

EU-TYPE EXAMINATION

CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

1.	EU-Type Examin	ation Certificate Number:	ETL22ATEX0109X	Issue 00
2.	Product:	Cable Glands, Blanking Eler Nipple & Couplings and Bre		educer, Adaptor, Adapter
3.	Manufacturer:	Akshar Brass Industries		
4.	Address:	Plot No. 46, 47, 50, 51 Surv Jamnagar - 361 006 Gujara		ghedi Industrial Area,
5.		any acceptable variation the herein referred to.	ereto is specified in the s	schedule to this certificate and
7.	Directive 2014/3 certifies that the Requirements re explosive atmosp. The examination Report No. CE-JC G104937979) da (Intertek UK Cert India Report No. No. G101888827 Compliance with with EN IEC 6007		ment and of the Council comply with the Essential struction of products into the Directive. The Directive of in confidential technicates UK Certification Regulation Report No. CE-JOB 10. G103831646) dated 1 to 007 (Intertek UK Certication Regulation) (Intertek UK Certication) affety Requirements has EN IEC 60079-7:2015+A	dated 26 February 2014, all Health and Safety ended for use in potentially call evaluation Intertek India port Reference NoNDA-19-000073-003 L4 th June 2019 and Intertek ification Report Reference been assured by compliance 1:2018 and EN 60079-31:2014
8.	_	placed after the certificate r s of use specified in the Sche		t the product is subject to the
9.	product. Further		ve apply to the manufa	construction of the specified cturing process and supply of
10.	The marking of t	he product shall include the	following:	
	(ξx) II 2 G	Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db		
Cari	tification Officer:		Date:	11 th May 2022
CEI	inication Officer.	M Newman	Date.	



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11. Description of Equipment or Protective System

Akshar Brass Industries manufacture CABTEK Brand Cable Glands, Blanking Elements/Stopping Plugs, Reducer, Adaptor, Adapter Nipple & Coupling and Breathers/drain plugs are certified for Zone 1, 2, 21 and 22.

Cable Glands are metallic in construction and intended to terminate circular armoured, unarmoured and braided cables and flat Cables (as defined by their type designations) into a threaded entry point within associated Flameproof, Increased safety or dust tight enclosures. Without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice and suitable for Cold Flow applications.

Cable Glands, Blanking Elements/Stopping Plugs, Breather Plug, Adaptor, Reducer, Adaptor Nipple and Coupling are intended for Indoor and outdoor use in the appropriate Hazardous areas are made from Brass or Stainless Steel SS316L, Cable sealing rubbers are made of Silicone and Substrate rubber made of Nylon providing environmental protection IP66/IP67/IP68 with entry thread of Metric and NPT (Taper threads) for Ex "db" Protection, While Ex "eb" protection having Metric, NPT (Taper Threads), BSP, PG and ET.

Cable Glands can be produced with extended entry thread with 20mm or 25mm length and conduit connection facility in gland as per customer need without changing flame path and cable clamping range.

- E1FW, E1FX and E1FU Double Compression Cable Glands with Universal Armoured Ring are designed for armoured cables
- CWe, CXe / CUe Single Compression Cable Glands with Universal Armoured Ring for armoured cables
- A2F and IP68 Cable Glands designed for non-armoured and braided cables
- PX2K Cable Gland are for armoured cable with Compound Barrier seal
- PXSS2K Cable Gland are for unarmoured cable with Compound Barrier Seal
- A2F-MH Cable Gland for Multi Core cable to terminate individually
- A2F-MHFC, A2F-MHRF, A2F-MHRM Cable Gland for multi core cable to terminate individually with conduit connection
- A2F-FF Cable Gland for Flat/Tracer cable to terminate individually
- A2FFFFC, A2FFFRF, A2FFFRM Cable Gland for Flat/Tracer cable to terminate with conduit connection
- SS2KGP-FF Cable Gland for Flat/Tracer cable with double compression

The Blanking Elements/Stopping Plugs are manufactured with an external male thread along its length with the exception of a Hexagonal (HSP Series) or Allen (Dome) Head (ASP Series) at one end.

Adapter/Reducer/Nipple/Coupling

- Adaptor having a male thread entry and adapting to female thread same size or higher size
- Reducer having male thread entry and reducing to female thread lower size
- Adaptor Nipple having same size male thread on both end
- Adaptor Coupling have same size female thread on both end

BDPE Series breather/drain plugs are designed to allow moisture emission from Ex e and Ex the enclosures and to allow air within the enclosure to breathe with the surrounding atmosphere. Drainage channels through the body allow for the passage of moisture through the filter. The device may be screwed into the wall of an enclosure or into a through hole, being secured by a locknut.

