



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE000000Y
Revision No:
2

This is to certify:
that the Cable Gland

with type designation(s)
CMP Hazardous

issued to
CMP Products Limited
Cramlington, Northumberland, United Kingdom

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Hazardous areas cable glands. The manufacturer's installation description to be followed.

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Material	See product description
Suitable for open deck	Yes
Suitable for Hazardous areas	Yes

Issued at **Høvik** on **2024-10-11**

for **DNV**

This Certificate is valid until **2029-10-10**.

DNV local unit: **Newcastle-upon-Tyne**

Approval Engineer: **Qiang William Guo**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.



Product description

Type	A2F (including prefix 'R', suffix '-FF', '-FC' & 'HT' variants)
Design Specification	BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15:2017 (EN:2019), IEC 60079-31:2013 (EN:2014)
Certification	CML 18ATEX1321X CML 18ATEX4313X IECEX CML 18.0179X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66, IP67 & IP68 (10m depth)
Gland material	Brass, Nickel Plated Brass, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured or Braided (when terminated inside enclosure)
Deluge protection	To DTS 01:91
Gland sizes	16, 20S/16, 20S, 20, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	A2F100 (including prefix 'R', suffix 'HC' variants)
Design Specification	BS 6121: Part 1: 1989, IEC 62444:2010, EN 62444:2013
Classification	Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15:2017 (EN:2019), IEC 60079-31:2013 (EN:2014)
Certification	CML 18ATEX1307 CML 18ATEX4311 IECEX CML 18.0172
Continuous operating temperature range	-60°C to +130°C
Ingress protection	IP66, IP67 & IP68 (30m depth)
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium

Type	A2F100 (including prefix 'R', suffix 'HC' variants)
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured or Braided (when terminated inside enclosure)
Gland sizes * P variants included	16*, 20S/16*, 20S*, 20*, 20L*, 25*, 25L*, 32, 32L, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	A2E (including prefix 'R', suffix '-FF', '-FC' & 'HT' variants)
Design Specification	BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	CML 18ATEX1321X CML 18ATEX4313X IECEx CML 18.0179X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66, IP67 & IP68 (10m depth)
Gland material	Brass, Nickel Plated Brass, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured or Braided (when terminated inside enclosure)
Deluge protection	To DTS 01:91
Gland sizes	16, 20S/16, 20S, 20, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	A2FRC (including prefix 'R', & suffix 'HT' variants)
Design Specification	BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)

Type	A2FRC (including prefix 'R', & suffix 'HT' variants)
Certification	CML 18ATEX1321X CML 18ATEX4313X IECEX CML 18.0179X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66
Gland material	Brass, Nickel Plated Brass, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured or Braided (when terminated inside enclosure)
Gland sizes	20S/16, 20S, 20, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	E1F## (including prefix 'R', suffix 'W', 'X', 'U', 'D', 'HT' & 'VAR' variants) D=Deluge Protection
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSA - Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Ex d IIC; Ex e II; IP66; Ex nR II CSAus - Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Class I, Zone I, AEx e II; AEx nR II Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIC Da
Compliance Code	ANSI/UL 50, 514B, 2225, UL 60079-0, 1, 7, 15 CAN/CSA C22.2 No 0, 18.3, 25, 30, 94, 174, CSA C22.2 No 60079-0, 1, 7, 15 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1310517 CML 18ATEX1324X, CML 18ATEX4316X IECEX CML 18.0181X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66 (IP67 & IP68 (10m depth) with 'D' option)
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer

Type	E1F## (including prefix 'R', suffix 'W', 'X', 'U', 'D', 'HT' & 'VAR' variants) D=Deluge Protection
Cable type	Armoured or Braided; Marine Shipboard
Deluge protection	To DTS 01:91 with 'D' option
Gland sizes	16, 20S/16, 20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	E2F## (including prefix 'R', suffix 'W', 'X', 'U', 'D', 'HT' & 'VAR' variants) D=Deluge Protection
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSA - Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Ex d IIC; Ex e II; IP66; Ex nR II CSAus - Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Class I, Zone I, AEx e II; AEx nR II Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	ANSI/UL 50, 514B, 2225, UL 60079-0, 1, 7, 15 CAN/CSA C22.2 No 0, 18.3, 25, 30, 94, 174, CSA C22.2 No 60079-0, 1, 7, 15 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1310517 CML 18ATEX1324X, CML 18ATEX4316X IECEX CML 18.0181X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66 (IP67 & IP68 (10m depth) with 'D' option)
Type	E2F## (including prefix 'R', suffix 'W', 'X', 'U', 'D', 'HT' & 'VAR' variants) D=Deluge Protection
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Lead Sheathed & Armoured; Marine Shipboard
Deluge protection	To DTS 01:91 with 'D' option
Gland sizes	16, 20S/16, 20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	PX## (including prefix 'R', suffix 'B', '2K', 'SS2K', 'W', 'X', 'RC', 'REX', 'PB' & 'VAR' variants)
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSA - Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III, Division 1 and 2; Type 4X; Oil Resistance II; Ex d IIC Gb, Ex e IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da CSAus - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Div 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Type 4X; Oil Resistance II; Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2, AEx nR IIC Gc; Class I, Zone 20 AEx ta IIIC Da UL - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class I, Zone 1, AEx d IIC Ex eb I Mb / Ex db I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	ANSI/UL 50, 514B, 2225 UL 60079-0, 1, 7, 15 CAN/CSA C22.2 No 0, 18, 25, 30, 94, 174 CSA C22.2 60079-0, 1, 7, 15, 31 ANSI/ISA 60079-31 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 2288626 UL E161256, E201187, E256367 CML 18ATEX1325X CML 18ATEX4317X IECEx CML 18.0182X
Continuous operating temperature	-60°C to +85°C
Ingress protection	IP66, IP67 & IP68 (10m depth), Type 4X; Oil Resistant II
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	Epoxy Putty Compound, RapidEx Resin, and LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured (PXSS2K), Armoured or Braided (PX2K); Marine Shipboard; Tray cable
Deluge protection	To DTS 01:91
Gland sizes	20S/16, 20S, 20, 20L, 25S, 25, 32, 32L, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	SS2K (including prefix 'R', and suffix 'HT', 'TA', 'PB', 'VAR' variants)
Design Specification	BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013

Classification	Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	CML 18ATEX1322X, CML 18ATEX4314X IECEX CML 18.0178X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66, IP67 & IP68 (10m depth)
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Unarmoured or Braided (when terminated inside enclosure), Tape Armour / Tape Screen ('TA' only)
Deluge protection	To DTS 01:91
Gland sizes	16, 20S/16, 20S, 20, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	C## (including suffix 'We', 'Xe', 'D', '2K', '2KX', HT', 'PB' & 'VAR' variants) D=Deluge Protection
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus - Ex e II, Ex nR II; Class I, Zone 1, AEx e II, AEx nR II; Enclosure Type 4X; Oil Resistant II UL - Class I, Zone 1, AEx e II Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	ANSI/UL 50, 50E, 514B, 2225, 60079-0, 7, UL 60079-15 CAN/CSA C22.2 No 0, 18.3, 94.1, 94.2, E60079-7 CSA E60079-0 C22.2 60079-15 IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 2367109 UL E256367, E200163 CML 18ATEX1323X IECEX CML 18.0180X

Type	C## (including suffix 'We', 'Xe', 'D', '2K', '2KX', HT', 'PB' & 'VAR' variants) D=Deluge Protection
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66 (IP67 & IP68 (10m depth) with 'D' option); Type 4X; Oil Resistant II
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Armoured or Braided; Marine Shipboard
Deluge protection (C2K)	To DTS 01:91 with 'D' option & C2K or C2KX
Gland sizes	16, 20S/16, 20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TMC
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus - Class II, Division 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Enclosure Types 3, 4, and 4X; Ex e II; Class I, Zone 1, AEx e II UL - Class I, Zone 1 and 2, AEx e II Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	ANSI/UL50, 514B, 60079-0, 7 UL 2225, 60079-0, 7 CAN/CSA E60079-7, CAN/CSA C22.2 No 0, 18.3, 25, 94, 174, 60079-0 IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1129339 UL E256366 CML 18ATEX1337X IECEX CML 18.0184X
Continuous operating temperature range	-60°C to +130°C
Ingress protection	IP66; Type 4X; Oil Resistant II
Gland material	Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Corrugated & Interlocked Metal Clad Armour (MC) or TECK90, Continuously Welded Metal Clad Armour (MC-HL), ACIC-HL, ACWU90-HL, RC90-HL, RA90-HL
Gland sizes	20S, 20, 25, 32, 40, 50S, 50, 63S, 63,75, 90, 100, 115, (Alternative size designation - 050S, 050, 075, 100, 125, 150, 200S, 200, 250S, 250, 300, 350, 400)
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TMCX
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Encl. Type 3, 4, and 4X; Ex d IIC, Ex e II; Class I, Zone 1, AEx d IIC, AEx e II UL - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Encl. Type 3, 4, and 4X; Ex d IIC, Ex e II; Class I, Zone 1, AEx d IIC, AEx e II Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	ANSI/UL50, 514B, 60079-0, 1, 7 UL 2225, 60079-0, 1, 7 CAN/CSA E60079-7, CAN/CSA C22.2 No 0, 18.3, 25, 94, 174, 60079-0 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1129339 UL E256366, E161256 CML 18ATEX1337X IECEX CML 18.0184X
Continuous operating temperature range	-60°C to +85°C
Ingress protection	IP66; Type 4X; Oil Resistant II
Gland material	Nickel Plated Brass, Aluminium or Stainless Steel
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Corrugated & Interlocked Metal Clad Armour (MC) or TECK90, Continuously Welded Metal Clad Armour (MC-HL), ACIC-HL, ACWU90-HL, RC90-HL, RA90-HL
Deluge protection	To DTS 01:91
Gland sizes	20S, 20, 25, 32, 40, 50S, 50, 63S, 63,75, 90, 100, 115, (Alternative size designation - 050S, 050, 075, 100, 125, 150, 200S, 200, 250S, 250, 300, 350, 400)
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TMC2
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSA - Class I, Division 2, Groups A, B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Enclosure Type 4X; Ex e II; Class I, Zone 1, AEx e II; AEx ta IIIC CSAus - Class II, Division 1 and 2, Groups E, F, and G; Class III, Division 1 and 2; Enclosure Type 4X; Ex e II; Class I, Zone 1, AEx e II; AEx ta IIIC Ex eb II Gb, Ex ta IIIC Da
Compliance Code	ANSI/UL 50, 514B, U886, 2225

Type	TMC2
	CAN/CSA E60079-0, CAN/CSA C22.2 No 0, 18, 25, 30, 94, 174, 60079-0, 1, 7, E61241-1-1 IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 2194053 CML 18ATEX1335X IECEX CML 18.0192X
Continuous operating temperature range	-60°C to +110°C
Ingress protection	IP66; Type 4X; Oil Resistant II
Gland material	Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Corrugated & Interlocked Metal Clad Armour (MC) or TECK90, Continuously Welded Metal Clad Armour (MC-HL), ACIC-HL, ACWU90-HL, RC90-HL, RA90-HL
Gland sizes	20S, 20, 25, 32, 40S, 40, 50S, 50, 63S, 63,75, 90, 100, 115 (Alternative size designation - 050S, 050, 075, 100, 125S, 125, 150, 200S, 200, 250S, 250, 300, 350, 400)
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TMC2X
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class III Division 1 and 2; Enclosure Type 4X; Ex d IIC, Ex e II; Class I Zone 1, AEx d IIC; AEx e II; AEx ta IIIC UL - Class I, Division 1 and 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, G; Class III Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	UL50, UL 514B, UL 2225, UL 60079-0,1,7 CAN/CSA-E60079-0, CSA Standard C22.2 No 18,174 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 2194053 UL E161256 CML 18ATEX1336X IECEX CML 18.0193X
Continuous operating temperature range	-60°C to +85°C
Ingress protection	IP66; Type 4X; Oil Resistant II
Gland material	Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel

Type	TMC2X
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Corrugated & Interlocked Metal Clad Armour (MC) or TECK90, Continuously Welded Metal Clad Armour (MC-HL), ACIC-HL, ACWU90-HL, RC90-HL, RA90-HL
Gland sizes	20S, 20, 25, 32, 40S, 40, 50S, 50, 63S, 63,75, 90, 100, 115 (Alternative size designation - 050S, 050, 075, 100, 125S, 125, 150, 200S, 200, 250S, 250, 300, 350, 400)
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TC
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSA - Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G; Class III, Division 2; Enclosure Type 4X; Ex e; Class I, Zone 1, AEx e CSAus - Class II, Division 2, Groups E, F, and G; Class III, Division 2; Enclosure Type 4X; Ex e; Class I, Zone 1, AEx e Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	ANSI/UL 50, 514B, 60079-0,7 CAN/CSA C22.2 No 0, 18.3, 94, 174, E60079-0, 7 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 2220601 CML 18ATEX1334X IECEX CML 18.0191X
Continuous operating temperature range	-60°C to +110°C
Ingress protection	IP66; Type 4X;
Gland material	Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Tray Cable & Cords, Unarmoured / Braid (IEC)
Gland sizes	20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TRITON T3CDS (including prefix 'R', suffix 'X', 'W', 'HT' 'PB' & 'VAR' variants)
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444: 2013

Type	TRITON T3CDS (including prefix 'R', suffix 'X', 'W', 'HT' 'PB' & 'VAR' variants)
Classification	cCSA – Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G; Enclosure Types 3, 4, and 4X; Class III; Ex d IIC, Ex e II; Ex nR II CSAus – Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Oil Resistant II; Class I, Zone 1, AEx e II; AEx nR II UL – Class I, Zone 1, AEx e II Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIC Da
Compliance Code	ANSI/UL 50, 514B, 2225 UL 60079-0, 1, 7, 15 CAN/CSA C22.2 No 0, 18, 25, 30, 94, 174 CSA C22.2 60079-0, 1, 7, 15 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15: 2017 (EN:2019), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1310517 UL E256367 CML 18ATEX1326X, CML 18ATEX4318X IECEX CML 18.0183X
Continuous operating temperature range	-60°C to +130°C (Standard seal), -20°C to +200°C (High temperature seal)
Ingress protection	IP66, IP67 & IP68 (10m depth); Type 4X; Oil Resistant II
Gland material	Brass, Nickel Plated Brass, Mild Steel, Stainless Steel or Aluminium
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Armoured or Braided; Marine Shipboard
Deluge protection	To DTS 01:91
Gland sizes	16, 20S/16, 20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	TE1FU (including prefix 'R', suffix 'HT' & 'VAR' variants)
Design Specification	UL50, UL514B, UL2225, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444: 2013
Classification	cCSA – Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G; Enclosure Types 3, 4, and 4X; Class III; Ex d IIC, Ex e II; Ex nR II CSAus – Class II, Division 2, Groups E, F, and G; Class III; Enclosure Type 4X; Oil Resistant II; Class I, Zone 1, AEx e II; AEx nR II Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIC Da
Compliance Code	ANSI/UL 50, 514B, 2225

Type	TE1FU (including prefix 'R', suffix 'HT' & 'VAR' variants)
	UL 60079-0, 1, 7, 15 CAN/CSA C22.2 No 0, 18, 25, 30, 94, 174 CSA C22.2 60079-0, 1, 7, 15 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-15:2017 (EN:2019), IEC 60079-31:2013 (EN:2014)
Certification	cCSAus 1310517 CML 18ATEX1326X, CML 18ATEX4318X IECEX CML 18.0183X
Continuous operating temperature range	-60°C to +130°C (Standard seal) -20°C to +200°C (High temperature seal)
Ingress protection	IP66, IP67 & IP68 (10m depth); Type 4X; Oil Resistant II
Gland material	Stainless Steel
Seal material	LSF Halogen Free Thermoset Elastomer
Cable type	Armoured or Braided; Marine Shipboard
Deluge protection	To DTS 01:91
Gland sizes	16, 20S/16, 20S, 20, 25S, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75, 90, 100, 115, 130
Optional accessories	Shroud, Locknut, Earth Tag, Entry Thread Seal, Serrated Washer, Adaptor/Reducer

Type	717 (including suffix 'e', 'E' variants)
Design Specification	IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	CML 20ATEX3054X IECEX CML 20.0038X
Continuous operating temperature range	-60 °C to +95 °C
Ingress protection	IP66, IP67, IP68*, IP69, IP69K * with sealing washer: 30m for 16 hours * without sealing washer: 1.1m for 5 days
Component material	Nylon
Thread size	M20x1.5, M25x1.5, M32x1.5 1/2" NPT, 3/4" NPT, 1" NPT
Optional Accessories	Locknut, Entry Thread Sealing Washer

Type	747 (Type A & Type B)
Design Specification	UL50, UL1203, BS 6121: Part 1: 1989, IEC 62444: 2010,

