

## TYPE APPROVAL CERTIFICATE

## This is to certify:

## That the Cable Gland

with type designation(s)

**Hazardous Area Cable Gland, Increased Safety Cable Gland, North American Series Cable Gland**

Issued to

**HAWKE International, A member of the Hubbell Group  
Lancashire, United Kingdom**

is found to comply with

**DNV GL rules for classification – Ships, offshore units, and high speed and light craft**

## Application :

**Hazardous areas cable glands.****Manufacturer's installation description to be followed.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Type	Material	Suitable for open deck Yes	Suitable for Hazardous areas Yes
<b>Hazardous Area Cable Gland</b>	<b>Brass, SS or aluminium. Materials may be plated or coated to suit application</b>	<b>Yes</b>	<b>Yes</b>
<b>Increased Safety Cable Gland</b>	<b>Brass, SS or aluminium. Materials may be plated or coated to suit application</b>	<b>Yes</b>	<b>Yes</b>
<b>North American Series Cable Gland</b>	<b>Brass, SS or aluminium. Materials may be plated or coated to suit application</b>	<b>Yes</b>	<b>Yes</b>

Issued at **Høvik** on **2020-05-18**for **DNV GL**This Certificate is valid until **2023-12-31**.DNV GL local station: **Manchester**Approval Engineer: **Ivar Bull****Marta Alonso Pontes  
Head of Section**

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.

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Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

## Product description

<b>Type 1a</b>	<b>Hazardous Area Cable Gland type 501/421</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD. Note:- 121 type cable gland is for Industrial applications only
Certification	CML19ATEX1167X for sizes Os to J IECEX CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with non-armoured elastomer and plastic insulated cables
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit Application
Seal Material	Neoprene
Gland sizes [mm]/NPT"	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½" 4"
Assembly instruction data sheet	A.I.307 for sizes Os –J
Arrangement drawing No.	501/421 and 501/421 G to J

<b>Type 1b</b>	<b>Hazardous Area Cable Gland type 501/423</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- <b>123</b> type cable gland is for Industrial applications only
Certification	CML19ATEX1167X for sizes Os to J IECEX CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with non-armoured elastomer and plastic insulated cables. May be used on cables incorporating inner and outer cable sheaths
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit Application
Seal Material	Neoprene
Gland sizes [mm]/NPT"	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½" 4"
Assembly instruction data sheet	A.I.306 for sizes Os –J
Arrangement drawing No.	501/423 and 501/423 G to J

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 1c</b>	<b>Hazardous Area Cable Gland type PR411</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- <b>PR111</b> type cable gland is for Industrial applications only
Certification	Baseefa 08ATEX0328X for sizes Os to F IECEX BAS 08.0111X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with non-armoured elastomer and plastic insulated cables
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene
Gland sizes [mm]/NPT"	16, 20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼.", 1½", 2", 2½", 3"
Assembly instruction data sheet	A.I.397 for sizes Os –F
Arrangement drawing No.	PR411

<b>Type 1d</b>	<b>Hazardous Area Cable Gland type 501/421/R</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD. Note:- 121/R type cable gland is for Industrial applications only
Certification	CML19ATEX1167X for sizes Os to C2 IECEX CML 19.0043X for sizes Os to C2
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC/EN 60079-31
Application	For use with non-armoured elastomer and plastic insulated cables
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene
Gland sizes [mm]/NPT"	16, 20, 25, 32, 40 or NPT sizes ½", ¾", 1" 1¼.", 1½", 2"
Assembly instruction data sheet	A.I.427 for sizes Os –C2
Arrangement drawing No.	501/421/R

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 2a</b>	<b>Hazardous Area Cable Gland type PR453</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 08ATEX0328X for sizes Os to F IECEx BAS 08.0111X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with armoured elastomer and plastic insulated cables. May be used on cables incorporating inner and outer cable sheaths.
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene
Gland sizes [mm]/NPT"	16, 20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.385 for sizes Os –F
Arrangement drawing No.	PR453 and PR543RAC

