

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

IECEx ITS 16.0041X Certificate No.:

Page 1 of 4

Certificate history:

Status: Current Issue No: 1

Issue 0 (2016-09-29)

Date of Issue: 2022-05-11

Applicant: **Akshar Brass Industries**

Plot No. 46, 47, 50, 51 Survey No. 238, 245, 246 Naghedi Industrial Area,

Jamnagar - 361 006 Gujarat

Cable Glands, Blanking Elements/Stopping Plugs, Reducer, Adaptor, Adapter Nipple & Couplings and Breather/ Equipment:

drain plugs

Optional accessory:

Type of Protection: Flameproof, Increased Safety and Dust Ignition Protection by enclosure

Marking:

Ex db IIC Gb / Ex eb IIC Gb

Ex tb IIIC Db

IECEx ITS 16.0041X

Approved for issue on behalf of the IECEx

Certification Body:

Mark Newman

Certificate Officer

Position: Signature:

(for printed version)

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Certificate issued by:

Intertek Testing & Certification Limited ITS House, Cleeve Road Leatherhead Surrey, KT22 7SA **United Kingdom**





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Certificate No.: IECEx ITS 16.0041X Page 2 of 4

Date of issue: 2022-05-11 Issue No: 1

Manufacturer: Akshar Brass Industries

Plot No. 46, 47, 50, 51 Survey No. 238, 245, 246 Naghedi Industrial Area,

Jamnagar - 361 006 Gujarat

India

Manufacturing Akshar Brass Industries

locations: Plot No. 46, 47, 50, 51 Survey No. 238,

245, 246 Naghedi Industrial Area, Jamnagar - 361 006 Gujarat

India

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/ITS/ExTR16.0040/00 GB/ITS/ExTR16.0040/01

Quality Assessment Report:

GB/ITS/QAR16.0004/02



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Certificate No.: IECEx ITS 16.0041X Page 3 of 4

Date of issue: 2022-05-11 Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Akshar Brass Industries manufacture CABTEK Brand Cable Glands, Blanking Elements/Stopping Plugs, Reducer, Adaptor, Adapter Nipple & Couplings and Breather/drain plugs.

See Annex 1 for further details

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex 1



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Date of issue: 2022-05-11 Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- 1. Update of the new address of manufacturing location
- 2. Additional evaluation of sizes of 16, 25s and M90x1.5 thread pitch changed from M90x2.0 in Cable Glands of E1FW, E1FX, E1FU, A2F, CWe, CXe, CUe type with addition of Shrouds.
- 3. In Stop Plug/Blanking Elements M90x1.5 and IECEx M100x1.5 thread pitch changed to M90x2.0 and M100x2.0.
- 4. Additional evaluation of IP68, PX2K, PXSS2K, A2F-MH, A2F-MHFC, A2F-MHRF, A2F-MHRM, A2FFF, A2FFFC, A2FFFRF, A2FFFRM, SS2KGPFF Cable Glands, Reducer(R), Adaptor(A), Adaptor Nipple (AN), Adaptor coupling (AC) and Breather/drain plugs were tested with the requirements of the latest standards IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-7:2017 and IEC 60079-31:2013
- 5. Update of the Condition of safe use for Reducer, Adaptor, Coupling and Breather/drain Plugs.
- 6. Update of the drawings and Installation Manual to reflect the above changes.

Annex:

SFT IECEx OP 19f Annex 1 for IECEx Certificate of Conformity ABI.pdf



Certificate No:	IECEx ITS 16.0041X	Issue No. 1
Annex No. 1		

Technical 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 Gland 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	1	12.01.2022
Installation Manual for AZF Cable Gland	series	1	12.01.2022
*Installation Manual for A2FFF Cable Gland	IM / Cable Gland A2FFF	0	12.01.2022
Thistallation Manual for Azere Cable Gland	series	0	12.01.2022
Installation Manual for A2FFFC Cable Gland	IM / Cable Gland	0	12.01.2022
Installation Manual for Azerre Cable Gland	A2FFCF series	U	12.01.2022
Installation Manual for A2FFRF Cable Gland	IM / Cable Gland	0	12.01.2022
mistaliation Manual for Azirini Cable Gland	A2FFRF series	Ů	12.01.2022
Installation Manual for A2FFRM Cable Gland	IM / Cable Gland	0	12.01.2022
mistalidation Mandal for Azir Min educe Gland	A2FFRM series	Ů	12.01.2022
Installation Manual for A2FMH Cable Gland	IM / Cable Gland	0	12.01.2022
mistalidation Mandal for AZI Will capic Gland	A2FMH series	Ů	12.01.2022
Installation Manual for A2FMHFC Cable Gland	IM / Cable Gland	0	12.01.2022
	A2FMHFC series		
Installation Manual for A2FMHRF Cable Gland	IM / Cable Gland	0	12.01.2022
	A2FMHRF series		
Installation Manual for A2FMHRM Cable Gland	IM / Cable Gland	0	12.01.2022
	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/Blanking Element	IM / Blanking Elements	01	12.01.2022
Installation Manual for Compound Barrier PX2K Cable	IM / Cable Gland	0	12.01.2022
Gland	Compound Barrier PX2K	0	12.01.2022
	Series		
Installation Manual for Compound Barrier PXSS2K Cable	IM / Cable Gland Compound Barrier	0	12.01.2022
Gland	PXSS2K Series	0	12.01.2022
	IM / Cable Gland		
Installation Manual for Compound Barrier SS2KGP-FF Cable	Compound Barrier	0	12 01 2022
Gland	SS2KGP-FF Series		12.01.2022
Installation Manual for CW Cable Gland	IM / Cable Gland CW	01	12.01.2022
mistanation ivianual for CVV Cable Glanu	IIVI / Cable Glaffu CW	1 01	12.01.2022

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Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
	series		
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

DESCRIPTION OF THE EQUIPMENT

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 tb enclosures and to

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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.

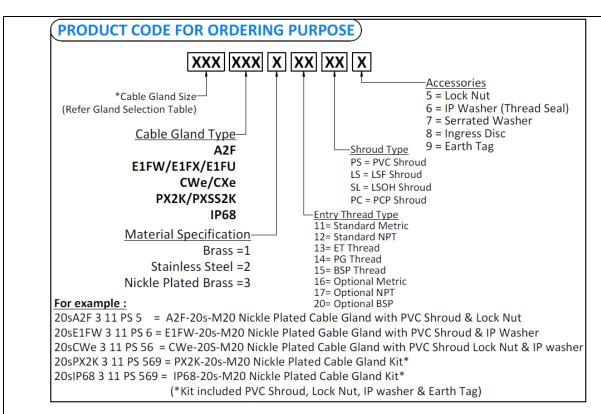
Explanation on ordering coding and model nomenclature of E1FW / E1FX / E1FU / A2F / CWe / CXe / CUe / IP68 / PX2K / PXSS2K Cable Glands:

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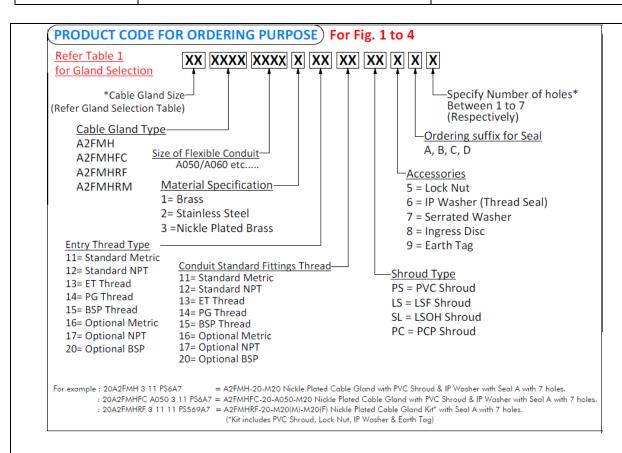
Explanation on ordering coding and model nomenclature of A2F-MH, A2F-MHFC, A2F-MHRF, A2F-MHRM Cable Glands:

*Cable	Standard Entry Thread "C"		Optional En	try Thread	Multi Hole	Seal Detail		
Gland	310	anuaru Liiti y	illieau C		"C	II	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
10	M16x1.5	3/8"	5/8"	PG9	M20x1.5	1/2"	2.0	1 to 6
	M20x1.5	1/2"	3/4"	PG1	M25x1.5	3/4"	2.5	1 to 7
20	M20x1.5	1/2"	3/4"	PG1	M25x1.5	3/4"	3.0	1 to 7
20	M20x1.5	1/2"	3/4"	PG1	M25x1.5	3/4"	3.6	1 to 7
	M20x1.5	1/2"	3/4"	PG1	M25x1.5	3/4"	4.0	1 to 7
	M25x1.5	3/4"	1"	PG2	M32x1.5	1"	2.5	1 to 7
25	M25x1.5	3/4"	1"	PG2	M32x1.5	1"	3.0	1 to 7
25	M25x1.5	3/4"	1"	PG2	M32x1.5	1"	3.6	1 to 7
	M25x1.5	3/4"	1"	PG2	M32x1.5	1"	4.0	1 to 7
	M32x1.5	1"	1¼"	PG2	M40x1.5	1¼"	2.5	1 to 7
32	M32x1.5	1"	1¼"	PG2	M40x1.5	1¼"	3.0	1 to 7
32	M32x1.5	1"	1¼"	PG2	M40x1.5	1¼"	3.6	1 to 7
	M32x1.5	1"	1¼"	PG2	M40x1.5	1¼"	4.0	1 to 7

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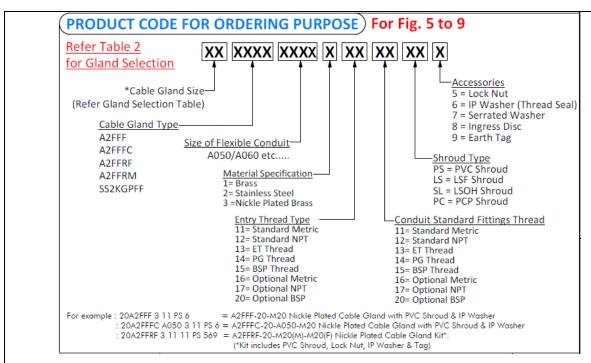
Explanation on ordering coding and model nomenclature of A2FFF, A2FFFRF, A2FFFRM, SS2KGPFF Cable Glands:

*Cable Gland	Standard Thread	•	Optional En	-	Cable Range		No. of Flat
Size	Metric	NPT	Metric	NPT	Min	Max	Cable used
20s	M20x1.5	½"	M25x1.5	3/4"	4x6.2	6.8x11.7	1
20	M20x1.5	½"	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

54454 7 144 7		Female Metric/NPT/BSP/BSC Thread Size								
		ı	l	remaie	Metric/N	P 1/BSP,	BSC Inre	ad Size	I	
Male Metric/NPT/ BSP/BSC Entry Size	M16 ¾", 5⁄8"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" , 5⁄8"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	Α	А	Α			
M40 1¼", 1½" ET	R	R	R	R	Α	А	А	А		
M50 1½", 2"ET			R	R	R	А	А	А		
M63 2", 2½"ET				R	R	R	А	А		
M75 2½", 3"ET						R	R	А	А	
M90 3", 3½"ET							R	R	R	А

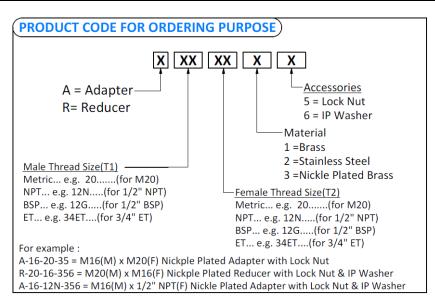
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Male to Male (Adaptor Nipple) and Female to Female (Adaptor Coupling) Thread Converter

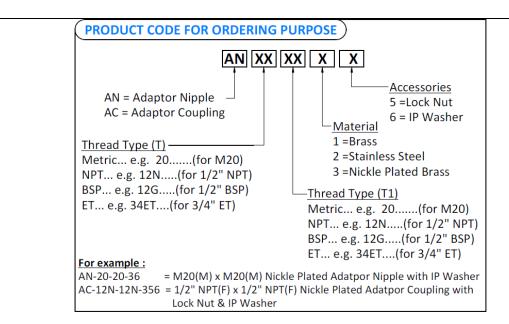
Male/Female					/ BSP/ET(BSC) Thread	Size	
Metric/NPT/	M16	M20	M25	M32	M40	M50	M63	M75
BSP/ET(BSC)	3/8"	1/2"	3/4"	1"	1¼"	1½"	2"	2½"
Entry Size	5%"ET	¾"ET	1"ET	1¼"ET	1½"ET	2" ET	2½"ET	3"ET
M16								
¾", 5⁄8"ET								
M20								
½", ¾"ET								
M25								
¾", 1"ET								
M32								
1", 1¼"ET								
M40								
1¼", 1½"ET								
M50								
1½", 2" ET								
M63								
2", 2½"ET								
M75								
2½", 3"ET								



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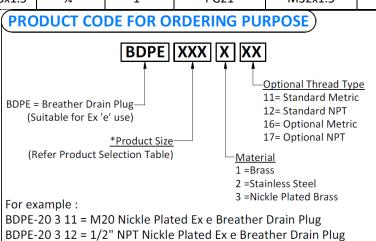


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Explanation on ordering coding and model nomenclature of Ex e Breather/drain plug (BDPE)

					<u>, , , , , , , , , , , , , , , , , , , </u>	
"*" Cable		Standard E	Optional Entr	y Thread "C"		
Gland Size	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 Thread Type					
Size	Metric	NPT/BSP	ET (BSC)	PG		
16	M16x1.5	_	-	-		
20	M20x1.5	-		-		
25	M25x1.5	-	-	-		
32	M32x1.5	-	-	-		
40	M40x1.5	-	-	-		

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	1450 4 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"	-	³¼" 1"	3/4"	-
1"	-	1"	³¼" 1"	-
1¼"	-	1¼"	1¼"	-
1½"	-	1½"	1½"	-
2"	-	2"	2"	-
2½"	-	2½"	2½"	-
2½" 3"	-	3"	3"	-
3½"	-	3½"	3½"	-
7				PG7
9				PG9
11				PG11
13.5				PG13.5
16				PG16
21				PG21
29				PG29
36				PG36
42				PG42
48				PG48

PRODUCT CODE FOR ORDERING PURPOSE

HSP = Hexagonal Stop Plug

ASP = Allen Stop Plug

(Refer Plug Selection Table)

20......(for M20) 12N.....(for 1/2" NPT) 12G.....(for 1/2" BSP)

34ET....(for 3/4" ET) PG7.....(for PG7)

PG7) Brass =1 Stainless Steel =2 Nickle Plated Brass =3

For example:

HSP-20-3= M20 Nickle Plated Hexagonal Stop Plug

HSP-12N-36=1/2" NPT Nickle Plated Hexagonal Stop Plug with IP Washer

HSP-PG7-356= PG7 Nickle Plated Hexagonal Stop Plug with Nut & IP Washer

ASP-20-35= M20 Nickle Plated Allen Stop Plug with Lock Nut

ASP-12N-35= 1/2" NPT Nickle Plated Allen Stop Plug with Lock Nut

<u>Material</u>

ASP-PG7-356= PG7 Nickle Plated Allen Stop Plug with Lock Nut & IP Washer

ASP-12G-3567= 1/2" BSP Nickle Plated Allen Stop Plug with Lock Nut, IP Washer & Serrated Washer

Accessories 5 = Lock Nut

6 = IP Washer (Thread Seal)

7 = Serrated Washer





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Ambient and Ingress protection rating:

	Type of Protection		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	-	✓	-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

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 IEC 60079-14.
- 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 IEC 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





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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.

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 IEC 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 IEC 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 IEC 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.

