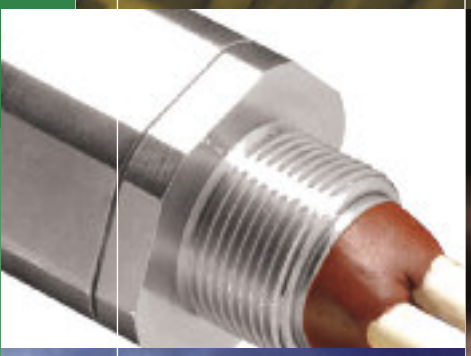
CMP PRODUCTS

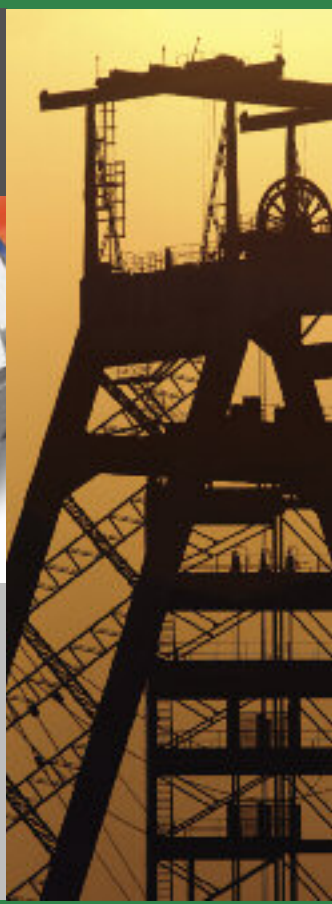
Industrial and Explosive Atmosphere Cable Glands and Conduit Accessories



Terminating Cables is our Business

ATEX 95

IECEx



CALL 1300 GLANDS

Onshore – Offshore – Marine – Mining – Surface – Underground

Solutions complying with
BS 6121, EN 50262, IEC 62444, IEC & AS/NZS 60079
for all types of cables

Leading the Way in Cable Gland Terminations

CMP Products has an international reputation for Quality and Reliability in various sectors of Industry and is highly regarded as the Specialist in the field of Industrial and Hazardous Area Cable Gland and Cable Connector design and manufacture.

CMP Products maintains its position as a leader in the business of terminating cables through its commitment to meeting customer needs, providing solutions, whether standard or special, that pay close attention to the heart of application and installer requirements, and in addition by responding to ongoing changes in standards & specification.

CMP Products industrial cable glands were originally designed and tested to conform to the British Standard BS 4121, which was superseded by BS 6121 in 1973 when the imperial conduit, or electrical thread form (measured in inches) was over taken by the metric system. Whilst new standards such as EN 50262 and IEC 62444 have more recently been introduced, which CMP Products also complies with, BS 6121 still remains a very important benchmark for users and manufacturers around the world, due mainly to the fact that it is a more onerous construction standard than others published in the last 40 years. This will therefore be especially relevant where a national cable gland standard isn't available. The tables below show the maximum cable entry bore size and tolerances permitted through the range of BS 6121 cable gland sizes. CMP Products recommends that customers check the maximum cable diameter allowed through the bore of any cable gland before selections are made.

Cable Gland Bore Sizes Referenced in BS 6121 Part 1 : 1989, Tables 1 to 6

Cable Gland Size	16	20S	20	25	32	40
Entry Thread Size	M20 OR M16	M20	M20	M25	M32	M40
Bore Size	8.7	11.7	14.0	20.0	26.3	32.2
Permitted Tolerance	+ 0.3mm	+ 0.3mm	+ 0.3mm	+ 0.3mm	+ 0.5mm	+ 0.5mm
Maximum Bore Size	9.0	12.0	14.3	20.3	26.8	32.7

Cable Gland Size	50S	50	63S	63	75S	75
Entry Thread Size	M50	M50	M63	M63	M75	M75
Bore Size	38.2	44.1	50.1	56.0	62.0	68.0
Permitted Tolerance	+ 0.5mm	+ 0.5mm	+ 0.5mm	+ 0.5mm	+ 0.5mm	+ 0.5mm
Maximum Bore Size	38.7	44.6	50.6	56.5	62.5	68.5

CMP Products remains in constant touch with the changes in development of national and international standards, which products and equipment need to be designed and manufactured to in order to ensure compliance of installations. CMP Products also has a wealth of international experience of installation practices and can help users to make informed decisions that comply with local requirements such as the AS/NZS 60079.14:2009 standard covering "Explosive atmospheres - Electrical installations design, selection and erection"

The adoption and integration of IEC standards into a selection of various national standards around the world, including the Australian Standards, together with the introduction, and wide spread acceptance, of the IEC Ex approval scheme (IEC Ex 02) gives a new impetus to progressive manufacturers like CMP Products. It is now possible to supply cable connecting solutions that are certified under both the ATEX and IEC Ex approval systems thereby providing the opportunity for dual marking of products that can be installed in global situations.

In its range of hazardous area (type 'd) cable glands, the installation technique is fundamentally different from most other rival products. The tightening of the flameproof (gas tight) sealing ring in CMP cable glands is separated from the tightening of the metallic armour, in the case of armoured cables. Making the two actions independent of each other ensures that there is more control over what happens to the cable during installation, and also gives the installer a better idea of whether he has completed the task correctly at the first time of asking.

The CMP Products cable gland portfolio is an extensive one with solutions for Industrial, Marine, Surface and Underground Mining, Onshore and Offshore Hazardous Areas. This Short Form Catalogue contains a brief insight into a selection of products commonly used across Australia. A more comprehensive CMP technical product catalogue TPC188 is available on request containing a wide variety of products used for terminating various types of cable that may be encountered under local installation codes and wiring regulations, IEC Standards, & NEC wiring rules.

CMP Products manufactures a greater variety of cable glands and more volume of product than any of its rivals. Here are some of the key elements that the CMP Products range offers;

Materials : Standard is Electroless Nickel Plated Brass. All metallic components are manufactured from the same material grade Brass alloy 385 to AS/NZS 1567 or CuZn39Pb3 to EN 12168. Plain brass is available on request.

Alternative materials include Stainless Steel Grade 316, Copper Free Aluminium and Nylon

Thread Forms : Standard is Metric (ISO 965). Standard thread sizes from M16 to M130
Alternatives include a wide range of sizes of NPT, BSPP, BSPT, Imperial Conduit (ET), PG, NPS.

Other Products include ;
Cable glands with Low Smoke & Fume (LSF) Halogen Free materials, Insulated Cable Entry, Integral Heavy Duty Earth Lug, Conduit Connection facility, Insulated Adaptors, Male to Male Adaptors, Female to Female Adaptors, Unions.

CMP Products - a Global Solutions Provider of Cable Glands, Cable Connectors, and Complementary Cable Related Products & Conduit Accessories

CONTENTS

Please consult CMP Products for any requirements not shown in this publication.

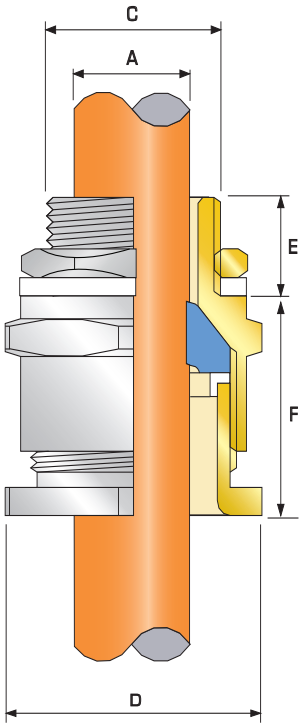
A2 CABLE GLAND

A2 Industrial Cable Gland

CMP A2 Type Nickel Plated Brass indoor and outdoor cable gland for use with all types of Unarmoured cable, providing mechanical cable retention and an environmental seal on the cable outer sheath.

The CMP A2 range of industrial cable glands is designed and tested to BS 6121:Part 1:1989, meets or surpasses the requirements of EN 50262 :1999 and IEC 62444 : 2010, and is produced from Brass grade CuZn39Pb3 (CW614N) to EN12168 equal to alloy 385 to AS/NZS 1567 with Electroless Nickel Plating as standard. All metallic cable gland components are manufactured from the same grade of material. Brass locknuts are produced in the same CU Zn39PB3 grade as the cable gland. Other materials including Aluminium are also available in this standard design.