Parallel threaded Breather Drains may be fitted with thread seal and screwed into the wall of an enclosure or into a through hole, being secured with a castellated locknut, they will maintain IP66 degree of protection.

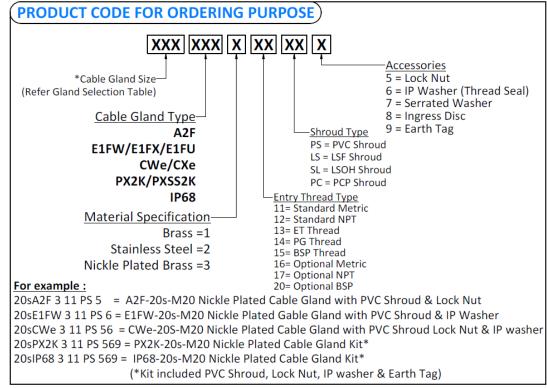
Tapered threaded Breather Drain may be fitted with or without thread seal, see below for approved seals. When fitted with thread seal and secured into a through hole, they will maintain IP66 degree of protection.



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Explanation on ordering coding and model nomenclature of E1FW / E1FX / E1FU / A2F / CWe / CXe / CUe / IP68 / PXSK / PXSS2K Cable Glands:

"*" Cable		Standard E	ntry Thread	"C"	Optional Entr	y Thread "C"
Gland Size	Metric	NPT/BSP	ET (BSC)	PG	Metric	NPT
16	M16x1.5	3/8"	5/8"	PG9	-	-
20s16	M20x1.5	1/2"	3/4"	PG11	M25x1.5	3/4"
20s	M20x1.5	1/2"	3/4"	PG11	M25x1.5	3/4"
20	M20x1.5	1/2"	3/4"	PG13.5	M25x1.5	3/4"
25s	M25x1.5	3/4"	1"	PG16	M32x1.5	1"
25	M25x1.5	3/4"	1"	PG21	M32x1.5	1"
32	M32x1.5	1"	1¼"	PG29	M40x1.5	1¼"
40	M40x1.5	1¼"	1½"	PG36	M50x1.5	1½"
50s	M50x1.5	1½"	2"	PG36	M63x1.5	2"
50	M50x1.5	2"	2"	PG42	M63x1.5	2½"
63s	M63x1.5	2"	2½"	PG48	M75x1.5	2½"
63	M63x1.5	2½"	2½"	-	M75x1.5	3"
75s	M75x1.5	2½"	3"	-	M90x2	3"
75	M75x1.5	3"	3"	-	M90x2	3½"
90	M90x2	3½"	3½"	-	M100x2	4"

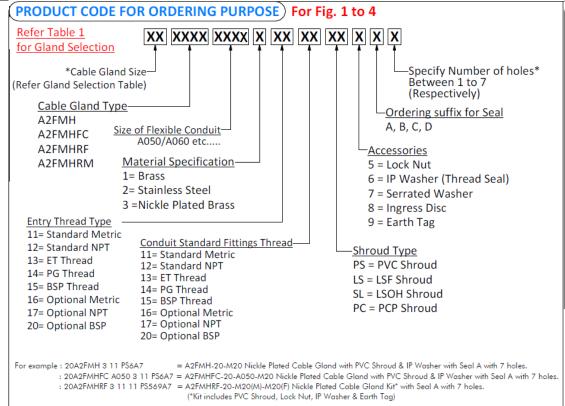




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Explanation on ordering coding and model nomenclature of A2F-MH, A2F-MHFC, A2F-MHRF, A2F-MHRM Cable Glands:

*Cable	C+-	andard Entry	Throad "C"		Optional En	try Thread	Multi Hole	Seal Detail
Gland	316	anuaru Entry	illieau C		"C	"	Seal Hole	Number of
Size	Metric	NPT/BSP	ET (BSC)	PG	Metric	NPT/BSP	Cable Ø (X)	Holes
16	M16x1.5	3/8"	5/8"	PG9	M20x1.5	1/2"	1.5	1 to 6
16	M16x1.5	3/8"	5/8"	PG9	M20x1.5	1/2"	2.0	1 to 6
	M20x1.5	1/2"	3/4"	PG16	M25x1.5	3/4"	2.5	1 to 7
20	M20x1.5	1/2"	3/4"	PG16	M25x1.5	3/4"	3.0	1 to 7
20	M20x1.5	1/2"	3/4"	PG16	M25x1.5	3/4"	3.6	1 to 7
	M20x1.5	1/2"	3/4"	PG16	M25x1.5	3/4"	4.0	1 to 7
	M25x1.5	3/4"	1"	PG21	M32x1.5	1"	2.5	1 to 7
25	M25x1.5	3/4"	1"	PG21	M32x1.5	1"	3.0	1 to 7
25	M25x1.5	3/4"	1"	PG21	M32x1.5	1"	3.6	1 to 7
	M25x1.5	3/4"	1"	PG21	M32x1.5	1"	4.0	1 to 7
	M32x1.5	1"	1¼"	PG29	M40x1.5	1¼"	2.5	1 to 7
22	M32x1.5	1"	1¼"	PG29	M40x1.5	1¼"	3.0	1 to 7
32	M32x1.5	1"	1¼"	PG29	M40x1.5	1¼"	3.6	1 to 7
	M32x1.5	1"	1¼"	PG29	M40x1.5	1¼"	4.0	1 to 7

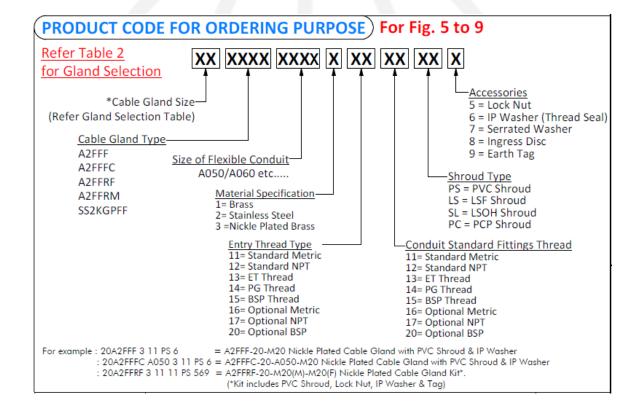




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Explanation on ordering coding and model nomenclature of A2FFF, A2FFFC, A2FFFRF, A2FFFRM, SS2KGPFF Cable Glands:

*Cable Gland	Standard Thread	•	-	Optional Entry Thread "C"		Cable Range		
Size	Metric	NPT	Metric	NPT	Min	Max	Cable used	
20s	M20x1.5	1/2"	M25x1.5	3/4"	4x6.2	6.8x11.7	1	
20	M20x1.5	1/2"	M25x1.5	3/4"	5.7x8	8.7x13.5	1	
25s	M25x1.5	3/4"	M32x1.5	1"	4x6.2	6.8x11.7	2	
25	M25x1.5	3/4"	M32x1.5	1"	5.7x8	8.7x13.5	1	
32s	M32x1.5	1"	M40x1.5	1¼"	4x6.2	6.8x11.7	3	
32	M32x1.5	1"	M40x1.5	1¼"	5.7x8	8.7x13.5	3	





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Explanation on ordering coding and model nomenclature of Reducer(R), Adaptor(A), Adaptor Nipple (AN), Adaptor coupling (AC)

Threaded Adaptor and Reducer

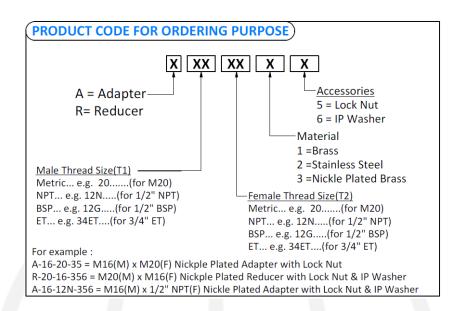
		Female Metric/NPT/BSP/BSC Thread Size								
Male Metric/NPT/ BSP/BSC Entry Size	M16 ¾", %"ET	M20 ½", ¾"ET	M25 ¾" 1"ET	M32 1" 1¼"ET	M40 1¼" 1½"ET	M50 1½" 2"ET	M63 2" 2½"ET	M75 2½" 3"ET	M90 3" 3½"ET	M100 3½" 4"ET
M16 ¾", %"ET	А	А	А							
M20 ½", ¾" ET	R	А	А	А	А					
M25 ¾", 1"ET	R	R	А	А	А	А				
M32 1", 1¼"ET	R	R	R	А	А	А	А			
M40 1¼", 1½" ET	R	R	R	R	А	А	А	А		
M50 1½", 2"ET			R	R	R	Α	А	А		
M63 2", 2½"ET				R	R	R	А	А) (
M75 2½", 3"ET						R	R	Α	А	
M90 3", 3½"ET							R	R	R	А

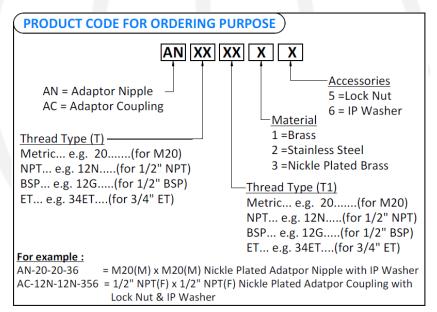
Male to Male (Adaptor Nipple) and Female to Female (Adaptor Coupling) Thread Converter

Male/Female	Male/Female Metric/NPT/ BSP/ET(BSC) Thread Size							
Metric/NPT/	M16	M20	M25	M32	M40	M50	M63	M75
BSP/ET(BSC)	3/8"	1/2"	3/4"	1"	1¼"	1½"	2"	2½"
Entry Size	%″ET	¾"ET	1"ET	1¼"ET	1½"ET	2" ET	2½"ET	3"ET
M16								
¾", ½"ET								
M20								
½", ¾"ET								
M25								
¾", 1"ET								
M32								
1", 1¼"ET								
M40								
1¼", 1½"ET								
M50								
1½", 2" ET								
M63								
2", 2½"ET								
M75								
2½", 3"ET								



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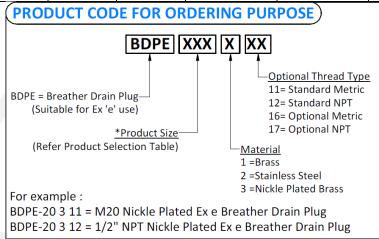




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Explanation on ordering coding and model nomenclature of Ex e Breather/drain plug (BDPE)

"*" Cable Gland Size		Standard E	Optional Entry Thread "C"				
	Metric	NPT/BSP	ET (BSC)	PG	Metric	NPT	
16	M16x1.5	3/8"	5/8"	PG9	-	-	
20	M20x1.5	1/2"	3/4"	PG13.5	-	-	
25	M25x1.5	3/4"	1"	PG21	M32x1.5	1"	



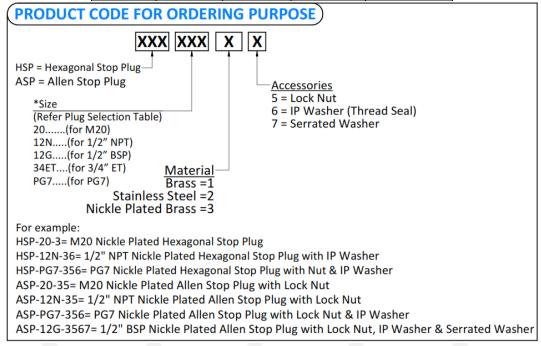
Explanation on coding and model nomenclature of Blanking Elements / Stopping Plug ASP / Hexagonal HSP:

Size		Entry 1	hread Type	
Size	Metric	NPT/BSP	ET (BSC)	PG
16	M16x1.5	-	-	-
20	M20x1.5	-		-
25	M25x1.5	-	-	
32	M32x1.5	-		-
40	M40x1.5	-	-	-
50	M50x1.5	-	-	-
63	M63x1.5	-	-	_
75	M75x1.5	-	-	-
90	M90x2	-	-	-
100	M100x2		_	-
5/8"			5/8"	
3/8"	-	3/8"	3/8"	-
1/2"	-	1/2"	1/2"	-
3/4"	-	3/4"	3/4"	-
1"	-	1"	1"	-
1¼"	-	1¼"	1¼"	-
1½"	-	1½"	1½"	-
2"	-	2"	2"	-
2½"	-	2½"	2½"	-
3"	-	3"	3"	-
3½"	-	3½"	3½"	-
7				PG7
9				PG9
11				PG11



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13.5		PG13.5
16		PG16
21		PG21
29		PG29
36		PG36
42		PG42
48		PG48



Ambient and Ingress protection rating:

	Type of P	rotection	Ambient	IP
Product Type	Ex d	Ex e	Temperature	Rating
A2F	✓	✓	-60°C≤Ta≤+125°C	IP67
E1FW/E1FX/E1FU	>	✓	-60°C≤Ta≤+125°C	IP67
CWe/CXe/CUe	1	✓	-60°C≤Ta≤+125°C	IP67
PX2K	>	✓	-60°C≤Ta≤+70°C	IP66/67
PXSS2K	>	✓	-60°C≤Ta≤+70°C	IP66/67
IP68	√	✓	-60°C≤Ta≤+105°C	IP68
A2FMH/A2FMHFC/A2FMHRF/A2FMHRM/A2FF F/A2FFFC/FA2FFRF/A2FFRM/SS2KGPFF	√	√	-60°C≤Ta≤+135°C	IP66/67
Adaptor, Reducer, Adaptor Nipple and Adaptor Coupling	√	√	-60°C≤Ta≤+135°C	IP66/67
Hexagon/Allen Stop Plug - Blanking Element	✓	✓	-60°C≤Ta≤+125°C	IP67
Breather/Drain Plug	_	√	-60°C≤Ta≤+125°C	IP66



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12. Report Number

Intertek India Report No. CE-JOB-NDA-22-000031-004 (Intertek UK Certification Report Reference No. G104937979) dated 20th April 2022.

13. Special Conditions of Certification

(a). Special Conditions of Use

Cable Glands:

- 1. Cable Glands are only suitable for fixed installations.
- 2. Cables must be effectively clamped from pulling and twisting.
- 3. Cable Glands shall not be used in enclosure where the temperatures at the point of entry / mounting are outside the range of ambient temperatures as detailed in general description.
- 4. The glands should only be used with substantially round cables and tightened to the rated torque with torque wrenches.
- 5. Install in accordance with requirements of EN60079-14.
- 6. The cable glands are provided with a sealing ring with an axial sealing height of at least 5 mm. With reference to the clearance groove, the end-user should ensure that at least five complete turns of the connector thread are made. In order to guarantee a screw depth of 8 mm, the enclosure should have a wall thickness of min. 10 mm; if <10 mm, then if necessary, use a washer when cable entries are attached to the pressure-resistant enclosure.
- 7. In the case of NPT connecting threads, the end-user must ensure that the necessary IP protection is guaranteed; this can be done using a suitable thread sealing agent.
- 8. Installation should not be carried out under live conditions.

Blanking Elements / Stop Plug:

- 1. The Blanking elements must not be used with a thread adaptor / reducer in flameproof applications.
- 2. Its user's responsibility to ensure the appropriate ingress protection level on the interfaces between these devices and the associated enclosure.
- 3. When the stopping plugs are used for increased safety or dust protection and no thread seal is fitted the user shall ensure enclosure and stopping plug interface are suitably sealed, in accordance with EN 60079-14, to maintain the ingress protection rating of the associated enclosure and protection concept.
- 4. When fitted in threaded holes the sealing face of the enclosure shall be smooth, the threaded hole shall be perpendicular to the wall of the enclosure and shall be a medium fit thread.
- 5. When the stopping plug is fitted in plain holes, the sealing face of the enclosure shall be smooth and at right angles to the enclosure face where the hole is in excess of 15mm diameter in enclosures consideration must be given to possible draw angle (taper) on the enclosure wall and the hole shall be no larger than 0.3 to 0.5mm above the major diameter of the male thread on the stopping plug.
- 6. The stopping plug is secured using a suitable locknut inside the enclosure for plain holes in increased safety enclosures.
- 7. These stopping plugs can be used in clearance holes or tapped entries on increased safety or flameproof enclosures as appropriate.



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Adapter, Reducers & Nipples:

- 1. For Flameproof Ex "db" applications, only one adapter or reducer shall be used per cable entry.
- 2. The adaptors or reducers when used in flameproof applications must not be closed with a flameproof stopping plug.
- 3. Its user's responsibility to ensure the appropriate ingress protection level on the interfaces between these devices and the associated enclosure.
- 4. When the adaptors and reducers are used for increased safety or dust protection with no thread seal fitted the interface between the enclosure and the male thread and the female thread of the adaptor or reducer are to be suitably sealed (in accordance with EN 60079-14) to maintain the ingress protection rating of the associated enclosure.
- 5. When the adaptors or reducers are used for increased safety or dust protection in threaded hole and the thread seal is fitted the entry thread in the enclosure must be at right angles to the enclosure wall, the female thread of the adaptor or reducer are to be suitably sealed, in accordance with EN 60079-14, to maintain the ingress protection rating of the associated enclosure.
- 6. When the adaptors or reducers are used for increased safety or dust protection in a plain hole, the hole in the enclosure must be no greater than 0.7 mm greater than the male thread and the adaptor or reducer must be secured with a locknut the female thread of the adaptor or reducer are to be suitably sealed, in accordance with EN 60079-14, to maintain the ingress protection rating of the associated enclosure.
- 7. In the case of NPT connecting threads, the end-user must ensure that the necessary IP protection is guaranteed; this can be done using a suitable thread sealing agent.

Breather / Drain Plugs

- 1. The breather drain plugs shall be used with the supplied sealing washers and the installer shall ensure that the surface of the enclosure against which the sealing gasket seals are in good condition.
- 2. The breather/drains are only suitable for bottom entry applications within associated Ex eb and Ex tb enclosures.
- (b). Conditions of Manufacture Routine Tests

None.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek India Report No. CE-JOB-NDA-22-000031-004 (Intertek UK Certification Report Reference No. G104937979) dated 20th April 2022.



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15. Drawings and Documents

Title:		Drawing No.:	Rev. Level:	Date:
Cable Glands				
*E1F Ex Cable Gland		Ex-CE1F	1	12/01/2022
*A2F Ex Cable Gland		Ex-CA2F	1	12/01/2022
*CW Ex Cable Gland		Ex-CCW	1	12/01/2022
*A2FMH/A2FFF/SS2KGPFF Cable Gland	2 Sheets	Ex-A2FFF/RC	0	12/01/2022
*Explosion Proof Compound Barrier Cable Gla	nd 2 Sheets	Ex-CBC	0	12/01/2022
*IP68 Cable Gland		Ex-IP68	0	12/01/2022
*Adapter	5 Sheets	Ex-A#	0	12/01/2022
*Reducer	5 Sheets	Ex-R#	0	12/01/2022
*Adaptor Nipple	2 Sheets	Ex-AN#	0	12/01/2022
*Adaptor Coupling	2 Sheets	Ex-AC#	0	12/01/2022
Stop Plug / Blanking Elements				
*Hexagonal Stop Plug/Blanking Element		Ex-CHSP	1	12/01/2022
*Allen Stop Plug/Blanking Element		Ex-CASP	1	12/01/2022
*Breather Drain Plug for Ex e applications		Ex-BDPE-#	0	12/01/2022
*Installation Manual for A2F Cable Gland		IM / Cable Gland A2F series	1	12.01.2022
*Installation Manual for A2FFF Cable Gland		IM / Cable Gland A2FFF series	0	12.01.2022
*Installation Manual for A2FFFC Cable Gland		IM / Cable Gland A2FFCF series	0	12.01.2022
*Installation Manual for A2FFRF Cable Gland		IM / Cable Gland A2FFRF series	0	12.01.2022
*Installation Manual for A2FFRM Cable Gland		IM / Cable Gland A2FFRM series	0	12.01.2022
*Installation Manual for A2FMH Cable Gland		IM / Cable Gland A2FMH series	0	12.01.2022
*Installation Manual for A2FMHFC Cable Gland	d	IM / Cable Gland A2FMHFC series	0	12.01.2022
*Installation Manual for A2FMHRF Cable Gland	d	IM / Cable Gland A2FMHRF series	0	12.01.2022
*Installation Manual for A2FMHRM Cable Glar	nd	IM / Cable Gland A2FMHRM series	0	12.01.2022
*Installation Manual for Adaptor & Reducer		IM / A-R-AN-AC Series	0	12.01.2022
*Installation Manual for Stopping Plug/Blankir	ng Element	IM / Blanking Elements	01	12.01.2022



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*Installation Manual for Compound Barrier PX2K Cable Gland	IM / Cable Gland Compound Barrier PX2K Series	0	12.01.2022
*Installation Manual for Compound Barrier PXSS2K Cable Gland	IM / Cable Gland Compound Barrier PXSS2K Series	0	12.01.2022
*Installation Manual for Compound Barrier SS2KGP-FF Cable Gland	IM / Cable Gland Compound Barrier SS2KGP-FF Series	0	12.01.2022
*Installation Manual for CW Cable Gland	IM / Cable Gland CW series	01	12.01.2022
*Installation Manual for E1F Cable Gland	IM / Cable Gland E1F series	01	12.01.2022
*Installation Manual for IP68 Cable Gland	IM / Cable Gland IP68 series	0	12.01.2022
*Installation Manual for Breather Drain Plug	IM / BDPE series	0	12.01.2022