

Cable Glands and Accessories

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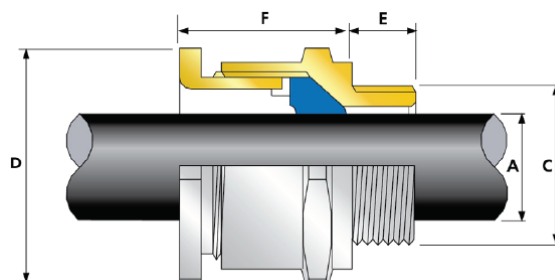
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## CMP Glands



### A2F Globally Approved, Explosive Atmosphere Cable Gland



#### Features and Benefits:

- Displacement type flameproof seal
- Deluge protected
- -60°C to +130°C (standard), -20°C to 180°C (ThermEx option)
- Globally marked, IECEx, ATEX & CSA

#### Technical Data

<b>Design Specification</b>	BS 6121:Part 1:1989, IEC 62444, EN 62444
<b>Mechanical Classification*</b>	Impact = Level 8, Cable Anchorage = Class B
<b>Enclosure Protection</b>	IK10 to IEC 62262 (20 joules) Brass & Stainless Steel only
<b>Ingress Protection Rating**</b>	IP66, IP67 & IP68***
<b>Deluge Protection Compliance</b>	DTS01 : 91
<b>Cable Gland Material</b>	Brass, Electroless Nickel Plated Brass, Stainless Steel, Aluminium
<b>Seal Material</b>	CMP SOLO LSF Halogen Free Thermoset Elastomer
<b>Cable Type(s)</b>	Unarmoured & Braided when terminated inside enclosure
<b>Sealing Technique</b>	CMP Unique Displacement Seal Concept
<b>Sealing Area(s)</b>	Cable Outer Sheath

\*Mechanical & Electrical Classifications applied as per IEC 62444 & EN 62444

\*\* When CMP installation accessories are used..

\*\*\* IP68 tested to a minimum depth of 30 metres for 12 hours, alternate depths / durations can be provided upon request

### Global Product Specification

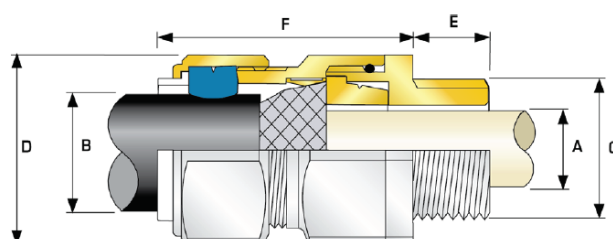
<b>ATEX Certificate</b>	CML18ATEX1321X, CML18ATEX4313X	<b>IECEX Certificate</b>	IECEX CML 18.0179X, IECEX SIM 14.0006
<b>Code of Protection</b>	-II 2G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da - II 3G Ex nR IIC Gc	<b>Code of Protection</b>	Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da
<b>Compliance Standards</b>	EN 60079-0,1,7,15,31	<b>Compliance Standards</b>	IEC 60079-0,1,7,15,31
<b>CSA Certificate</b>	1211841		
<b>Code of Protection</b>	Type 4X: Oil Resistant II: Ex d IIC, Ex e II, Ex nR II		
<b>Compliance Standards</b>	C22.2 No 0,0.4, 94, 174, CAN/CSA-E60079-0,1,7,15		
<b>E Acceptance</b>	TC RU C- GB.AA87.B.00487 (-60°C to +130°C)	<b>UkrSEPRO</b>	CLQ 19.0371X
<b>KCs KOSHA Certificate</b>	13_GA4BO_0748X ; 13_GA4BO_0749X; 13_GA4BO_0750X; 14_GA4BO_0251X		
<b>Retie Approval Number</b>	03866	<b>CCOE/ PESO (INDIA) Certificate</b>	P444949
<b>NEPSI Certificate</b>	GYJ18.1249X	<b>INMETRO Approval</b>	TÜV 12.0619X
<b>Marine Approvals</b>	LRS: 01/00172, DNV: TAE000000Y, ABS: 14-LD234401A-4-PDA, BV: 43180 A1 BV		

### Ordering Information

Combined Ordering Reference (Brass Metric)			Available Entry Threads – ‘C’ Alternative Metric Thread Lengths Available					Overall Cable Diameter		Across Flats ‘D’	Across Corners ‘D*’	Protrusion Length ‘F’	Shroud	Cable Gland Weight	Ordering information
			Standard				Option								
Size	Type	Ordering Suffix	Metric	Thread Length (Metric) ‘E’	NPT	Thread Length (NPT) ‘F*’	NPT	Min	Max	Max	Max				
16	A2F	1RA	M16	15.0	-	-	-	3.2	8.7	24.0	26.4	29.9	PVC04	0.060	on request
20S16	A2F	1RA	M20	15.0	½"	19.9	¾"	3.2	8.7	24.0	26.4	26.0	PVC04	0.070	8000585
20S	A2F	1RA	M20	15.0	½"	19.9	¾"	6.1	11.7	24.0	26.4	26.0	PVC04	0.060	8002013
20	A2F	1RA	M20	15.0	½"	19.9	¾"	6.5	14.0	27.0	29.7	27.7	PVC05	0.070	8002014
25	A2F	1RA	M25	15.0	¾"	20.2	1"	11.1	20.0	36.0	39.6	35.5	PVC09	0.130	8000599
32	A2F	1RA	M32	15.0	1"	25.0	1 ¼"	17.0	26.3	41.0	45.1	35.1	PVC10	0.150	8000600
40	A2F	1RA	M40	15.0	1 ¼"	25.6	1 ½"	23.5	32.2	50.0	55.0	35.1	PVC13	0.200	8000601
50S	A2F	1RA	M50	15.0	1 ½"	26.1	2"	31.0	38.2	55.0	60.5	33.0	PVC15	0.260	on request
50	A2F	1RA	M50	15.0	2"	26.9	2 ½"	35.6	44.0	60.0	66.0	37.3	PVC18	0.270	on request
63S	A2F	1RA	M63	15.0	2"	26.9	2 ½"	41.5	49.9	70.5	77.6	33.5	PVC21	0.430	on request
63	A2F	1RA	M63	15.0	2 ½"	39.9	3"	47.2	55.9	75.0	82.5	36.2	PVC23	0.400	on request
75S	A2F	1RA	M75	15.0	2 ½"	39.9	3"	54.0	61.9	84.0	92.4	34.1	PVC24	0.520	on request
75	A2F	1RA	M75	15.0	3"	41.5	3 ½"	61.1	67.9	84.0	92.4	40.9	PVC26	0.500	on request
90	A2F	1RA	M90	24.0	3 ½"	42.8	4"	66.6	79.9	108.0	118.8	60.3	PVC31	1.600	on request
100	A2F	1RA	M100	24.0	3"	42.8	4"	76.0	91.0	123.0	135.3	57.2	LSF33	1.780	on request
115	A2F	1RA	M115	24.0	4"	44.0	5"	86.0	97.9	133.4	146.7	67.3	LSF34	2.670	on request
130	A2F	1RA	M130	24.0	5"	46.8	-	97.0	114.9	152.4	167.6	74.7	LSF35	3.800	on request



## C2K C2K Internationally Approved, Ex eb, Explosive Atmosphere Cable Gland



### Features and Benefits:

- Metal-to-metal armour clamping
- Direct & remote installation
- Integral protected deluge seal
- Controlled outer 'load retention' seal
- Unique OSTG prevents overtightening
- Integral protected deluge seal
- -60°C to +130°C (standard), -20°C to 200°C (ThermEx option)
- Internationally marked, IECEx & ATEX
- Superior EMC performance

### Technical Data

<b>Design Specification</b>	BS 6121:Part 1:1989, IEC 62444, EN 62444
<b>Mechanical Classification*</b>	Impact = Level 8, Cable Anchorage = Class D
<b>Enclosure Protection</b>	IK10 to IEC 62262 (20 joules) Brass & Stainless Steel only
<b>Electrical Specifications</b>	Category B (Category A when used with braid, tape or pliable wire armour cables)
<b>Ingress Protection Rating**</b>	IP66, IP67 & IP68***
<b>Deluge Protection Compliance</b>	DTS01 : 91
<b>Cable Gland Material</b>	Brass, Electroless Nickel Plated Brass, Stainless Steel, Aluminium
<b>Seal Material</b>	CMP SOLO LSF Halogen Free Thermoset Elastomer
<b>Cable Type(s)</b>	Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour (e.g. SWB), Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed
<b>Sealing Technique</b>	Unique CMP 'LRS' Outer Seal (Load Retention Seal)
<b>Sealing Area(s)</b>	Cable Outer Sheath
<b>Armour Clamping</b>	Reversible Armour Cone & AnyWay Universal Clamping Ring

- \*Mechanical & Electrical Classifications applied as per IEC 62444 & EN 62444
- \*\* When CMP installation accessories are used.
- \*\*\* IP68 tested to a minimum depth of 30 metres for 12 hours, alternate depths / durations can be provided upon request

### Global Product Specification

<b>ATEX Certificate</b>	CML18ATEX1323X CML 18ATEX4315X	<b>IECEx Certificate</b>	IECEx CML 18.0180X
<b>Code of Protection</b>	ExII 2G 1D, Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc	<b>Code of Protection</b>	Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc
<b>Compliance Standards</b>	EN 60079-0,7,15,31	<b>Compliance Standards</b>	IEC 60079-0,7,15,31
<b>EAC Certificate</b>	TC RU C-GB.AA87.B.00487	<b>UkrSEPRO</b>	CL 19.0371X
<b>Retie Approval Number</b>	03866	<b>CCOE/ PESO (INDIA) Certificate</b>	P444949
<b>NEPSI Certificate</b>	GYJ18.1435X	<b>INMETRO Approval</b>	TÜV 12.0617X
<b>Marine Approvals</b>	LRS: 01/00172 DNV: TAE000000Y ABS: 16-LD1478091-PDA, BV: 43180 A1 BV		

### Ordering information

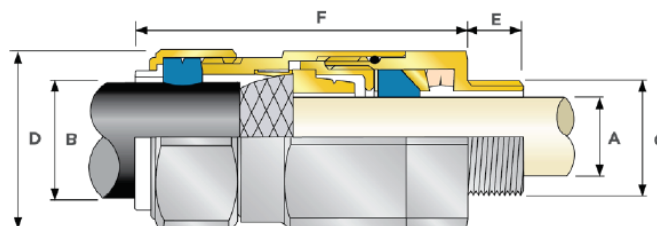
\*For material options add the following suffix to the Ordering Reference; Brass (no suffix required); Nickel Plated Brass '5'; 316 Grade