TECHNICAL DATA	
Type	A2
Design Specification	BS 6121:Part 1:1989, EN 50262:1999, IEC 62444 : 2010
Mechanical Classifications	Retention = Class B, Impact = Level 8,
Lloyds Approval Number	01/00171
ABS Approval Number	01-LD 234401-PDA
Continuous Operating Temperature	-60°C to +150°C
Ingress Protection Rating	IP66, IP67, IP68
Ingress Protection Document	5046 C549D
Deluge Protection Compliance	DTS01 : 91
Deluge Protection Document	5046 C549-D
Standard Cable Gland Material	Electroless Nickel Plated Brass
Alternative Cable Gland Material	Stainless Steel, Aluminium
Seal Material	CMP Formulated Thermoplastic Elastomer
Cable Type	Unarmoured
Sealing Technique	CMP Displacement Seal
Sealing Area(s)	Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Earth Tag, Serrated Washer, Shroud



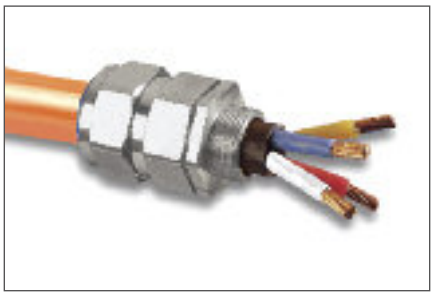
Note: Entry Thread Sealing Washer and Locknut included as standard

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Threads 'C'	Minimum Thread Length 'E'	Overall Cable Diameter 'A' Min		Across Flats 'D' Max	Across Corners 'D' Max	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
20S/16	M20	10.0	3.1	8.7	24.0	26.6	21.0	20S16A21RA5/A	PVC04	0.054
20S	M20	10.0	6.1	11.7	24.0	26.6	21.0	20SA21RA5/A	PVC04	0.054
20	M20	10.0	6.5	14.0	27.0	30.0	24.0	20A21RA5/A	PVC05	0.059
25	M25	10.0	11.1	20.0	36.0	39.9	26.0	25A21RA5/A	PVC09	0.112
32	M32	10.0	17.0	26.3	41.0	45.5	27.0	32A21RA5/A	PVC10	0.128
40	M40	15.0	23.5	32.2	50.0	55.4	28.0	40A21RA5/A	PVC13	0.168
50S	M50	15.0	31.0	38.2	55.0	61.0	29.0	50SA21RA5/A	PVC14	0.224
50	M50	15.0	35.6	44.1	60.0	66.5	30.0	50A21RA5/A	PVC17	0.231
63S	M63	15.0	41.5	50.0	70.0	77.6	30.0	63SA21RA5/A	PVC20	0.360
63	M63	15.0	47.2	56.0	75.0	83.2	30.0	63A21RA5/A	PVC22	0.344
75S	M75	15.0	54.0	62.0	80.0	88.7	32.0	75SA21RA5/A	PVC24	0.466
75	M75	15.0	61.1	68.0	85.0	94.2	32.0	75A21RA5/A	PVC26	0.395
90	M90	24.0	66.6	79.4	108.0	120.7	44.0	90A21RA5/A	PVC31	1.346
100	M100	24.0	76.0	91.0	123.0	137.8	48.0	100A21RA5/A	PVC32	1.575
115	M115	24.0	86.0	98.0	133.4	147.6	55.0	115A21RA5/A	LSF34	2.322
130	M130	24.0	97.0	115.0	152.4	164.9	62.0	130A21RA5/A	LSF35	3.400
All dimensions in millimetres										

Note: *LSF Shrouds also available on request. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request.

CWD CABLE GLAND

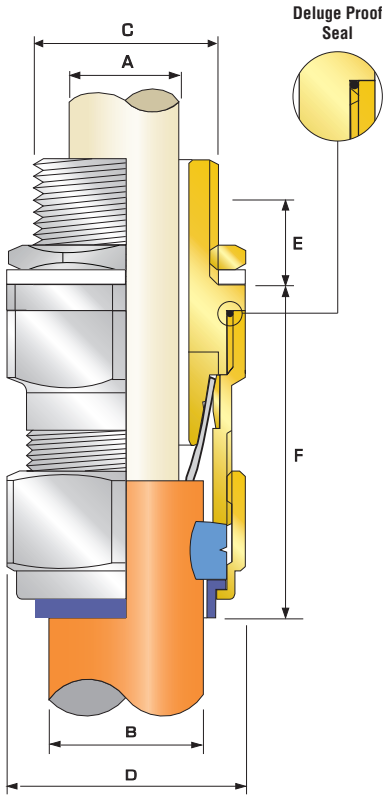


CWD Industrial Cable Gland

CMP CWD Type Nickel Plated Brass indoor and outdoor cable gland for use with all types of Single Wire Armour (SWA) cable, providing environmental seal on the cable outer sheath. The cable gland also provides mechanical cable retention and electrical continuity via armour wire termination. A detachable armour cone and AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from the equipment, for maintenance and change out etc. This feature also facilitates remote make off procedures when the termination is to be conducted in confined spaces or in areas of restricted access.

The CMP CWD range of industrial cable glands is designed and tested to BS 6121:Part 1:1989, meets or surpasses the requirements of EN 50262 :1999 and IEC 62444 : 2010, and is produced from Brass grade CuZn39Pb3 (CW614N) to EN12168 equal to alloy 385 to AS/NZS 1567 with Electroless Nickel Plating as standard. All metallic cable gland components are manufactured from the same grade of material. Brass locknuts are produced in the same grade as the cable gland.

TECHNICAL DATA	
Type	CWD
Design Specification	BS 6121:Part 1:1989, EN 50262:1999, IEC 62444 : 2010
Mechanical Classifications	Impact = Level 8, Retention = Class B (EN 50262), Class D (IEC 62444)
Electrical Classifications	Category B
Continuous Operating Temperature	-60°C to +150°C
Ingress Protection Rating	IP66, IP67, IP68
Standard Cable Gland Material	Electroless Nickel Plated Brass
Alternative Cable Gland Material	Stainless Steel, Aluminium
Seal Material	CMP Formulated Thermoplastic Elastomer
Cable Type	Single Wire Armour (SWA)
Armour Clamping	Detachable Armour Cone & AnyWay Universal Clamping Ring
Sealing Technique	Unique CMP "LRS" ™ Outer Seal (Load Retention Seal)
Sealing Area(s)	Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Earth Tag, Serrated Washer, Shroud



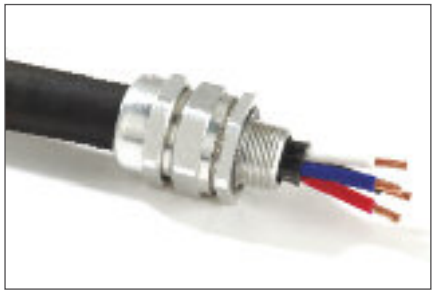
Note: Entry Thread Sealing Washer and Heavy Duty Locknut included as standard

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Thread 'C'	Minimum Thread Length 'E'	Cable Bedding Diameter 'A'	Overall Cable Diameter 'B'		Armour Range †		Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
			Max	Min	Max	Min	Max	Max	Max				
20S/16	M20	20.0	8.7	6.1	11.5	0.8	1.0	24.0	26.6	43.0	20S16CWD1RA5/A	PVC04	0.118
20S	M20	20.0	11.7	9.5	15.9	0.8	1.25	24.0	26.6	43.0	20SCWD1RA5/A	PVC04	0.118
20	M20	20.0	14.0	12.5	20.9	0.8	1.25	30.5	33.3	50.0	20CWD1RA5/A	PVC06	0.159
25S	M25	20.0	19.9	14.0	22.0	1.25	1.6	36.0	40.0	55.0	25SCWD1RA5/A	PVC09	0.228
25	M25	20.0	20.0	18.2	26.2	1.25	1.6	36.0	40.0	55.0	25CWD1RA5/A	PVC09	0.228
32	M32	20.0	26.3	23.7	33.9	1.6	2.0	46.0	51.0	55.0	32CWD1RA5/A	PVC11	0.362
40	M40	20.0	32.2	27.9	40.4	1.6	2.0	55.0	61.0	55.0	40CWD1RA5/A	PVC15	0.520
50S	M50	20.0	38.2	35.2	46.7	2.0	2.5	60.0	66.5	56.0	50SCWD1RA5/A	PVC18	0.579
50	M50	20.0	44.1	40.4	53.1	2.0	2.5	70.1	78.6	70.0	50CWD1RA5/A	PVC21	0.601
63S	M63	20.0	50.0	45.6	59.4	2.0	2.5	75.0	83.2	70.0	63SCWD1RA5/A	PVC23	1.054
63	M63	20.0	56.0	54.6	65.9	2.0	2.5	80.0	89.0	80.0	63CWD1RA5/A	PVC25	1.200
75S	M75	20.0	62.0	59.0	72.1	2.0	2.5	90.0	101.6	81.0	75SCWD1RA5/A	PVC28	1.779
75	M75	20.0	68.0	66.7	78.5	2.0	2.5	100.0	111.1	96.0	75CWD1RA5/A	PVC30	2.370
90	M90	24.0	80.0	76.2	90.4	3.15	3.15	114.0	128.6	120.0	90CWD1RA5/A	PVC32	3.515
100	M100	24.0	91.0	89.1	101.5	3.15	4.0	123.0	136.0	140.0	100CWD1RA5/A	LSF33	4.100
115	M115	24.0	98.0	101.3	110.3	3.15	4.0	133.4	147.8	160.0	115CWD1RA5/A	LSF34	4.600
130	M130	24.0	115.0	114.0	123.3	3.15	4.0	146.1	152.4	169.0	130CWD1RA5/A	LSF35	5.200
All dimensions in millimetres													

Note: *LSF Shrouds also available on request. † Alternative armour clamping range available for non-standard armour sizes.

TMC CABLE GLAND

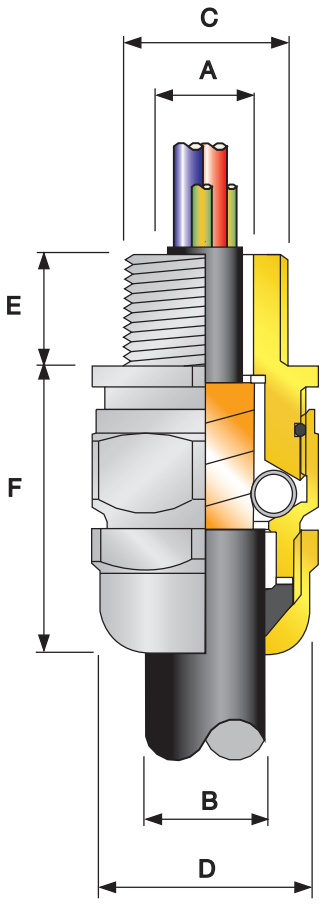


Type TMC Heavy Duty Industrial Cable Gland for Variable Speed Drive (VSD) cables with Copper Tape Screens or cables with similar metallic sheath

CMP Type TMC Cable Gland suitable for use with screened, metal tape armour or metal clad cables in heavy duty industrial and wet locations. This is ideally suited for Variable Speed Drive (VSD) with Copper Tape Screen. The cable gland provides electrical continuity via the metallic screen termination and an environmental seal on the cable outer sheath. The re-usable compression spring clamp feature provides 360 degree grounding to the cable screen, and allows the cable to be easily disconnected from the equipment, for maintenance and change out etc if required. The TMC cable gland offers IP66 and Nema 4X ingress protection and is supplied in Electroless Nickel Plated Brass as standard. The TMC cable gland is available in Metric (standard) and NPT thread forms.

Features and Benefits: CMP renowned displacement seal provides IP66 and NEMA 4X levels of ingress protection. • Additional integral Deluge Proof seal for extra protection in extremely harsh offshore and onshore environments • Independent sealing and screen termination • True 360º grounding • Compact slim profile • Wide cable acceptance range • Re-usable design • Fewer sizes required to handle more cable variations

TECHNICAL DATA	
Type	TMC
Design Specification	BS 6121:Part 1:1989, EN 50262, IEC 62444, UL 514B
Mechanical Classifications	Impact = Level 8, Retention = Class B (EN 50262), Class D (IEC 62444)
Electrical Classifications	Category B
Continuous Operating Temp.	-60˚C to +130˚C
Ingress Protection Rating	IP66
NEMA Rating	NEMA 4X
Lloyds Approval Number	01/00172
DNV Approval Number	E-10496
ABS Approval Number	01-LD234401A/2-PDA
Cable Gland Material	Electroless Nickel Plated Brass, Stainless Steel, or Copper Free Aluminium (<0.4%)
Seal Material	CMP SOLO LSF Thermoplastic Elastomer
Cable Type	Screened, Tape Armour and Metal Clad cables, including Variable Speed Drive Cables (VSD) with Copper Tape Screen
Screen/Armour Termination	Earth Continuity in Contact with Metallic Screen via Spring Clamp
Sealing Technique	CMP Unique Displacement Seal Concept
Sealing Area(s)	Cable Outer Sheath
Accessories	Adaptor/Reducer, Earth Tag, Locknut, Serrated Washer, Entry Thread Seal, Shroud



Cable Gland Selection Table

Cable Gland Size	Metric Entry Thread 'C'	Minimum Thread Length 'E'	Copper Tape Screen Diameter 'A'		Overall Cable Diameter 'B'		Nominal Assembly Length 'F'	Envelope Diameter 'D'		Ordering Reference	Shroud Reference*
			Min	Max	Min	Max		Across Flats	Across Corners		
TMC 050S	M20	15.0	8.7	12.8	9.0	14.0	55.9	30.0	33.3	CMPTMC050SNB1AA5	PVC06
TMC 050	M20	15.0	9.1	17.0	13.0	20.0	55.9	36.1	39.9	CMPTMC050NB1AA5	PVC09
TMC 075	M25	15.0	15.0	23.3	17.0	26.3	55.9	40.9	45.5	CMPTMC075NB1AA5	PVC10
TMC 100	M32	15.0	19.7	29.2	23.1	32.2	56.9	49.8	55.4	CMPTMC100NB1AA5	PVC13
TMC 125	M40	15.0	27.5	35.2	29.5	38.2	56.9	54.9	61.0	CMPTMC125NB1AA5	PVC16
TMC 150	M50	15.0	33.5	41.1	35.6	44.1	60.2	59.9	66.5	CMPTMC150NB1AA5	PVC18
TMC 200S	M50	15.0	38.3	47.1	40.1	51.0	65.5	70.6	77.7	CMPTMC200SNB1AA5	PVC21
TMC 200	M63	15.0	45.0	53.0	47.2	56.0	63.2	75.2	83.3	CMPTMC200NB1AA5	PVC24
TMC 250S	M63	15.0	52.1	58.9	52.8	62.0	63.5	79.8	88.6	CMPTMC250SNB1AA5	PVC25
TMC 250	M75	15.0	57.1	64.6	59.1	68.0	64.0	85.1	94.2	CMPTMC250NB1AA5	PVC27
TMC 300	M75	15.0	64.6	75.3	66.6	79.4	90.7	110.0	121.9	CMPTMC300NB1AA5	PVC32
TMC 350	M90	24.0	74.0	88.5	76.0	97.3	117.1	133.4	147.8	CMPTMC350NB1AA5	LSF34
TMC 400	M100	24.0	88.9	102.1	94.0	107.2	194.6	134.1	148.3	CMPTMC400NB1AA5	LSF34
All dimensions are in millimetres											

Note: Other thread forms available on request, please contact CMP Products for further information.

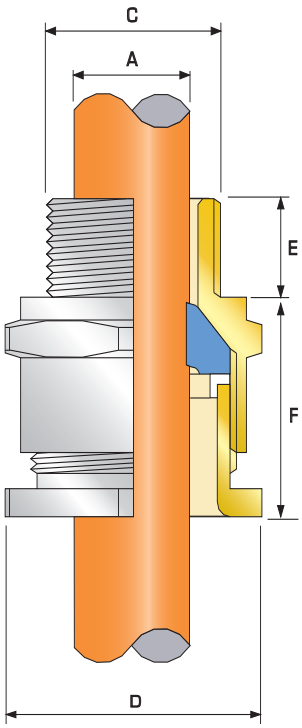
A2F CABLE GLAND

Type A2F Tri-Star Flameproof Ex d, Increased Safety Ex e and Restricted Breathing Ex nR Cable Gland

CMP Type A2F Tri-Star Nickel Plated Brass Triple Certified Flameproof (Type 'd'), Increased Safety (Type 'e') and Restricted Breathing (Type 'nR') indoor and outdoor cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 explosive atmospheres with un-armoured and braided cable providing a combined flameproof seal and environmental seal on the cable outer sheath. This product provides full compatibility with restricted breathing equipment.

The CMP A2F Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 & Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14, AS/NZS 60079.14, or AS/NZS 2381.1, AS/NZS 2381.2, AS 2381.6.

TECHNICAL DATA	
Type	A2F
Design Specification	BS 6121: Part 1: 1989, EN 50262:1999, IEC 62444 : 2010
ATEX Certificate	SIRA06ATEX1097X
Code of Protection	ATEX Ⓔx II 2/3 GD Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, - Equipment Zone 1, Zone 2, Zone 21, & Zone 22 - Gas Groups IIA, IIB, IIC, ATEX Ⓔx IM2, Ex d I, Ex e I
Compliance Standards	EN 60079-0:2004, EN 60079-1:2004, EN 60079-7:2003, EN 60079-15:2003, EN 61241-0:2004 EN 61241-1:2004
IECEx Certificate	IECEx SIR 06.0039X
Code of Protection	Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, Ex d I, Ex e I
Compliance Standards	IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004
Lloyds Approval Number	01/00172
DNV Approval Number	E-8119
ABS Approval Number	01-LD 234401A/1-PDA
Continuous Operating Temperature	-60° to +130°
Ingress Protection Rating	IP66, IP67, IP68
Deluge Protection Compliance	DTS01 : 91
Cable Gland Material	Electroless Nickel Plated Brass (Standard), Stainless Steel, Aluminium
Seal Material	CMP SOLO LSF Halogen Free Thermoplastic Elastomer.
Cable Type	Unarmoured & Braided
Sealing Technique	CMP Displacement Seal
Sealing Area(s)	Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Shroud



Note: These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Threads 'C'	Minimum Thread Length 'E'	Overall Cable Diameter 'A'		Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
			Min	Max	Max	Max				
20S/16	M20	15.0	3.2	8.7	24.0	26.6	21.0	20S16A2F1RA5	PVC04	0.054
20S	M20	15.0	6.1	11.7	24.0	26.6	21.0	20SA2F1RA5	PVC04	0.054
20	M20	15.0	6.5	14.0	27.0	31.0	24.0	20A2F1RA5	PVC05	0.059
25	M25	15.0	11.1	20.0	36.0	39.0	26.0	25A2F1RA5	PVC09	0.112
32	M32	15.0	17.0	26.3	41.0	45.0	27.0	32A2F1RA5	PVC10	0.128
40	M40	15.0	23.5	32.2	50.0	53.5	28.0	40A2F1RA5	PVC13	0.168
50S	M50	15.0	31.0	38.2	55.0	61.0	29.0	50SA2F1RA5	PVC14	0.224
50	M50	15.0	35.6	44.1	60.0	66.0	30.0	50A2F1RA5	PVC17	0.231
63S	M63	15.0	41.5	50.0	70.0	77.5	30.0	63SA2F1RA5	PVC20	0.360
63	M63	15.0	47.2	56.0	75.0	84.0	30.0	63A2F1RA5	PVC22	0.344
75S	M75	15.0	54.0	62.0	79.0	87.0	32.0	75SA2F1RA5	PVC24	0.466
75	M75	15.0	61.1	68.0	84.0	94.0	32.0	75A2F1RA5	PVC26	0.395
90	M90	24.0	66.6	80.0	108.0	120.0	44.0	90A2F1RA5	PVC31	1.346
100	M100	24.0	76.0	91.0	122.0	138.0	48.0	100A2F1RA5	PVC32	1.575
115	M115	24.0	86.0	98.0	138.0	148.0	55.0	115A2F1RA5	LSF34	2.322
130	M130	24.0	97.0	115.0	154.0	178.0	62.0	130A2F1RA5	LSF35	3.400
All dimensions in millimetres										

Note: *LSF Shrouds also available on request. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request.