<b>Type 2b</b>	<b>Hazardous Area Cable Gland type 501/453/Universal</b>
Classification	Flameproof Exd, Restricted Breathing ExnR and Increased Safety Exe II 2 GD Note:- <b>153 Universal</b> type cable gland is for Industrial applications only
Certification	CML18ATEX1268X for sizes Os to F Baseefa 06ATEX0057X for sizes Os to F IECEx CML 18.0131X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC/EN60079-15 IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. For particular use with cables that exhibit "Cold Flow" characteristics
Continuous Operating Temp.	-60°C to +80°C as standard
Deluge protection	DTS01 certified by ITS
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicone
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.300 for sizes Os –F
Arrangement drawing No.	501/453 UNIV

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 2c</b>	<b>Hazardous Area Cable Gland type 501/453/RAC</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- <b>153 RAC</b> type cable gland is for Industrial applications only
Certification	CML19ATEX1167X for sizes Os to J IECEx CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene inner seal and silicone outer seal
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½" 4"
Assembly instruction data sheet	A.I.302 for sizes Os –J
Arrangement drawing No.	501/453 RAC

<b>Type 2d</b>	<b>Hazardous Area Cable Gland type 501/453/RAC/L</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes Os to J IECEx CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with lead sheath single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene inner seal and silicone outer seal
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½" 4"
Assembly instruction data sheet	A.I.302+336 for sizes O –J
Arrangement drawing No.	501/453 RAC

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 2e</b>	<b>Hazardous Area Cable Gland type 501/453/Dedicated</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes Os to J IECEx CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene inner, outer seal Os to F silicone and G to J neoprene
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½", 3", 3½", 4"
Assembly instruction data sheet	A.I.302 for sizes Os –F, A.I.329 for sizes G to J
Arrangement drawing No.	501/453 Dedicated and 501/453 Dedicated G to J

<b>Type 2f</b>	<b>Hazardous Area Cable Gland type 501/453/L Dedicated</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes Os to J IECEx CML 19.0043X for sizes Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with lead sheath single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables,
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene inner, outer seal Os to F silicone and G to J neoprene
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½", 3", 3½", 4"
Assembly instruction data sheet	A.I.302+336 for sizes Os to F, A.I.329+336 for sizes G to J
Arrangement drawing No.	501/453 Dedicated and 501/453 Dedicated G to J

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 2g</b>	<b>Hazardous Area Cable Gland type 501/452/RAC</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes Os to F IECEx CML 19.0043X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene inner seal no outer seal
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.350 for sizes Os –F
Arrangement drawing No.	501/452 RAC

<b>Type 3a</b>	<b>Hazardous Area Cable Gland type PSG 553/RAC</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes A to C IECEx CML 19.0043X for sizes A to C
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. For particular use with: a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Cables that exhibit "cold flow" characteristics. c) Enclosures for gas group IIC, under 2 litres in volume and containing an ignition source. d) Enclosures for gas groups IIA or IIB, which are greater than 2 litres and containing an ignition source.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Inner and outer seals silicone
Gland sizes [mm]/NPT	20, 25, 32, or NPT ½", ¾", 1" or 1¼"
Assembly instruction data sheet	A.I.312
Arrangement drawing No.	PSG 553 RAC

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 3b</b>	<b>Hazardous Area Cable Gland type PSG 553 Dedicated</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML19ATEX1167X for sizes A to C IECEx CML 19.0043X for sizes A to C
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. For particular use with: a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Cables that exhibit "cold flow" characteristics. c) Enclosures for gas group IIC, under 2 litres in volume and containing an ignition source. d) Enclosures for gas groups IIA or IIB, which are greater than 2 litres and containing an ignition source.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Inner and outer seals silicone
Gland sizes [mm]/NPT	20, 25, 32, or NPT ½", ¾", 1" or 1¼"
Assembly instruction data sheet	A.I.313
Arrangement drawing No.	PSG 553 Dedicated

<b>Type 4</b>	<b>Hazardous Area Cable Gland type ICG 623 and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0058X for sizes Os to F IECEx BAS 06.0015X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with non-armoured elastomer and plastic insulated cables. For particular use with: a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Cables that exhibit "cold flow" characteristics. c) Enclosures containing an ignition source in gas group IIC areas or containing an ignition source in zone I area and exceeding 2 litres in volume.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene Outer Seal and - Santoprene and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75,. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.305
Arrangement drawing No.	ICG 623



Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 5a</b>	<b>Hazardous Area Cable Gland type ICG 653/Universal and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML18ATEX1268X for sizes Os to F IECEx CML 18.0131X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. For particular use with: a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Cables that exhibit "Cold Flow" characteristics. c) Enclosures containing an ignition source in zone I area.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75,. or NPT sizes 1/2", 3/4", 1" 1 1/4", 1 1/2", 2", 2 1/2" 3"
Assembly instruction data sheet	A.I.301
Arrangement drawing No.	ICG 653 Universal

<b>Type 5 Hybrid</b>	<b>Hazardous Area Cable Gland type ICG 653/Universal – P and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML18AEX1268X for sizes Os to F IECEx CML 18.0131X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. For particular use with: a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Cables that exhibit

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

	"Cold Flow" characteristics. c) Enclosures containing an ignition source in zone I area.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75,. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	AI 461 / Issue A 09/13 and AI 462 / Issue A – 09/13
Arrangement drawing No.	ICG 653 Universal-P

<b>Type 5b</b>	<b>Hazardous Area Cable Gland ICG 653/Universal/L and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML18AEX1268X for sizes Os to F IECEx CML 18.0131X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with lead sheath single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.301+336
Arrangement drawing No.	ICG 653 Universal

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 5c</b>	<b>Hazardous Area Cable Gland ICG 653/Dedicated and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	CML18AEX1268X for sizes Os to F IECEx CML 18.0131X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.301+336
Arrangement drawing No.	ICG 653 Dedicated

<b>Type 5d</b>	<b>Hazardous Area Cable Gland type ICG 653 and CSB656 oversize</b>
Classification	Flameproof Exd IIC 2 GD
Certification	Baseefa 08ATEX0015X for sizes J
Construction and test standards	EN60079-0, EN60079-1, EN60079-7, EN 61241-0 and EN 61241-1
Application	a) ICG 653 - For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables. b) For use with conduit systems that incorporate individual conductors
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	M100 or NPT sizes 4"
Assembly instruction data sheet	A.I.359
Arrangement drawing No.	ICG 653 and CSB656 oversize

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 5e</b>	<b>Hazardous Area Cable Gland type CSB 656 and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0058X for sizes A to F IECEx BAS 06.0015X for sizes A to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with conduit systems that incorporate individual conductors
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½", 3"
Assembly instruction data sheet	A.I.311
Arrangement drawing No.	CSB 656

<b>Type 5f</b>	<b>Hazardous Area Cable Gland type ICG 611 and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0058X for sizes Os to F IECEx BAS 06.0015X for sizes Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	Metal clad MC and TECK type cables a) Cables that are not effectively filled, compact and/or circular, have tape bedding or have hydroscopic fillers. b) Enclosures containing an ignition source in zone I area.
Continuous Operating Temp.	-60°C to +80°C as standard

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.359
Arrangement drawing No.	ICG 611

<b>Type 5g</b>	<b>Hazardous Area Cable Gland type CSB 656N and QSP version</b>
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0058X for sizes A to F IECEx BAS 06.0015X for sizes A to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7 and IEC 60079-31
Application	For use with conduit systems that incorporate individual conductors
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer Seal - Santoprene Rubber and Epoxy Compound Inner Seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.375
Arrangement drawing No.	CSB 656N

<b>Type 6</b>	<b>Hazardous Area Cable Gland type 710,711,753 and 755</b>
Classification	Flameproof Exd, Restricted Breathing ExnR and Increased Safety Exe II 2 GD
Certification	Sira 06ATEX1295X for sizes A to F IECEx Sir 06.0082X for sizes A to F Sira 07ATEX4330X for sizes A to F (710,711 and 753 only)
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-1, IEC/ EN60079-7, IEC/EN60079-15 IEC 60079-31
Application	For use with braid armoured marine shipboard jacketed or non jacketed cable ( Types 753 ), Metal clad armoured HLMC /TECK cables ( 711), Unarmoured TC type cables (710), SWA armoured cables (755).
Continuous Operating Temp.	-50°C to 80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3".
Assembly instruction data sheet	A.I.391 for 710 , A.I 389 for 711, A.I373 for 753 and A.I 382 for 755 - sizes A-F in all cases
Arrangement drawing No.	ATEX710, ATEX711, ATEX753 and ATEX755

<b>Type 7a</b>	<b>Cable Gland type 321 Increased Safety</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to L IECEx BAS 06.0016X Os to L
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7 and IEC 60079-31
Application	For use with non armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Neoprene Inner Seal
Gland sizes [mm]/NPT	16,20, 25, 32, 40, 50, 63, 75, 80, 90, 100. 110, 120 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3" 3½", 4" 5"
Assembly instruction data sheet	A.I.307 for sizes Os -L
Arrangement drawing No.	321 and 321 G to L
<b>Type 7b</b>	<b>Cable Gland type 321/R Increased Safety, with or without stopping</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to C2 IECEx.BAS.06.0016X Os to C2
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7,
Application	For use with non armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +100°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit
Seal Material	Neoprene Inner Seal
Gland sizes [mm]/NPT	16,20, 25, 32, 40 or NPT sizes ½", ¾", 1" 1¼", 1½", 2"
Assembly instruction data sheet	A.I.452 for sizes Os -C2
Arrangement drawing No.	321/R

<b>Type 8</b>	<b>Cable Gland type 351/RAC Increased Safety</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to F IECEx BAS 06.0016X Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7, IEC/EN 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	No inner seal
Gland sizes [mm]/NPT	16 20, 25, 32, 40, 50, 63, 75 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3"
Assembly instruction data sheet	A.I.308 for sizes Os –F
Arrangement drawing No.	351 RAC

<b>Type 9a</b>	<b>Cable Gland type 351/Dedicated Increased Safety</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to J IECEx BAS 06.0016X Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7 and IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	No inner seal Outer seal silicone sizes Os to F and neoprene for sizes G to J
Gland sizes [mm]/NPT	16 20, 25, 32, 40, 50, 63, 75, 80, 90, 100 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½"
Assembly instruction data sheet	A.I.314 for sizes Os –F, A.I 335 for sizes G to J
Arrangement drawing No.	351 Dedicated and 351 Dedicated G to J

<b>Type 9b</b>	<b>Cable Gland type 353/RAC Increased Safety</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to F IECEx BAS 06.0016X Os to F
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7 and IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Outer Seal - Neoprene Inner Seal
Gland sizes [mm]/NPT	16 20, 25, 32, 40, 50, 63, 75 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3", 3½" 1" 1¼", 1½", 2", 2 ½" 3",
Assembly instruction data sheet	A.I.302 for sizes Os –F
Arrangement drawing No.	353 RAC

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 9c</b>	<b>Cable Gland type 353/Dedicated Increased Safety</b>
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X Os to J IECEx BAS 06.0016X Os to J
Construction and test standards	IEC/ EN60079-0, IEC/ EN60079-7 and IEC 60079-31
Application	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60°C to +80°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	Available as an option
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Outer Seal - Neoprene Inner Seal
Gland sizes [mm]/NPT	16, 20, 25, 32, 40, 50, 63, 75, 80, 90, 100 or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½", 3" 3½", 4",
Assembly instruction data sheet	A.I.302 for sizes Os –F A.I.329 for sizes G to J
Arrangement drawing No.	353 Dedicated and 353 Dedicated G to J

<b>Type 10a</b>	<b>North American Series Cable Gland type 710</b>
Classification	Explosion Proof Class 1 Div 2 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone2
Certification	UL file number E84940
Construction and test standards	UL listed locations in USA and Canada. E84940.
Application	For use with non-armoured cable, as permitted by the NEC.
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS

Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½", 3"
Assembly instruction data sheet	A.I.316 for sizes A–F
Arrangement drawing No.	710

<b>Type 10b</b>	<b>North American Series Cable Gland type S710</b>
Classification	Explosion Proof Class 1 Div 2 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone2
Certification	UL file number E84940
Construction and test standards	UL listed locations in USA and Canada. E84940.
Application	For use with non-armoured cable, as permitted by the NEC.
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS



Job Id: **262.1-033807-1**  
Certificate No: **TAE00003BS**  
Revision No: **1**

Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3" 3½"
Assembly instruction data sheet	A.I.361 for sizes A-F
Arrangement drawing No.	S710

<b>Type 11a</b>	<b>North American Series Cable Gland type 711 Class 1 Division 1</b>
Classification	Explosion Proof Class 1 Div 1 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 1
Certification	UL file number E84940
Construction and test standards	UL listed locations in USA and Canada. E84940.
Application	For use with continuous corrugated aluminium, Metal Clad (MCHL) cable.
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3" 3½"
Assembly instruction data sheet	A.I.317 for sizes A-F, A.I.338 for size H
Arrangement drawing No.	711