Combined ordering reference (Brass Metric)*			Available Entry Threads 'C' (Alternative Metric Thread Lengths Available)					Cable Bedding Diameter 'A'	Overall Cable Diameter 'B'			Armour Range				Across Flats 'D'	Across Corners 'D'	Protrusion Length 'F'	Shroud	Weight (kgs)	Ordering information
			Standards			Option	Grooved Cone (X)					Stepped Cone (W)									
Size	Type	Ordering suffix	Metric	Thread Length (Metric) 'E'	NPT	Thread Length (NPT) 'E'	NPT	Max	Min	Max	Min	Max	Min	Max	Max	Max					
20S16	C2K	1RA	M20	15.0	½"	19.9	¾"	8.7	6.1	13.1	0.3	1.0	0.8	1.25	30.5	33.6	65.0	PVC04	0.23	8002026	
20S	C2K	1RA	M20	15.0	½"	19.9	¾"	11.7	9.5	15.9	0.3	1.0	0.8	1.25	30.5	33.6	62.0	PVC04	0.24	8002027	
20	C2K	1RA	M20	15.0	½"	19.9	¾"	14.0	12.5	20.9	0.4	1.0	0.8	1.25	30.5	33.6	63.0	PVC06	0.22	8002028	
25S	C2K	1RA	M25	15.0	¾"	20.2	1"	20.0	14.0	22.0	0.4	1.2	1.25	1.6	37.5	41.3	69.5	PVC09	0.35	on request	
25	C2K	1RA	M25	15.0	¾"	20.2	1"	20.0	18.0	26.2	0.4	1.2	1.25	1.6	37.5	41.3	69.5	PVC09	0.35	8002029	
32	C2K	1RA	M35	15.0	1"	25.0	1 ¼"	26.0	23.7	33.9	0.4	1.2	1.6	2.0	46.0	50.6	75.0	PVC11	0.55	8002030	
40	C2K	1RA	M40	15.0	1 ¼"	25.6	1 ½"	32.2	27.9	40.4	0.4	1.6	1.6	2.0	55.0	60.5	75.0	PVC15	0.75	8002031	
50S	C2K	1RA	M50	15.0	1 ½"	26.1	2"	38.2	35.2	46.7	0.4	1.6	2.0	2.5	60.0	66.0	77.0	PVC18	0.86	8002032	
50	C2K	1RA	M50	15.0	2"	26.9	2 ½"	44.1	40.4	53.0	0.6	1.6	2.0	2.5	70.1	77.1	77.0	PVC21	1.13	8002291	
63S	C2K	1RA	M63	15.0	2"	26.9	2 ½"	50.0	45.6	59.4	0.6	1.6	2.0	2.5	75.0	82.5	80.0	PVC23	1.35	8002292	
63	C2K	1RA	M63	15.0	2 ½"	39.9	3"	56.0	54.6	65.8	0.6	1.6	2.0	2.5	80.0	88.0	80.0	PVC25	1.34	8002293	
75S	C2K	1RA	M75	15.0	2 ½"	39.9	3"	62.0	59.0	72.0	0.6	1.6	2.0	2.5	90.0	99.0	87.0	PVC28	2.02	8002294	
75	C2K	1RA	M75	15.0	3"	41.5	3 ½"	64.2	66.7	78.4	0.6	1.6	2.5	3.0	100.0	110.0	88.0	PVC30	2.48	8002295	
90	C2K	1RA	M90	24.0	3 ½"	42.8	4"	78.6	76.2	90.3	0.8	1.6	3.15	4.0	115.0	126.5	102.0	PVC32	3.52	on request	
100	C2K	1RA	M100	24.0	3 ½"	42.8	4"	91.0	86.1	101.4	0.8	1.6	3.15	4.0	127.0	139.7	114.0	LSF33	4.58	on request	
115	C2K	1RA	M115	24.0	4"	44.0	5"	98.0	101.5	110.2	0.8	1.6	3.15	4.0	133.4	146.7	114.0	LSF34	6.50	on request	
130	C2K	1RA	M130	24.0	5"	46.8	-	115.0	110.2	123.2	0.8	1.6	3.15	4.0	152.4	167.6	114.0	LSF35	8.50	on request	

Stainless \*For material options add the following suffix to the Ordering Reference; Brass (no suffix required); Nickel Plated Brass '5'; 316 Grade Stainless Steel '4'; Copper Free Aluminium '1'  
 For NPT options add the following digits to the material suffix; ½" = 31; ¾" = 32; 1" = 33; 1 ¼" = 34; 1 ½" = 35; 2" = 36; 2 ½" = 37; 3" = 38; 3 ½" = 39; 4" = 310 (Brass requires prefix '0')



## TRITON CDS (T3CDS) Globally Approved, Explosive Atmosphere Cable Gland



### Features and Benefits:

- Fully sequential, three step installation procedure
- Reduces installation times, cost & risk
- Direct & remote installation
- Unique compensating displacement seal system (CDS)
- Metal-to-metal installation every time regardless of cable diameter
- Designed to reduce the effects of coldflow. See CMP Technical Doc TS002
- Integral protected deluge seal
- Controlled outer 'load retention' seal
- Unique OSTG prevents over tightening
- -60°C to 130°C (standard),  
-20°C to 200°C (ThermEx option)
- Globally marked, UL, cCSAus, IECEx & ATEX
- As standard in nickel plated brass with NPT thread form

### Technical Data

<b>Design Specification</b>	BS 6121: Part 1:1989, IEC 62444, EN 62444
<b>Mechanical Classification*</b>	Impact = Level 8, Cable Anchorage = Class D
<b>Enclosure Protection</b>	IK10 to IEC 62262 (20 joules) Brass & Stainless Steel only
<b>Electrical Classification*</b>	Category B (Category A when used with braid, tape or pliable wire armour cables)
<b>Ingress Protection Rating**</b>	IP66, IP67 & IP68***
<b>NEMA Rating</b>	NEMA 4X
<b>Deluge Protection Compliance</b>	DTS01 : 91
<b>Cable Gland Material</b>	Electroless Nickel Plated Brass, Copper Free (<0.4%) Aluminium, Stainless Steel
<b>Seal Material</b>	CMP SOLO LSF Halogen Free Thermoset Elastomer
<b>Cable Type(s)</b>	Steel / Served Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY/SY), Wire Braid Armour (e.g. SWB)
<b>Sealing Technique</b>	Inner Bedding Sealing Ring: Compensating Displacement Seal (CDS), Outer Sheath Sealing Ring: Load Retention Seal (LRS)
<b>Sealing Area(s)</b>	Cable Inner Bedding & Outer Cable Sheath
<b>Armour Clamping</b>	Reversible Armour Cone & AnyWay Universal Clamping Ring

- \*Mechanical & Electrical Classifications applied as per IEC 62444 & EN 62444
- \*\* When CMP installation accessories are used..
- \*\*\* IP68 tested to a minimum depth of 30 metres for 12 hours, alternate depths / durations can be provided upon request

**Global Product Certification**

<b>ATEX Certificate</b>	CML18ATEX1326X, CML 18ATEX4318X	<b>IECEX Certificate</b>	IECEX CML 18.0183X, IECEX SIM 14.0007X
<b>Code of Protection</b>	Ex II 2G 1D, Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da, Ex II 3G Ex nR IIC Gc, Ex I M2, Ex db I Mb, Ex eb I Mb	<b>Code of Protection</b>	Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da, Ex db I Mb, Ex eb I Mb
<b>Compliance Standards</b>	EN60079-0,1,7,15,31	<b>Compliance Standards</b>	IEC 60079-0,1,7,15,31
<b>cCSAus Certificate (20S16 – 90)</b>	1310517		
<b>CSAus Code of Protection</b>	Class II, Div 2, Groups E,F and G, Class III, Enclosure Type 4X, Oil Res II Class I, Zone 1, AEx e II, AEx nR II		
<b>cCSA Code of Protection</b>	Class I, Div 2, Groups A,B,C and D, Class II, Div 2, Groups E,F and G, Class III, Enclosure Type 3, 4 and 4X, Ex d IIC, Ex e IIC, Ex nR II		
<b>Compliance Standards</b>	CAN/CSA-C22.2 No 0, 18, 25, 30, 94, 174, CAN/CSA-E60079-0, 1, 7, ANSI/UL 514B Ed 5, ANSI/UL 50 Ed 11, ANSI/UL 2225 Ed 4, UL60079-0, 1, 7		
<b>UL Certificate (20S16 - 90)</b>	E256367		
<b>Code of Protection</b>	Class I, Zone 1, AEx e II		
<b>Compliance Standards</b>	UL 50, UL 514B, UL 2225, EN 50014:1997, EN 60529:1991, CSA C22.2 No. 174-M1984		
<b>EAC Certificate</b>	TC RU C-GB.AA87.B.00487 (-60°C to 130°C)	<b>UkrSEPRO</b>	CLJ 19.0371X
<b>Code of Protection</b>	1Ex d IIC Gb X, 1Ex e IIC Gb X, Ex ta IIC Da X IP66		
<b>Retie Approval Number</b>	03866	<b>CCOE/ PESO (INDIA) Certificate</b>	P444949
<b>NEPSI Certificate</b>	GYJ18.1253X	<b>INMETRO Approval</b>	TUV 11.0374X
<b>Marine Approvals</b>	LRS: 01/00172, DNV: TAE000000Y, ABS: 14-LD234401A-4-PDA, BV: 43180 A1 BV		

**Ordering Information**

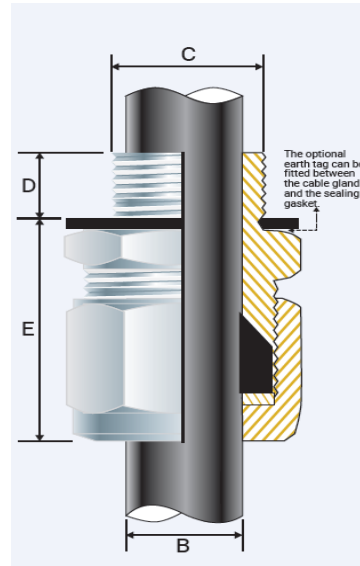
Combined Ordering Reference			Available Entry Threads 'E'		Cable Bedding Diameter 'A'		Overall Cable Diameter 'B'		Armour Range				Across Flats 'D'	Across Corners 'D'	Protrusion Length 'F'	Shroud	Weight (kgs)	Ordering Information
			Metric	Minimum Thread Length 'E'					Grooved Cone (X)		Stepped Cone (W)							
Size	Type	Ordering Suffix			Min	Max	Min	Max	Min	Max	Min	Max	Max	Max				
20S16	T3CDS	1RA	M20	15.0	3.1	8.6	6.1	13.1	0.3	1.0	0.8	1.25	24.0	26.4	78.7	PVC36	0.20	8001634
20S	T3CDS	1RA	M20	15.0	6.1	11.6	9.5	15.9	0.3	1.0	0.8	1.25	24.0	26.4	78.7	PVC36	0.20	8001635
20	T3CDS	1RA	M20	15.0	6.5	13.9	12.5	20.9	0.4	1.0	0.8	1.25	30.5	33.6	76.2	PVC06	0.28	8001636
25S	T3CDS	1RA	M25	15.0	11.1	19.9	14.0	22.0	0.4	1.2	1.25	1.6	37.5	41.3	88.8	PVC09	0.44	On request
25	T3CDS	1RA	M25	15.0	11.1	19.9	18.2	26.2	0.4	1.2	1.25	1.6	37.5	41.3	88.7	PVC09	0.44	8001637
32	T3CDS	1RA	M32	15.0	17.0	26.2	23.7	33.9	0.4	1.2	1.6	2.0	46.0	50.6	90.7	PVC11	0.63	8001638
40	T3CDS	1RA	M40	15.0	22.0	32.1	27.9	40.4	0.4	1.6	1.6	2.0	55.0	60.5	93.2	PVC15	0.91	On request
50S	T3CDS	1RA	M50	15.0	29.5	38.1	35.2	46.7	0.4	1.6	2.0	2.5	60.0	66.0	100.7	PVC18	1.12	8001640
50	T3CDS	1RA	M50	15.0	35.6	44.0	40.4	53.0	0.6	1.6	2.0	2.5	70.1	77.1	105.8	PVC21	1.60	8001641
63S	T3CDS	1RA	M63	15.0	40.1	49.9	45.6	59.4	0.6	1.6	2.0	2.5	75.0	82.5	102.5	PVC23	1.73	On request
63	T3CDS	1RA	M63	15.0	47.2	55.9	54.6	68.5	0.6	1.6	2.0	2.5	80.0	88.0	105.4	PVC25	1.78	On request
75S	T3CDS	1RA	M75	15.0	52.8	61.9	59.0	72.0	0.6	1.6	2.0	2.5	90.0	99.0	110.6	PVC28	2.57	On request
75	T3CDS	1RA	M75	15.0	59.1	67.9	66.7	78.4	0.6	1.6	2.5	3.0	100.0	110.0	120.3	PVC30	3.33	On request
90	T3CDS	1RA	M90	24.0	66.6	78.6	76.2	90.3	0.8	1.6	3.15	4.0	115.0	126.5	138.9	PVC32	4.87	On request
100	T3CDS	1RA	M100	24.0	76.0	90.9	86.1	101.4	0.8	1.6	3.15	4.0	127.0	139.7	128.2	LSF33	4.97	On request
115	T3CDS	1RA	M115	24.0	86.0	97.9	101.5	110.2	0.8	1.6	3.15	4.0	138.0	151.8	161.3	LSF34	7.72	On request
130	T3CDS	1RA	M130	24.0	97.0	114.9	110.2	123.2	0.8	1.6	3.15	4.0	157.0	172.7	173.3	LSF35	9.78	On request

\*For material options add the following suffix to the Ordering Reference; Brass (no suffix required); Nickel Plated Brass '5'; 316 Grade Stainless Steel '4'; Copper Free Aluminium '1'  
 For NPT options add the following digits to the material suffix; ½" = 31; ¾" = 32; 1" = 33; 1 ¼" = 34; 1 ½" = 35; 2" = 36; 2 ½" = 37; 3" = 38; 3 ½" = 39; 4" = 310 (Brass requires prefix '0')

## CCG Glands



### A2F Compression Gland for Unarmoured Cable



#### Features and Benefits:

- For indoor, outdoor, Group II, III, Zone 1, 2, 21 and 22 hazardous areas.
- Fitted with a specially formulated elastomeric displacement seal, giving superior cable retention, explosion protection and IP rating.
- Precision manufactured from high quality brass (Marine Grade™ Electroless Nickel Plated) available in stainless steel 316/316L on request.
- Supplied with a thread sealing gasket

#### Technical Data

<b>Type:</b>	A2F
<b>Gland Material:</b>	Brass (Marine Grade™ Electroless Nickel Plated), Stainless Steel 316/316L
<b>Seal Material:</b>	Standard Thermoset Elastomer or Extreme Temperature Seals
<b>Cable Type:</b>	Unarmoured
<b>Sealing Area:</b>	Outer Sheath
<b>Optional Accessories:</b>	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud Note: The installer should ensure that the materials are suitable for the installation environment.

#### Standards and Certifications

<b>Equipment Protection Levels:</b>	IECEX: Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db ATEX: # II 2GD, II 3G, Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db, Ex nR IIC Gc TR CU: 1Ex d IIC Gb X / 1Ex e IIC Gb X / 2Ex nR IIC Gc X / Ex tb IIIC Db X
<b>Operating Temperature:</b>	-20°C to +95°C Standard Seals or -60°C to +160°C Extreme Temp. Seals



**Conformance:**

IEC/BS EN  
IECEX  
ATEX  
  
INMETRO (Brazil)  
  
TR CU (Russia)  
  
KCs (Korean)  
  
SANS  
IP66/68 100m - Parallel  
IP65 - Tapered  
Deluge Protection  
Corrosion Protection  
Marine ABS  
DNV-GL

**Standard:**

IEC/BS EN 62444  
IEC 60079 Parts 0, 1, 7, 15, 31  
EN 60079 Parts 0, 1, 7, 31  
EN 60079 Parts 0, 5  
ABNT NBR IEC 60079 Parts 0, 1, 7, 15, 31  
ГОСТ P M3K 60079-0, 7, 15, 31, ГОСТ IEC 60079-1  
Notification of Ministry of Labour No.2013-54  
SANS 60079 Parts 0, 1, 7, 15, 31  
IEC 60529  
IEC 60529  
DTS-01  
ASTM B117-11, BS EN ISO 3231  
IEC/EN 60079 Parts 0, 1, 7, 15, 31  
IEC/EN 60079 Parts 0, 1, 7, 15, 31

**Certificate:**

CML 14CA364  
IEC Ex CML 18.0018X  
CML 16ATEX1001X  
CML 16ATEX4002X  
TÜV 15.0483X  
  
RU C-ZA.ME92.B.00690  
  
16-AV4BO-0282-5X  
  
MASC MS/13-028X  
CML 15Y728  
  
CML 14CA370-2  
EXOVA N968667  
ABS 14-SG1216922-PDA  
DNV-GL TAE0000010

**Conditions for Safe Use – X:**

- The cable glands shall only be used where the temperature, at the point of entry, is between -20°C and +95°C (standard seal) or -60°C to +160°C (extreme temp. seal)
- The cable glands may only be used on fixed installations where the cable is clamped or stress applied to the cable in the gland is prevented.
- According to IEC 60079-14, 10.6.2: An Ex d gland will only maintain Ex d integrity when used with substantially round, compact and filled cable. If not a CCG QuickStop-Ex™ barrier gland should be used.

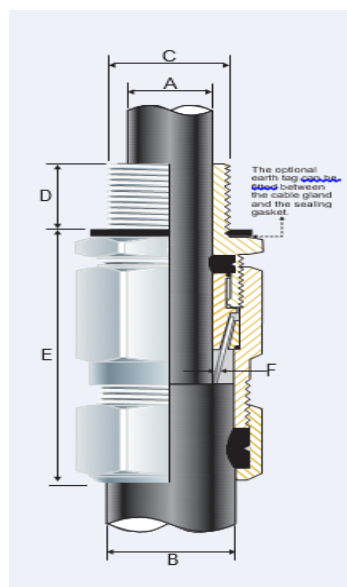
Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail		Maximum Length 'E'	Hexagonal Detail		Installation Torque Value Nm	Ordering information
		'C'	Min 'D'	'C'	Min 'D'	Min 'B'	Max 'B'		Max 'Flats'	Max 'Crns'		
054100-16	00-16ss	M16x1.5	15	-	-	3.0	8.5	25.0	24.0	27.0	32.5	on request
054100	00-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	25.0	24.0	27.0	32.5	8007363
0541-0	0-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	25.0	24.0	27.0	32.5	8007364
054101	1-20	M20x1.5	15	1/2 3/4	15	11.0	15.0	30.0	27.0	30.0	32.5	8007365
054122	2s-25s	M25x1.5	15	3/4 1	15/19	11.5	17.5	30.0	35.0	39.0	47.5	on request
054102	2-25	M25x1.5	15	3/4 1	15/19	15.0	20.0	30.0	35.0	39.0	47.5	8007366
054133	3s-32s	M32x1.5	15	1 1/4	19	16.0	22.0	30.0	42.0	47.0	55.0	on request
054103	3-32	M32x1.5	15	1 1/4	19	20.0	26.5	30.0	42.0	47.0	55.0	8007367
054144	4s-40s	M40x1.5	15	1 1/4 1 1/2	19/21	22.0	31.5	38.0	52.0	59.0	65.0	on request
054104	4-40	M40x1.5	15	1 1/4 1 1/2	19/21	26.0	34.0	38.0	52.0	59.0	65.0	8007368
054155	5s-50s	M50x1.5	15	1 1/2 2	21	29.0	38.0	46.0	65.0	73.0	82.5	on request
054105	5-50	M50x1.5	15	1 1/2 2	21	34.0	44.5	46.0	65.0	73.0	82.5	8007369
054166	6s-63s	M63x1.5	15	2 1/2 2 1/2	21/30	38.0	50.0	52.0	80.0	90.0	97.5	on request
054106	6-63	M63x1.5	15	2 1/2 2 1/2	21/30	44.5	56.5	52.0	80.0	90.0	97.5	8007370
054177	7s-75s	M75x1.5	15	2 1/2 3	30/32	50.0	62.0	54.0	96.0	108.0	115.5	on request
054107	7-75	M75x1.5	15	2 1/2 3	30/32	56.0	67.5	54.0	96.0	108.0	115.5	8007371
054108	8-80	M80x2.0	20	3	32	54.0	69.0	68.0	96.0	108.0	120.0	on request
054199	9s-90s	M90x2.0	20	3 3/2	32/33	60.0	75.0	70.0	111.0	125.0	120.0	on request
054109	9-90	M90x2.0	20	3 3/2	32/33	73.0	81.5	70.0	111.0	125.0	120.0	on request
054110	10-100	M100x2.0	20	3 3/4	33/34	81.0	92.0	70.0	125.0	141.0	120.0	on request
054111	11-110	M110x2.0	20	4	34	91.0	101.0	70.0	135.0	152.0	175.0	on request
054112	12-120	M120x2.0	20	-	-	101.0	109.0	70.0	140.0	158.0	175.0	on request
054113	13-130	M130x2.0	20	-	-	109.0	116.0	70.0	146.0	164.0	175.0	on request

All dimensions except NPT are in mm.



# E1EX

## Captive Component Gland for Steel and Aluminium Armoured Cable



### Features and Benefits:

- For indoor, outdoor, Group II, III, Zone 1, 2, 21 and 22 hazardous areas.
- Two part handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring provides an armour clamp and earth bond on steel wire and aluminium armour.
- Patented disconnect system that allows inspection of armour clamp and inner seal after assembly.
- Factory fitted with a specially formulated elastomeric seal for Built-in Safety™, seals on the inner and outer sheath of the cable to IP65/66/68
- Precision manufactured from high quality brass (Marine Grade™ Electroless Nickel Plated) available in stainless steel 316/316L.
- Complete with thread sealing gasket.

### Technical Data

<b>Type:</b>	E1EX
<b>Gland Material:</b>	Brass (Marine Grade™ Electroless Nickel Plated), Stainless Steel 316/316L
<b>Seal Material:</b>	Standard Thermoset Elastomer or Extreme Temperature Seals
<b>Cable Type:</b>	Steel Wire Armour and Aluminium Armour
<b>Sealing Area:</b>	Outer Sheath
<b>Optional Accessories:</b>	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud Note: The installer should ensure that the materials are suitable for the installation environment.

### Standards and Certifications

**Equipment Protection Levels:** IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db  
ATEX: #II 2GD, II 3G, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc  
TR CU: 1Ex d IIC Gb X / 1Ex e IIC Gb X / 2Ex nR IIC Gc X / Ex tb IIIC Db X

**Operating Temperature:** -20°C to +95°C Standard Seals or -60°C to +160°C Extreme Temp. Seals

**Conformance:**

IEC/BS EN  
IECEX  
ATEX  
  
INMETRO (Brazil)  
TR CU (Russia)  
KCs (Korean)  
SANS  
IP66/68 100m - Parallel  
IP65 - Tapered  
Deluge Protection  
Corrosion Protection  
Marine ABS  
DNV-GL  
EMC Compatible

**Standard:**

IEC/BS EN 62444  
IEC 60079 Parts 0, 1, 7, 15, 31  
EN 60079 Parts 0, 1, 7, 31  
EN 60079 Parts 0, 15  
ABNT NBR IEC 60079 Parts 0, 1, 7, 15, 31  
ГОСТ P M3K 60079-0, 7, 15, 31, ГОСТ IEC 60079-1  
Notification of Ministry of Labour No.2013-54  
SANS 60079 Parts 0, 1, 7, 15, 31  
IEC 60529  
IEC 60529  
DTS-01  
ASTM B117-11, BS EN ISO 3231  
IEC/EN 60079 Parts 0, 1, 7, 15, 31  
IEC/EN 60079 Parts 0, 1, 7, 15, 31  
EN 55011:2009 + A1:2010, EN 55022:2010

**Certificate:**

CML 14CA364  
IEC Ex CML 18.0018X  
CML 16ATEX1001X  
CML 16ATEX4002X  
TÜV 15.0483X  
RU C-ZA.ME92.B.00690  
16-AV4BO-0282-5X  
MASC MS/13-028X  
CML 15Y728  
  
CML 14CA370-2  
EXOVA N968667  
ABS 14-SG1216922-PDA  
DNV-GL TAE0000010  
SGS EMC197708/1

### Conditions for Safe Use – X:

- The cable glands shall only be used where the temperature, at the point of entry, is between -20°C and +95°C (standard seal) or -60°C to +160°C (extreme temp. seal)
- According to IEC 60079-14, 10.6.2: An Ex d gland will only maintain Ex d integrity when used with substantially round, compact and filled cable. If not a CCG QuickStop-Ex™ barrier gland should be used.

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail				Max Length 'E'	Armour Dia		Hexagonal Detail		Install. Torque Value Nm	Ordering information
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'		
052300-16	00-16ss	M16x1.5	15	-	-	3.0	8.5	8.0	13.5	60.0	0.20	1.25	24.0	27.0	21.0	on request
052300	00-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	8.0	13.5	60.0	0.20	1.25	24.0	27.0	21.0	8007372
0523-0	0-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	11.5	16.0	60.0	0.20	1.25	24.0	27.0	21.0	8007373
052301	1-20	M20x1.5	15	1/2 3/4	15	9.0	15.0	14.5	20.5	63.0	0.20	1.25	27.0	30.0	21.0	8007374
052322	2s-25s	M25x1.5	15	3/4 1	15/19	11.0	17.5	16.0	24.5	70.0	0.20	1.60	35.0	39.0	30.0	on request
052302	2-25	M25x1.5	15	3/4 1	15/19	14.0	20.0	20.5	26.5	70.0	0.20	1.60	35.0	39.0	30.0	8007375
052333	3s-32s	M32x1.5	15	1 1/4	19	15.0	22.0	23.0	30.5	76.0	0.20	2.00	42.0	47.0	42.0	on request
052303	3-32	M32x1.5	15	1 1/4	19	19.0	26.5	26.5	33.5	76.0	0.20	2.00	42.0	47.0	42.0	8007376
052344	4s-40s	M40x1.5	15	1 1/4 1 1/2	19/21	22.0	31.5	30.0	39.5	93.0	0.30	2.00	52.0	59.0	52.0	on request
052304	4-40	M40x1.5	15	1 1/4 1 1/2	19/21	26.0	34.0	33.0	42.5	93.0	0.30	2.00	52.0	59.0	52.0	8007377
052355	5s-50s	M50x1.5	15	1 1/2 2	21	29.0	38.0	34.0	47.5	102.0	0.40	2.50	65.0	73.0	57.0	on request
052305	5-50	M50x1.5	15	1 1/2 2	21	34.0	44.5	42.5	52.5	102.0	0.40	2.50	65.0	73.0	57.0	8007378
052366	6s-63s	M63x1.5	15	2 1/2 1/2	21/30	38.0	50.0	45.5	60.5	130.0	0.40	2.50	80.0	90.0	66.0	on request
052306	6-63	M63x1.5	15	2 1/2 1/2	21/30	44.0	56.5	52.5	65.5	130.0	0.40	2.50	80.0	90.0	66.0	8007379
052377	7s-75s	M75x1.5	15	2 1/2 3	30/32	50.0	62.0	57.0	72.5	138.0	0.40	3.15	96.0	108.0	72.0	on request
052307	7-75	M75x1.5	15	2 1/2 3	30/32	56.0	67.5	65.5	78.0	138.0	0.40	3.15	96.0	108.0	72.0	8007380
052308	8-80	M80x2.0	20	3	32	59.0	69.0	65.0	77.5	195.0	2.50	3.15	96.0	108.0	80.0	on request
052399	9s-90s	M90x2.0	20	3 3/4 1/2	32/33	66.0	75.0	73.0	86.5	204.0	3.00	3.50	111.0	125.0	89.0	on request
052309	9-90	M90x2.0	20	3 3/4 1/2	32/33	74.0	81.5	82.0	91.0	204.0	3.00	3.50	111.0	125.0	89.0	on request
052310	10-100	M100x2.0	20	3 1/2 4	33/34	81.0	91.0	90.0	100.0	209.0	3.00	3.50	125.0	141.0	98.0	on request
052311	11-115	M115x2.0	20	4	34	86.0	98.0	100.0	114.0	209.0	3.00	4.00	135.0	152.0	175.0	on request
052312	12-120	M120x2.0	20	-	-	96.0	103.0	103.0	118.0	209.0	3.00	4.00	140.0	158.0	175.0	on request
052313	13-130	M130x2.0	20	-	-	100.0	115.0	113.0	124.0	209.0	3.00	4.00	146.0	164.0	175.0	on request

All dimensions except NPT are in mm.

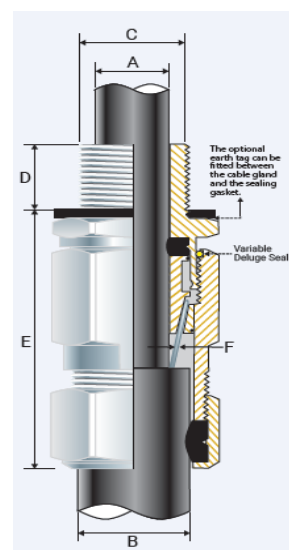


## UNITEx™-D

Ex db IIC, Ex eb IIC, Ex ta IIIC, Ex nR IIC

Captive Component Gland

With Variable Deluge Seal™ for Multi Armoured Cable



### Features and Benefits:

- Indoors and outdoors, Group II, III, Zone 1, 2, 20, 21 and 22 hazardous areas.
- Two-part handling, no loose part. A freely rotating captive cone and inspectible cone ring provide an armour clamp and earth bond on steel wire, aluminium, braid, and tape armour.
- Patented disconnect system that allows inspection of armour clamp and inner seal after assembly.
- With a patented Variable Deluge Seal™ as a standard.
- Factory-fitted with a specially formulated elastomeric seal for Built-in Safety™, it seals on the inner and outer sheath of the cable to IP65/66/68.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™), available in aluminium or stainless steel 316/316L on request.
- Supplied with a thread-sealing gasket (parallel threads only).

### Technical Data

<b>Type:</b>	UNITEx™-D
<b>Gland Material:</b>	Brass (Marine Grade Electroless Nickel Plated™), Aluminium, Stainless Steel 316/316L
<b>Seal Material:</b>	Standard Thermoset Elastomer or Extreme Temperature Seals
<b>Sealing Gasket Material:</b>	HDPE, Nylon 66 or PTFE
<b>Cable Type:</b>	Steel Wire, Aluminium, Braided and Tape Armour
<b>Armour Clamping:</b>	Rotating Captive Cone and Inspectible Cone Ring
<b>Sealing Area:</b>	Inner Sheath, Outer Sheath and Variable Deluge Seal™
<b>Optional Accessories:</b>	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud Note: The installer should ensure that the materials are suitable for the installation environment.

### Standards and Certifications

**Equipment Protection Levels:** IECEx/INMETRO: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc  
 ATEX/UKEX: #II 2/3G 1D, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da  
 CCC: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da

**Continuous Operating Temperature:** Standard Seals: -60°C to +95°C/100°C (HDPE/Nylon Sealing Gasket)  
 Extreme Temp. Seals: -60°C to +160°C (PTFE Sealing Gasket)

<b>Conformance:</b>	<b>Standard:</b>	<b>Certificate:</b>
IEC/BS EN	IEC/BS EN 62444, 6121	CML 14CA364
IECEX	IEC 60079 Part 0, 1, 7, 15, 31	IECEX CML 18.0018X
ATEX	EN 60079 Part 0, 1, 7, 31	CML 16ATEX1001X
	EN 60079 Part 0, 15	CML 16ATEX4002X
UKEX	BS EN 60079 Part 0, 1, 7, 31	CML 21UKEX1011X
	BS EN 60079 Part 0, 15	CML 21UKEX4006X
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 1, 7, 15, 31	TÜV 15.0483X
TR CU (Russia)	ГОСТ 31610-0, 15, ГОСТ IEC 60079-1	EAЭC RU C-ZA.HA91.B.00245/21
	ГОСТ P MЭК 60079-7, 31	
CCC/CNEx (Chinese)	GB/T3836.1, 2, 3, 31-2021	CNEX 21.3388X
SANS	SANS/IEC 60079 Parts 0, 1, 7, 31	CCC 2021312313000394
IP66/68 850m - Parallel	IEC 60529	MASC MS/22-9001X
IP65 – Tapered	IEC 60529	CML 15Y728
IP68 - Tapered and approved grease	IEC 60529	IECEX CML 18.0018X
Deluge Protection	DTS-01	
Corrosion Protection	ASTM B117-11, BS EN ISO 3231	CML 14CA370-2
Marine ABS	IEC/EN 60079 Part 0, 1, 7, 15, 31	EXOVA N968667
DNV-GL	IEC 60079 Part 0, 1, 7, IEC 60529	ABS 20-1952706-1-PDA
ClassNK	IEC 60079 Part 0, 1, 7, 15, 31	DNV-GL TAE0000010
EMC Compatible	EN 55011, + A1, EN 55022	TA20270M
		SGS EMC305079/1

### Conditions for Safe Use – X:

- The cable glands shall only be used where the temperature, at the point of entry, is between -60°C to +95°C (standard seal & HDPE sealing gasket), -60°C to +100°C (standard seal and Nylon sealing gasket) or -60°C to +160°C (extreme temp. seal & PTFE sealing gasket) depending on seal and gasket used.
- Note: According to IEC 60079-14, 10.6.2: An Ex d gland will only maintain Ex d integrity when used with substantially round, compact and filled cable. If not a CCG VORTEX® barrier gland should be used.

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail				Max Length 'E'	Armour Dia		Hexagonal Detail		Install. Torque Value Nm	Ordering information
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'		
55400S-16	00s-16ss	M16x1.5	15	-	-	3.0	8.5	5.0	10.5	73.0	0.2	0.9	24.0	27.0	21.0	on request
055400S	00s-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	5.0	10.5	73.0	0.2	0.9	24.0	27.0	21.0	8114095
55400	00-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	8.0	14.0	73.0	0.2	0.9	24.0	27.0	21.0	on request
554-0S-16	0s-16s	M16x1.5	15	-	-	7.0	12.0	8.0	14.0	70.0	0.2	1.25	24.0	27.0	21.0	on request
554-0S	0s-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	8.0	14.0	70.0	0.2	1.25	24.0	27.0	21.0	on request
0554-0	0-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	11.5	16.0	70.0	0.2	1.25	24.0	27.0	21.0	8114096
55401	1-20	M20x1.5	15	1/2 3/4	15	9.0	15.0	12.5	20.5	76.0	0.2	1.25	27.0	30.0	21.0	8108527
55422	2s-25s	M25x1.5	15	3/4 1	15/19	11.0	17.5	16.0	24.5	96.0	0.2	1.60	35.0	39.0	30.0	8114098
55402	2-25	M25x1.5	15	3/4 1	15/19	14.0	20.0	18.0	27.0	100.0	0.2	1.60	35.0	39.0	30.0	on request
55433	3s-32s	M32x1.5	15	1 1/4	19	15.0	22.0	20.0	30.5	114.0	0.2	2.00	42.0	47.0	42.0	8114100
55403	3-32	M32x1.5	15	1 1/4	19	19.0	26.5	23.0	33.5	118.0	0.2	2.00	42.0	47.0	42.0	on request
55444	4s-40s	M40x1.5	15	1 1/4 1 1/2	19/21	22.0	31.5	26.5	39.0	116.0	0.3	2.00	52.0	59.0	52.0	8007378
55404	4-40	M40x1.5	15	1 1/4 1 1/2	19/21	26.0	34.0	28.0	40.0	125.0	0.3	2.00	52.0	59.0	52.0	8114102
55455	5s-50s	M50x1.5	15	1 1/2 2	21	29.0	38.0	35.2	47.5	130.0	0.4	2.50	65.0	73.0	57.0	8007379
55405	5-50	M50x1.5	15	1 1/2 2	21	34.0	44.5	44.4	52.8	135.0	0.4	2.50	65.0	73.0	57.0	on request

55466	6s-63s	M63x1.5	15	2/2½	21/30	38.0	50.0	45.5	60.5	152.0	0.4	2.50	80.0	90.0	66.0	8007380
55406	6-63	M63x1.5	15	2/2½	21/30	44.0	56.5	54.6	65.9	152.0	0.4	2.50	80.0	90.0	66.0	on request
55477	7s-75s	M75x1.5	15	2½/3	30/32	50.0	62.0	59.0	72.5	176.0	0.4	3.15	96.0	108.0	72.0	on request
55407	7-75	M75x1.5	15	2½/3	30/32	56.0	67.5	65.0	78.0	173.0	0.4	3.15	96.0	108.0	72.0	on request
55408	8-80	M80x2.0	20	3	32	59.0	69.0	65.0	77.5	169.0	0.4	3.15	96.0	108.0	80.0	on request
55499	9s-90s	M90x2.0	20	3/3½	32/33	66.0	75.0	73.0	86.5	179.0	0.4	3.50	111.0	125.0	89.0	on request
55409	9-90	M90x2.0	20	3/3½	32/33	74.0	81.5	82.0	91.0	177.0	0.4	3.50	111.0	125.0	89.0	on request
55410	10-100	M100x2.0	20	3½/4	33/34	81.0	91.0	90.0	100.0	196.0	0.4	3.50	125.0	141.0	98.0	on request

All dimensions except NPT are in mm. Intermediate thread sizes are available on request. NPT threads should be tightened 'wrench tight'.

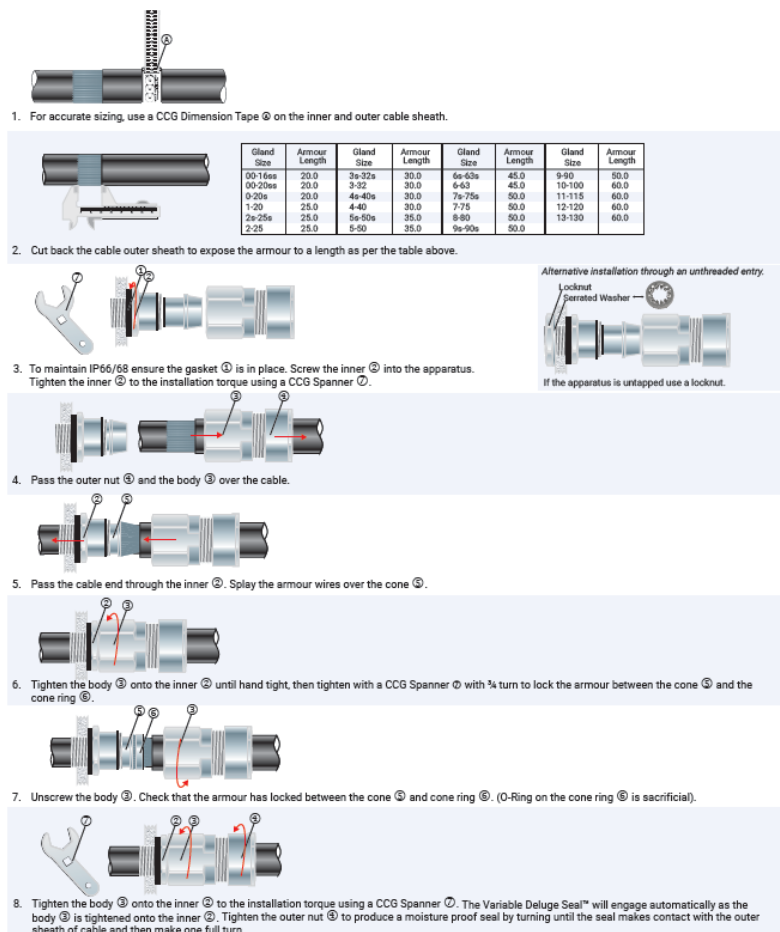
## Metric Illustration

### ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness <math>< Ra 6.3 \mu m.</math>
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

### MUST HAVE THREADED ENTRIES

- The same thread size as the cable gland. (Thread adapters should be used to correct any mismatch).
  - With a thread tolerance of metric class '6H' or equivalent.
  - Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications
- ### OR CLEARANCE HOLES (not Ex d)
- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
  - Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)



1. For accurate sizing, use a CCG Dimension Tape ① on the inner and outer cable sheath.

Gland Size	Armour Length	Gland Size	Armour Length	Gland Size	Armour Length	Gland Size	Armour Length
00-16ss	20.0	3s-32s	30.0	6s-63s	45.0	9-90	60.0
00-20ss	20.0	3-32	30.0	6-63	45.0	10-100	60.0
0-20s	20.0	4s-40s	30.0	7s-75s	50.0	11-115	60.0
1-20	25.0	4-40	30.0	7-75	50.0	12-120	60.0
2s-25s	25.0	5s-50s	35.0	8-80	50.0	13-130	60.0
2-25	25.0	5-50	35.0	9s-90s	50.0		

2. Cut back the cable outer sheath to expose the armour to a length as per the table above.

3. To maintain IP66/68 ensure the gasket ① is in place. Screw the inner ② into the apparatus. Tighten the inner ② to the installation torque using a CCG Spanner ④.   
 Alternative installation through an unthreaded entry.   
 Locknut   
 Serrated Washer   
 If the apparatus is unthreaded use a locknut.

