M8NB	NPT 3"	M 90 x 1.5	21	47	2
B-RB10M8NB	NPT 3"	M 110 x 1.5	21	47	2
B-RB10M10NB	NPT 4"	M 110 x 1.5	21	47	2

### Metric / NPT Thread

B-RB02N02MB	M 12 x 1.5	NPT 1/4"	15	33.5	50
B-RB01N02MB	M 12 x 1.5	NPT 3/8"	15	33.5	50
B-RB01N01MB	M 16 x 1.5	NPT 3/8"	15	33.5	50
B-RB1N01MB	M 16 x 1.5	NPT 1/2"	15	34	50
B-RB1N1MB	M 20 x 1.5	NPT 1/2"	15	34	25
B-RB2N1MB	M 20 x 1.5	NPT 3/4"	15	34	25
B-RB2N2MB	M 25 x 1.5	NPT 3/4"	15	34	25
B-RB3N2MB	M 25 x 1.5	NPT 1"	15	34	25
B-RB3N3MB	M 32 x 1.5	NPT 1"	15	34	10
B-RB4N3MB	M 32 x 1.5	NPT 1 1/4"	18	37	10
B-RB4N4MB	M 40 x 1.5	NPT 1 1/4"	18	40	10
B-RB5N4MB	M 40 x 1.5	NPT 1 1/2"	18	40	10
B-RB5N5MB	M 50 x 1.5	NPT 1 1/2"	18	40	5
B-RB6N5MB	M 50 x 1.5	NPT 2"	18	40.5	5
B-RB6N6MB	M 63 x 1.5	NPT 2"	18	40.5	5
B-RB7N6MB	M 63 x 1.5	NPT 2 1/2"	18	40.5	5
B-RB7N7MB	M 75 x 1.5	NPT 2 1/2"	18	40.5	3
B-RB8N7MB	M 75 x 1.5	NPT 3"	21	43.5	3
B-RB8N8MB	M 90 x 1.5	NPT 3"	21	47	2
B-RB10N8MB	M 90 x 1.5	NPT 4"	21	47	2
B-RB10N10MB	M 110 x 1.5	NPT 4"	21	47	2



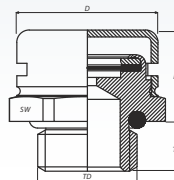
Ventilation Plugs are used for equalizing the pressure inside and outside the enclosure. The same is achieved with the help of a membrane inside the ventilation plug, which allows for gases (air) to pass through it while blocking liquids and particulate solids (dust).

Applications / Benefits :

- 1) These prevent components inside the enclosure from being exposed to pressurized gases when the enclosure heats up. (By virtue of pressure equalization)
- 2) These also prevent generation of vacuum inside the enclosure when a heated enclosure cools off. (e.g. In luminaires)
- 3) These help maintain IP 68 rating of the enclosure while allowing for the above benefits.

Technical Details :	
Material	Stainless Steel
Equipment Marking	Flameproof Ex e / Ex tb Increased Safety Ex II 2G / EX e IIC Gb / Ex IID tb IIC Db
Suitable for use in	Gas & Dust potentially explosive atmospheres
Temperature Range	-40° C to +105° C
Protection Class	IP 66
Safety Requirements	EN60079-0 / EN60079-7 / EN60079-31
Certificate No.	IBExU 10 ATEX 1169 U

### EXPLOSION PROOF VENTILATION PLUGS



**HYDRA**

Size	Cat. No.	Thread Diameter D (mm)	Thread Length L (mm)	Wrench (mm)	Air Permeability lt/hour	Water Intrusion Pressure Bar
M 12 x 1.5	MBBVP-01L	12	10	17	16	0.9
M 12 x 1.5	MBBVP-01	12	6	17	16	0.9



EXPLOSION PROOF LIQUID TIGHT STRAIGHT FITTINGS  
METRIC & NPT THREAD BRASS / S.S CONDUIT GLANDS



These Conduit Glands are produced in accordance to EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/ EN 60079-31:2009

Technical Details :	
Material	Brass Nickel Plated (MB / NB Series) Stainless Steel (MX / NX Series)
Protection Class	IP 66 - IP 68 (EN 60529)
Temperature Range	-30° C to +120° C NBR Sealing Ring -40° C to +100° C Neoprene Sealing Ring -60° C to +180° C Silicone Sealing Ring
Certificate No.	IMQ 11 ATEX 038 X
Equipment Marking	Flameproof Ex d IIC Gb Increase Safety Ex e IIC 2GD / Ex e IIC Gb
Suitable for use in	Gas & Dust potentially explosive atmospheres

**HYDRUS**

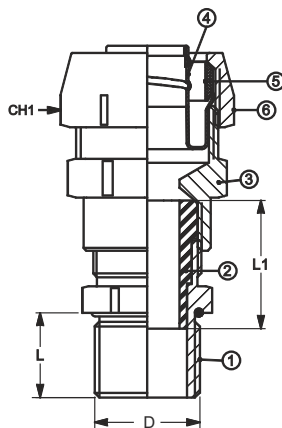
**Metric Thread**

Size	Cat. No.	Suitable for Conduit Size	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Sealing Ring D1 (mm)
M12X1.5	BLS02MB	1/2"	12	16	29	3.0 - 12.0
M16X1.5	BLS01MB	1/2"	16	16	29	3.0 - 12.0
M20X1.5	BLS1MB	1/2"	20	16	29	10.0 - 16.0
M25X1.5	BLS2MB	3/4"	25	16	35	10.0 - 18.0
M32X1.5	BLS3MB	1"	32	20	45	14.0 - 20.0
M40X1.5	BLS4MB	1 1/4"	40	20	54	14.0 - 24.0
M50X1.5	BLS5MB	1 1/2"	50	20	63	22.0 - 28.0

**NPT Thread**

Size	Cat. No.	Suitable for Conduit Size	Thread Diameter D (mm)	Thread Length L (mm)	⌀ (mm)	Sealing Ring D1 (mm)
NPT 1/4"	BLS02NB	1/2"	12	16	29	3.0 - 12.0
NPT 3/8"	BLS01NB	1/2"	16	16	29	3.0 - 12.0
NPT 1/2"	BLS1NB	1/2"	20	16	29	3.0 - 12.0
NPT 3/4"	BLS2NB	3/4"	25	16	35	10.0 - 18.0
NPT 1"	BLS3NB	1"	32	20	45	14.0 - 24.0
NPT 1 1/4"	BLS4NB	1 1/4"	40	20	54	22.0 - 32.0
NPT 1 1/2"	BLS5NB	1 1/2"	50	20	63	26.0 - 35.0

Item	Item Description
1	Lower Body
2	Lower seal
3	Middle body
4	Ferrule
5	Plastic Ring
6	Cap





These Conduit Glands are produced in accordance to  
EN 60079-0:2009/EN 60079-1:2007/ EN 60079-7:2007/  
EN 60079-31:2009

Technical Details :	
Material	Brass Nickel Plated (MB / NB Series) Stainless Steel (MX / NX Series)
Protection Class	IP 66 - IP 68 (EN 60529)
Temperature Range	-30° C to +120° C NBR Sealing Ring -40° C to +100° C Neoprene Sealing Ring -60° C to +180° C Silicone Sealing Ring
Certificate No.	IMQ 11 ATEX 038 X
Equipment Marking	Flameproof Ex d IIC Gb Increase Safety Ex e EX II 2GD / Ex e IIC Gb
Suitable for use in	Gas & Dust potentially explosive atmospheres

EXPLOSION PROOF LIQUID TIGHT 90° ELBOW FITTINGS

METRIC & NPT THREAD BRASS / S.S CONDUIT GLANDS



LUPUS

#### Metric Thread

Size	Cat. No.	Suitable for Conduit Size	Thread Diameter D (mm)	Thread Length L (mm)	Wrench (mm)	Sealing Ring D1 (mm)
M12X1.5	BLN02MB	1/2"	12	16	29	3.0 - 12.0
M16X1.5	BLN01MB	1/2"	16	16	29	3.0 - 12.0
M20X1.5	BLN1MB	1/2"	20	16	29	10.0 - 16.0
M25X1.5	BLN2MB	3/4"	25	16	35	10.0 - 18.0
M32X1.5	BLN3MB	1"	32	20	45	14.0 - 20.0
M40X1.5	BLN4MB	1 1/4"	40	20	54	14.0 - 24.0
M50X1.5	BLN5MB	1 1/2"	50	20	63	22.0 - 28.0

#### NPT Thread

Size	Cat. No.	Suitable for Conduit Size	Thread Diameter D (mm)	Thread Length L (mm)	Wrench (mm)	Sealing Ring D1 (mm)
NPT 1/4"	BLN02NB	1/2"	12	16	29	3.0 - 12.0
NPT 3/8"	BLN01NB	1/2"	16	16	29	3.0 - 12.0
NPT 1/2"	BLN1NB	1/2"	20	16	29	3.0 - 12.0
NPT 3/4"	BLN2NB	3/4"	25	16	35	10.0 - 18.0
NPT 1"	BLN3NB	1"	32	20	45	14.0 - 24.0
NPT 1 1/4"	BLN4NB	1 1/4"	40	20	54	22.0 - 32.0
NPT 1 1/2"	BLN5NB	1 1/2"	50	20	63	26.0 - 35.0

Item	Item Description
1	Lower Body
2	Lower seal
3	Middle Body
4	Upper Body
5	Ferrule
6	Plastic Ring
7	Cap