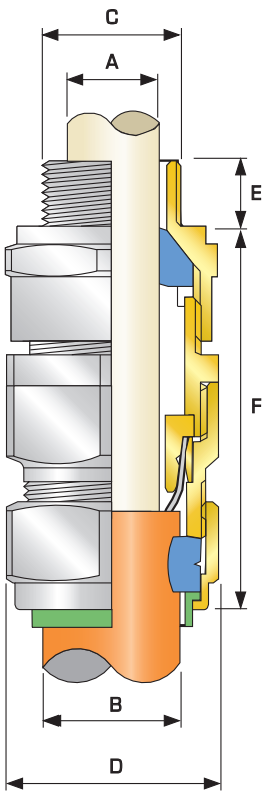
E1FW CABLE GLAND

E1FW Tri-Star Flameproof Ex d, Increased Safety Ex e and Restricted Breathing Ex nR Cable Gland

CMP Type E1FW Tri-Star Nickel Plated Brass Triple Certified Flameproof (Type 'd'), Increased Safety (Type 'e') and Restricted Breathing (Type 'nR') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 explosive atmospheres with Single Wire Armour (SWA) cable. This cable gland provides a Flameproof seal on the cable inner bedding and in addition the gas tight seal has been tested to prove compatibility with Restricted Breathing equipment. The cable gland allows mechanical cable retention and earth continuity via the cable armour termination. Separate tightening actions for the inner displacement seal and the armour termination afford maximum control over the pressure applied to the cable bedding, and also allows the effectiveness of the gas tight seal to be tested. A detachable armour cone and AnyWay clamping ring arrangement facilitates remote make off and enables the cable to be disconnected from the equipment. An environmental / load retention seal is provided on the cable outer sheath.

The CMP E1FW Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 & Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14, AS/NZS 60079.14, or AS/NZS 2381.1, AS/NZS 2381.2, AS 2381.6.

TECHNICAL DATA	
Type	E1FW Tri-Star
Design Specification	BS 6121: Part 1: 1989, EN 50262:1999, IEC 62444 : 2010
ATEX Certificate	SIRA06ATEX1097X
Code of Protection	ATEX Ⓔx II 2GD / 3GD Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, - Equipment Zone 1, Zone 2, Zone 21, & Zone 22 - Gas Groups IIA, IIB, IIC, ATEX Ⓔx IM2 Exd I / Exe I
Compliance Standards	EN 60079-0:2004, EN 60079-1:2004, EN 60079-7: 2003, EN 60079-15:2003, EN 61241-0:2004, EN 61241-1:2004
IECEx Certificate	IECEx SIR 06.0043X
Code of Protection	Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, Ex d I, Ex e I
Compliance Standards	IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004
Continuous Operating Temperature	-60°C to +130°C
Ingress Protection Rating	IP66 as standard, IP67 / IP68 available on request.
Cable Gland Material	Electroless Nickel Plated Brass (Standard), Stainless Steel, Aluminium
Seal Material	CMP SOLO LSF Halogen Free Thermoplastic Elastomer
Cable Type	Single Wire Armour (SWA)
Armour Clamping	Detachable Armour Cone & AnyWay Universal Clamping Ring
Sealing Technique	CMP Inner Displacement Seal & Unique CMP "LRS"™ Outer Seal (Load Retention Seal)
Sealing Area(s)	Cable Inner Bedding & Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Locknut, Earth Tag, Entry Thread Sealing Washer, Serrated Washer, Shroud.



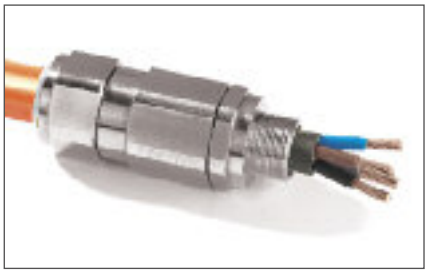
Note: These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Threads 'C'	Minimum Thread Length 'E'	Cable Bedding Diameter 'A'		Overall Cable Diameter 'B'		Armour Range †		Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
			Min	Max	Min	Max	Min	Max	Max	Max				
20S/16	M20	15.0	3.1	8.7	6.1	11.5	0.8	1.0	24.0	24.4	58.5	20S16E1FW1RA5	PVC04	0.157
20S	M20	15.0	6.1	11.7	9.5	15.9	0.8	1.25	24.0	26.6	58.5	20SE1FW1RA5	PVC04	0.157
20	M20	15.0	6.5	14.0	12.5	20.9	0.8	1.25	30.5	33.3	60.5	20E1FW1RA5	PVC06	0.206
25S	M25	15.0	11.1	20.0	14.0	22.0	1.25	1.6	37.5	40.5	67.5	25SE1FW1RA5	PVC09	0.325
25	M25	15.0	11.1	20.0	18.2	26.2	1.25	1.6	37.5	40.5	67.5	25E1FW1RA5	PVC09	0.325
32	M32	15.0	17.0	26.3	23.7	33.9	1.6	2.0	46.0	51.0	69.5	32E1FW1RA5	PVC11	0.452
40	M40	15.0	22.0	32.2	27.9	40.4	1.6	2.0	55.0	61.0	78.0	40E1FW1RA5	PVC15	0.657
50S	M50	15.0	29.5	38.2	35.2	46.7	2.0	2.5	60.0	66.5	75.5	50SE1FW1RA5	PVC18	0.734
50	M50	15.0	35.6	44.1	40.4	53.1	2.0	2.5	70.0	78.6	80.5	50E1FW1RA5	PVC21	0.748
63S	M63	15.0	40.1	50.0	45.6	59.4	2.0	2.5	75.0	83.2	91.5	63SE1FW1RA5	PVC23	1.337
63	M63	15.0	47.2	56.0	54.6	65.9	2.0	2.5	80.0	89.0	92.0	63E1FW1RA5	PVC25	1.436
75S	M75	15.0	52.8	62.0	59.0	72.1	2.0	2.5	89.0	101.6	99.0	75SE1FW1RA5	PVC28	2.073
75	M75	15.0	59.1	68.0	66.7	78.5	2.0	2.5	99.0	111.1	102.0	75E1FW1RA5	PVC30	2.622
90	M90	24.0	66.6	80.0	76.2	90.4	3.15	3.15	114.0	128.6	120.0	90E1FW1RA5	PVC32	4.174
100	M100	24.0	76.0	91.0	86.1	101.5	3.15	4.0	123.0	138.0	148.0	100E1FW1RA5	LSF33	4.523
115	M115	24.0	86.0	98.0	101.5	110.3	3.15	4.0	133.4	147.8	169.0	115E1FW1RA5	LSF34	6.860
130	M130	24.0	97.0	115.0	114.2	123.3	3.15	4.0	146.1	161.9	183.0	130E1FW1RA5	LSF35	8.121
All dimensions in millimetres														

Note: *LSF Shrouds also available on request. Alternative armour clamping range available for non-standard armour sizes. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request. Alternative Type E1FX cable gland with Grooved Cone (X) may be used for other types of approved armoured cables as well as smaller gauge SWA armour wires.

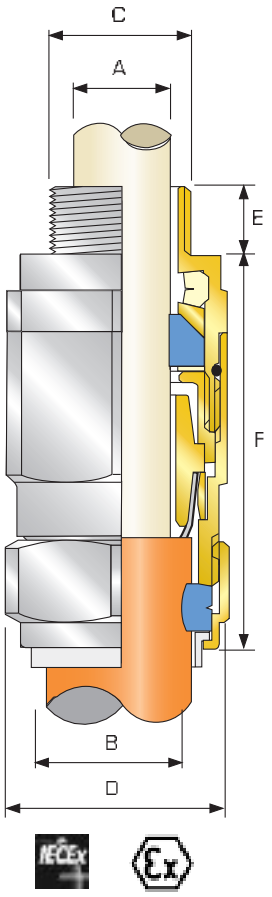
T3CDS CABLE GLAND



Triton CDS (T3CDS) Flameproof Ex d, Increased Safety Ex e and Restricted Breathing Ex nR Cable Gland

CMP Triton CDS Type T3CDS Nickel Plated Brass Triple Certified Flameproof (Type 'd'), Increased Safety (Type 'e') and Restricted Breathing (Type 'nR') indoor and outdoor cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 explosive atmospheres with all types of armoured cable providing a Flameproof seal on the cable inner bedding and an environmental seal on the cable outer sheath. This product utilises a unique Compensating Displacement Seal (CDS) system which provides full compatibility with Restricted Breathing equipment. The cable gland provides mechanical cable retention and electrical continuity via armour wire termination. A reversible armour cone and AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from the equipment, for maintenance and change out etc., and re-connected with the same consummate ease. This feature also facilitates remote make off procedures when the termination is to be conducted in confined spaces or in areas of restricted access. Separate tightening actions for the inner Compensating Displacement Seal (CDS) system and the armour termination affords maximum control over the pressure applied to the cable inner bedding. The CMP Triton CDS Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2 , Zone 21 & Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14, AS/NZS 60079.14, or AS/NZS 2381.1, AS/NZS 2381.2, AS 2381.6.

TECHNICAL DATA	
Type	T3CDS
Design Specification	BS 6121:Part 1:1989, EN 50262:1999, IEC 62444 : 2010, UL 514B
ATEX Certificate	SIRA06ATEX1283X
Code of Protection	ATEX Ⓔx II 2/3 GD Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, Equipment Zone 1, Zone 2, Zone 21, & Zone 22 - Gas Groups IIA, IIB, IIC
Compliance Standards	EN 60079-0:2006, EN 60079-1:2004, EN 60079-7:2003, EN 60079-15:2005, EN 61241-0:2004, EN 61241-1:2004
IECEx Certificate	IECEx SIR 07.005X
Code of Protection	Ex d IIC / Ex e II / Ex nR II / Ex tD A21 IP66
Compliance Standards	IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2006, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004
Lloyds Approval Number	01/00172
DNV Approval Number	E-6157
ABS Approval Number	01-LD 234401-PDA
Continuous Operating Temperature	-60°C to +130°C
Ingress Protection Rating	IP66, IP67, IP68
Deluge Protection Compliance	DTS01 : 91
Deluge Protection Document	ITS 01005029 - D
Cable Gland Material	Electroless Nickel Plated Brass (Standard), Stainless Steel, Aluminium
Seal Material	CMP SOLO LSF Halogen Free Thermoplastic Elastomer
Cable Type	Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid, Aluminium Strip Armour (ASA)
Armour Clamping	Reversible Armour Cone & AnyWay Universal Clamping Ring
Sealing Technique	CMP Inner CDS System & Unique CMP "LRS" ™ Outer Seal (Load Retention Seal)
Sealing Area(s)	Cable Inner Bedding & Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer



Note: These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.

Note: Stepped Cone (W) is suitable for SWA cables, Grooved Cone (X) is suitable for all other approved armoured cables

Cable Gland Selection Table

Cable Gland Size	Standard Matric Entry Thread 'C'	Minimum Thread Length 'E'	Cable Bedding Diameter 'A'		Overall Cable Diameter 'B'		Armour Range †				Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Cable Gland Weight (Kgs)
							Grooved Cone (X)		Stepped Cone (W)						
			Min	Max	Min	Max	Min	Max	Min	Max	Max	Max			
20S/16	M20	15.0	3.1	8.7	6.1	11.5	0.15	1.0	0.8	1.0	24.0	26.6	70.0	20S16T3CDS1RA5	0.170
20S	M20	15.0	6.1	11.7	9.5	15.9	0.15	1.0	0.8	1.25	24.0	26.6	70.0	20ST3CDS1RA5	0.170
20	M20	15.0	6.5	14.0	12.5	20.9	0.15	1.0	0.8	1.25	30.5	33.3	72.0	20T3CDS1RA5	0.256
25S	M25	15.0	11.1	20.0	14.0	22.0	0.15	1.0	1.25	1.6	37.5	40.5	82.0	25ST3CDS1RA5	0.384
25	M25	15.0	11.1	20.0	18.2	26.2	0.15	1.0	1.25	1.6	37.5	40.5	82.0	25T3CDS1RA5	0.379
32	M32	15.0	17.0	26.3	23.7	33.9	0.15	1.0	1.6	2.0	46.0	51.0	85.0	32T3CDS1RA5	0.560
40	M40	15.0	22.0	32.2	27.9	40.4	0.15	1.0	1.6	2.0	55.0	61.0	86.0	40T3CDS1RA5	0.848
50S	M50	15.0	29.5	38.2	35.2	46.7	0.15	1.0	2.0	2.5	60.0	66.5	98.0	50ST3CDS1RA5	1.055
50	M50	15.0	35.6	44.1	40.4	53.1	0.15	1.0	2.0	2.5	70.0	78.6	100.0	50T3CDS1RA5	1.521
63S	M63	15.0	40.1	50.0	45.6	59.4	0.15	1.0	2.0	2.5	75.0	83.2	108.0	63ST3CDS1RA5	1.750
63	M63	15.0	47.2	56.0	54.6	65.9	0.15	1.0	2.0	2.5	80.0	89.0	103.0	63T3CDS1RA5	1.685
75S	M75	15.0	52.8	62.0	59.0	72.1	0.15	1.0	2.0	2.5	89.0	101.6	105.0	75ST3CDS1RA5	2.345
75	M75	15.0	59.1	68.0	66.7	78.5	0.15	1.0	2.0	2.5	99.0	111.1	114.0	75T3CDS1RA5	3.200
90	M90	24.0	66.6	80.0	76.2	90.4	0.25	1.6	3.15	3.15	114.0	128.6	140.0	90T3CDS1RA5	5.100
100	M100	24.0	80.0	91.0	86.1	101.5	0.25	1.6	3.15	4.0	123.0	138.0	170.0	100T3CDS1RA5	6.500
115	M115	24.0	90.0	98.0	101.5	110.3	0.25	1.6	3.15	4.0	133.4	147.6	210.0	115T3CDS1RA5	7.000
130	M130	24.0	100.0	115.0	114.2	123.3	0.25	1.6	3.15	4.0	146.1	161.9	250.0	130T3CDS1RA5	7.800
All dimensions in millimetres															

Note: †Alternative armour clamping range available for non-standard armour sizes. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request.

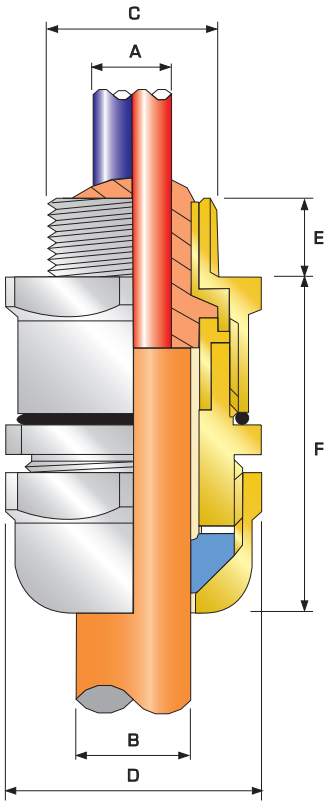
PXSS2K CABLE GLAND

PXSS2K Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR Compound Barrier Cable Gland

CMP Type PXSS2K Nickel Plated Brass Triple Certified Flameproof (Type 'd'), Increased Safety (Type 'e') and Restricted Breathing (Type 'nR') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 explosive atmospheres with all types of unarmoured cable providing a compound barrier seal around the cable conductors and an environmental seal on the cable outer sheath. The cable gland provides mechanical cable retention. A combined detachable spacer and compound tube allows the cable to be easily disconnected from the equipment, for maintenance and change out etc., and re-connected with the same consummate ease. This feature also facilitates remote make off procedures when the termination is to be conducted in confined spaces or in areas of restricted access.

The CMP PXSS2K cable gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 & Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14, AS/NZS 60079.14, or AS/NZS 2381.1, AS/NZS 2381.2, AS 2381.6.

TECHNICAL DATA	
Type	PXSS2K
Design Specification	BS 6121:Part 1:1989, EN 50262:1999, IEC 62444 : 2010, UL 514B, UL 886, UL 2225, UL 2227
ATEX Certificate	SIRA06ATEX1097X
Code of Protection	ATEX Ex I I 2 GD Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66 - Equipment Zone 1, Zone 2, Zone 21, & Zone 22 - Gas Groups IIA, IIB, IIC, ATEX Ex IM2, Exd I / Exe I
Compliance Standards	EN 60079-0: 2004, EN 60079-1: 2004, EN 60079-7: 2003, EN 60079-15: 2003, EN 61241-0: 2004 EN 61241-1: 2004
IECEx Certificate	IECEx SIR 06.0044X
Code of Protection	Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66, Ex d I, Ex e I
Compliance Standards	IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004
Lloyds approval Number	01/00172
DNV Approval Number	E-6157
ABS Approval Number	01-LD 234401-PDA
Continuous Operating Temperature	-60°C to +100°C
Ingress Protection Rating	IP66, IP67, IP68
Ingress Protection Document	5046 C549J
Deluge Protection Compliance	DTS01 : 91
Deluge Protection Document	5046 C549J-D
NEMA Rating	NEMA 4X
Cable Gland Material	Electroless Nickelplated Brass (Standard), Stainless Steel, Aluminium
Seal Material	CMP SOLO LSF Halogen Free Thermoplastic Elastomer / Barrier Compound
Cable Type	Unarmoured
Sealing Technique	CMP Displacement Seal
Sealing Area(s)	Inner Compound Barrier # & Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Shroud



Note : These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Threads 'C'	Minimum Thread Length 'E'	Diameter Over Conductors 'A'	Number of Conductors	Overall Cable Diameter 'B'		Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
			Max	Max	Min	Max	Max	Max				
20S/16	M20	15.0	12.6	15	3.0	8.7	24.0	26.6	58.5	20S16PXSS2K1RA5	PVC04	0.200
20S	M20	15.0	12.6	15	6.1	11.7	24.0	26.6	58.5	20SPXSS2K1RA5	PVC04	0.200
20	M20	15.0	12.6	15	6.5	14.0	30.5	33.3	60.5	20PXSS2K1RA5	PVC04	0.250
25	M25	15.0	17.5	29	11.1	20.0	37.5	40.5	67.5	25PXSS2K1RA5	PVC09	0.403
32	M32	15.0	23.6	51	17.0	26.3	46.0	51.0	69.5	32PXSS2K1RA5	PVC09	0.555
40	M40	15.0	30.0	80	22.0	32.1	55.0	61.0	78.0	40PXSS2K1RA5	PVC15	0.600
50S	M50	15.0	36.6	122	29.5	38.2	60.0	66.5	75.5	50SPXSS2K1RA5	PVC18	0.605
50	M50	15.0	41.0	149	35.6	44.1	70.0	78.6	80.5	50PXSS2K1RA5	PVC21	0.620
63S	M63	15.0	47.9	205	40.1	50.1	75.0	83.2	91.5	63SPXSS2K1RA5	PVC23	0.705
63	M63	15.0	53.7	259	47.2	56.0	80.0	89.0	92.0	63PXSS2K1RA5	PVC25	0.730
75S	M75	15.0	59.8	320	52.8	62.0	89.0	101.6	99.0	75SPXSS2K1RA5	PVC28	1.150
75	M75	15.0	64.3	364	59.1	68.0	99.0	111.1	102.0	75PXSS2K1RA5	PVC30	1.300
90	M90	24.0	75.3	500	66.6	79.4	114.0	128.6	120.0	90PXSS2K1RA5	PVC32	2.700
All dimensions in millimetres												

Note: *LSF Shrouds also available on request. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request. #Alternative CMP RapidEx Liquid Pour Resin version available on request. Type number is followed by REX in the ordering reference, e.g 20PXSS2KREX1RA5

PX2KW CABLE GLAND

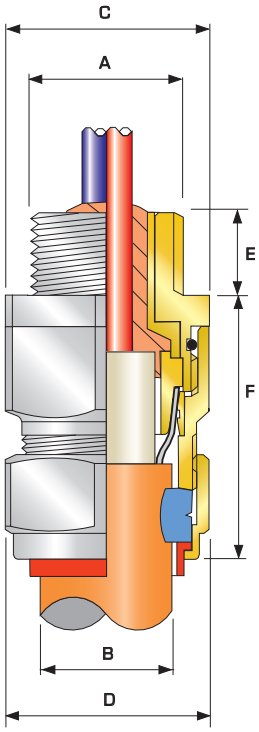
PX2KW Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR Compound Barrier Cable Gland

CMP Type PX2KW Nickel Plated Brass Triple Certified Flameproof (Type 'd'), Increased Safety (Type 'e') and Restricted Breathing (Type 'nR') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 explosive atmospheres with all types of armoured cable providing a compound barrier seal around the cable conductors and an environmental seal on the cable outer sheath. The cable gland provides mechanical cable retention and electrical continuity via armour termination.

A combined detachable armour cone and compound tube, together with AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from the equipment, for maintenance and change out etc, and re-connected with the same consummate ease. This feature also facilitates remote make off procedures when the termination is to be conducted in confined spaces or in areas of restricted access.

The CMP PX2K cable gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 & Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14, AS/NZS 60079.14, or AS/NZS 2381.1, AS/NZS 2381.2, AS 2381.6.

TECHNICAL DATA	
Type	PX2KW
Design Specification	BS 6121:Part 1:1989, EN 50262:1999, IEC 62444 : 2010
ATEX Certificate	SIRA06ATEX1097X
Code of Protection	ATEX Ⓔx II 2 GD Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66 - Equipment Zone 1, Zone 2, Zone 21, & Zone 22 - Gas Groups IIA, IIB, IIC
Compliance Standards	EN 60079-0:2004, EN 60079-1:2004, EN 60079-7:2003, EN 60079-15:2003, EN 61241-0:2004, EN 61241-1:2004
IECEx Certificate	IECEx SIR 06.0044X
Code of Protection	Ex d IIC, Ex e II, Ex nR II, Ex tD A21 IP66
Compliance Standards	IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004
Lloyds Approval Number	01/00172
DNV Approval Number	E-6157
ABS Approval Number	01-LD 234401-PDA
Continuous Operating Temperature	-60°C to +100°C
Ingress Protection Rating	IP66, IP67, IP68
Ingress Protection Document	5046 C549G
Deluge Protection Compliance	DTS01 : 91
Deluge Protection Document	5046 C549G-D
Cable Gland Material	Electroless Nickel Plated Brass (Standard), Stainless Steel, Aluminium
Seal Material	CMP SOLO LSF Halogen Free Thermoplastic Elastomer / Barrier Compound
Cable Type	PX2KW = Single Wire Armour (SWA) PX2KX = Wire Braid, Steel Tape Armour (STA) Pliable Wire Armour (PWA) & SWA
Armour Clamping	Detachable Compound Tube / Cone & AnyWay Universal Clamping Ring
Sealing Technique	Unique CMP "LRS" ™ Outer Seal (Load Retention Seal)
Sealing Area(s)	Inner Compound Barrier # & Cable Outer Sheath
Optional Accessories	Adaptor/Reducer, Locknut, Earth Tag, Entry Thread Sealing Washer, Serrated Washer, Shroud.



Note: Dedicated version for Steel Wire Armour type is PX2KW. Dedicated version for all other Armour types is PX2KX

Note: This standard design concept is also available with bi-code approvals, suitable for installation in systems complying with NEC wiring code rules.

Note : These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.

Cable Gland Selection Table

Cable Gland Size	Standard Metric Entry Threads 'C'	Minimum Thread Length 'E'	Diameter Over Conductors 'A'	Number of Conductors	Overall Cable Diameter 'B'		Armour Range †				Across Flats 'D'	Across Corners 'D'	Nominal Protrusion Length 'F'	Ordering Reference	Shroud Reference*	Cable Gland Weight (Kgs)
							Grooved Cone (X)		Stepped Cone (W)							
			Max	Max	Min	Max	Min	Max	Min	Max	Max	Max				
20S/16	M20	15.0	12.6	15	6.1	11.5	0.0	1.0	0.8	1.25	24.0	26.6	58.5	20S16PX2KW1RA5	PVC04	0.200
20S	M20	15.0	12.6	15	9.5	15.9	0.0	1.0	0.8	1.25	24.0	26.6	58.5	20SPX2KW1RA5	PVC04	0.200
20	M20	15.0	12.6	15	12.5	20.9	0.0	1.0	0.8	1.25	30.5	33.3	60.5	20PX2KW1RA5	PVC06	0.230
25S	M25	15.0	17.5	29	14.0	22.0	0.0	1.0	1.25	1.6	37.5	40.5	67.5	25SPX2KW1RA5	PVC09	0.330
25	M25	15.0	17.5	29	18.2	26.2	0.0	1.0	1.25	1.6	37.5	40.5	67.5	25PX2KW1RA5	PVC09	0.330
32	M32	15.0	23.6	51	23.7	33.9	0.0	1.0	1.6	2.0	46.0	51.0	69.5	32PX2KW1RA5	PVC11	0.510
40	M40	15.0	30.0	80	27.9	40.4	0.0	1.0	1.6	2.0	55.0	61.0	78.0	40PX2KW1RA5	PVC15	0.720
50S	M50	15.0	36.6	122	35.2	46.7	0.0	1.0	2.0	2.5	60.0	66.5	75.5	50SPX2KW1RA5	PVC18	0.825
50	M50	15.0	41.0	149	40.4	53.1	0.0	1.0	2.0	2.5	70.0	78.6	80.5	50PX2KW1RA5	PVC21	0.860
63S	M63	15.0	47.9	205	45.6	59.4	0.0	1.0	2.0	2.5	75.0	83.2	91.5	63SPX2KW1RA5	PVC23	1.450
63	M63	15.0	53.7	259	54.6	65.9	0.0	1.0	2.0	2.5	80.0	89.0	92.0	63PX2KW1RA5	PVC25	1.600
75S	M75	15.0	59.8	320	59.0	72.1	0.0	1.0	2.0	2.5	89.0	101.6	99.0	75SPX2KW1RA5	PVC28	2.300
75	M75	15.0	64.3	364	66.7	78.5	0.0	1.0	2.0	2.5	99.0	111.1	102.0	75PX2KW1RA5	PVC30	3.050
90	M90	24.0	75.3	500	76.2	90.4	0.0	1.6	3.15	3.15	114.0	128.6	120.0	90PX2KW1RA5	PVC32	5.000
All dimensions in millimetres																

Note: *LSF Shrouds also available on request. †Alternative armour clamping range available for non-standard armour sizes. Marine approvals including Lloyds, DNV & ABS are also available from CMP Products. Other thread forms available on request. When SWA cable is not being used please substitute the 'W' with 'X' in the ordering reference, e.g. 20PX2KX1RA5. #Alternative CMP RapidEx Liquid Pour Resin version available on request. Type number is followed by REX in the ordering reference, e.g 20PX2KWREX1RA5

ACCESSORIES

LOCKNUTS

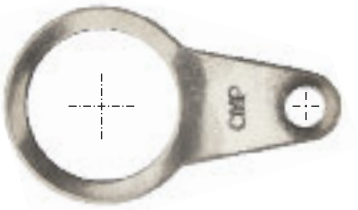
Nickel Plated Brass Locknuts are the recommended items used in securing nickel plated brass cable glands, unions, adaptors, reducers, and stopper plugs to a gland plate or into equipment. Aluminium locknuts are recommended when installing CMP Aluminium Cable Glands to prevent the electrolytic action of galvanic corrosion which can occur when dis-similar metals are coupled together.

SERRATED WASHERS

Available in Stainless Steel as standard, these "shake-proof" Serrated Washers fitted internally to the equipment and before a locknut act as an anti-vibration device to prevent the cable gland or other cable entry device and locknut arrangement from inadvertently loosening in service.

EARTH TAGS

CMP Nickel Plated Brass Earth Tags, Installed between the cable gland and equipment, provide an earth bond connection as specified in BS6121:Part 5:1993 and also complies with category 'B' rating specified in BS EN 50262:1999. The following table of fault current ratings relates to CMP slip on Earth Tags.



LOCKNUTS

Ordering Reference	Thread Diameter 'A'	Across Flats	Across Corners
16LN5	M16 X 1.5	22.0	25.4
20LN5	M20 X 1.5	24.0	28.6
25LN5	M25 X 1.5	30.0	35.0
32LN5	M32 X 1.5	36.0	42.0
40LN5	M40 X 1.5	46.0	53.0
50LN5	M50 X 1.5	55.0	64.0
63LN5	M63 X 1.5	70.0	81.0
75LN5	M75 X 1.5	80.0	98.0
90LN5	M90 X 2	108.0	125.0
100LN5	M100 X 2	122.0	141.5

SERRATED WASHERS

Ordering Reference	Reference
16SW4	M16
20SW4	M20
25SW4	M25
32SW4	M32
40SW4	M40
50SW4	M50
63SW4	M63
75SW4	M75
90SW4	M90
100SW4	M100

EARTH TAGS

Ordering Reference	Size Reference	Hole Size	Nominal Centres
16ET5	M16	M6	30.2
20ET5	M20	M6	33.1
25ET5	M25	M6	35.6
32ET5	M32	M12	43.1
40ET5	M40	M13	45.4
50ET5	M50	M13	58.1
63ET5	M63	M13	66.8
75ET5	M75	M13	73.0
90ET5	M90	M13	85.0
100ET5	M100	M13	118.0

CMP Earth Tag Size	Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second
20	3.06
25	4.00
32	5.40
40	7.20
50	10.40
63	10.40
75	10.40

ENTRY THREAD SEALING WASHERS

To maintain the Ingress Protection rating between the equipment and cable gland it may be necessary to fit an Entry Thread Sealing Washer at the gland entry interface. For Explosion Protected equipment it is essential to maintain the integrity of the degree of Ingress Protection at which the equipment has been rated.

The need for a sealing washer will very much depend on the Ingress Protection rating and code of protection of the equipment and the type of entry holes available within that equipment.

The CMP Entry Thread Sealing Washers are produced in 2mm Thick White Nylon as standard which are recommended and meet the specified requirements of Shell's Offshore operations.

To verify the effectiveness of the CMP nylon entry sealing washers independent 3rd party tests to EN 60529 have been successfully conducted on Cable Gland at IP66, IP67 & IP68 levels of protection.

CMP can therefore provide Independent documentary evidence of such tests to the highest standards.

ENTRY THREAD SEALING WASHERS

Ordering Reference	Size Reference
16ETS2	M16
20ETS2	M20
25ETS2	M25
32ETS2	M32
40ETS2	M40
50ETS2	M50
63ETS2	M63
75ETS2	M75
90ETS2	M90
100ETS2	M100

SHROUDS

CMP manufacture a range of push on shrouds which are used to minimise the risk of dirt or foreign substances gathering on the Cable Gland body, and/or point of cable to gland interface. Standard shrouds are produced in Black or Orange PVC. CMP LSF (Blue/Grey) shrouds are available from stock. Table below shows typical examples of CMP shrouds.

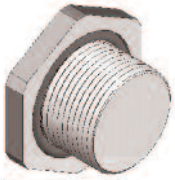
COLOUR CODED SHROUDS - Shrouds are also manufactured in alternative colours including Red, Blue and White, to suit a wide variety of customer requirements, other colours are available.

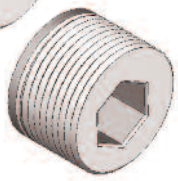
SHROUD REFERENCES

GLAND TYPE	20S/16	20S	20	25	32	40	50S	50	63S	63	75S	75	90	100	115	130
A2	PVC04	PVC04	PVC05	PVC09	PVC10	PVC13	PVC14	PVC17	PVC20	PVC22	PVC24	PVC26	PVC31	PVC32	LSF34	LSF35
CWD	PVC04	PVC04	PVC06	PVC09	PVC11	PVC15	PVC18	PVC21	PVC23	PVC25	PVC28	PVC30	PVC32	LSF33	LSF34	LSF35

Stopper Plugs, Adaptors, Reducers, Breather/Drain Plugs

747, 757 & 767
STOPPER PLUGS





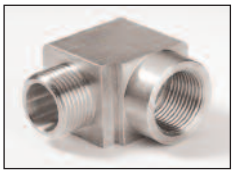
TECHNICAL DATA
COMPONENT APPROVED STOPPER PLUGS DESIGNED TO CLOSE UNUSED CABLE ENTRY HOLES IN EXPLOSION PROTECTED EQUIPMENT. VERSIONS AVAILABLE WITH & WITHOUT INTEGRAL 'O' RING SEAL, AND FOR INDUSTRIAL OR SAFE AREA USE.

APPROVAL DETAIL
ATEX APPROVAL : SIRA 01ATEX1284U
IECEx APPROVAL : SIRA IEC Ex SIR07.0056X
COMPLIANCE : EN / IEC 60079-0, EN / IEC 60079-1, EN / IEC 60079-7, EN 50281 / IEC 61241-0 & IEC 61241-1
HAZARDOUS AREA CODE OF PROTECTION :
Ex II 2 GD Ex d IIC / Ex e II COMPONENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC, Ex tD
IEC Ex : Ex d I / Ex e I / Ex d IIC / Ex e II / Ex tD A21 IP6X

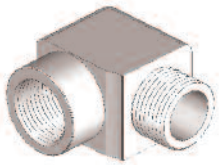
ADDITIONAL APPROVALS HELD
ABS, DNV & LLOYDS

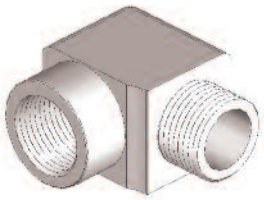
Thread Size	Ordering Reference		
	747 Recessed (Type A *)	757 Hex head	767 Round Head
M16	747DAM15	757DM15	767DM15
M20	747DAM25	757DM25	767DM25
M25	747DAM35	757DM31	767DM35
M32	747DAM45	757DM45	767DM45
M40	747DAM55	757DM55	767DM55
M50	747DAM65	757DM65	767DM65
M63	747DAM75	757DM75	767DM75
M75	747DAM85	757DM85	767DM85

Note*: Type A non tamper proof stopper plugs are externally secured by allen key



787
RIGHT ANGLED ADAPTOR



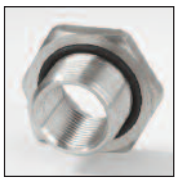


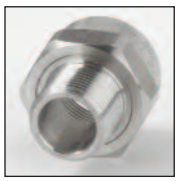
TECHNICAL DATA
COMPONENT APPROVED RIGHT ANGLED ADAPTOR DESIGNED TO PROTECT CABLES WHEN INSTALLED IN CONFINED SPACES WHERE THE CABLE MAY OTHERWISE BE SUBJECT TO EXCESSIVE BENDING STRESS, AND OFFERS A MEANS OF CONNECTION WHERE THE CABLE CANNOT BE INSTALLED IN THE USUAL PERPENDICULAR FASHION. VERSIONS AVAILABLE WITH HAZARDOUS AREA CERTIFICATION AND ALSO FOR INDUSTRIAL OR SAFE AREA USE.

APPROVAL DETAIL
ATEX APPROVAL : SIRA 01ATEX1284U
IECEx APPROVAL : IEC Ex SIR07.0055U
COMPLIANCE : EN / IEC 60079-0, EN / IEC 60079-1, EN / IEC 60079-7, EN 50281 / IEC 61241-0 & IEC 61241-1
HAZARDOUS AREA CODE OF PROTECTION :
Ex II 2 GD Ex d IIC / Ex e II COMPONENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC, Ex tD
IEC Ex : Ex d I / Ex e I / Ex d IIC / Ex e II / Ex tD A21 IP6X

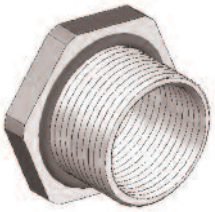
ADDITIONAL APPROVALS HELD
ABS, DNV & LLOYDS

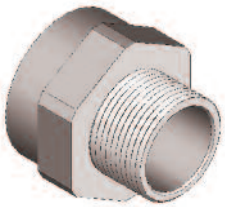
Thread Size	Ordering Reference
M20 x M20	787DM2M25
M25 x M25	787DM3M35
M32 x M32	787DM4M45
M40 x M40	787DM5M55
1/2" NPT x M20	787DT1M25
3/4" NPT x M25	787DT2M35
1/2" NPT x 1/2" NPT	787DT1T15
3/4" NPT x 3/4" NPT	787DT2T25





737
ADAPTORS AND REDUCERS





TECHNICAL DATA
COMPONENT APPROVED ADAPTORS & REDUCERS DESIGNED TO CONVERT THREAD FORMS AND SIZES BETWEEN EXPLOSION PROTECTED EQUIPMENT AND CABLE ENTRY DEVICES. VERSIONS AVAILABLE WITH & WITHOUT INTEGRAL 'O' RING SEAL, AND ALSO FOR INDUSTRIAL OR SAFE AREA USE.

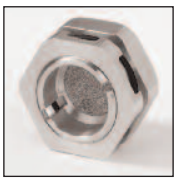
APPROVAL DETAIL
ATEX APPROVAL : SIRA 01ATEX1284U
IECEx APPROVAL : IEC Ex SIR07.0052X
COMPLIANCE : EN / IEC 60079-0, EN / IEC 60079-1, EN / IEC 60079-7, EN 50281 / IEC 61241-0 & IEC 61241-1
HAZARDOUS AREA CODE OF PROTECTION :
Ex II 2 GD Ex d IIC / Ex e II COMPONENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC, Ex tD
IEC Ex : Ex d I / Ex e I / Ex d IIC / Ex e II / Ex tD A21 IP6X

ADDITIONAL APPROVALS HELD
ABS, DNV & LLOYDS

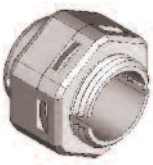
Virtually any thread conversion imaginable can be supplied.

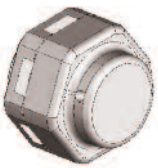
Please see page 13 for common sizes and how to order.

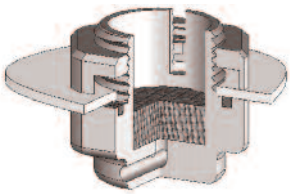
Note : These products comply with the corresponding AS/NZS 60079 standards which are identical to the IEC 60079 compliance standards detailed above.



781D & 781E
BREATHER DRAIN PLUG







TECHNICAL DATA
COMPONENT APPROVED BREATHER DRAIN PLUG FOR USE WITH FLAMEPROOF Ex d OR INCREASED SAFETY Ex e ENCLOSURES THAT ARE SUSCEPTIBLE TO CONDENSATION OR PRONE TO MOISTURE COLLECTION OR INGRESS DURING NORMAL OPERATION.

VERSIONS AVAILABLE IN BRASS, ALUMINIUM, STAINLESS STEEL, OR NON-METALLIC.

APPROVAL DETAIL
ATEX APPROVAL : SIRA 10ATEX1307U
IECEx APPROVAL : IEC Ex SIR 10.0149U
COMPLIANCE : EN / IEC 60079-0, EN / IEC 60079-1, EN / IEC 60079-7, EN / IEC 60079-31
HAZARDOUS AREA CODE OF PROTECTION :
Ex II 2 GD Ex d IIC Gb or Ex e IIC / Ex ta IIIC Da, COMPONENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
IEC Ex : Ex d IIC Gb & Ex ta IIIC Da (Type 781D)
Ex e IIC Gb & Ex ta IIIC Da (Type 781E)
INGRESS PROTECTION : IP66

ADDITIONAL APPROVALS HELD
ABS, DNV & LLOYDS

Size	Ordering Reference			
	Flameproof Type d		Increased Safety Type e	
	Nickel Plated Brass	Stainless Steel	Nickel Plated Brass	Stainless Steel
M20	781DM25	781DM24	781EM25	781EM24
M25	781DM35	781DM34	781EM35	781EM34

CMP 737 THREAD CONVERSION ADAPTOR & REDUCER - STANDARD SIZE SELECTION TABLE

MALE THREAD		FEMALE THREAD																											
SIZE	ORDERING CODE DEFINITION (**)	M1	M2	M3	M4	M5	M6	M7	M8	P1A	P1	P2	P3	P4	P5	P6	P7	P8	P9	T1	T2	T3	T4	T5	T6	T7	T8	B1	B2	B3	B4	B5	B6	B7	B8
		M16	M20	M25	M32	M40	M50	M63	M75	PG7	PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48	1/2" NPT	3/4" NPT	1" NPT	1 1/4" NPT	1 1/2" NPT	2" NPT	2 1/2"NPT	3" NPT	1/2" BSPP	3/4" BSPP	1" BSPP	1 1/4" BSPP	1 1/2" BSPP	2" BSPP	2 1/2" BSPP	3" BSPP
M16	M1																																		
M20	M2																																		
M25	M3																																		
M32	M4																																		
M40	M5																																		
M50	M6																																		
M63	M7																																		
M75	M8																																		
PG7	P1A																																		
PG9	P1																																		
PG11	P2																																		
PG13.5	P3																																		
PG16	P4																																		
PG21	P5																																		
PG29	P6																																		
PG36	P7																																		
PG42	P8																																		
PG48	P9																																		
1/2" NPT	T1																																		
3/4" NPT	T2																																		
1" NPT	T3																																		
1 1/4" NPT	T4																																		
1 1/2" NPT	T5																																		
2" NPT	T6																																		
2 1/2" NPT	T7																																		
3 NPT	T8																																		
1/2" BSPP	B1																																		
3/4" BSPP	B2																																		
1" BSPP	B3																																		
1 1/4" BSPP	B4																																		
1 1/2" BSPP	B5																																		
2" BSPP	B6																																		
2 1/2" BSPP	B7																																		
3" BSPP	B8																																		

How to Compile Ordering Codes

Type - Protection - Male Size(**) - Female Size(**) - Material

Examples :

737-D-M2-M3-5 = M20 x M25 Adaptor, Nickel Plated Brass

737-D-B2-M3-4 = ¾" BSPP x M25 Adaptor, Stainless Steel

737-D-M3-M2-4 = M25 x M20 Adaptor, Stainless Steel

KEY:

IEC Ex CERTIFIED REDUCER

IEC Ex CERTIFIED ADAPTOR

INDUSTRIAL ADAPTOR / REDUCER

Letter D following Type 737 = Dual Certified Ex d / Ex e.
Suffix 5 = Nickel Plated Brass. Suffix 4 = Stainless Steel.

CMP CABLE GLAND SELECTION TABLES BASED UPON AS/NZS 5000.1 & 5000.2 CABLES

450/750V & 0.6/1.kV PVC/PVC Power Cables

Conductor Size mm^2	2C + E	3C + E	4C + E
1.5	20SA2	20SA2	20SA2
2.5	20SA2	20SA2	20A2
4	20SA2	20A2	20A2
6	20A2	20A2	25A2
10	25A2	25A2	25A2
16	25A2	25A2	32A2
25	32A2	32A2	32A2
35	32A2	32A2	40A2
50	32A2	40A2	40A2
70	-	40A2	50SA2
95	-	50SA2	50A2
120	-	50A2	63SA2
150	-	63SA2	63A2
185	-	63A2	75SA2
240	-	75SA2	75A2
300	-	75A2	90A2

0.6/1.kV PVC/PVC/SWA/PVC Power Cables

Conductor Size mm^2	2C + E	3C + E	4C + E
1.5	20SCWD	20SCWD	20CWD
2.5	20SCWD	20CWD	20CWD
4	20CWD	20CWD	20CWD
6	20CWD	20CWD	25SCWD
10	25SCWD	25CWD	25CWD
16	25CWD	25CWD	32CWD
25	25CWD	32CWD	32CWD
35	32CWD	32CWD	32CWD
50	32CWD	40CWD	40CWD
70	-	40CWD	50SCWD
95	-	50SCWD	50CWD
120	-	50CWD	63SCWD
150	-	63SCWD	63CWD
185	-	63CWD	75SCWD
240	-	75SCWD	75CWD
300	-	75CWD	90CWD

0.6/1.kV PVC/PVC Control Cables

Number of Conductors	Conductor Size	
	1.5 mm^2	2.5 mm^2
5C + E	20A2	25A2
6C + E	20A2	25A2
8C + E	25A2	25A2
10C + E	25A2	25A2
12C + E	25A2	25A2
15C + E	25A2	32A2
16C + E	25A2	32A2
20C + E	32A2	32A2
25C + E	32A2	32A2
30C + E	32A2	40A2
36C + E	32A2	40A2
40C + E	40A2	40A2
50C + E	40A2	50SA2

0.6/1.kV PVC/SWA/PVC Control Cables

Number of Conductors	Conductor Size	
	1.5 mm^2	2.5 mm^2
5C + E	20CWD	20CWD
6C + E	20CWD	20CWD
8C + E	20CWD	25CWD
10C + E	25SCWD	25CWD
12C + E	25SCWD	25CWD
15C + E	25CWD	25CWD
16C + E	25CWD	32CWD
20C + E	25CWD	32CWD
25C + E	32CWD	32CWD
30C + E	32CWD	32CWD
36C + E	32CWD	40CWD
40C + E	32CWD	40CWD
50C + E	40CWD	50SCWD

PVC/PVC Instrument Cables

Number of Pairs/Triples	Collectively Screened		Individually & Collectively Screened	
	0.5 mm^2	1.5 mm^2	0.5 mm^2	1.5 mm^2
2PR	20S/16A2	20SA2	20S/16A2	20SA2
4PR	20S/16A2	20A2	20SA2	25A2
6PR	20SA2	25A2	20A2	25A2
8PR	20SA2	25A2	20A2	25A2
10PR	20A2	25A2	25A2	32A2
12PR	20A2	32A2	25A2	32A2
16PR	25A2	32A2	25A2	40A2
20PR	25A2	32A2	32A2	40A2
24PR	25A2	40A2	32A2	50SA2
36PR	32A2	50SA2	32A2	50A2
50PR	32A2	50A2	40A2	63A2
4TR	20SA2	20A2	20A2	25A2
6TR	20A2	25A2	25A2	32A2
8TR	20A2	25A2	25A2	32A2
10TR	20A2	25A2	25A2	32A2
12TR	25A2	32A2	32A2	40A2
16TR	32A2	40A2	40A2	50SA2
24TR	32A2	40A2	50SA2	50A2
36TR	50SA2	50A2	50A2	63A2

PVC/PVC/SWA/PVC Instrument Cables

Number of Pairs/Triples	Collectively Screened		Individually & Collectively Screened	
	0.5 mm^2	1.5 mm^2	0.5 mm^2	1.5 mm^2
2PR	20S/16CWD	20SCWD	20SCWD	20SCWD
4PR	20SCWD	20CWD	20SCWD	25SCWD
6PR	20SCWD	25SCWD	20CWD	25CWD
8PR	20SCWD	25CWD	20CWD	25CWD
10PR	20CWD	25CWD	20CWD	32CWD
12PR	20CWD	32CWD	25CWD	32CWD
16PR	25SCWD	32CWD	32CWD	40CWD
20PR	25CWD	32CWD	32CWD	40CWD
24PR	32CWD	40CWD	32CWD	50SCWD
36PR	32CWD	50SCWD	40CWD	50CWD
50PR	32CWD	50CWD	50CWD	63CWD
4TR	20SCWD	25SCWD	20CWD	25CWD
6TR	20CWD	32CWD	25SCWD	32CWD
8TR	25SCWD	32CWD	25SCWD	32CWD
10TR	25SCWD	32CWD	25CWD	40CWD
12TR	25CWD	40CWD	25CWD	50SCWD
16TR	32CWD	40CWD	32CWD	50SCWD
24TR	32CWD	50SCWD	40CWD	63SCWD
36TR	40CWD	63CWD	50SCWD	63CWD

These cable gland selection charts are provided for guidance purposes. Users are advised to check their actual cable dimensions before ordering cable glands.