4. Pass the outer nut ③ and the body ⑤ over the cable.

5. Pass the cable end through the inner ②. Splay the armour wires over the cone ⑥.

6. Tighten the body ⑤ onto the inner ② until hand tight, then tighten with a CCG Spanner ④ with ¾ turn to lock the armour between the cone ⑥ and the cone ring ⑦.

7. Unscrew the body ⑤. Check that the armour has locked between the cone ⑥ and cone ring ⑦. (O-Ring on the cone ring ⑦ is sacrificial).

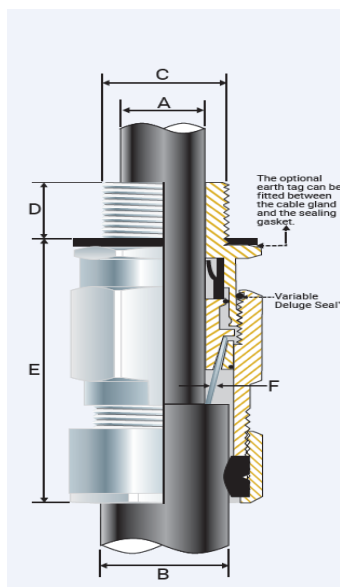
8. Tighten the body ⑤ onto the inner ② to the installation torque using a CCG Spanner ④. The Variable Deluge Seal™ will engage automatically as the body ⑤ is tightened onto the inner ②. Tighten the outer nut ③ to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then make one full turn.

## UNITEx™-E

Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db

Captive Component Gland

With Variable Deluge Seal™ for Multi Armoured Cable



### Features and Benefits:

- Indoors and outdoors, Group II, III, Zone 1, 2, 20, 21 and 22 hazardous areas.
- Two-part handling, no loose part. A freely rotating captive cone and inspectible cone ring provide an armour clamp and earth bond on steel wire, aluminium, braid, and tape armour.
- Patented disconnect system that allows inspection of armour clamp and inner seal after assembly.
- With a patented Variable Deluge Seal™ as a standard.
- Factory-fitted with a specially formulated elastomeric seal for Built-in Safety™, it seals on the inner and outer sheath of the cable to IP65/66/68.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™), available in aluminium or stainless steel 316/316L on request.
- Supplied with a thread-sealing gasket (parallel threads only).

### Technical Data

<b>Type:</b>	UNITEx™-E
<b>Gland Material:</b>	Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel 316/316L
<b>Seal Material:</b>	Standard Thermoset Elastomer or Extreme Temperature Seals
<b>Sealing Gasket Material:</b>	HDPE, Nylon 66 or PTFE
<b>Cable Type:</b>	Steel Wire, Aluminium, Braided and Tape Armour Cable
<b>Armour Clamping:</b>	Rotating Captive Cone and Inspectible Cone Ring
<b>Sealing Area:</b>	Inner Sheath, Outer Sheath and Variable Deluge Seal™
<b>Optional Accessories:</b>	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud Note: The installer should ensure that the materials are suitable for the installation environment.

### Standards and Certifications

<b>Equipment Protection Levels:</b>	IECEX: Ex eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db ATEX/UKEX: #II 2GD, II 3G, Ex eb IIC Gb, Ex nR IIC Gc	
<b>Continuous Operating Temperature:</b>	Standard Seals: -60°C to +95°C/100°C (HDPE/Nylon Sealing Gasket) Extreme Temp. Seals: -60°C to +160°C (PTFE Sealing Gasket)	
<b>Conformance:</b>	<b>Standard:</b>	<b>Certificate:</b>
IEC/BS EN	IEC/BS EN 62444	CML 14CA364
IECEX	IEC 60079 Part 0, 1, 7, 15, 31	IECEX CML 18.0018X
ATEX	EN 60079 Part 0, 1, 7, 31	CML 16ATEX1001X
	EN 60079 Part 0, 15	CML 16ATEX4002X
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 1, 7, 15, 31	TÜV 15.0483X
IP66/68 850m - Parallel	IEC 60529	CML 15Y728
IP65766 – Tapered	IEC 60529	
Deluge Protection	DTS-01	IECEX CML 18.0018X
Corrosion Protection	ASTM B117-11, BS EN ISO 3231	CML 14CA370-2
Marine ABS	IEC/EN 60079 Part 0, 1, 7, 15, 31	EXOVA N968667
EMC Compatible	EN 55011:2009 + A1:2010, EN 55022:2010	ABS 20-1952706-1-PDA SGS EMC197708/1

### Conditions for Safe Use – X:

- The cable glands shall only be used where the temperature, at the point of entry, is between -60°C and +95°C (standard seal & HDPE sealing gasket), +100°C (standard seal and Nylon sealing gasket) or +160°C (extreme temp. seal & PTFE sealing gasket) depending on seal and gasket used.
- Note: According to IEC 60079-14, 10.6.2: An Ex d gland will only maintain Ex d integrity when used with substantially round, compact and filled cable. If not a CCG VORTEX® barrier gland should be used.

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail				Max Length 'E'	Armour Dia		Hexagonal Detail		Install. Torque Value Nm	Ordering information
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'		
59100S-16	00s-16ss	M16x1.5	15	-	-	3.0	8.5	5.0	10.5	56.0	0.2	0.9	24.0	27.0	21.0	on request
59100S	00s-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	5.0	10.5	56.0	0.2	0.9	24.0	27.0	21.0	8114095
59100	00-20ss	M20x1.5	15	1/2 3/4	15	3.0	8.5	8.0	14.0	56.0	0.2	0.9	24.0	27.0	21.0	8102379
591-0S-16	0s-16s	M16x1.5	15	-	-	7.0	12.0	8.0	14.0	59.0	0.2	1.25	24.0	27.0	21.0	on request
591-0S	0s-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	8.0	14.0	59.0	0.2	1.25	24.0	27.0	21.0	on request
0591-0	0-20s	M20x1.5	15	1/2 3/4	15	7.0	12.0	11.5	16.0	59.0	0.2	1.25	24.0	27.0	21.0	8102380
59101	1-20	M20x1.5	15	1/2 3/4	15	9.0	15.0	12.5	20.5	73.0	0.2	1.25	27.0	30.0	21.0	8102381
59122	2s-25s	M25x1.5	15	3/4 1	15/19	11.0	17.5	16.0	24.5	82.0	0.2	1.60	35.0	39.0	30.0	8114098
59102	2-25	M25x1.5	15	3/4 1	15/19	14.0	20.0	18.0	27.0	82.0	0.2	1.60	35.0	39.0	30.0	8103803
59133	3s-32s	M32x1.5	15	1 1/4	19	15.0	22.0	20.0	30.5	94.0	0.2	2.00	42.0	47.0	42.0	8114100
59103	3-32	M32x1.5	15	1 1/4	19	19.0	26.5	23.0	33.5	94.0	0.2	2.00	42.0	47.0	42.0	8103807
59144	4s-40s	M40x1.5	15	1 1/4 1 1/2	19/21	22.0	31.5	26.5	39.0	100.0	0.3	2.00	52.0	59.0	52.0	8007378
59104	4-40	M40x1.5	15	1 1/4 1 1/2	19/21	26.0	34.0	28.0	40.0	105.0	0.3	2.00	52.0	59.0	52.0	8103808
59155	5s-50s	M50x1.5	15	1 1/2 2	21	29.0	38.0	35.2	47.5	121.0	0.4	2.50	65.0	73.0	57.0	8007379
59105	5-50	M50x1.5	15	1 1/2 2	21	34.0	44.5	44.4	52.8	121.0	0.4	2.50	65.0	73.0	57.0	8103809
59166	6s-63s	M63x1.5	15	2 1/2 2 1/2	21/30	38.0	50.0	45.5	60.5	126.0	0.4	2.50	80.0	90.0	66.0	8007380
59106	6-63	M63x1.5	15	2 1/2 2 1/2	21/30	44.0	56.5	54.6	65.9	126.0	0.4	2.50	80.0	90.0	66.0	on request
59177	7s-75s	M75x1.5	15	2 1/2 3	30/32	50.0	62.0	59.0	72.5	138.0	0.4	3.15	96.0	108.0	72.0	on request
59107	7-75	M75x1.5	15	2 1/2 3	30/32	56.0	67.5	65.0	78.0	138.0	0.4	3.15	96.0	108.0	72.0	8113839
59108	8-80	M80x2.0	20	3	32	59.0	69.0	65.0	77.5	142.0	0.4	3.15	96.0	108.0	80.0	on request
59199	9s-90s	M90x2.0	20	3 3/4 3 1/2	32/33	66.0	75.0	73.0	86.5	156.0	0.4	3.50	111.0	125.0	89.0	on request
59109	9-90	M90x2.0	20	3 3/4 3 1/2	32/33	74.0	81.5	82.0	91.0	156.0	0.4	3.50	111.0	125.0	89.0	on request
59110	10-100	M100x2.0	20	3 3/4 4	33/34	81.0	91.0	90.0	100.0	173.0	0.4	3.50	125.0	141.0	98.0	on request

All dimensions except NPT are in mm. Intermediate thread sizes are available on request.



### Metric Illustration

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

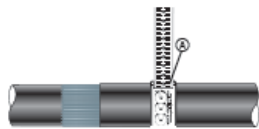
- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness <math>< Ra 6.3 \mu m.</math>
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

MUST HAVE THREADED ENTRIES

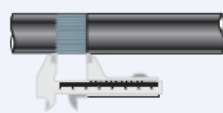
- The same thread size as the cable gland. (Thread adapters should be used to correct any mismatch).
- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)

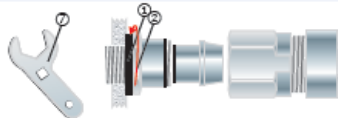


1. For accurate sizing, use a CCG Dimension Tape ① on the inner and outer cable sheath.



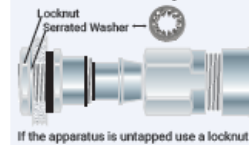
Gland Size	Armour Length	Gland Size	Armour Length	Gland Size	Armour Length	Gland Size	Armour Length
00-16ss	20.0	3s-32s	30.0	6s-63s	45.0	9-90	50.0
00-20ss	20.0	3-32	30.0	6-63	45.0	10-100	60.0
0-20s	20.0	4s-40s	30.0	7s-75s	50.0	11-115	60.0
1-20	25.0	4-40	30.0	7-75	50.0	12-120	60.0
2s-25s	25.0	5s-50s	35.0	8-80	50.0	13-130	60.0
2-25	25.0	5-50	35.0	9s-90s	50.0		

2. Cut back the cable outer sheath to expose the armour to a length as per the table above.

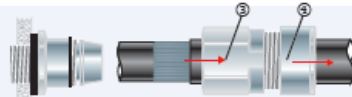


3. To maintain IP66/68 ensure the gasket ① is in place. Screw the inner ② into the apparatus. Tighten the inner ② to the installation torque using a CCG Spanner ⑦.

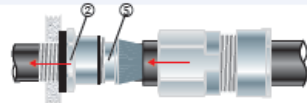
Alternative installation through an unthreaded entry.



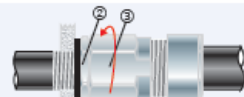
If the apparatus is untapped use a locknut.



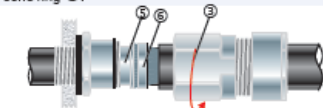
4. Pass the outer nut ④ and the body ③ over the cable.



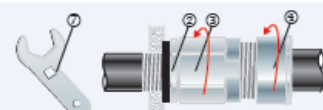
5. Pass the cable end through the inner ②. Splay the armour wires over the cone ⑤.



6. Tighten the body ③ onto the inner ② until hand tight, then tighten with a CCG Spanner ⑦ with 3/4 turn to lock the armour between the cone ⑤ and the cone ring ⑥.



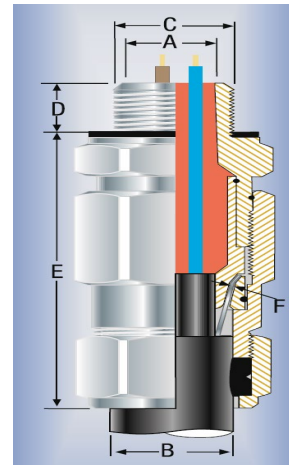
7. Unscrew the body ③. Check that the armour has locked between the cone ⑤ and cone ring ⑥. (O-Ring on the cone ring ⑥ is sacrificial).



8. Tighten the body ③ onto the inner ② to the installation torque using a CCG Spanner ⑦. The Variable Deluge Seal™ will engage automatically as the body ③ is tightened onto the inner ②. Tighten the outer nut ④ to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then make one full turn.



## BarrierTex™ A Barrier Gland for Armoured Cable



### Features and Benefits:

- Provides a barrier seal between the individual cores of the cable.
- Inspectable compound and flameproof chamber.
- Prevents explosive gasses propagating through a cable.
- Prevents gas and moisture migrating through a cable.
- Precision manufactured from high quality brass (nickel plated) or stainless steel.

### Technical Data

<b>Type:</b>	BarrierTex™ A
<b>Gland Material:</b>	Brass (Nickel Plated), Stainless Steel, Bronze
<b>Seal Material:</b>	CCG FR308 or ST574 Compound, Thermoplastic Elastomer
<b>Cable Type:</b>	Armoured Cable
<b>Armour Clamping:</b>	Captive Cone and Cone Ring
<b>Sealing Area:</b>	Inner compound barrier and outer sheath

### Standards and Certifications

<b>Hazardous Area Classification</b>	SANS IEC, ANZEx IEC,; Zone 1, 2, 21 and 22 Exe, Ex d I/II C Ex ID, A21 ATEX: Ex e I/II C, Ex d I /II C Ex tD A21	
<b>Operating Temperature:</b>	-20°C to +80°C	
<b>Ingress Protection:</b>	IP 66/68 (2m cont.)	
<b>Certification:</b>	<b>Standards:</b>	
Australian/New Zealand/IEC	ANZEx 07.4045X	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241.1, IEC 61241-1
ATEX	SIRA 07 ATEX 1 044X	EN60079-0, EN60079-1, EN60079-7, EN 61241-0
Marine	09-SG435709-PDA	
SANS/SABS/IEC	SAEx MS/06-425X	SANS 60079-0, SANS 60079-1, SANS 60079-7 SANS 61241-0, SANS 61241-1, IEC 60529

**The use of Barrier Gland is prescribed by the installation standards as follows:**

- Ex d IEC 60079-14 Paragraph 9.3.1
- Ex d IEC 60079-14 Paragraph 10.4.2
- Ex d SANS 10086-1 Paragraph 4.6.3.2.d.
- Ex d SANS 10086-2 Paragraph 9.6.14.3
- Ex d SANS 10086-2 Paragraph 9.7.2
- ExnR IEC 60079-14 Paragraph -14.3.2.2
- Exp IEC 60079-14 Paragraph -13.1.7
- Exi IEC 60079-14 Paragraph 5.9

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail			Dia Over Core Max	No of cores	Armour Dia		Overall length Max 'E'	Hex Across 'Flats'	Installation Torque	Ordering information
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Min 'B'	Max 'B'			Min 'F'	Max 'F'				
052500	00-20ss	M20x1.5	15	½/¾	17	11.8	8.0	13.5	9	6	0.2	1.25	82	25	24	<b>8029612</b>
0525-0	0-20s	M20x1.5	15	½/¾	17	11.8	11.5	16.0	9	6	0.2	1.25	85	25	24	<b>8029613</b>
052501	1-20	M20x1.5	15	½/¾	17	14.0	12.5	21.0	11	10	0.2	1.25	85	30	24	<b>8029614</b>
052502	2-25	M25x1.5	15	¾/1	17	18.5	18.0	27.0	16	20	0.2	1.6	100	38	33	<b>8029615</b>
052503	3-32	M32x1.5	15	1/1¼	17	26.5	23.0	34.0	22	40	0.2	2.0	107	45	47	<b>8029616</b>
052504	4-40	M40x1.5	20	1¼ / 1½	22	33.5	28.0	40.5	27	60	0.3	2.0	116	55	58	<b>8029619</b>
052505	5-50	M50x1.5	20	2	22	44.5	44.4	53.1	37	80	0.4	2.5	123	65	63	<b>8029622</b>
052506	6-63	M63x1.5	20	2½	22	55.5	54.6	65.9	48	100	0.4	2.5	136	85	73	on request

All dimensions except NPT are in mm.

# HAWKE Glands

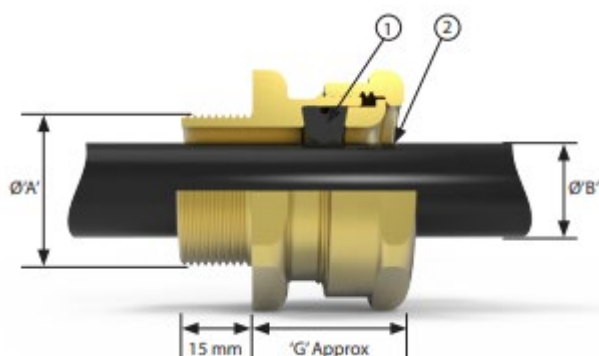


## 501/421

Flameproof, Increased Safety, Dust Protection

Class – Zones

Certified ATEX / IECEx / UKEX/ c CSA us



- 1 Elastomeric Exd Flameproof and Exe Increased Safety seal on cable outer sheath
- 2 Rounded Cable entry to prevent cable damage

The 501/421 dual certified Exe/Exd cable gland is intended for use on non-armoured elastomer and plastic insulated cables. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure. For Exd application the cable must be suitable inline with 60079-14. The braid must then be suitably terminated inside the enclosure

### Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions		Ordering Information	
	Metric	NPT* Standard	Outer Sheath 'B'					Across Flats	Across Corners	Brass	Nickel Plated
			Standard Seal		Alternative Seal (S)						
			Min.	Max.	Min.	Max.					
2K	M16	–	3.2	8.0	–	–	23.5	19.0	21.2	8002116	8008400
Os	M20 <sup>2</sup>	½"	3.2	8.0	–	–	23.8	24.0	26.5	8000530	8008391
O	M20 <sup>2</sup>	½"	6.5	11.9	–	–	23.8	24.0	26.5	8000527	8008399
A	M20	¾" or ½"	10.0	14.3	9.0	13.4	24.8	30.0	32.5	8000528	8008398
B	M25	1" or ¾"	13.0	20.2	9.5	15.4	25.8	36.0	39.5	8050525	8008401
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	29.2	46.0	50.5	8000529	8008402
C2	M40	1½" or 1¼"	25.0	32.5	22.0	28.0	30.5	55.0	60.6	8000526	8008403
D	M50	2" or 1½"	31.5	44.4 / 42.3 <sup>1</sup>	27.5	34.8	40.4	65.0	70.8	8002423	8038852
E	M63	2½" or 2"	42.5	56.3 / 54.3 <sup>1</sup>	39.0	46.5	38.2	80.0	88.0	8002782	8060973
F	M75	3" or 2½"	54.5	68.2 / 65.3 <sup>1</sup>	49.5	58.3	40.5	95.0	104.0	8050467	on request
G	M80	3½"	67.0	73.0	–	–	41.0	106.4	115.0	on request	on request
H	M90	3½"	67.0	77.6	–	–	41.0	115.0	130.0	on request	on request
J	M100	4"	75.0	91.6	–	–	41.0	127.0	142.0	on request	on request

2K to F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For G size glands and above, a 2mm pitch is supplied as standard, 20mm length of thread (1.5mm pitch with 15mm length of thread can be supplied) please specify when ordering. All dimensions in millimetres (except \* where dimensions are in inches).

<sup>1</sup> Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup> Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

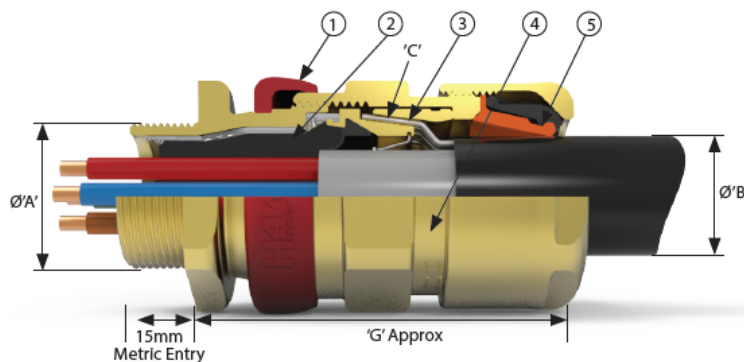
### Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
<b>ATEX/IECEX</b>	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000315 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: KTL 17-KA4BO-0120X to 0128X India: PESO P450038 SONCAP: LCOGB049552-0500
<b>NEC / CEC</b>	
NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I, Div.2 Groups ABCD; Class II Div.2, Groups EFG; Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate Number	CSA1015065
Construction & Test Standards	UL 60079-0, UL 60079-7, UL 60079-31, CSA 22.2 No: 60079-0, CSA 22.2 No: 60079-1, CSA 22.2 No: 60079-7, CSA 22.2 No: 60079-31, UL514B; UL1203; UL 2225



# ICG/653/UNIV

Flameproof, Increased Safety, Dust Protection  
 Class - Zones - Divisions  
 Certified ATEX / IECEx/UKEX



- 1 Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- 2 Transparent Elastomeric Fully Inspectable Compound Pot – compatible with both injectable resin and 2 part compound
- 3 Reversible Armour Clamp - For all types of armour and braid
- 4 Electrical Bond on the cables lead inner sheath
- 5 Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- 6 Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range.

Dual certified fully inspectable Exe/Exd barrier gland providing a seal around individual cable cores on lead sheathed cables which are not effectively filled, have hygroscopic fillers or contains fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables with a lead inner sheath. The ICG/653/UNIVERSAL/L is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time of 30 minutes

**Cable Gland Selection Table**

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions		Ordering information	
	Metric	NPT* Standard	Inner Sheath / Cores				Outer Sheath 'B'		Armour Braid 'C'			Across Flats	Across Corners	Brass	Nickel Plated
			Max Inner Sheath 'E'	Max Over Core Diameter	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2					
Os	M20 <sup>2</sup>	½"	8.1	8.0	12	48	5.5	12.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5	8002314	8008406
O	M20 <sup>2</sup>	½"	11.7	8.8	12	48	9.5	16.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5	8000607	8008999
A	M20	¾" or ½"	14.0	10.8	15	72	12.5	20.5	0.8/1.25	0.0/0.8	60.6	30.0	32.5	8000603	8008393
B	M25	1" or ¾"	19.9	15.9	30	144	16.9	26.0	1.25/1.6	0.0/0.7	67.3	36.0	39.5	8000604	8025497
C	M32	1¼" or 1"	26.2	21.9	42	-	22.0	33.0	1.6/2.0	0.0/0.7	73.2	46.0	50.5	8000605	8025498
C2	M40	1½" or 1¼"	32.3	26.7	60	-	28.0	41.0	1.6/2.0	0.0/0.7	78.3	55.0	60.6	on request	8025499
D	M50	2"	44.2	37.7	80	-	36.0	52.6	1.8/2.5	0.0/1.0	97.5	65.0	70.8	8050507	8025501
E	M63	2½"	56.0	49.0	100	-	46.0	65.3	1.8/2.5	0.0/1.0	93.5	80.0	88.0	8050506	on request
F	M75	3"	68.0	59.8	120	-	57.0	78.0	1.8/2.5	0.0/1.0	104.5	95.0	104.0	on request	on request

1 All dimensions in millimetres (except \* where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.  
 2 Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

**Technical Data**

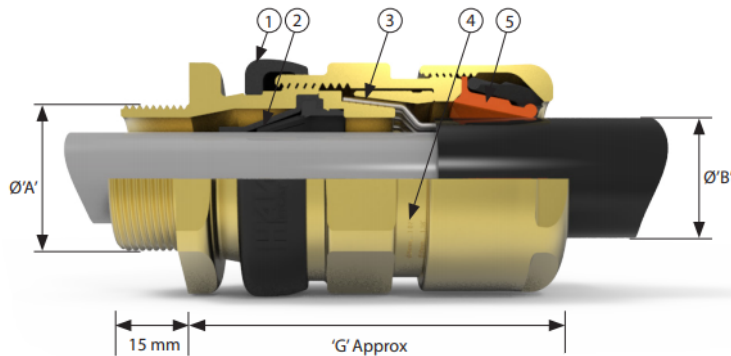
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instructions apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

<b>Approvals</b>	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEx Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000317
	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007
	Inmetro: IEx 14.0272X
	KCs: 17-KA4BO-0159X to 0167X PESO: P450038
	SONCAP: LCOGB049552-0500
	CCC: 2020312313000317
EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007	
<b>NEC/CEC</b>	
NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone I, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31



# 501/453/UNIV

**Flameproof, Increased Safety, Dust Protection & Restricted Breathing  
Class - Zones – Divisions  
Certified ATEX / IECEx /UKEX/ c CSA us**



- 1 Inspectable Deluge Seal  
- Offering IP66, IP67, IP68 & IP69 Ingress Protection
- 2 Passive diaphragm seal  
- Suitable for cables exhibiting 'Cold Flow' Fully inspectable
- 3 Reversible Armour Clamp - For all types of armour and braid
- 4 Patented Cable Gland Tightening Guide  
- Helps prevent damage caused by over tightening
- 5 Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

The 501/453 Universal Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. For particular use with cables that exhibit 'Cold Flow' characteristics. See technical section for installation rules and regulations.

### Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions		Ordering information	
	Metric	NPT* Standard or Option	Inner Sheath		Outer Sheath 'B'		Armour / Braid 'C'			Across Flats	Across Corners	Brass	Nickel Plated
			Min.	Max.	Min.	Max.	Orientation 1	Orientation 2					
Os	M20 <sup>2</sup>	½"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5	8000596	8008397
O	M20 <sup>2</sup>	½"	6.5	11.4	9.5	16.0	0.8/1.25	0.0 / 0.8	58.4	24.0	26.5	8000598	8008404
A	M20	¾" or ½"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	59.6	30.0	32.5	8005588	8008395
B	M25	1" or ¾"	11.1	19.7	16.9	26.0	1.25 / 1.6	0.0 / 0.7	66.4	36.0	39.5	8000597	8050516
C	M32	1¼" or 1"	17.6	26.5	22.0	33.0	1.6 / 2.0	0.0 / 0.7	71.2	46.0	50.5	8000595	8008394
C2	M40	1½" or 1¼"	23.1	32.5	28.0	41.0	1.6 / 2.0	0.0 / 0.7	75.2	55.0	60.6	8001314	8032990
D	M50	2" or 1½"	28.9	44.4 / 42.3 <sup>1</sup>	36.0	52.6	1.8 / 2.5	0.0 / 1.0	98.0	65.0	70.8	8001310	8008392
E	M63	2½" or 2"	39.9	56.3 / 54.3 <sup>1</sup>	46.0	65.3	1.8 / 2.5	0.0 / 1.0	94.4	80.0	88.0	8002739	on request
F	M75	3" or 2½"	50.5	68.2 / 65.3 <sup>1</sup>	57.0	78.0	1.8 / 2.5	0.0 / 1.0	102.0	95.0	104.0	8002703	on request
G	M80	3½"	67.0	73.0	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	106.4	115.0	on request	on request
H	M90	3½"	67.0	77.6	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	115.0	130.0	on request	on request
J	M100	4"	75.0	91.6	88.0	104.5	2.5 / 4.0	0.0 / 1.0	90.6	127.0	142.0	on request	on request

Os-F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For G size glands and above, a 2mm pitch is supplied as standard, 20mm length of thread only (1.5mm pitch with 15mm length of thread can be supplied) please specify when ordering. G size and above are available in the 501/453/ RAC design style. All dimensions in millimetres (except \* where dimensions are in inches).

1 Smaller value is applicable when selecting reduced NPT entry option.

2 Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

### Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 IP68 (30 metres for 7 days, special conditions may apply) and IP69 to IEC/EN 60529 and NEMA 4X
Deluge Protection	to DTS01
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
<b>Approvals</b>	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)



IECEX Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000318 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: 17-KA4BO-0138X to 0149X PESO: P450038 SONCAP: LCOGB049552-0500
<b>NEC/CEC</b>	
NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 2 ABCD, Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate	1015065
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

## Cable Gland Accessories

Description: Sealing washer, Star washer, Earthtag, Backnut, Shrouds. Sealing washer: Red fiber; Nylon

Star washer: Material : Stainless steel SS316

Earthtag: Material : Brass; Nickel Plated; Stainless steel SS316

Backnut: Material : Brass; Nickel Plated; Stainless steel SS316

Shrouds: Material : PVC

### Ordering information

Size	Sealing Washer		Star Washer	Earth tag			Backnut			Shrouds
	Red Fiber	Nylon		Brass	Nickel Plated	SS316	Brass	Nickel Plated	SS316	
M16	8000624	8004822	8000707	8000614	8076711	on request	8000572	on request	on request	8002822
M20 O	8000625	8002382	8000709	8000621	8066151	8060773	8000573	8051806	on request	8000504
M20 A										8000702
M25	8000626	8002381	8000710	8000615	8066152	8060774	8000574	8051807	8060772	8000703
M32	8000627	8002383	8000711	8000616	8066153	on request	8000575	8066506	on request	8000704
M40	8001205	8002399	8000712	8000617	8078171	on request	8000576	8078172	on request	8000705
M50	8002621	8004843	8000713	8000618	8029571	on request	8000577	on request	on request	8000706
M63	8002811	8002692	8000714	8000619	8080319	on request	8000578	on request	on request	8000701
M75	8000637	on request	8000715	8000620	on request	on request	8000579	on request	on request	8001323
M90	on request	on request	8042703	on request	on request	on request	on request	on request	on request	on request
	