<b>Type 11b</b>	<b>North American Series Cable Gland type S711 Class 1 Division 1</b>
Classification	Explosion Proof Class 1 Div 1 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 1
Certification	UL file number E84940
Construction and test standards	UL listed locations in USA and Canada. E84940.
Application	For use with continuous corrugated aluminium, Metal Clad (MCHL) cable.
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2½" 3" 3½"
Assembly instruction data sheet	A.I.348 for sizes A-H
Arrangement drawing No.	S711

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

<b>Type 12a</b>	<b>North American Series Cable Gland type 753</b>
Classification	Explosion Proof Class 1 Div 1 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 1
Certification	UL file number E84941
Construction and test standards	UL listed locations in USA and Canada. E84941.
Application	For use with armoured marine shipboard jacketed or non jacketed cable
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2 ½" 3" 3 ½"
Assembly instruction data sheet	A.I.318 for sizes A-F A.I.339 for size H
Arrangement drawing No.	753

<b>Type 12b</b>	<b>North American Series Cable Gland type S753</b>
Classification	Explosion Proof Class 1 Div 1 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 1
Certification	UL file number E84941
Construction and test standards	UL listed locations in USA and Canada. E84941.
Application	For use with armoured marine shipboard jacketed or non jacketed cable
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2 ½" 3" 3 ½"
Assembly instruction data sheet	A.I.362 for sizes A-F, A.I.339 for size H
Arrangement drawing No.	S753

<b>Type 13a</b>	<b>North American Series Cable Gland type 755</b>
Classification	Explosion Proof Class 1 Div 2 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 2
Certification	UL file number E84940
Construction and test standards	UL 2225, listed locations in USA and Canada. E84940.
Application	For use with armoured or braided cables
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X

Job Id: **262.1-033807-1**  
 Certificate No: **TAE00003BS**  
 Revision No: **1**

Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2 ½" 3" 3 ½"
Assembly instruction data sheet	A.I.318 for sizes A-F, A.I.339 for size H
Arrangement drawing No.	755

<b>Type 13b</b>	<b>North American Series Cable Gland type S755</b>
Classification	Explosion Proof Class 1 Div 2 Gas groups A,B,C and D and AExd IIC and AExe II Class I, Zone 2
Certification	UL file number E84940
Construction and test standards	UL 2225, listed locations in USA and Canada. E84940.
Application	For use with armoured or braided cables
Continuous Operating Temp.	-50°C to +60°C as standard
Ingress Protection	IP66, IP67, IP68, NEMA 4X
Deluge protection	DTS01 certified by ITS
Gland Material	Brass, stainless steel or aluminium may be plated or coated to suit application
Seal Material	Silicon Rubber Outer seal and Epoxy Compound Inner seal
Gland sizes [mm]/NPT	20, 25, 32, 40, 50, 63, 75, 90. or NPT sizes ½", ¾", 1" 1¼", 1½", 2", 2 ½" 3" 3 ½"
Assembly instruction data sheet	A.I.318 for sizes A-F, A.I.339 for size H
Arrangement drawing No.	S755

Job Id: **262.1-033807-1**  
Certificate No: **TAE00003BS**  
Revision No: **1**

**Optional Accessories:**

Type 476 Adapters and reducers certified under Baseefa certificate Baseefa11ATEX0067X , IECEx BAS 11.0037X . CSA Certificate 1731876 for flameproof Exd IIC and increased safety Exe II applications.

Locknuts, sealing washers, serrated washers, earth tags, shrouds are available.

**Application/Limitation**

The manufacturers application instructions to be followed,  
The manufacturers assembly instructions to be followed,

**Type Approval documentation**

Datasheets: See each construction.

EC type examination certificates are only recognised together with a valid Quality Assurance Notification.

UL Listing Cards

**Tests carried out**

Type tests according to IEC/EN 60079-0, IEC/EN 60079-1, IEC/ EN 60079-7, IEC/EN60079/-15, IEC/EN60079-31, BS6121, EN50262, UL514B and UL 2225 Standard.

**Marking of product**

According to type examination certificate

**Periodical assessment**

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

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT shall 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 is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE