DNV·GL

Certificate No:
E-14060
File No:
828.90
Job Id:
262.1-010600-3

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
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

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

This Certificate is valid until **2018-12-31**.
Issued at **Høvik** on **2015-02-12**

DNV GL local station: **Manchester**

Approval Engineer: **Ivar Bull**

for **DNV GL**
Digitally Signed By: Laumann, Marit
Location: DNV GL Høvik, Norway
Signing Date: 2015-03-11

Marit Laumann
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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Product description

Type 1a	**Hazardous Area Cable Gland type 501/421**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD. Note:- 121 type cable gland is for Industrial applications only
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +100ºC 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

Type 1b	**Hazardous Area Cable Gland type 501/423**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- **123** type cable gland is for Industrial applications only
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +100ºC 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

Type 1c	**Hazardous Area Cable Gland type PR411**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- **PR111 t**ype 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.	-60ºC to +100ºC 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
Type 1d	Hazardous Area Cable Gland type 501/421/R
Classification	Flameproof Exd and Increased Safety Exe II 2 GD. Note:- 121/R type cable gland is for Industrial applications only
Certification	Baseefa 06ATEX0056X for sizes Os to C2 IECEx BAS 06.0013X 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.	-60ºC to +100ºC 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

Type 2a	**Hazardous Area Cable Gland type PR453**
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.	-60ºC to +100ºC 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

Type 2b	**Hazardous Area Cable Gland type 501/453/Universal**
Classification	Flameproof Exd, Restricted Breathing ExnR and Increased Safety Exe II 2 GD Note:- **153 Universal** type cable gland is for Industrial applications only
Certification	Baseefa 09ATEX0233X for sizes Os to F Baseefa 06ATEX0057X for sizes Os to F IECEx BAS 06.0014X 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.	-60ºC to +80ºC 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

Type 2c	**Hazardous Area Cable Gland type 501/453/RAC**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD Note:- **153 RAC** type cable gland is for Industrial applications only
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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

Type 2d	**Hazardous Area Cable Gland type 501/453/RAC/L**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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 silcone 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

Type 2e	**Hazardous Area Cable Gland type 501/453/Dedicated**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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",2 ½" 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

Type 2f	**Hazardous Area Cable Gland type 501/453/L Dedicated**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes Os to J IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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

Type 2g	**Hazardous Area Cable Gland type 501/452/RAC**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes Os to F IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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

Type 3a	**Hazardous Area Cable Gland type PSG 553/RAC**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes A to C IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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

Type 3b	**Hazardous Area Cable Gland type PSG 553 Dedicated**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0056X for sizes A to C IECEx BAS 06.0013X 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.	-60ºC to +80ºC 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

Type 4	**Hazardous Area Cable Gland type ICG 623 and QSP version**
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.	-60ºC to +80ºC 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

Type 5a	**Hazardous Area Cable Gland type ICG 653/Universal and QSP version**
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 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.	-60ºC to +80ºC 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
Arrangement drawing No.	ICG 653 Universal

Type 5 Hybrid	**Hazardous Area Cable Gland type ICG 653/Universal – P and QSP version**
Classification	Flameproof Exd and Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0058X/8 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 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.	-60ºC to +80ºC 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

Type 5b	**Hazardous Area Cable Gland ICG 653/Universal/L and QSP version**
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	For use with lead sheath single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.
Continuous Operating Temp.	-60ºC to +80ºC 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

Type 5c	**Hazardous Area Cable Gland ICG 653/Dedicated and QSP version**
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	For use with single wire armoured, wire braided and steel tape armoured elastomer and plastic insulated cables.

Continuous Operating Temp.	-60ºC to +80ºC 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

Type 5d	**Hazardous Area Cable Gland type ICG 653 and CSB656 oversize**
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.	-60ºC to +80ºC 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

Type 5e	**Hazardous Area Cable Gland type CSB 656 and QSP version**
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.	-60ºC to +80ºC 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.", 1. 1½",2",2½" 3"
Assembly instruction data sheet	A.I.311
Arrangement drawing No.	CSB 656

Type 5f	**Hazardous Area Cable Gland type ICG 611 and QSP version**
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.	-60ºC to +80ºC 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.359
Arrangement drawing No.	ICG 611

Type 5g	**Hazardous Area Cable Gland type CSB 656N and QSP version**
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/ EN60079-7and IEC 60079-31
Application	For use with conduit systems that incorporate individual conductors
Continuous Operating Temp.	-60ºC to +80ºC 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.", 1. 1½",2",2½" 3"
Assembly instruction data sheet	A.I.375
Arrangement drawing No.	CSB 656N

Type 6	**Hazardous Area Cable Gland type 710,711,753 and 755**
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.	-50ºC to 80ºC 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",2 ½",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

Type 7a	**Cable Gland type 321 Increased Safety**
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.	-60ºC to +100ºC 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
Type 7b	Cable Gland type 321/R Increased Safety, with or without stopping
Classification	Increased Safety Exe II 2 GD
Certification	Baseefa 06ATEX0059X 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.	-60ºC to +100ºC 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

Type 8	**Cable Gland type 351/RAC Increased Safety**
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.	-60ºC to +80ºC 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
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

Type 9a	**Cable Gland type 351/Dedicated Increased Safety**

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.	-60ºC to +80ºC 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

Type 9b	**Cable Gland type 353/RAC Increased Safety**
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.	-60ºC to +80ºC 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

Type 9c	**Cable Gland type 353/Dedicated Increased Safety**
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.	-60ºC to +80ºC 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",2 ½" 3" 3 ½", 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

Type 10a	**North American Series Cable Gland type 710**
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.	-50ºC to +60ºC 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",2 ½" 3"
Assembly instruction data sheet	A.I.316 for sizes A–F
Arrangement drawing No.	710

Type 10b	**North American Series Cable Gland type S710**
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.	-50ºC to +60ºC 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.361 for sizes A–F
Arrangement drawing No.	S710

Type 11a	**North American Series Cable Gland type 711 Class 1 Division 1**
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 continous corrugated aluminium, Metal Clad (MCHL) cable.
Continuous Operating Temp.	-50ºC to +60ºC 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.317 for sizes A–F, A.I.338 for size H
Arrangement drawing No.	711

Type 11b	**North American Series Cable Gland type S711 Class 1 Division 1**
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 continous corrugated aluminium, Metal Clad (MCHL) cable.
Continuous Operating Temp.	-50ºC to +60ºC 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.348 for sizes A–H
Arrangement drawing No.	S711

Type 12a	**North American Series Cable Gland type 753**
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.	-50ºC to +60ºC 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

Type 12b	**North American Series Cable Gland type S753**
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.	-50ºC to +60ºC 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

Type 13a	**North American Series Cable Gland type 755**
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.	-50ºC to +60ºC 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.	755

Type 13b	**North American Series Cable Gland type S755**
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.	-50ºC to +60ºC 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

Optional Accessories:
Type 476 Adapters and reducers certified under Baseefa certificate Baseefa 07ATEX0194X, IECEx BAS07.057X, SIRA 06ATEX 1240U and IECEx SIR07. 0037X for flameproof Exd IIC and increased safety Exe II applications.

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

Application/Limitation

The manufacturer's application instructions to be followed.
The manufacturer's assembly installation 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 is complied with and that no alterations are made to the product design or choice of materials.
The main elements of the assessment are:

- Inspection of factory samples, selected at random from the production line (where practicable)
- Results from production sample tests (PST) and routine tests (RT) to be checked (if not available tests according to PST and RT to be carried out)
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and type approval certificate

Assessment to be performed at least every second year.

END OF CERTIFICATE