Type	747 (Type A & Type B)
	EN 62444:2013
Classification	cCSAus – Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III; Ex de II; Class I, Zone 1, AEx de II; IP66, 67, and 68; Enclosure Type 4X UL – Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III Metallic Versions Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da Non-metallic Versions Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	UL 50, 1203, 60079-0, 1, 7 CSA C22.2 No 0, 0.5, 30, 94, 60079-0, 1, 7 CAN/CSA E61241 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1055233 UL E214221 CML 18ATEX1320X IECEX CML 18.0177X
Continuous operating temperature range	-60 °C to +200 °C (Metallic) -20 °C to +60 °C (Nylon)
Ingress protection	IP66, IP67, IP68; Type 4X
Component material	Brass, Nickel Plated Brass, Aluminium, Mild Steel, Stainless Steel or Nylon
Thread size	M16x1.5, M20x1.5, M25x1.5, M32x1.5, M40x1.5, M50x1.5, M63x1.5, M75x1.5, M80x2, M90x2, M100x2, 1/2" NPT, 3/4" NPT, 1" NPT, 1 1/2" NPT, 2" NPT, 2 1/2" NPT, 3" NPT, 3 1/2" NPT, 4" NPT
Optional accessories	Locknut, Serrated Washer, Earth Tag, Entry Thread Sealing Washer

Type	757 (including suffix 'D', 'E', 'F' & 'R' variants)
Design Specification	UL50, UL1203, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus – Class II, Groups E, F, G; Class III; Ex e, Class I, Zone 1, AEx e II; IP66, 67, and 68; Enclosure Type 4X UL – Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III Metallic Versions Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da Non-metallic Versions Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	UL 50, 1203, 60079-0, 1, 7

Type	757 (including suffix 'D', 'E', 'F' & 'R' variants)
	CSA C22.2 No 0, 0.5, 30, 94, 60079-0, 1, 7 CAN/CSA E61241 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1055233 UL E214221 CML 18ATEX1320X IECEX CML 18.0177X
Continuous operating temperature range	-60 °C to +200 °C (Metallic) -20 °C to +60 °C (Nylon)
Ingress protection	IP66, IP67 or IP68 when fitted with CMP Integral 'O' Ring or entry Thread Sealing Washer; Type 4X
Component material	Brass, Nickel Plated Brass, Aluminium, Mild Steel, Stainless Steel or Nylon
Thread size	M16x1.5, M20x1.5, M25x1.5, M32x1.5, M40x1.5, M50x1.5, M63x1.5, M75x1.5, M80x2, M90x2, M100x2, 1/2" NPT, 3/4" NPT, 1" NPT, 1 1/2" NPT, 2" NPT, 2 1/2" NPT, 3" NPT, 3 1/2" NPT, 4" NPT
Optional accessories	Locknut, Serrated Washer, Earth Tag, Entry Thread Sealing Washer

Type	767 (including suffix 'D', 'E', 'F' & 'R' variants)
Design Specification	UL50, UL1203, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus – Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III; Ex de II, Class I, Zone 1, AEx de II; IP66, 67, and 68; Enclosure Type 4X UL – Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III Metallic Versions Ex db I Mb / Ex eb I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da Non-metallic Versions Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	UL 50, 1203, 60079-0, 1, 7 CSA C22.2 No 0, 0.5, 30, 94, 60079-0, 1, 7 CAN/CSA E61241 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1055233 UL E214221 CML 18ATEX1320X IECEX CML 18.0177X
Continuous operating temperature range	-60 °C to +200 °C (Metallic) -20 °C to +60 °C (Nylon)
Ingress protection	IP66, IP67, or IP68 when fitted with CMP Integral 'O' Ring or entry Thread Sealing Washer; Type 4X

Type	767 (including suffix 'D', 'E', 'F' & 'R' variants)
Component material	Brass, Nickel Plated Brass, Aluminium, Mild Steel, Stainless Steel, or Nylon
Thread size	M16x1.5, M20x1.5, M25x1.5, M32x1.5, M40x1.5, M50x1.5, M63x1.5, M75x1.5, M80x2, M90x2, M100x2, 1/2" NPT, 3/4" NPT, 1" NPT, 1 1/2" NPT, 2" NPT, 2 1/2" NPT, 3" NPT, 3 1/2" NPT, 4" NPT
Optional accessories	Locknut, Serrated Washer, Earth Tag, Entry Thread Sealing Washer

Type	780 / PX780 / PX780REX (+variants)
Design Specification	UL50, UL1203, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013
Classification	cCSAus - Class I, Groups A, B, C and D; IP66, 67, 68; Enclosure Type 4X; Ex de II; Class I, Zone 1, AEx de II Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da / Ex db I Mb / Ex eb I Mb
Compliance Code	UL 50, 1203, 60079-0, 1, 7 CSA C22.2 No 0, 0.5, 30, 94, 60079-0, 1, 7 CAN/CSA E61241 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1055233 CML 18ATEX1327X IECEx CML 18.0190X
Continuous operating temperature range	-60 °C to +200 °C (Standard) -60 °C to +85 °C (PX version)
Ingress protection	IP66, IP67 or IP68; Type 4X
Component material	Brass, Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel
Thread size	M20x1.5, M25x1.5, M32x1.5, M40x1.5, M50x1.5, M63x1.5, M75x1.5, M80x2, M90x2, M100x2, 1/2" NPT, 3/4" NPT, 1" NPT, 1 1/2" NPT, 2" NPT, 2 1/2" NPT, 3" NPT, 3 1/2" NPT
Optional accessories	Locknut, Serrated Washer, Earth Tag, Entry Thread Sealing Washer

Type	784 / PX784 / PX784REX / 789 / PX789 / PX789REX (+variants)
Design Specification	UL50, UL1203, BS 6121: Part 1: 1989, IEC 62444: 2010, EN 62444:2013

Type	784 / PX784 / PX784REX / 789 / PX789 / PX789REX (+variants)
Classification	cCSAus - Class I, Groups A, B, C, and D; IP66, 67, 68; Enclosure Type 4X; Ex de II; Class I, Zone 1, AEx de II Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da / Ex db I Mb / Ex eb I Mb
Compliance Code	UL 50, 1203, 60079-0, 1, 7 CSA C22.2 No 0, 0.5, 30, 94, 60079-0, 1, 7 CAN/CSA E61241 IEC 60079-0:2017 (EN:2018), IEC 60079-1:2014 (EN:2014), IEC 60079-7:2017 (EN:2015+A1:2018), IEC 60079-31: 2013 (EN:2014)
Certification	cCSAus 1055233 CML 18ATEX1329U IECEX CML 18.0186U
Continuous operating temperature range	-60 °C to +200 °C (Standard) -60 °C to +85 °C (PX version)
Ingress protection	IP66, IP67 or IP68; Type 4X
Component material	Brass, Nickel Plated Brass, Aluminium, Mild Steel, or Stainless Steel
Thread size	M20x1.5, M25x1.5, M32x1.5, M40x1.5, M50x1.5, M63x1.5, M75x1.5, M80x2, M90x2, M100x2, 1/2" NPT, 3/4" NPT, 1" NPT, 1 1/2" NPT, 2", NPT, 2 1/2" NPT, 3" NPT, 3 1/2" NPT
Optional accessories	Locknut, Serrated Washer, Earth Tag, Entry Thread Sealing Washer

Type	TSPe & TSPI
Design Specification	IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018) IEC 60079-31: 2013 (EN:2014)
Certification	CML 19ATEX3185X IECEX CML 19.0062X
Continuous operating temperature range	-60°C to +95°C
Ingress Protection	IP66, IP67, IP68 (30m depth), IP69 & IP69K
Gland Material	Halogen Free, Phosphorus Free Polyamide
Seal Material	LSF Halogen Free Thermoset Elastomer
Cable Type	Unarmoured or Braided (when terminated inside enclosure)
Gland Sizes	12, 16S, 16, 16D, 20S, 20, 20D, 25S, 25, 25D, 32S, 32, 32D, 40S, 40, 40D, 50S, 50, 50D, 63S, 63, 63D
Optional accessories	Locknut, EMC Locknut, Adaptor/Reducer, Transit disc, IP Plug

Type	TSMe
Design Specification	IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018),

Type	TSM _e
	IEC 60079-7:2017 (EN:2015+A1:2018) IEC 60079-31: 2013 (EN:2014)
Certification	CML 19ATEX3185X IECEX CML 19.0062X
Continuous operating temperature range	-60°C to +105°C
Ingress Protection	IP66, IP67, IP68 (30m depth), IP69 & IP69K
Gland Material	Brass, Nickel Plated Brass, Mild Steel, or Stainless Steel
Seal Material	LSF Halogen Free Thermoset Elastomer
Cable Type	Unarmoured or Braided (when terminated inside enclosure)
Gland Sizes	12, 16S, 16, 16D, 20S, 20, 20D, 25S, 25, 25D, 32S, 32, 32D, 40S, 40, 40D, 50S, 50, 50D, 63S, 63, 63D
Optional accessories	Locknut, EMC Locknut, Earth Tag, Serrated Washer, Adaptor/Reducer, Transit disc, IP Plug

Type	TSX _e
Design Specification	DIN 89345, IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018) IEC 60079-31: 2013 (EN:2014)
Certification	CML 19ATEX3185X IECEX CML 19.0062X
Continuous operating temperature range	-60°C to +105°C
Ingress Protection	IP66, IP67, IP68 (30m depth), IP69 & IP69K
Gland Material	Brass, Nickel Plated Brass, Mild Steel, or Stainless Steel
Seal Material	LSF Halogen Free Thermoset Elastomer
Cable Type	Unarmoured or Braided (when terminated inside enclosure)
Gland Sizes	12, 16S, 16, 16D, 20S, 20, 20D, 25S, 25, 25D, 32S, 32, 32D, 40S, 40, 40D, 50S, 50, 50D, 63S, 63, 63D
Optional accessories	Locknut, EMC Locknut, Earth Tag, Serrated Washer, Adaptor/Reducer, Transit disc, IP Plug

Type	TSZ _e
Design Specification	IEC 62444: 2010, EN 62444:2013
Classification	Ex eb IIC Gb / Ex ta IIIC Da
Compliance Code	IEC 60079-0:2017 (EN:2018), IEC 60079-7:2017 (EN:2015+A1:2018) IEC 60079-31: 2013 (EN:2014)
Certification	CML 19ATEX3185X IECEX CML 19.0062X

Type	TSZe
Continuous operating temperature range	-60°C to +105°C
Ingress Protection	IP66, IP67, IP68 (30m depth), IP69 & IP69K
Gland Material	Brass, Nickel Plated Brass, Mild Steel, or Stainless Steel
Seal Material	LSF Halogen Free Thermoset Elastomer
Cable Type	Screened cables, including Copper Tape or Foil Screen
Gland Sizes	12, 16S, 16, 16D, 20S, 20, 20D, 25S, 25, 25D, 32S, 32, 32D, 40S, 40, 40D, 50S, 50, 50D, 63S, 63, 63D
Optional accessories	Locknut, EMC Locknut, Earth Tag, Serrated Washer, Adaptor/Reducer, Transit disc, IP Plug

Type	CG (Cord Grip)
Design Specification	UL50/UL50E, UL514B
Compliance Code	UL 50/50E UL 514B CSA C22.2 No. 18.3-12 CSA C22.2 No. 94.2-15
Certification	UL E509101
Continuous operating temperature range	-60°C to +90°C
Ingress Protection	Type 4X, 6P IP66, IP67 & IP68 (30m depth)
Gland Material	Aluminum, Brass, Zinc Plated Steel, Stainless-Steel, Nickel-Plated Brass
Cable Type	Flexible Cord
Gland Sizes	20s, 20, 25, 32, 40, 50s, 50 Alternative size designation: 0375, 050, 075, 100, 125, 150, 200
Optional accessories	Locknut, Entry Thread Seal, Shroud, Earth Tag, Serrated Washer, Adaptor/Reducer, Strain Relief Device

Application/Limitation

Manufacturer's application instructions to be followed.

Manufacturer's assembly instructions to be followed.

The information related to Ex certification from recognised test institution is given as information only.

Type Approval documentation

Drawings:

Drawings are listed in individual certificates.

Certificates:

Certificates listed under "Certification" in the table of each type.

Tests carried out

Type tests according to IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15 and IEC 60079-31. UL and CSA standards.

Marking of product

CMP – type designation – Ex rating

Periodical assessment

The scope of the periodical assessment survey is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.



Job ID: **262.1-009667-7**
Certificate no.: **TAE000000Y**
Revision No: **2**

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE