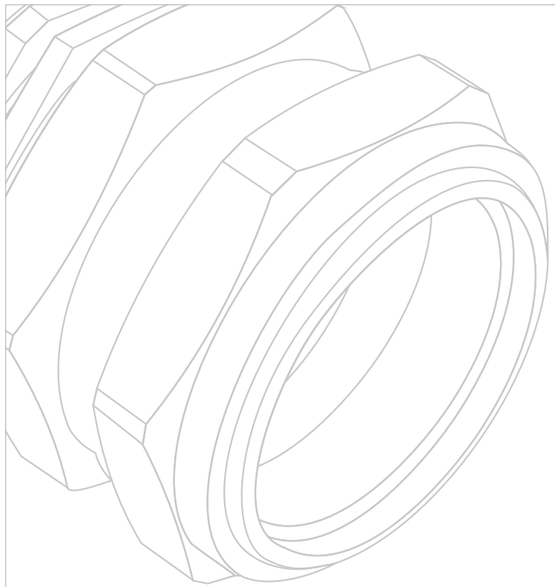

CABTEK
Electrical Accessories

Make Connection
with Perfection

AKSHAR
BRASS INDUSTRIES

Plot No. 46, 47 & 50, 51, Survey No. 246, 245 & 238,
at Lakhabaval, Naghedi Industrial Area,
Jamnagar-361006 Gujarat (INDIA)
Phone : +91-288-2730 587 • Fax : +91-288-2730 588
E-mail : info@aksharbrassind.com • www.aksharbrassind.com

CE Ex IECEx

OUR STAND POINT

Akshar Brass Industries stands out amongst the distinctive and renowned manufactures of world class electrical accessories and brass components. Established in the year 1996 at Jamnagar with its rich and varied heritage of experience, knowledge, uncompromised quality standard with an unequalled niche of promptness in service and performance, Akshar Brass Industries has achieved a remarkable stride in the field of manufacturing of Cable Glands, which covers a wide spectrum of armored and unarmored cables, and thus providing total solution of cable termination to hazardous and non-hazardous areas of electrical installation and manufacturing of various brass components and products.

An ISO 9001-2008 certified export oriented unit, a unique in its spare of entity spread over an area of over 20000 Sq. ft. at the famous Brass City with ultra modern machineries, human resources of unparalleled skill energy and enthusiasm, and entrepreneurship of its highest order, Akshar Brass Industries is undisputedly renowned by its state-of-the-art technology and uncompromising quality consciousness with state of the art CAD installation and in-house laboratory facility as per EN 50262 standard for the manufacture of its wide range of products which are first-rate in quality standard.

Akshar Brass Industries has the most extensive brass products range in the country. Our unfailingly rigorous quality consciousness virtually gained us the brand name CABTEK which made us exceptional amongst our competitors and brought to us with in the gone off two decades many valuable customers from many countries.

CABTEK overall excellence in product, performance and delivery have won us, besides customers, a high perception of image and goodwill. Our endeavor is to satisfy our customers to the greater extent by supplying products of first rate in quality at a competitive price, on time delivery and reliable service.

INDEX


CABTEK
electrical accessories
AKSHAR
BRASS INDUSTRIES

CABTEK
electrical accessories

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
वाणिज्य एवं उद्योग मंत्रालय
MINISTRY OF COMMERCE & INDUSTRY
विदेश व्यापार महानिदेशालय
DIRECTORATE GENERAL OF FOREIGN TRADE

मान्यता प्रमाण पत्र
Certificate of Recognition

एक सितारा निर्यात सदन
ONE STAR EXPORT HOUSE

240116000060

मैसर्स AKSHAR BRASS INDUSTRIES
PLOT NO.4027, GIDC, PHASE-III, DARED, JAMNAGAR --361004
2411010303 AATFA9448D
(आई ई सी ..... और आयकर पैन .....)

को विदेश व्यापार नीति, 2015–2020 के प्रावधानों के अनुसार एक सितारा निर्यात सदन का स्तर प्रदान किया जाता है। यह प्रमाण पत्र, प्रक्रिया पुस्तक (2015 –2020) के पैरा 3.20 (बी) में दी गयी शर्तो के निहित FIVE वर्षो की अवधि के लिए दिनांक 26.03.2016 से 25.03.2021 तक वैध होगा।

M/s AKSHAR BRASS INDUSTRIES
PLOT NO.4027, GIDC, PHASE-III, DARED, JAMNAGAR --361004
(IEC 2411010303 and Income Tax PAN AATFA9448D)

are hereby accorded the status of One Star Export House in accordance with the provisions of the Foreign Trade Policy, 2015-2020. This Certificate is valid for a period of FIVE years effective from 26.03.2016 to 25.03.2021 subject to the conditions prescribed in Para 3.20(b) of the Hand Book of Procedures (2015-2020).

सं./No. A/ 5315
24.05.2016
तारीख/Date :
Rajkot
स्थान/Place :
SEAL

SUVIDH SHAH
DY. D.G.F.T.
SUVIDH P. SHAH
अपर/संयुक्त/उप महानिदेशक,
विदेश व्यापार/विकास आयुक्त (एस.ई.झेड.)
Additional/ Joint/ Deputy
Director General of Foreign Trade/
Development Commissioner (SEZ)

24/21/058/80075/AM16/ 26.03.2016
(फाइल सं./File No.) तारीख/Date :

TECHNICKÁ INŠPEKCIA, a.s.
SLOVENSKÁ REPUBLIKA
CEOC INTERNATIONAL

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **TI16ATEX 671-2 X**

[4] Equipment or Protective System: **CABLE GLAND, Type: A2FRF, A2FRM, A2FFC**

[5] Manufacturer: **AKSHAR BRASS INDUSTRIES**

[6] Address: 4027, GIDC, Phase-III, Jamnagar-361 004, Gujarat, India

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report No. 671/5/2016-2.

[9] Compliance with the Essential Health and safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicate that the equipment or protective systems is subject to special condition for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

[12] The marking of the equipment or protective system shall include the following:

II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C
Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C

Technická inšpekcia, a.s.
Trnavská cesta 66
821 01 Bratislava, Slovakia
e-mail: tiar@tiar.sk
web: www.tiar.sk
Tel.: +421 2 49208 100

NB 1354

Bratislava, May 10th, 2016

Ing. Dušan Konický
General Director

This certificate may only be reproduced in its entirety and change, schedule included.
Page 1 of 4 of Certificate No. TI16ATEX 671-2 X

301053
CSTA3-128

TECHNICKÁ INŠPEKCIA, a.s.
SLOVENSKÁ REPUBLIKA

[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **TI16ATEX 671-3 X**

[4] Equipment or Protective System: **CABLE GLAND**
Type: E1FWFC, E1FXFC, E1FWRM, E1FXRM, E1FWRF, E1FXRF

[5] Manufacturer: **AKSHAR BRASS INDUSTRIES**

[6] Address: 4027, GIDC, Phase-III, Jamnagar-361 004, Gujarat, India

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report No. 671/5/2016-3.

[9] Compliance with the Essential Health and safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicate that the equipment or protective systems is subject to special condition for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

[12] The marking of the equipment or protective system shall include the following:

II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C
Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C

Technická inšpekcia, a.s.
Trnavská cesta 56
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web: www.tiar.sk
Tel.: +421 2 49208 100

Bratislava, May 10th, 2016

Ing. Dušan Konický
General Director

301054

This certificate may only be reproduced in its entirety and change, schedule included.
Page 1 of 4 of Certificate No. TI16ATEX 671-3 X

CSTA3-128

TECHNICKÁ INŠPEKCIA, a.s.
SLOVENSKÁ REPUBLIKA

[1] **PRODUCTION QUALITY ASSURANCE NOTIFICATION**

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

[3] **Notification Number:** **TI16ATEX 671-4**

[4] **List of products covered by this notification:**

No. of certificate	Equipment or protective systems
TI16ATEX 671-1 X	CABLE GLAND, Type: SS2KGP II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C
TI16ATEX 671-2 X	CABLE GLAND, Type: A2FRF, A2FRM, A2FFC II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C
TI16ATEX 671-3 X	CABLE GLAND, Type: E1FWFC, E1FXFC, E1FWRM, E1FXRM, E1FWRF, E1FXRF II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C

[5] **Applicant:** **See Manufacturer**

[6] **Manufacturer:** **AKSHAR BRASS INDUSTRIES**
4027, GIDC, Phase-III, Jamnagar-361 004, Gujarat, India

[7] Technická inšpekcia, a.s., Notified Body Number 1354 for Annex IV in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, notifies to the applicant that the actual manufacturer has a production quality system which complies with Annex IV, **MODULE D: Conformity to Type based on Quality Assurance of the Production Process**, of the Directive.
This quality system in compliance with Annex IV of the Directive also meets the requirements of Annex VII, MODULE E: Conformity to Type based on Product Quality Assurance, of the Directive.

[8] This notification is based on audit report No. 671/5/2016-4 issued May 10th, 2016
This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV.
Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification is valid until May 10th, 2017 and can be withdrawn if the manufacturer does not satisfy the production quality assurance surveillance.

[10] According to Article 18 (3) of Directive 2014/34/EU the CE mark shall be followed by the identification Number 1354 identifying the Notified Body involved in the production control stage.

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web: www.tiar.sk
Tel.: +421 2 49208 100

Bratislava, May 10th, 2016

Ing. Dušan Konický
General Director

301051 This notification may only be reproduced in its entirety and without any change.

PNQANA2-419

TECHNICKÁ INŠPEKCIA, a.s.

SLOVENSKÁ REPUBLIKA

CEOC INTERNATIONAL

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **TI16ATEX 671-1 X**

[4] Equipment or Protective System: **CABLE GLAND, Type: SS2KGP**

[5] Manufacturer: **AKSHAR BRASS INDUSTRIES**

[6] Address: 4027, GIDC, Phase-III, Jamnagar-361 004, Gujarat, India

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report No. 671/5/2016-1.

[9] Compliance with the Essential Health and safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicate that the equipment or protective systems is subject to special condition for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

[12] The marking of the equipment or protective system shall include the following:

II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C
Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C

Technická inšpekcia, a.s.
Trnavská cesta 56
821 01 Bratislava, Slovakia
e-mail: tisr@tisr.sk
web: www.tisr.sk
Tel.: +421 2 49208 100

Bratislava, May 10th, 2016

Ing. Dušan Konipky
General Director

301052

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITS 16.0041X Issue No: 0 Certificate history: Issue No. 0 (2016-09-29)

Status: **Current** Page 1 of 5

Date of Issue: **2016-09-29**

Applicant: **Akshar Brass Industries**
4027, GIDC, Phase-III, Jamnagar - 361 004, Gujarat (India)
India

Equipment: **Ex db / Ex eb and Ex tb**
Optional accessory:

Type of Protection: **Flameproof and Increased Safety**

Marking:
Ex db IIC Gb / Ex eb IIC Gb -60°C ≤ Ta ≤ + 125°C
Ex tb IIIC Db -60°C ≤ Ta ≤ + 125°C IP67

Approved for issue on behalf of the IECEx Certification Body: V K Varma

Position: Certification Officer

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:
Intertek Testing & Certification Limited
ITS House, Cleeve Road,
Leatherhead,
Surrey, KT22 7SB
United Kingdom

CABTEK
electrical accessories

EU-Type Examination Certificate

Intertek
Value Quality. Delivered.

1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**
3. **EU-Type Examination Certificate Number: ITS16ATEX100935X**
4. **Product:** **Cable Glands and Blanking Elements**
5. **Manufacturer:** **Akshar Brass Industries**
6. **Address:** **4027, GIDC, Phase-III, Jamnagar - 361 004, Gujarat (India)**
7. This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
8. Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

   The examination and test results are recorded in confidential Intertek Report Ref No. CE-JOB-DEL-14-000650-003 to 007 and Intertek UK Certification report No. G101688827 dated 9th August 2016.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012+A11 2013, EN 60079-1:2014, EN 60079-7:2015 and EN 60079-31:2014 except in respect of those requirements referred to at Item 18 of the Schedule.
10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Safe Use specified in the Schedule to this certificate.
11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
12. The marking of the product shall include the following:

    II 2 GD
    Ex db IIC Gb / Ex eb IIC Gb -60°C≤Ta≤+125°C
    Ex tb IIIC Db -60°C≤Ta≤+125°C IP67

Vijay K. Varma
Vijay K Varma
Certification Officer
12th September 2016

Intertek Testing & Certification Limited
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977
www.intertek.com
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

Page 1 of 5

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification's Conditions for Granting Certification

BUREAU VERITAS
Certification

AKSHAR BRASS INDUSTRIES

PLOT NO 4027, PHASE III, DARED GIDC,
JAMNAGAR -361004, GUJARAT, INDIA.

Bureau Veritas Certification certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 9001:2008

Scope of certification

MANUFACTURE AND SALES OF FERROUS AND NON-FERROUS TURNED COMPONENTS

Certification cycle start date: **22 November 2015**
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **14 September 2018**
Original certification date: **22 November 2012**
Certificate No. **IND15.5506N/Q** Version : 1 Revision date: **30 October 2015**

Certification Authority
Ramesh KOREGAVE
General Manager, CERTIFICATION
South Asia Region

NABCB
QM 003

Local office: *"Marwah Centre" 6th Floor, Krishanlal Marwah Marg, Opp. Ansa Industrial Estate, Off Saki Vihar Road, Andheri (East), Mumbai – 400 072, India.*

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call: +91 22 6695 6300.

QUALITY ASSURANCE NOTIFICATION

1. **QUALITY ASSURANCE NOTIFICATION**
2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**
3. **Manufacturers Notification Number: ITS16ATEXQ00970**
4. **Explosion Protection concept(s) covered by this Notification:** See Schedule 1
5. **Manufacturer: AKSHAR BRASS INDUSTRIES**
6. **Address: 4027GIDC, Phase-III, Jamnagar – 361 004 Gujarat, INDIA**
7. Intertek Testing and Certification Limited, Notified Body No. 0359 for Annexes IV and VII in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, confirms that the manufacturer has a quality system which complies with Annex IV of the Directive.
8. Full details of the Audit are held on file Ref CE-JOB-DEL-14-000650-001 (UK Project No G101888827).
9. This Notification may be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV. Periodic Inspection form part of this Notification.
10. This Notification is valid until **15 April 2019** and can be withdrawn if the manufacturer does not satisfy the quality assurance re-assessment.
11. The CE marking shall be followed by the identification number 0359 identifying the Notified Body involved in the production control stage required by Article 16 of the Directive 2014/34/EU.
12. This Notification may only be reproduced in its entirety and without any change, Schedule included.

Vijay K. Varma

V K Varma
Certification Officer
16 May 2016

Intertek Testing & Certification Limited
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977
www.intertek.com
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

TECHNICKÁ INŠPEKCIA, a.s.

SLOVENSKÁ REPUBLIKA

CEOC INTERNATIONAL

[1] **PRODUCTION QUALITY ASSURANCE NOTIFICATION**

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

[3] **Notification Number:** **TI16ATEX 671-4**

[4] **List of products covered by this notification:**

No. of certificate	Equipment or protective systems
TI16ATEX 671-1 X	CABLE GLAND, Type: SS2KGP II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C
TI16ATEX 671-2 X	CABLE GLAND, Type: A2FRF, A2FRM, A2FFC II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C
TI16ATEX 671-3 X	CABLE GLAND, Type: E1FWFC, E1FXFC, E1FWRM, E1FXRM, E1FWRF, E1FXRF II 2 GD Ex db IIC Gb - 60°C ≤ Tamb ≤ 125°C Ex tb IIIC Db IP66 - 60°C ≤ Tamb ≤ 125°C

[5] **Applicant:** **See Manufacturer**

[6] **Manufacturer:** **AKSHAR BRASS INDUSTRIES**
4027, GIDC, Phase-III, Jamnagar-361 004, Gujarat, India

[7] Technická inšpekcia, a.s., Notified Body Number 1354 for Annex IV in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, notifies to the applicant that the actuel manufacturer has a production quality system which complies with Annex IV, **MODULE D: Conformity to Type based on Quality Assurance of the Production Process**, of the Directive.
This quality system in compliance with Annex IV of the Directive also meets the requirements of Annex VII, MODULE E: Conformity to Type based on Product Quality Assurance, of the Directive.

[8] This notification is based on audit report No. 671/5/2016-4 issued May 10th, 2016
This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV.
Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification is valid until May 10th, 2017 and can be withdrawn if the manufacturer does not satisfy the production quality assurance surveillance.

[10] According to Article 16 (3) of Directive 2014/34/EU the CE mark shall be followed by the identification Number 1354 identifying the Notified Body involved in the production control stage.

Technická inšpekcia, a.s.
Trnavská cesta 56
821 01 Bratislava, Slovakia
e-mail: tiscr@tiscr.sk
web: www.tiscr.sk
Tel.: +421 2 49208 100

Bratislava, May 10th, 2016

Ing. Dušan Konický
General Director

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PNQANA2-419

The Making

Induction furnace operated foundry size and experience allows for the highest levels of quality control and for faster, more efficient operations that live up to its namesake. We exceed your expectations with our superior quality metal castings and outstanding customer service.

Hi-tech Machining

Advance in manufacturing processes for producing high precision, quick turn-around rate and timely delivery make the best choice for all manufacturing needs.

Perfection

CABTEK overall excellence in product, performance and delivery have won us, besides customers, a high perception of image and goodwill. Our endeavor is to satisfy our customers to the greater extent by supplying products of first rate in quality at a competitive price, on time delivery and reliable service.

Quality Control

CABTEK offer superior & safe cable gland performance. Being the integrity of their mechanical design & the quality of materials used in their production. CABTEK cable gland ensure their seals to prolonged exposure and cable adequately retained by the armor clamp within the standard.

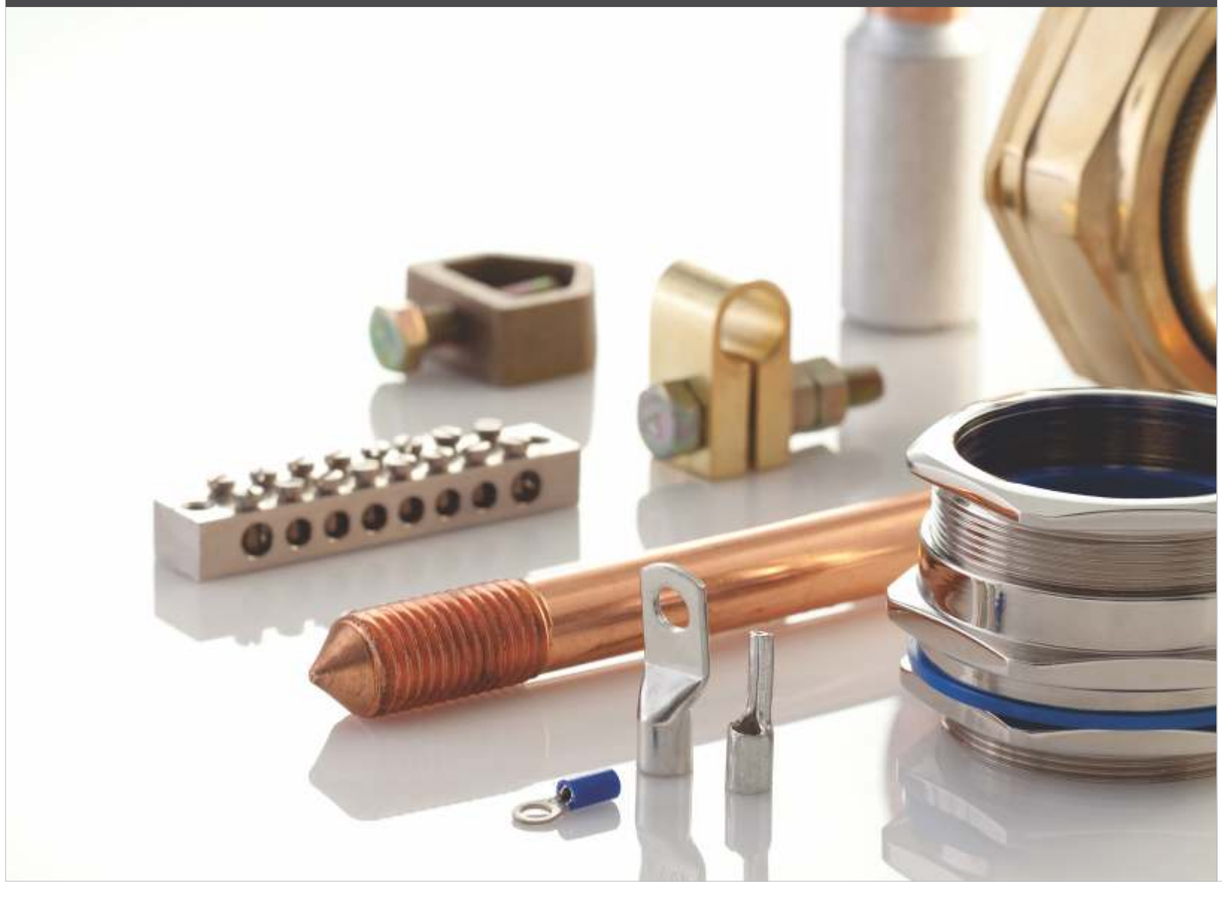
Packaging & Shipping

Our advance facility that enables us to deliver our range of products safely and in promised time to our clients.

Packed in strong corrugated box, with properly marked the destination, item code & number of individual cartoons. A wide range of option for packaging material like Corrugated Boxes, Wooden Cases, Pallet Packing etc...

Cable Gland

Technical Information



Introduction

Cable glands are mechanical cable entry devices and can be constructed from metallic or non-metallic materials. They are used throughout a number of industries in conjunction with cable and wiring used in electrical instrumentation and automation systems.

Cable glands are mechanical fittings that form part of the electrical installation material. The purpose of a cable gland is to seal the cable and retain it in the electrical equipment that it is attached to. It should maintain the ingress protection rating of the enclosures, keeping out dust and moisture but it should also prevent the cable from being pulled out of the equipment and from being twisted whilst connected to equipment. If it is intended for use with armoured cable, the cable gland also provides an earth continuity function.

Cable glands may be used on all types of electrical power, control, instrumentation, data and telecommunications cables. They are used as a sealing and termination device to ensure that the characteristics of the enclosure which the cable enters can be maintained adequately.

Cable Gland Standard

For industrial electrical installations the need for compliance with standards is vital in order to ensure such things as occupational health and safety in the workplace, security and safety of earthing systems, functional safety, longevity of performance and continuity of supply for plant and equipment. The same criteria which are applied to the plethora of electrical equipment should also be considered as applicable to cable glands, in order for systems to be installed and operated reliably.

During the formative years of the rapidly expanding power generation industry in all over world, the acute need for a common standard reference document that could address cable gland requirements was recognised, and from this GDCD 190 was created. Latterly in the 1970's BS 4121 was superseded by BS 6121 with the introduction of the metric system of measurement across Europe. Majority of cable gland designs around the BS 6121 standard. However in particular the area where some manufacturer don't comply with BS 6121 are the maximum bore dimensions (Table-I) through the cable gland, the wall thicknesses as a result of the bore size discrepancies, and the sealing ranges that differ considerably from the standard.

European standard for Cable Glands EN 50262 was published in September 1998. The new standard is very different from the previous British standards BS 6121 in some important respects. A new IEC standard for “Cable Glands for Electrical Installations”, IEC 62444, was published in 2010 and in time this will be adopted in several countries across the world, including Australia. This new standard could have a profound impact on users and manufacturers, especially those who discover for the first time that the products they have previously used have not been tested to any current standards. IEC 62444 is similar to EN 50262 in that it is also a performance based standard, allowing manufacturers to produce cable glands of varying degrees of robustness some of which may be more suited to light industrial applications such as factory automation, whilst others may be more applicable to medium and heavy duty industrial electrical installations, such as power generation and distribution.

Nomenclature

Table A: Cable Gland Primary Code for Unarmoured and Armoured Cables

CODE	Definition
A1	For unarmoured cable with an elastomeric or plastic outer sheath, with sealing function between the cable sheath and the sealing ring of the cable gland.
A2	As type A1, but with seal protection degree IP66 means 30 bar pressure.
B	No Seal
C	Single Outer Seal
E	Double (Inner & Outer) Seal
	suffix '1' = Normal suffix '2' = Lead Sheathed

Table B: Cable Gland Secondary Code for Armoured Cables

CODE	Designation Of Cable Armouring
W	Single Wire Armour
Y	Strip Armour Used
X	Braid
T	Pliable Wire Armour
Z	

Table C: Cable Gland Type Designations

CODE	Definition
A2	Cable Gland for unarmoured cable with Outer seal
BW	Cable Gland for SWA cable without seal Indoor use
CW	Single Seal Cable Gland for SWA cable Outdoor use
E1W	Double Seal Cable Gland for SWA cable both indoor and outdoor
CX	Single Seal Cable Gland for braided cable
E1X	Double Seal Cable Gland for braided cable

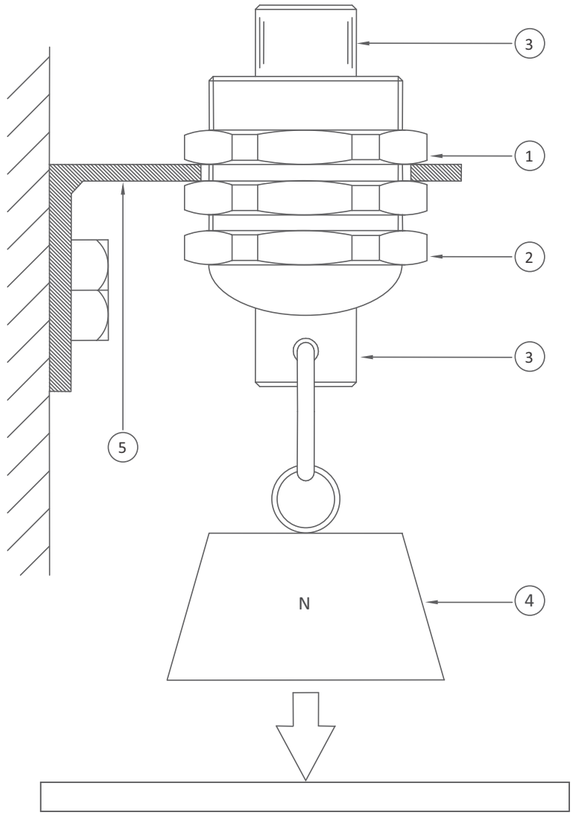
Cable Gland Construction Requirements

Table 1 : Bore Size Referenced in BS 6121 part 1 : 1989

Cable Gland Size	16	20S	20	25	32	40	50S	50	63S	63	75S	75
Entry Thread Size	M20 or M16	M20	M20	M25	M32	M40	M50	M50	M63	M63	M75	M75
Bore Size	8.7	11.7	14.0	20.0	26.3	32.2	38.2	44.1	50.1	56.0	62.0	68.0
Permitted Tolerance	+0.3mm	+0.3mm	+0.3mm	+0.3mm	+0.5mm	+0.5mm	+0.5mm	+0.5mm	+0.5mm	+0.5mm	+0.5mm	+0.5mm
Maximum Bore Size	9.0	12.0	14.3	20.3	26.8	32.7	38.7	44.6	50.6	56.5	62.5	68.5

A. Cable Gland Retention

A circular test mandrel is loaded until the pull force is in accordance with the values given in Table 2 column “Cable retention”. For test mandrels which are not circular in shape, i.e. where non-circular cables are being simulated, their cross-sectional area shall be determined, and the diameter of a circular cable of the same cross-sectional area shall be calculated. The test values shall be appropriate to the nearest circular test mandrel size. For cable glands with sealing systems comprising two or more seals with different sizes, the mandrel shall be stepped appropriately. The test values shall be appropriate to the largest test mandrel diameter. The test mandrel is marked when unloaded so that any displacement relative to the cable gland can be easily detected. The load is maintained for 5 min and at the end of this period the displacement shall not exceed 3mm when unloaded. The test is repeated using new samples and a test mandrel equivalent to the maximum value of the sealing range of the cable gland as declared by the manufacturer or supplier, with the test value of the relevant maximum cable diameter specified in Table 2.



Key
1 Lock Nut
2 Cable Gland
3 Mandrel
4 Load
5 Support

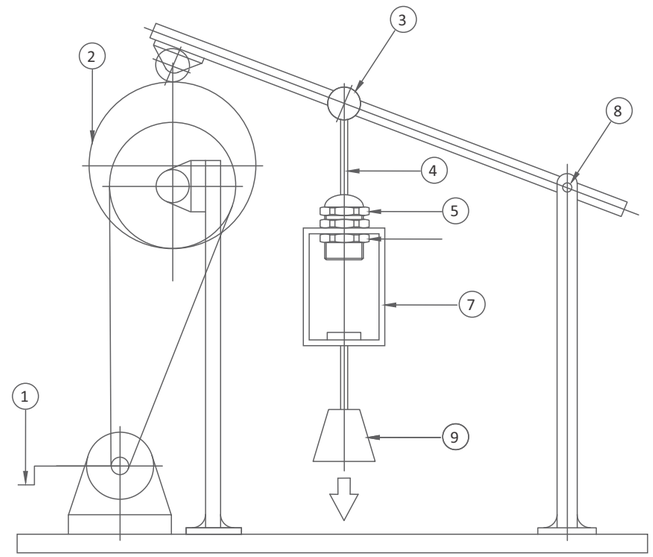
Figure 1- Cable Retention Test

Table 2 : Pull Forces For Cable Retention And Cable Anchorage

Cable Diameter mm	Cable Retention N	Cable Anchorage for Non-Armoured Cable		Cable Anchorage for Armoured Cable	
		Type A N	Type B N	Type C N	Type D N
Up to 4	5	-	-	-	-
> 4 to 8	10	30	75	75	640
> 8 to 11	15	42	120	120	880
> 11 to 16	20	55	130	130	1 280
> 16 to 23	25	70	140	140	1 840
> 23 to 31	30	80	250	250	2 480
> 31 to 43	45	90	350	350	3 440
> 43 to 55	55	100	400	400	4 400
> 55	70	115	450	450	5 600

B. Cable Anchorage Test for Non-Armoured Cable

Compliance is checked by the following tests. For cable glands with a sealing system in accordance with 6.5.1, a test mandrel equivalent to the minimum value of the anchorage range of the cable gland as declared by the manufacturer or supplier is fixed to the sample. For cable glands with a sealing system in accordance with 6.5.2, a test mandrel equivalent to the minimum value of the anchorage range of the smallest orifice of the cable gland is fixed into the smallest orifice of the sample, and each remaining orifice is plugged with a plug equivalent to the minimum value of its sealing range. The test mandrel is marked when unloaded so that any displacement relative to the cable gland can be easily detected. The test mandrel is pulled 50 times for a duration of 1 Second without jerks in the direction of its axis with the relevant pull force specified in Table 2. At the end of this period the displacement shall not exceed 2mm. This measurement is to be carried out after unloading the force from the test mandrel. A typical arrangement for the cable anchorage pull test is shown in Figure 2.



Key
1 Crank Arm
2 Off Centre Pulley
3 Pivot Point
4 Mandrel
5 Cable Gland
6 Locknut
7 Load Retaining Device
8 Fulcrum Point
9 Load In N

Figure 2 - Cable Anchorage Pull Test

C. Cable Anchorage Pull Test

The sample with the test mandrel is then mounted onto the test arrangement for the cable anchorage twist test as shown in Figure 3. The test mandrel is marked when unloaded so that any displacement can be easily detected and then is subjected for 1 min to the torque as shown in Table 3. During this test the test mandrel shall not turn by more than an angle of 45°. The pull and twist tests shall be repeated using a test mandrel equivalent to the maximum value of the anchorage range of the cable gland as declared by the manufacturer or supplier with the test value of the relevant maximum cable diameter specified in Tables 2 and 3.

Table 3 – Torque Value for Cable Anchorage Twist Test

Cable Diameter mm	Torque NM
> 4 to 8	0.10
> 8 to 11	0.15
> 11 to 16	0.35
>16 to 23	0.60
>23 to 31	0.80
> 31 to 43	0.90
> 43 to 55	1.00
> 55	1.20

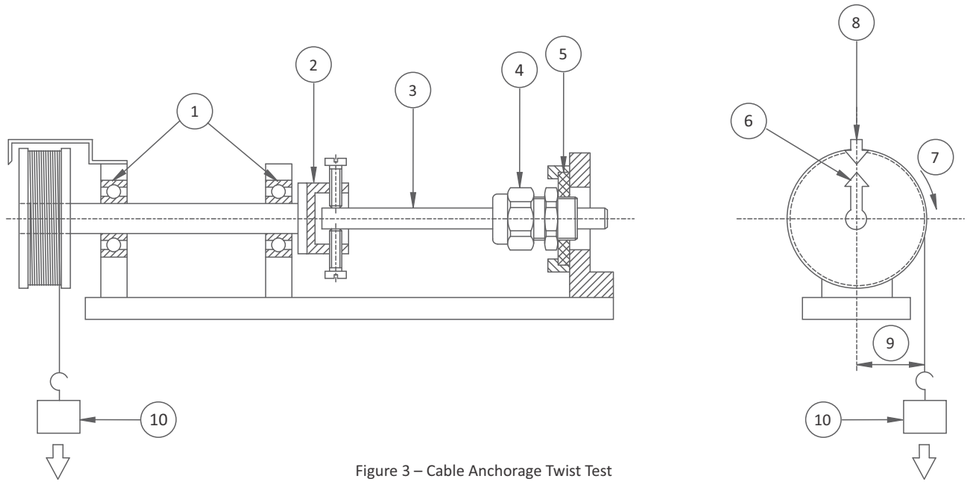


Figure 3 – Cable Anchorage Twist Test

Key

1 Bearings Enabling Easy Rotation
2 Device For Securing Test Mandrel
3 Test Mandrel
4 Sample
5 Sample Securing Plate (interchangeable)
6 Rotating Indicator
7 Direction Of Rotation
8 Fixed Rotating Indicator
9 Radius
10 Load In N

D. Cable Anchorage Test For Armoured Cable

Two samples, each consisting of two cable glands, are assembled. In the first sample, the cable glands are fitted, one at each end, to a cable 300 mm long, with the maximum over armour diameter as declared by the manufacturer or supplier. In the second sample the cable glands are fitted, one at each end, to a cable 300 mm long, with the minimum over armour diameter as declared by the manufacturer or supplier. For each sample, one cable gland is fixed and the other cable gland is loaded in accordance with the appropriate value given in Table 2. The cable is marked so that any displacement relative to each cable gland can be easily detected. The load is maintained for 5 min and at the end of this period the displacement shall not exceed 3 mm at either cable gland. A typical arrangement for cable anchorage test for armoured cable is shown in Figure 4. Following the test, the samples of cable glands classified in accordance with 6.3.1.2 shall then be subjected to the test in accordance with 10.2. Following the test, the samples of cable glands classified in accordance with 6.3.1.3 are then subjected to the test in accordance with 10.2 followed by the test in accordance with 10.3.2.

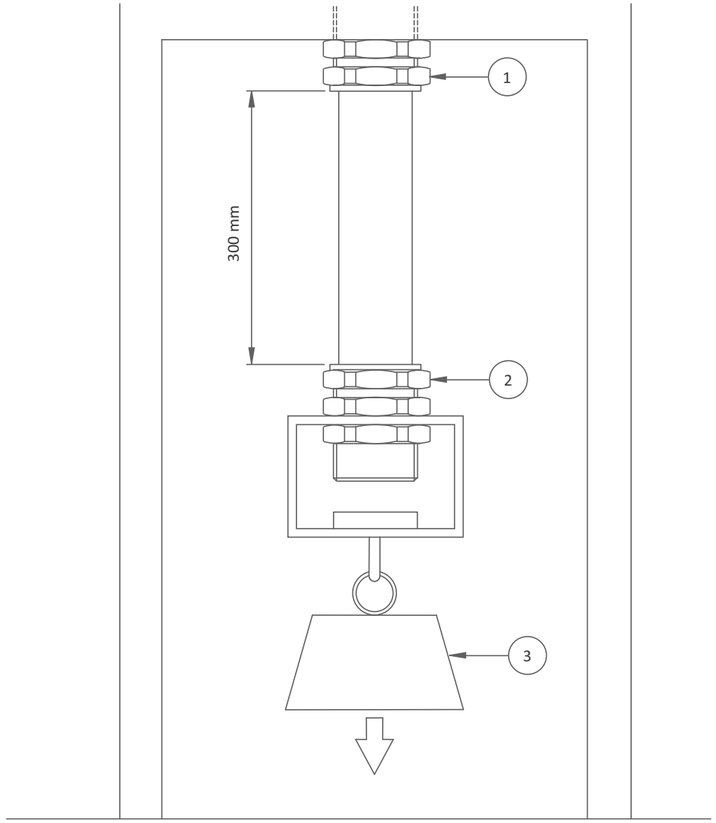


Figure 4 – Cable Anchorage Test For Armoured Cable

Key

1 Fixed Cable Gland
2 Cable Gland
3 Load In N

E. Resistance to Impact

Compliance is checked by the following test. For cable glands with a sealing system in accordance with 6.5.1, a test mandrel equivalent to the minimum value of the sealing range of the cable gland as declared by the manufacturer or supplier is fixed to the sample and then the test is carried out at the minimum temperature in accordance with 8.5 or lower if declared by the manufacturer. For cable glands with a sealing system in accordance with 6.5.2, a test mandrel equivalent to the minimum value of the sealing range of the smallest orifice of the cable gland is fixed into the smallest orifice of the sample, and each remaining orifice is plugged with a plug equivalent to the minimum value of its sealing range. The test is carried out at the minimum temperature in accordance with 8.5 or lower if declared by the manufacturer. Prior to the impact test the samples shall be placed in a refrigerator for 8 h minimum. The test temperature tolerance is ± 2 °C.

The testing can be done – inside the refrigerator at the declared minimum temperature, or – outside the refrigerator at ambient temperature (20 ± 5) °C if the cable gland previously was cooled down to the declared minimum temperature in accordance with 8.5 minus 5 °C and the impact is carried out within (15 ± 2) after the cable gland was removed from the refrigerator. For example, if the declared temperature is –20 °C and the test is carried out outside the refrigerator, then the cooling temperature shall be –25 °C. The point of impact shall be the place considered to be weakest. The sample shall be mounted on a steel base so that – the direction of impact is perpendicular to the surface being tested if it is flat, or perpendicular to the tangent of the surface at the point of impact if it is not flat; – there is no movement of the cable gland support which could influence the test results. The mass shall be fitted with an impact head of hardened steel in the form of a hemisphere of 25 mm diameter. The base shall have a mass of at least 20 kg or be rigidly fixed or inserted into the floor. A typical arrangement for the impact test is shown in Figure 5. The sample is subjected to the impact energy as given in Table 4 according to the category declared by the manufacturer or supplier.

Cable Gland Selection Chart																	
Armoured Cable Gland BW, CW, E1W & D1W Selection Chart																	
Core	Cable Conductor Size																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
2	20S	20S	20S	20S	25	25	32	32	32	32	40	40	50	50	50	63	63
3	20S	20S	20S	20	25	25	32	32	32	40	40	40	50	50	63	63	75
4	20S	20S	20	20	25	25	32	32	40	40	50	50	50	63S	63	75	75
7	20S	20															
12	20	25															
19	25	25															
27	32	32															
37	32	40															
48	32	40															

Gland Selection Chart XPLE / SWA / PVX & LSF / SWA / LSF																	
Core	Cable Conductor Size																
1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
2	20S	20S	20S	20S	20	25	25	32	32	32	32	40	40	50S	50	50	63S
3	20S	20S	20S	20	20	25	32	32	32	32	40	40	50S	50	63S	63	75S
4	20S	20S	20	20	25	25	32	32	30	40	50S	50S	50	63S	63	75S	75
7	20S	20															
12	25	25															
19	32	25															
27	32	32															
37	32	40															

WARNING : THIS CHART IS FOR GUIDANCE ONLY - ACTUAL CABLE DIMENSIONS SHOULD BE CONSIDERED BEFORE MAKING FINAL SELECTION AS THESE MAY VERY DUE TO THE MANUFACTURING TOLERANCES PERMITTED IN BS 6346 : 1989

What is ATEX ?

ATEX is the name commonly given to the framework for controlling explosive atmospheres and the standards of equipment and protective systems used in them. It is based on the requirements of two European Directives:

1. ATEX 99/92/EC Directive

Also known as **'ATEX 137'** or the **'ATEX Workplace Directive'.** Minimum requirements for improving the health and safety protection of workers potentially at risk from explosive atmospheres. The text of the Directive and the supporting EU produced guidelines are available on the EU-website. For more information on how the requirements of the Directive have been put into effect in Great Britain see the information in the section on Equipment and protective systems intended for use in explosive atmospheres.

2. ATEX 94/9/EC Directive

Also known as **'ATEX 95'** or the **'ATEX Equipment Directive'. ATEX 94/9/EC** was **removed and replaced by a new** **Directive 2014/34/EU** from April-2016.

Equipment and protective systems intended for use in potentially explosive atmospheres. The aim of this directive is to allow the free trade of 'ATEX' equipment and protective systems within the EU by removing the need for separate testing and documentation for each member state.

The regulations apply to all equipment intended for use in explosive atmospheres, whether electrical or mechanical, including protective systems. The text of the Directive and EU produced supporting guidelines are available on the EU website. For more information on how the requirements of the Directive have been put into effect in Great Britain see the section on Selection of equipment and protective systems.

Objective of the ATEX Directive 2014/34/EU

The objective of Directive 2014/34/EU is **to ensure free movement for the products to which it applies** in the EU territory. Therefore the directive, **based on Article 95 of the EC Treaty**, provides for harmonised requirements and procedures to establish compliance. The directive notes that to remove barriers to trade via the New Approach, provided for in the Council Resolution of 7 May 1985, essential requirements regarding safety and other relevant attributes need to be defined by which a high level of protection will be ensured. These **Essential Health and Safety Requirements (EHSRs)** are listed in Annex II to Directive 2014/34/EU.

These essential health and safety requirements are specific with respect to

- Potential ignition sources of equipment intended for use in potentially explosive atmospheres ;
- Autonomous protective systems intended to come into operation following an explosion with the prime objective to halt the explosion immediately and/or limit the effects of explosion flames and pressures;
- Safety devices intended to contribute to the safe functioning of such equipment with respect to ignition source and to the safe functioning of autonomous protective systems ;
- Components with no autonomous function essential to the safe functioning of such equipment or autonomous protective system(s) Since 1st July 2003 relevant products could only be placed on the market in the EU territory7, freely moved and operated as designed and intended in the expected environment if they comply with directive 94/9/EC (and other relevant legislation).

Directive 2014/34/EU provides for the first time harmonised requirements for non-electrical equipment, equipment intended for use in environments which are potentially explosive due to dust hazards and protective systems. Safety devices intended for use outside explosive atmospheres which are required for or contribute to the safe functioning of equipment or protective systems with respect to risks of explosion are also included. This is an increase in scope compared to former national regulations for equipment and systems intended for use in potentially explosive atmospheres.

Explosive Atmosphere

In Great Britain the requirements of Directive 99/92/EC were put into effect through regulations 7 and 11 of the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR).

The requirements in DSEAR apply to most workplaces where a potentially explosive atmosphere may occur. Some industry sectors and work activities are exempted because there is other legislation that fulfils the requirements. These exemptions are listed in regulation 3 of DSEAR

In DSEAR, an explosive atmosphere is defined as a mixture of dangerous substances with air, under atmospheric conditions, in the form of gases, vapours, mist or dust in which, after ignition has occurred, combustion spreads to the entire unburned mixture.

Atmospheric conditions are commonly referred to as ambient temperatures and pressures. That is to say temperatures of –20°C to 40°C and pressures of 0.8 to 1.1 bar.

Many workplaces may contain, or have activities that produce, explosive or potentially explosive atmospheres. Examples include places where work activities create or release flammable gases or vapours, such as vehicle paint spraying, or in workplaces handling fine organic dusts such as grain flour or wood.

Explosive atmospheres can be caused by flammable gases, mists or vapours or by combustible dusts. If there is enough of the substance, mixed with air, then all it needs is a source of ignition to cause an explosion.

Explosions can cause loss of life and serious injuries as well as significant damage. Preventing releases of dangerous substances, which can create explosive atmospheres, and preventing sources of ignition are two widely used ways of reducing the risk. Using the correct equipment can help greatly in this.

The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) place duties on employers to eliminate or control the risks from explosive atmospheres in the workplace. A summary of those requirements can be found below.

Where can Explosive Atmospheres be found ?

Many workplaces may contain, or have activities that produce, explosive or potentially explosive atmospheres. Examples include places where work activities create or release flammable gases or vapours, such as vehicle paint spraying, or in workplaces handling fine organic dusts such as grain flour or wood.

What does DSEAR require?

DSEAR requires employers to eliminate or control the risks from dangerous substances – further information on these requirements can be found on the DSEAR web page[6]. In addition to the general requirements, the Regulations place the following specific duties on employers with workplaces where explosive atmospheres may occur.

Classification of areas where Explosive Atmospheres may occur

Employers must classify areas where hazardous explosive atmospheres may occur into zones. The classification given to a particular zone, and its size and location, depends on the likelihood of an explosive atmosphere occurring and its persistence if it does. Schedule 2 of DSEAR contains descriptions of the various classifications of zones for gases and vapours and for dusts.

Selection of Equipment and Protective Systems

Areas classified into zones must be protected from sources of ignition. Equipment and protective systems intended to be used in zoned areas should be selected to meet the requirements of the Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 1996. Equipment already in use before July 2003 can continue to be used indefinitely provided a risk assessment shows it is safe to do so.

Hazardous Area

- A “hazardous area” is defined as an area in which the atmosphere contains, or may contain in sufficient quantities, flammable or explosive gases, dusts or vapours. In such an atmosphere a fire or explosion is possible when three basic conditions are met. This is often referred to as the “hazardous area” or “combustion” triangle.
- When electrical equipment is used in, around, or near an atmosphere that has flammable gases or vapours, flammable liquids, combustible dusts, ignitable fibers or flyings, there is always a possibility or risk that a fire or explosion might occur. Those areas where the possibility or risk of fire or explosion might occur due to an explosive atmosphere and/or mixture is often called a hazardous (or classified) location/area. Currently there are two systems used to classify these hazardous areas; the Class/Division system and the Zone system. The Class/Division system is used predominately in the United States and Canada, whereas the rest of the world generally uses the Zone system.

A. Zoning Classification

Hazardous locations as per the Zone system are classified according to its Zone which can be gas or dust. For gas atmospheres electrical equipment is further divided into Groups and Subgroups.

Zone

The Zone defines the probability of the hazardous material, gas or dust, being present in sufficient quantities to produce explosive or ignitable mixtures.

Zones		ATEX Equipment Category	Definitions
Gas	Dust		
0	20	1	Ignitable concentrations of flammable gases or vapours which are present continuously or for long periods of time.
1	21	2	Ignitable concentrations of flammable gases or vapours which are likely to occur under normal operating conditions.
2	22	3	Ignitable concentrations of flammable gases or vapours which are not likely to occur under normal operating conditions and do so only for a short period of time.

ATEX Category	Typical Zone Suitability
1G	Equip. suitable for zone 0
1D	Equip. suitable for zone 20
2G	Equip. suitable for zone 1
2D	Equip. suitable for zone 21
3G	Equip. suitable for zone 2
3D	Equip. suitable for zone 22

The table below shows the relationship between the category and the expected zone of use.

ATEX categories and its applications				
Category	Degree of safety	Design Requirement	Application	Expected Zone of Use
1	Very high level of safety	Two independent mean of protection or safe with two independent faults	Where explosive atmospheres are present continuously or for lengthy periods	Zone 0 (Gas) and Zone 20 (Dust)
2	High level of safety	Safe with frequently occurring disturbances of with a normal operating fault	Where explosive atmospheres are likely to occur	Zone 1 (Gas) and Zone 21 (Dust)
3	Normal level of safety	Safe in normal operation	Where explosive atmospheres are likely to occur in frequently and be of short duration	Zone 2 (Gas) and Zone 22 (Dust)

B. Group Classification

The Type of Hazard
The type of hazard will be in the form of either a gas or vapours or a dust or fiber. The classification of these hazardous is primarily divided into two groups depending on whether it is in a mining or above surface industry. These are defined below:

Group I : Electrical equipment for use in mines and underground installations susceptible to firedamp.

Group II and Group III: Electrical equipment for use in surface installations.

Group II : Gases are grouped together based upon the amount of energy required to ignite the most explosive mixture of the gas with air.

Group III : Dusts are subdivided according to the nature of the explosive atmosphere for which it is intended.

Groups II & III are further sub-divided depending upon the hazard.

Mining	Surface Industries			
Group I	Group II		Group III	
Electrical equipment for mines susceptible to firedamp	Electrical equipment for places with an explosive gas atmosphere		Electrical equipment for places with an explosive dust atmosphere	
	Sub-Division	Ignition Energy	Sub-Division	Explosive Atmosphere
	IIA	260 µJ	IIIA	Combustible flyings
	IIB	95 µJ	IIIB	Non-conductive dust
	IIC	18 µJ	IIIC	Conductive dust

Gas Group	
Gas Group	Representative Test Gas
I	Methane (Mining only)
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

Dust Group	
Dust Group	Representative Test Dust
IIIA	Combustible flyings
IIIB	Non-conductive dust
IIIC	Conductive dust

- Group IIA : Atmospheres containing propane, or gases and vapours of equivalent hazard.
- Group IIB : Atmospheres containing ethylene, or gases and vapours of equivalent hazard.
- Group IIC : Atmospheres containing acetylene or hydrogen, or gases and vapours of equivalent hazard.

C. Protection Concept

Protection Type:

To ensure safety in a given situation, equipment is placed into protection level categories according to manufacture method and suitability for different situations. Category 1 is the highest safety level and Category 3 the lowest. Although there are many types of protection, a few are detailed.

Type of Protection	CENELEC Ex Code	IEC Standard	Description	Location	Usages
Flameproof	**d**	IEC 60079-1	Equipment is robust can stand an explosion from within, without transmitting the flame to the outside. Equipment has flameproof gaps (max 0.006" propane/ethylene, 0.004" acetylene/hydrogen).	Zone 1 if gas group & temp. class correct	Motors, lighting, junction boxes
Increased Safety	**e**	IEC 60079-7	Equipment is very robust and components are made to a high quality.	Zone 1, 2	Motors, lighting, junction boxes
Oil Immersion	**o**	IEC 60079-6	Equipment components are completely covered with a layer of oil.	Zone 2 or Zone 1, depending on edition of the standard used.	Heavy current equipment
Powder filling	**q**	IEC 60079-5	Equipment components are completely covered with a layer of Sand, powder or quartz.	Zone 2	Electronics, telephones, chokes
Encapsulated	**m**	IEC 60079-18	Equipment components of the equipment are usually encased in a resin type material.	'ma' : Zone 0 'mb' : Zone 1	Electronics (no heat)
Pressurised	**p**	IEC 60079-2	Equipment is pressurised with a positive pressure; gas cannot get in for air coming out or equipment is purged with a diluting gas such as air. If air is used, it is ducted in from outside the hazardous area.	Zone 1	Analysers, motors, control boxes, computers
Intrinsically safe	**i**	IEC 60079-11	Any arcs or sparks in this equipment has insufficient energy (heat) to ignite a vapour. Equipment can be installed in ANY housing provided to Ip54. A 'Zener Barrier' or 'opto isol' or 'galvanic' unit may be used to assist with certification.	'ia' : Zone 0 & 1 'ib' : Zone 1	Instrumentation, measurement, control
Non Incendive	**n**	IEC 60079-15	Equipment is non-incendive or non-sparking.	Zone 2	Motors, lighting, junction boxes, electronic equipment
Special Protection	**s**	IEC 60079-0	This method, being by definition special, has no specific rules. In effect it is any method which can be shown to have the required degree of safety in use. Much early equipment having Ex s protection was designed with encapsulation and this has now been incorporated into IEC 60079-18 [Ex m]. Ex s is a coding referenced in IEC 60079-0. The use of EPL and ATEX Category directly is an alternative for "s" marking.	Zone 1 depending upon Manufacturers Certification.	As its certification states
Protection by enclosure	**t**	IEC 60079-31	An enclosure which excludes dust, and which will not permit arcs, sparks or heat otherwise generated or liberated inside the enclosure to cause ignition of exterior accumulations or atmospheric suspensions of a specified dust on or in the vicinity of the enclosure.	'ta': Zone 20, 21, 22 'tb': Zone 21, 22 'tc': Zone 22	-

Protection Level (Equipment Protection Level)

- **EPL Ga** : Equipment for explosive gas atmospheres, having a 'very high' level of protection, which is not a source of ignition in normal operation, expected faults or when subject to rare faults.
- **EPL Gb** : Equipment for explosive gas atmospheres, having a 'high' level of protection, which is not a source of ignition in normal operation or when subject to faults that may be expected, though not necessarily on a regular basis.

  NOTE: The majority of the standard Ex-protection concepts bring equipment within this equipment protection level.
- **EPL Gc** : Equipment for explosive gas atmospheres, having a 'enhanced' level of protection, which is not a source of ignition in normal operation and which may have some additional protection to ensure that it remains inactive as an ignition source in the case of regular expected occurrences (for example failure of a lamp).

  NOTE: Typically this will be Ex n equipment.
- **EPL Da :** Equipment for combustible dust atmospheres, having a 'very high' level of protection, which is not a source of ignition in normal operation or when subject to rare faults.
- **EPL Db** : Equipment for combustible dust atmospheres, having a 'high' level of protection, which is not a source of ignition in normal operation or when subject to faults that may be expected, though not necessarily on a regular basis.
- **EPL Dc** : Equipment for combustible dust atmospheres, having an 'enhanced' level of protection, which is not a source of ignition in normal operation and which may have some additional protection to ensure that it remains inactive as an ignition source in the case of regular expected occurrences.

Ingress Protection (IP)

Ingress Protection (IP) rating are developed by the European Committee for Electro Technical Standardization (CENELEC) (NEMA IEC 60529 Degree of Protection Provided by Enclosure -IP Code), specifying the environmental protection the enclosure provides.

The IP Rating is an accepted engineering standard for defining the protection of electrical equipment from dust and moisture ingress.

For pressure sensors and associated instrumentation the 2 digit version of the IP rating is used to indicate how well the design will prevent dust and water getting into the electronic enclosure.

The IP rating normally has two digits :

•1st Digit : Protection from solid objects or materials **•2nd Digit :** Protection from liquids (water)

IP First digit - Protect against solid objects or materials

The higher the first digit of IP rating, the better the ingress protection from dust, sand or dirt particles penetrating the outer enclosure and damaging the internal components.

Code	Definition
0	No special protection
1	Protection against solid objects over 50mm, e.g. accidental touch by person's hand
2	Protection against solid objects over 12mm, e.g. accidental touch by person's fingers
3	Protection against solid objects over 2.5mm, e.g. tools, thick wires
4	Protection against solid objects over 1mm, e.g. small wires, slender screws, ants
5	Protection against limited dust ingress
6	Totally protected against dust

IP Second digit - Protect against liquid (water)

The higher the second digit of IP rating, the better the ingress protection from water moisture leaking inside and corroding components or shorting out electrical & electronic circuits

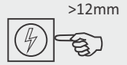
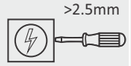
Code	Definition
0	No special protection
1	Protection against vertically falling drops of water, e.g. Condensation
2	Protection against direct spraying of water when tilted up to 15° from the vertical
3	Protection against direct spraying of water when tilted up to 60° from the vertical
4	Protection against spraying of water from all direction-limited ingress permitted
5	Protection against low pressure water jet from all direction-limited ingress
6	Protection against temporary flooding of water, e.g. for use on ship decks- limited ingress permitted
7	Protection against the effect of immersion between 15cm and 1m
8	Protection against long periods of immersion under pressure

Example: IP rating

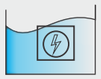
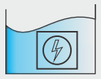
IP 65: First Numeral 6 describes totally protected against dust, Second Numeral 5 describes protected against low pressure water jet from all direction

Index of IP Protection

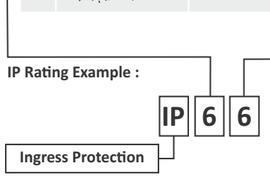
Protection against solid objects

1ST Digit	Test Parameter	Protection Definition
0	No test applied	No specific protection
1		Protect against solid objects larger than 50mm. e.g. accidental touch by persons hands.
2		Protect against solid objects larger than 12mm. e.g. such as persons fingers.
3		Protect against solid objects larger than 2.5mm. e.g. such as tools & screwdrivers.
4		Protect against solid objects larger than 1mm. e.g. such as tools, wires and small wires.
5		Protect against dust limited ingress. (no harmful deposit).
6		Totally Protect against dust.

Protection against liquid (water)

2nd Digit	Test Parameter	Protection Definition
0	No test applied	No specific protection
1		Protect against vertically falling drops of water. e.g. contention.
2		Protect against direct sprays of water up to 15° from verticle.
3		Protect against direct sprays of water up to 60° from verticle.
4		Protect against water sprayed from all directions. Limited ingress permitted.
5		Protect against low pressure jets of water from all directions. Limited ingress permitted.
6		Protect against temporary flooding of water. e.g. for use on ship decks. Limited ingress permitted.
7		Protect against the effect of immersion between 15cm to 1m. For 30 minutes.
8		Protect against long period of immersion under pressure

IP Rating Example :



D. Temperature Classification

Another important consideration is the temperature classification of the electrical equipment. The surface temperature or any parts of the electrical equipment that may be exposed to the hazardous atmosphere should be tested that it does not exceeds 80% of the auto-ignition temperature of the specific gas or vapours in the area where the equipment is intended to be used.

The temperature classification on the electrical equipment label will be one of the following (in degree Celsius):

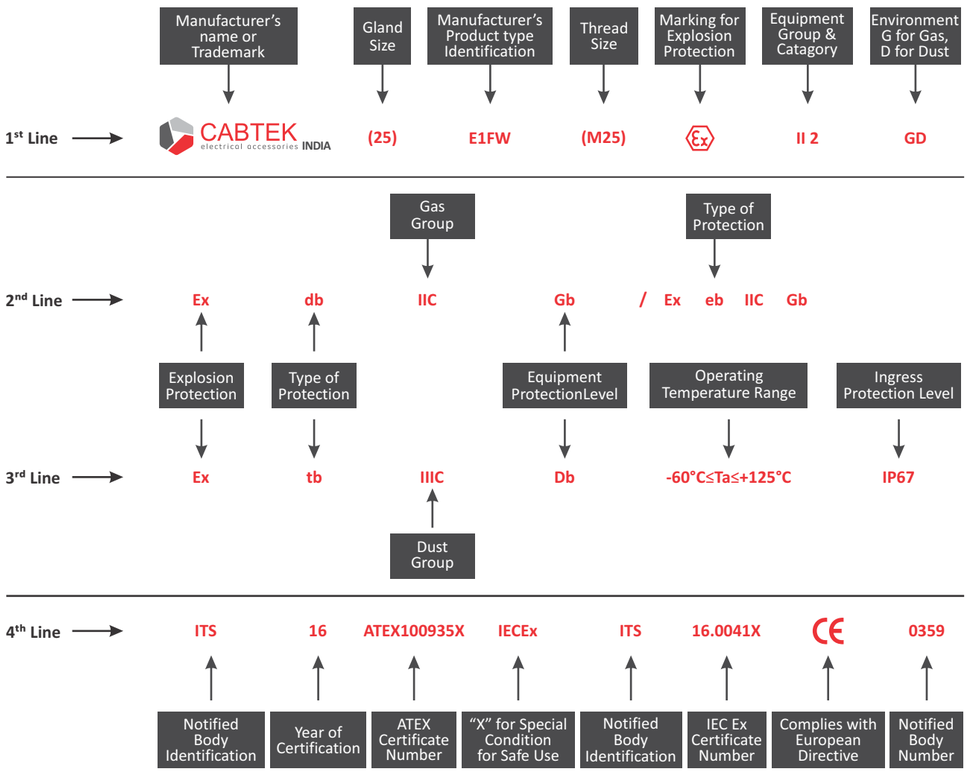
Temperature Class	Max. Surface Temperature of Equipment in °C (USA)	Max. Surface Temperature of Equipment in °C (UK)	Temperature Class and Range (Germany)
T1	450	450	G1: 360 - 400
T2	300	300	G2: 240 - 270
T2A	280	-	G3: 160 - 180
T2B	260	-	G4: 100 - 125
T2C	230	-	G5: 80 - 90
T2D	215	-	-
T3	200	200	-
T3A	180	-	-
T3B	165	-	-
T3C	160	-	-
T4	135	135	-
T4A	120	-	-
T5	100	100	-
T6	85	85	-

ATEX Approved Product Marking

Marking of equipment must include: manufacturer's name, model number, and the Ex-marking

Ex-marking includes:

- Type of protection (db, ia, eb, tb, nA etc.)
- Group for which equipment is approved (IIA, IIB, IIIC..)
- Temperature code or maximum surface temperature (T1,T2,...T6)
- Equipment Protection Levels (Ga,Gb or Gc)
- The European Community symbol or marking for explosion-protected equipment



CABTEK INDIA **25E1FWM25 Ex II 2 GD CE 0359**

Ex db IIC Gb or Ex eb IIC Gb.....

Ex tb IIIC Db -60°C≤Ta≤+125°C IP67.....

ITS16ATEX100935X.....

IECEx ITS 16.0041X.....

In addition to displaying the Ex certification mark (e.g. ITS16ATEX100935X in above Example) which indicates that product has been tested and certified by a Notified Body, there are specific marking requirements for products under the ATEX Directive. The above example demonstrates what a product marking should look like

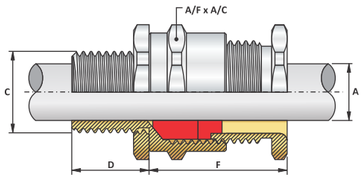
CABTEK electrical accessories

Ex

Cable Gland

A2F Ex “d” and Ex “e” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing flameproof seal on outer sheaths of all types of unarmoured cable in indoor and outdoor hazardous area.
Designed to prevent cold flow.
IECEx Certificate No. : IECEx ITS 16.0041X
ATEX Certificate No. : ITS16ATEX100935X
PESO Certificate No. : P427828/2
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Features : Displacement Seal
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer



Gland Selection Chart

Size	Standard Thread Size “C”				Optional Thread		Thread Length “D”	Cable Dia. A		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	PG	Metric	NPT		Min.	Max.			
16	16	½”	¾”	PG11	25	¾”	15.00	3.10	**8.60**	27.50	21.00	23.00
20s16	**20**	**½”**	¾”	PG11	25	¾”	15.00	3.10	**8.60**	27.50	24.00	26.20
20S	20	½”	¾”	PG13.5	25	¾”	15.00	6.10	11.70	27.30	24.00	26.20
20	20	½”	¾”	PG16	25	¾”	15.00	6.50	13.90	27.80	27.00	29.50
25	25	¾”	1"	PG21	32	1"	15.00	11.30	19.90	35.80	36.00	39.20
32	32	1"	1¼”	PG29	40	1¼”	15.00	17.00	26.20	37.90	41.00	45.00
40	40	1¼”	1½”	PG36	50	1½”	15.00	23.60	32.10	37.40	50.00	55.00
50S	50	1½”	2"	PG36	63	2"	15.00	31.50	38.20	36.00	55.00	60.00
50	50	2"	2"	PG42	63	2 ½”	15.00	35.80	44.00	38.25	60.00	65.00
63S	63	2"	2½”	PG48	75	2½”	15.00	41.70	50.00	42.50	70.00	75.00
63	63	2½”	2½”	-	75	3”	15.00	47.50	56.00	42.50	75.00	80.00
75S	75	2½”	3"	-	90	3"	15.00	55.00	62.00	48.00	85.00	90.00
75	75	3"	3”	-	90	3½”	15.00	62.00	68.00	48.00	90.00	95.00
90	90	3½”	3½”	-	100	4”	18.00	67.00	79.00	60.00	110.00	118.00
100	100	3½”	-	-	115	4"	20.00	77.00	90.20	56.00	115.00	125.00
115	115	4"	-	-	130	5”	20.00	89.00	101.4	58.00	128.00	138.00
130	130	5”	-	-	-	-	20.00	97.00	115.0	58.00	145.00	155.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	A2F	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			PG Thread-14	PCP Shroud-PC	Ingress Disc-8
			BSP Thread-15		Earth Tag-9
			Optional Metric-16		
			Optional NPT-17		
			Optional BSP-20		

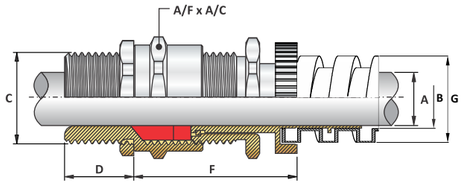
How to Order ?

Item Code: 20s16A2F 1 11 PS 5
Code Meaning: A2F-20s16 Brass Cable Gland.

20s16=Gland Size, A2F=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

A2FFC- Ex “d” Cable Gland

Size : 16mm to 50mm & ½" to 2½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Function : Providing flameproof seal on outer sheaths of all types of unarmoured cable in indoor and outdoor hazardous area with rotating flexible conduit connection facility.
Designed to prevent cold flow
ATEX Certificate No. : TI16ATEX 671-2 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Features : Displacement Seal
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. A		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Min.	Max.			
16	16	½”	¾”	25	¾”	15.00	3.10	8.60	35.75	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	3.10	8.60	35.75	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	6.10	11.70	35.25	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	6.50	13.90	36.40	27.00	29.50
25	25	¾”	1”	32	1"	15.00	11.30	19.90	45.50	36.00	39.20
32	32	1”	1¼”	40	1¼”	15.00	17.00	26.20	47.00	41.00	45.00
40	40	1¼”	1½”	50	1½”	15.00	23.60	32.10	46.90	50.00	55.00
50S	50s	1½”	2”	63	2"	15.00	31.50	38.20	49.50	55.00	60.00
50	50	2”	2”	63	2½"	15.00	35.80	44.00	49.50	60.00	65.00

Conduit Pipe Detail

Ordering Suffix	Internal Diameter of Conduit B	Max. External Diameter of Conduit G
A010	9.50	15.00
A030	11.70	17.40
A040	13.00	20.00
A045	13.90	20.00
A050	15.60	21.60
A060	14.70	21.50
A066	16.90	23.40
A070	18.00	24.00
A075	18.70	25.00
A080	20.00	26.30
A105	20.70	27.00
A110	22.30	28.50
A115	23.70	32.00
A120	25.10	31.00
A250	28.10	35.80
A280	30.40	38.00
A285	32.00	38.00
A300	36.40	45.00
A385	38.00	45.50
A450	46.50	58.70
A500	51.20	61.00
A550	51.20	61.00

Flexible Conduit Selection Table

Gland Size	Types of Conduits								
20s16	A010	A030	-	-	-	-	-	-	-
20S	A025	A040	A045	A050	A060	-	-	-	-
20	A050	A066	A070	A075	A080	A110	A120	A285	-
25	A075	A080	A105	A110	A115	A120	A250	A280	A285
32	A120	A250	A280	A290	A300	A385	-	-	-
40	A300	A450	-	-	-	-	-	-	-
50S	A450	A500	-	-	-	-	-	-	-
50	A300	A450	A550	-	-	-	-	-	-

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Ordering Suffix for Conduit	Material	Thread Type	Shroud Type	Accessories
20s16	A2FFC	A010	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
			Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
			Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
				BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
				Optional Metric-16		Earth Tag-9
				Optional NPT-17		
				Optional BSP-20		

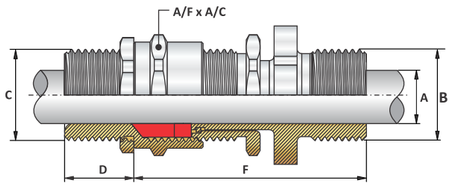
How to Order ?

Item Code : 20s16A2FFC A010 1 11 PS 5
Code Meaning : A2FFC-20s16 Brass Cable Gland with A010 Conduit

20s16=Gland Size, A2FFC=Gland Code, A010=Conduit Size
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

A2FRM- Ex “d” Cable Gland

Size	: 16mm to 90mm & ½" to 4”	**Ingress Protection**	: IP66 as per EN 60529.
Standard	: EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014	**Operating Temp.**	: -60°C to +125°C
Function	: Providing flameproof seal on outer sheaths of all types of unarmoured cable in indoor and outdoor hazardous area with rotating male rigid conduit connection facility. Designed to prevent cold flow	**Material**	: Brass CW614N/CW617N/EN12165, Stainless Steel 316L
		Thread	: Metric, NPT, BSP, ET and PG
		Features	: Displacement Seal
		Seal Material	: LSOH Silicone Seal & Nylon Washer
		Accessories	: PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer
ATEX Certificate No.	: TI16ATEX 671-2 X		
EAC Certificate No.	: TC RU C-IN.ГБ08.B.02588		
Code of Protection	: **Ex db IIC Gb, Ex tb IIIC Db**		



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Conduit Connection Thread “B”			Cable Dia. A		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Metric	NPT	BSP	Min.	Max.			
16	16	½”	¾”	25	¾”	15.00	20	½”	½”	3.10	8.60	49.25	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	20	½”	½”	3.10	8.60	49.25	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	20	½”	½”	6.10	11.70	49.00	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	20	½”	½”	6.50	13.90	49.50	27.00	29.50
25	25	¾”	1"	32	1"	15.00	25	¾”	¾”	11.30	19.90	58.00	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	17.00	26.20	60.50	41.00	45.00
40	40	1¼”	1½”	50	1½”	15.00	40	1¼”	1¼”	23.60	32.10	62.00	50.00	55.00
50S	50	1½”	2"	63	2"	15.00	50	1½”	1½”	31.50	38.20	61.50	55.00	60.00
50	50	2"	2"	63	2½”	15.00	50	1½”	1½”	35.80	44.00	63.75	60.00	65.00
63S	63	2"	2½”	75	2½”	15.00	63	2"	2"	41.70	50.00	68.50	70.00	75.00
63	63	2½”	2½”	75	3"	15.00	63	2”	2”	47.50	56.00	68.50	75.00	80.00
75S	75	2½”	3"	90	3”	15.00	75	2½”	2½”	55.00	62.00	75.00	80.00	85.00
75	75	3"	3”	90	3½”	15.00	75	2½”	2½”	62.00	68.00	75.00	85.00	90.00
90	90	3½”	3½”	100	4”	18.00	90	3"	3"	67.00	79.00	95.50	110.00	118.00

Product Code for Ordering Purpose

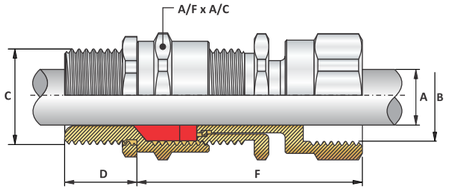
Size	Type	Material	Entry Thread Type ‘C”	Conduit Connection Thread Type “B”	Shroud Type	Accessories
20s16	A2FRM	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

Item Code : 20s16A2FRM 1 11 12 PS 5
Code Meaning : A2FRM-20s16-M20(M)-1/2”NPT(M) Brass Cable Gland with Shroud and Lock Nut

A2FRF- Ex “d” Cable Gland

Size	: 16mm to 90mm & ½" to 4”	**Ingress Protection**	: IP66 as per EN 60529.
Standard	: EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014	**Operating Temp.**	: -60°C to +125°C
Function	: Providing flameproof seal on outer sheaths of all types of unarmoured cable in indoor and outdoor hazardous area with rotating female rigid conduit connection facility. Designed to prevent cold flow	**Material**	: Brass CW614N/CW617N/EN12165, Stainless Steel 316L
		Thread	: Metric, NPT, BSP, ET and PG
		Features	: Displacement Seal
		Seal Material	: LSOH Silicone Seal & Nylon Washer
		Accessories	: PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer
ATEX Certificate No.	: TI16ATEX 671-2 X		
EAC Certificate No.	: TC RU C-IN.ГБ08.B.02588		
Code of Protection	: **Ex db IIC Gb, Ex tb IIIC Db**		



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Conduit Connection Thread “B”			Cable Dia. A		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Metric	NPT	BSP	Min.	Max.			
16	16	½”	¾”	25	¾”	15.00	20	½”	½”	3.10	8.60	45.50	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	20	½”	½”	3.10	8.60	45.50	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	20	½”	½”	6.20	11.70	45.30	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	20	½”	½”	6.50	13.90	45.80	27.00	29.50
25	25	¾”	1"	32	1"	15.00	25	¾”	¾”	11.30	19.90	54.30	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	17.00	26.20	59.40	41.00	45.00
40	40	1¼”	1½”	50	1½”	15.00	40	1¼”	1¼”	23.60	32.10	60.40	50.00	55.00
50S	50	1½”	2"	63	2"	15.00	50	1½”	1½”	31.50	38.20	61.50	55.00	60.00
50	50	2"	2"	63	2½”	15.00	50	2½”	2"	35.80	44.00	63.75	60.00	65.00
63S	63	2"	2½”	75	2½”	15.00	63	2"	2"	41.70	50.00	68.50	70.00	75.00
63	63	2½”	2½”	75	3”	15.00	63	2”	2½”	47.50	56.00	68.50	75.00	80.00
75S	75	2½”	3"	90	3"	15.00	75	2½”	2½”	55.00	62.00	75.00	80.00	85.00
75	75	3"	3”	90	3½”	15.00	75	2½”	2½”	62.00	68.00	75.00	85.00	90.00
90	90	3½”	3½”	100	4”	18.00	90	3"	3”	67.00	79.00	95.50	110.00	118.00

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type ‘C”	Conduit Connection Thread Type “B”	Shroud Type	Accessories
20s16	A2FRF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

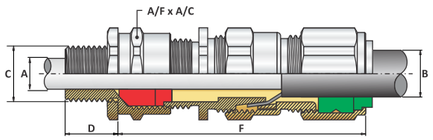
Item Code : 20s16A2FRF 1 11 12 PS 5
Code Meaning : A2FRF-20s16-M20(M)-1/2”NPT(F) Brass Cable Gland with Shroud and Lock Nut

20s16=Gland Size, A2FRF=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(B), PS= With PVC Shroud, 5=With Lock Nut.

E1FW Ex “d” and Ex “e” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Application : For indoor & outdoor hazardous area use with all types of SWA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
IECEx Certificate No. : IECEx ITS 16.0041X
ATEX Certificate No. : ITS16ATEX100935X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588

PESO Certificate No. : P427828/1
CIMFR Certificate No. : CMF 19 INEx 0033
Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armoured (SWA) Cable
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer.
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. “A”		Cable Dia. “B”		Armour Wire Dia	Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Min.	Max.	Min.	Max.				
16	16	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.9	68.90	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.9	68.90	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	6.10	11.70	9.50	15.90	0.9-1.25	68.65	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	6.50	13.90	12.50	20.90	0.9-1.25	72.15	30.00	33.00
25	25	¾”	1"	32	1”	15.00	11.30	19.90	19.90	26.20	1.25-1.6	88.35	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	17.00	26.20	23.70	33.90	1.6-2.0	91.30	46.00	50.60
40	40	1¼”	1½”	50	1½”	15.00	23.60	32.10	27.90	40.40	1.6-2.0	91.65	55.00	60.00
50S	50	1½”	2"	63	2”	15.00	31.50	38.20	35.20	46.70	2.0-2.5	92.25	60.00	65.00
50	50	2"	2"	63	2½”	15.00	35.80	44.00	40.40	53.00	2.0-2.5	97.50	70.00	75.00
63S	63	2"	2½”	75	2½”	15.00	41.70	50.00	45.60	59.40	2.0-2.5	100.75	75.00	80.00
63	63	2½”	2½”	75	3”	15.00	47.50	56.00	54.60	65.80	2.0-2.5	102.75	80.00	85.00
75S	75	2½”	3"	90	3”	15.00	55.00	62.00	59.00	72.00	2.0-2.5	114.50	90.00	95.00
75	75	3"	3”	90	3½”	15.00	62.00	68.00	66.70	78.40	2.5-3.00	116.75	100.00	110.00
90	90	3½"	3½”	100	4”	18.00	67.00	79.00	76.20	90.30	3.0-3.50	144.75	112.00	122.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	E1FW	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

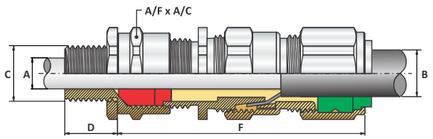
Item Code: 20s16E1FW 1 11 PS 5
Code Meaning: E1FW-20s16 Brass Cable Gland.

20s16=Gland Size, E1FW=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FX Ex “d” and Ex “e” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Application : For indoor & outdoor hazardous area use with all types of STA/ASA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
IECEx Certificate No. : IECEx ITS 16.0041X
ATEX Certificate No. : ITS16ATEX100935X
PESO Certificate No. : P427828/1
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588

Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
CIMFR Certificate No. : CMF 19 INEx 0033
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Wire Braid Armour, Screened Flexible Wire Braid (CY/SY), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Aluminium Strip Armour (ASA)
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. “A”		Cable Dia. “B”		Armour Wire Dia	Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Min.	Max.	Min.	Max.				
16	16	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.3-1.0	68.90	24.00	26.00
20s16	20	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.3-1.0	68.90	24.00	26.00
20S	20	½”	¾”	25	¾”	15.00	6.10	11.70	9.50	15.90	0.3-1.0	68.65	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	6.50	13.90	12.50	20.90	0.4-1.0	72.15	30.00	33.00
25	25	¾”	1"	32	1”	15.00	11.30	19.90	19.90	26.20	0.4-1.2	88.35	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	17.00	26.20	23.70	33.90	0.4-1.2	91.30	46.00	50.60
40	40	1¼”	1½”	50	1½”	15.00	23.60	32.10	27.90	40.40	0.4-1.6	91.65	55.00	60.00
50S	50	1½”	2"	63	2”	15.00	31.50	38.20	35.20	46.70	0.4-1.6	92.25	60.00	65.00
50	50	2"	2"	63	2½”	15.00	35.80	44.00	40.40	53.00	0.6-1.6	97.50	70.00	75.00
63S	63	2"	2½”	75	2½”	15.00	41.70	50.00	45.60	59.40	0.6-1.6	100.75	75.00	80.00
63	63	2½”	2½”	75	3”	15.00	47.50	56.00	54.60	65.80	0.6-1.6	102.75	80.00	85.00
75S	75	2½”	3"	90	3”	15.00	55.00	62.00	59.00	72.00	0.6-1.6	114.50	90.00	95.00
75	75	3"	3”	90	3½”	15.00	62.00	68.00	66.70	78.40	0.6-1.6	116.75	100.00	110.00
90	90	3½"	3½”	100	4”	18.00	67.00	79.00	76.20	90.30	0.8-1.6	144.75	112.00	122.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	E1FX	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

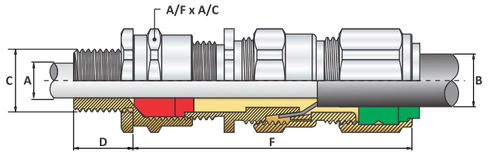
Item Code: 20s16E1FX 1 11 PS 5
Code Meaning: E1FX-20s16 Brass Cable Gland.

20s16=Gland Size, E1FX=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FU Ex “d” and Ex “e” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Application : For indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
PESO Certificate No. : P427828/1
CIMFR Certificate No. : CMF 19 INEx 0033

Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer.
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. “A”		Cable Dia. “B”		Armour Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT		Min.	Max.	Min.	Max.	Wire Armour (W)	Strip Armour (X)			
16	16	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.9	0.3-1.0	68.90	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	3.10	8.60	6.10	13.10	0.9	0.3-1.0	68.90	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	6.10	11.70	9.50	15.90	0.9-1.25	0.3-1.0	68.65	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	6.50	13.90	12.50	20.90	0.9-1.25	0.4-1.0	72.15	30.00	33.00
25	25	¾”	1"	32	1”	15.00	11.30	19.90	19.90	26.20	1.25-1.6	0.4-1.2	88.35	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	17.00	26.20	23.70	33.90	1.6-2.0	0.4-1.2	91.30	46.00	50.60
40	40	1¼”	1½”	50	1½”	15.00	23.60	32.10	27.90	40.40	1.6-2.0	0.4-1.6	91.65	55.00	60.00
50S	50	1½”	2"	63	2”	15.00	31.50	38.20	35.20	46.70	2.0-2.5	0.4-1.6	92.25	60.00	65.00
50	50	2"	2"	63	2½”	15.00	35.80	44.00	40.40	53.00	2.0-2.5	0.6-1.6	97.50	70.00	75.00
63S	63	2"	2½”	75	2½”	15.00	41.70	50.00	45.60	59.40	2.0-2.5	0.6-1.6	100.75	75.00	80.00
63	63	2½”	2½”	75	3”	15.00	47.50	56.00	54.60	65.80	2.0-2.5	0.6-1.6	102.75	80.00	85.00
75S	75	2½”	3"	90	3”	15.00	55.00	62.00	59.00	72.00	2.0-2.5	0.6-1.6	114.50	90.00	95.00
75	75	3"	3”	90	3½”	15.00	62.00	68.00	66.70	78.40	2.5-3.00	0.6-1.6	116.75	100.00	110.00
90	90	3½"	3½”	100	4”	18.00	67.00	79.00	76.20	90.30	3.0-3.50	0.8-1.6	144.75	112.00	122.00
100	100	3½”	-	115	4”	20.00	77.00	90.20	89.00	101.4	3.15-4.0	0.8-1.6	144.00	124.00	134.00
115	115	4"	-	130	5”	20.00	89.00	101.4	101.0	111.0	3.15-4.0	0.8-1.6	156.00	134.00	145.00
130	130	5"	-	-	-	20.00	97.00	115.0	114.0	123.0	3.15-4.0	0.8-1.6	156.00	145.00	155.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	E1FU	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

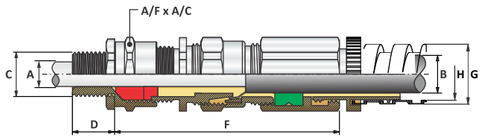
Item Code: 20s16E1FU 1 11 PS 5
Code Meaning: E1FU-20s16 Brass Cable Gland.

20s16=Gland Size, E1FU=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FWFC Ex “d” Cable Gland

Size : 16mm to 50mm & ½" to 1½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of SWA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating flexible conduit connection facility. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588

Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armoured (SWA) Cable
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for W type		Cable Dia.			
										Bedding Dia."A"		Overall Dia."B"	
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT/ BSP	Min.	Max.	Min.	Max.	Min.	Max.
16	M16	½"	¾”	15.00	15.00	M25	¾”	0.90	0.90	3.10	8.60	6.10	13.10
20s16	M20	½”	¾”	15.00	15.00	M25	¾”	0.90	0.90	3.10	8.60	6.10	13.10
20s	M20	½”	¾”	15.00	15.00	M25	¾”	0.90	1.25	6.20	11.70	9.50	15.90
20	M20	½”	¾”	15.00	15.00	M25	¾”	0.90	1.25	6.50	13.90	12.50	20.90
25	M25	¾”	1"	15.00	15.00	M32	1"	1.25	1.60	11.30	19.90	19.90	26.20
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	1.60	2.00	17.00	26.20	23.70	33.90
40	M40	1¼"	1½”	15.00	15.00	M50	1½”	1.60	2.00	23.60	32.10	27.90	40.40
50s	M50	1½”	2"	15.00	15.00	M63	2"	2.00	2.50	31.50	38.20	35.20	46.70
50	M50	2”	2"	15.00	15.00	M63	2½”	2.00	2.50	35.80	44.00	40.40	53.00

Flexible Conduit Selection Table

Gland Size	Types of Conduits							
20s16	A010	A030	A045	A060	A066	-	-	-
20S	A050	A066	A070	A080	-	-	-	-
20	A050	A066	A070	A075	A080	A110	A120	A285
25	A105	A110	A115	A120	A250	A280	A300	A285
32	A250	A280	A300	A385	-	-	-	-
40	A300	A450	-	-	-	-	-	-
50S	A450	A500	A550	-	-	-	-	-
50	A450	A500	A550	-	-	-	-	-

Also available as per customer requirement

Conduit Pipe Detail

Ordering Suffix	Internal Diameter of Conduit H	Max. External Diameter of Conduit G
A010	9.50	15.00
A030	11.70	17.40
A040	13.00	20.00
A045	13.90	20.00
A050	15.60	21.60
A060	14.70	21.50
A066	16.90	23.40
A070	18.00	24.00
A075	18.70	25.00
A080	20.00	26.30
A105	20.70	27.00
A110	22.30	28.50
A115	23.70	32.00
A120	25.10	31.00
A250	28.10	35.80
A280	30.40	38.00
A285	32.00	38.00
A300	36.40	45.00
A385	38.00	45.50
A450	46.50	58.70
A500	51.20	61.00
A550	51.20	61.00

Product Code for Ordering Purpose

Size	Type	Ordering Suffix for Conduit	Material	Thread Type	Shroud Type	Accessories
20s16	E1FWFC	A066	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
			Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
			Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
				BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
				Optional Metric-16		Earth Tag-9
				Optional NPT-17		
				Optional BSP-20		

How to Order ?

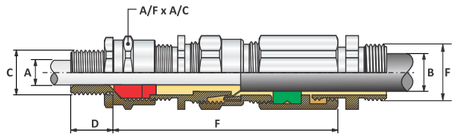
Item Code: 20s16E1FWFC-A066 1 11 PS 5
Code Meaning: E1FWFC-20s16 Brass Cable Gland with A066 Conduit

20s16=Gland Size, E1FWFC=Gland Code, A066=Conduit Size
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FWRM Ex “d” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN60079-0:2012+A11:2013, En60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of SWA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588

Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armoured (SWA) Cable
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for W type		Cable Dia.				Standard Connection Thread "F"	
										Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT	Min.	Max.	Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	16	½”	¾”	15.00	15.00	M25	¾”	0.90	0.90	3.10	8.60	6.10	13.10	M20	½”
20s16	20	½”	¾”	15.00	15.00	M25	¾”	0.90	1.25	6.20	11.70	9.50	15.90	M20	½”
20	20	½”	¾"	15.00	15.00	M25	¾”	0.90	1.25	6.50	13.90	12.50	20.90	M25	¾”
25	25	¾"	1"	15.00	15.00	M32	1"	1.25	1.60	11.30	19.90	19.90	26.20	M32	1"
32	32	1"	1¼"	15.00	15.00	M40	1¼"	1.60	2.00	17.00	26.20	23.70	33.90	M40	1¼"
40	40	1¼"	1½"	15.00	15.00	M50	1½"	1.60	2.00	23.60	32.10	27.90	40.40	M50	1½”
50s	50	1½"	2"	15.00	15.00	M63	2"	2.00	2.50	31.50	38.20	35.20	46.70	M63	2"
50	50	2"	2"	15.00	15.00	M63	2½”	2.00	2.50	35.80	44.00	40.40	53.00	M63	2"
63s	63	2"	2½"	15.00	15.00	M75	2½”	2.00	2.50	41.70	50.00	45.60	59.40	M75	2½”
63	63	2½"	2½"	15.00	15.00	M75	3"	2.00	2.50	47.50	56.00	54.60	65.80	M75	2½”
75s	75	2½"	3"	15.00	15.00	M90	3"	2.00	2.50	55.00	62.00	59.00	72.00	M90	3"
75	75	3"	3"	15.00	15.00	M90	3½”	2.50	3.00	62.00	68.00	66.70	78.40	M90	3"
90	90	3½"	3½"	18.00	18.00	M100	4"	3.00	3.50	67.00	79.00	76.20	90.30	M100	3½”

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type ‘C”	Conduit Connection Thread Type “F”	Shroud Type	Accessories
20s16	E1FWRM	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

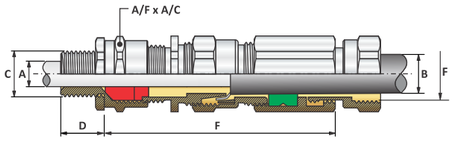
Item Code: 20s16E1FWRM1 11 12 PS 5
Code Meaning: E1FWRM-20s16-M20(M)-1/2”NPT(M) Brass Cable Gland.

20s16=Gland Size, E1FWRM=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F), PS= With PVC Shroud, 5=With Lock Nut.

E1FWRF Ex “d” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of SWA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588

Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armoured (SWA) Cable
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for W type		Cable Dia.				Standard Connection Thread "F"	
										Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT/ BSP	Min.	Max.	Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	M16	½"	¾”	15.00	15.00	M25	¾”	0.90	0.90	3.10	8.60	6.10	13.10	M20	½”
20s16	M20	½"	¾”	15.00	15.00	M25	¾”	0.90	0.90	3.10	8.60	6.10	13.10	M20	½”
20s	M20	½”	¾”	15.00	15.00	M25	¾”	0.90	1.25	6.20	11.70	9.50	15.90	M20	½”
20	M20	½”	¾”	15.00	15.00	M25	¾"	0.90	1.25	6.50	13.90	12.50	20.90	M25	¾”
25	M25	¾"	1"	15.00	15.00	M32	1"	1.25	1.60	11.30	19.90	19.90	26.20	M32	1"
32	M32	1"	1¼”	15.00	15.00	M40	1¼"	1.60	2.00	17.00	26.20	23.70	33.90	M40	1¼"
40	M40	1¼"	1½”	15.00	15.00	M50	1½”	1.60	2.00	23.60	32.10	27.90	40.40	M50	1½”
50s	M50	1½"	2"	15.00	15.00	M63	2"	2.00	2.50	31.50	38.20	35.20	46.70	M50	2"
50	M50	2"	2"	15.00	15.00	M63	2½”	2.00	2.50	35.80	44.00	40.40	53.00	M63	2"
63s	M63	2"	2½”	15.00	15.00	M75	2½”	2.00	2.50	41.70	50.00	45.60	59.40	M63	2½”
63	M63	2½”	2½”	15.00	15.00	M75	3"	2.00	2.50	47.50	56.00	54.60	65.80	M75	2½”
75s	M75	2½”	3"	15.00	15.00	M90	3"	2.00	2.50	55.00	62.00	59.00	72.00	M90	3"
75	M75	3"	3"	15.00	15.00	M90	3½"	2.50	3.00	62.00	68.00	66.70	78.40	M90	3"
90	M90	3½”	3½”	18.00	18.00	M100	4"	3.00	3.50	67.00	79.00	76.20	90.30	M100	3½”

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type ‘C”	Conduit Connection Thread Type “F”	Shroud Type	Accessories
20s16	E1FWRF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

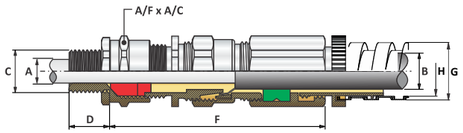
Item Code: 20s16E1FWRF1 11 12 PS 5
Code Meaning: E1FWRF-20s16-M20(M)-1/2”NPT(F) Brass Cable Gland.

20s16=Gland Size, E1FWRF=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F), PS= With PVC Shroud, 5=With Lock Nut.

E1FXFC Ex “d” Cable Gland

Size : 16mm to 50mm & ½" to 1½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of STA/ASA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating flexible conduit connection facility.
Designed to prevent cold flow.
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Wire Braid Armour, Screened Flexible Wire Braid (CY/SY), Pliable Wire Armour (PWA), Steel Tape Armour(STA), Aluminium Strip Armour (ASA)
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for X type		Cable Dia.			
										Bedding Dia."A"		Overall Dia."B"	
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT	Min.	Max.	Min.	Max.	Min.	Max.
16	M16	½"	¾”	15.00	15.00	M25	¾”	0.30	1.00	3.10	8.60	6.10	13.10
20s16	M20	½”	¾”	15.00	15.00	M25	¾”	0.30	1.00	3.10	8.60	6.10	13.10
20s	M20	½”	¾”	15.00	15.00	M25	¾”	0.30	1.00	6.20	11.70	9.50	15.90
20	M20	½”	¾”	15.00	15.00	M25	¾”	0.40	1.00	6.50	13.90	12.50	20.90
25	M25	¾”	1"	15.00	15.00	M32	1"	0.40	1.20	11.30	19.90	19.90	26.20
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	0.40	1.20	17.00	26.20	23.70	33.90
40	M40	1¼”	1½”	15.00	15.00	M50	1½”	0.40	1.60	23.60	32.10	27.90	40.40
50s	M50	1½”	2"	15.00	15.00	M63	2"	0.40	1.60	31.50	38.20	35.20	46.70
50	M50	2”	2"	15.00	15.00	M63	2½”	0.60	1.60	35.80	44.00	40.40	53.00

Conduit Pipe Detail

Ordering Suffix	Internal Diameter of Conduit B	Max. External Diameter of Conduit G
A010	9.50	15.00
A030	11.70	17.40
A040	13.00	20.00
A045	13.90	20.00
A050	15.60	21.60
A060	14.70	21.50
A066	16.90	23.40
A070	18.00	24.00
A075	18.70	25.00
A080	20.00	26.30
A105	20.70	27.00
A110	22.30	28.50
A115	23.70	32.00
A120	25.10	31.00
A250	28.10	35.80
A280	30.40	38.00
A285	32.00	38.00
A300	36.40	45.00
A385	38.00	45.50
A450	46.50	58.70
A500	51.20	61.00
A550	51.20	61.00

Flexible Conduit Selection Table

Gland Size	Types of Conduits								
20s16	A010	A030	-	-	-	-	-	-	-
20S	A025	A040	A045	A050	A060	-	-	-	-
20	A050	A066	A070	A075	A080	A110	A120	A285	-
25	A075	A080	A105	A110	A115	A120	A250	A280	A285
32	A120	A250	A280	A290	A300	A385	-	-	-
40	A300	A450	-	-	-	-	-	-	-
50S	A450	A500	-	-	-	-	-	-	-
50	A300	A450	A550	-	-	-	-	-	-

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Ordering Suffix for Conduit	Material	Thread Type	Shroud Type	Accessories
20s16	E1FXFC	A066	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
			Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
			Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
				BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
				Optional Metric-16		Earth Tag-9
				Optional NPT-17		
				Optional BSP-20		

How to Order ?

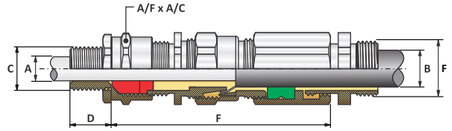
Item Code: 20s16E1FXFC-A066 1 11 PS 5
Code Meaning: E1FXFC-20s16 Brass Cable Gland with A066 Conduit

20s16=Gland Size, E1FXFC=Gland Code, A066=Conduit Size
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FXRM Ex “d” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of STA/ASA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Wire Braid Armour, Screened Flexible Wire Braid (CY/SY), Pliable Wire Armour (PWA), Steel Tape Armour(STA), Aluminium Strip Armour (ASA)
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for X Type		Cable Dia.				Standard Connection Thread "F"	
										Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT/ BSP	Min.	Max.	Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	M16	½"	¾”	15.00	15.00	M25	¾”	0.30	1.00	3.10	8.60	6.10	13.10	M20	½”
20s16	M20	½"	¾”	15.00	15.00	M25	¾”	0.30	1.00	3.10	8.60	6.10	13.10	M20	½”
20s	M20	½”	¾”	15.00	15.00	M25	¾”	0.30	1.00	6.20	11.70	9.50	15.90	M20	½”
20	M20	½”	¾”	15.00	15.00	M25	¾”	0.40	1.00	6.50	13.90	12.50	20.90	M25	¾”
25	M25	¾"	1"	15.00	15.00	M32	1"	0.40	1.20	11.30	19.90	19.90	26.20	M32	1"
32	M32	1"	1¼”	15.00	15.00	M40	1¼”	0.40	1.20	17.00	26.20	23.70	33.90	M40	1¼"
40	M40	1¼"	1½”	15.00	15.00	M50	1½”	0.40	1.60	23.60	32.10	27.90	40.40	M50	1½”
50s	M50	1½”	2"	15.00	15.00	M63	2"	0.40	1.60	31.50	38.20	35.20	46.70	M63	2"
50	M50	2"	2"	15.00	15.00	M63	2½”	0.60	1.60	35.80	44.00	40.40	53.00	M63	2"
63s	M63	2"	2½”	15.00	15.00	M75	2½”	0.60	1.60	41.70	50.00	45.60	59.40	M75	2½”
63	M63	2½”	2½”	15.00	15.00	M75	3"	0.60	1.60	47.50	56.00	54.60	65.80	M75	2½”
75s	M75	2½”	3"	15.00	15.00	M90	3"	0.60	1.60	55.00	62.00	59.00	72.00	M90	3"
75	M75	3"	3"	15.00	15.00	M90	3½"	0.60	1.60	62.00	68.00	66.70	78.40	M90	3"
90	M90	3½”	3½"	18.00	18.00	M100	4"	0.80	1.00	67.00	79.00	76.20	90.30	M100	3½”

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type“C”	Standard Connection Thread Type “F”	Shroud Type	Accessories
20s16	E1FXRM	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

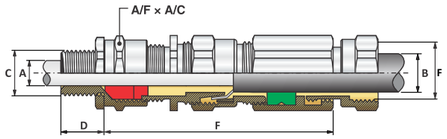
Item Code : 20s16E1FXRM 1 11 12 PS 5
Code Meaning : E1FXRM-20s16-M20(M)-1/2”NPT(M) Brass Cable Gland with M20 Standard Connection Fittings

20s16=Gland Size, E1FXRM=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F),
PS= With PVC Shroud, 5=With Lock Nut.

E1FXRF Ex “d” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of STA/ASA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
ATEX Certificate No. : TI16ATEX 671-3 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Wire Braid Armour, Screened Flexible Wire Braid (CY/SY), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Aluminium Strip Armour (ASA)
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Optional Thread "C"		Armoured Wire Diameter for X		Cable Dia.				Standard Connection Thread "F"	
										Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT/ BSP	Min.	Max.	Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	M16	½"	¾"	15.00	15.00	M25	¾"	0.30	1.00	3.10	8.60	6.10	13.10	M20	½"
20s16	M20	½"	¾"	15.00	15.00	M25	¾"	0.30	1.00	3.10	8.60	6.10	13.10	M20	½"
20s	M20	½"	¾"	15.00	15.00	M25	¾"	0.30	1.00	6.20	11.70	9.50	15.90	M20	½"
20	M20	½"	¾"	15.00	15.00	M25	¾"	0.40	1.00	6.50	13.90	12.50	20.90	M25	¾"
25	M25	¾"	1"	15.00	15.00	M32	1"	0.40	1.20	11.30	19.90	19.90	26.20	M32	1"
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	0.40	1.20	17.00	26.20	23.70	33.90	M40	1¼"
40	M40	1¼"	1½"	15.00	15.00	M50	1½"	0.40	1.60	23.60	32.10	27.90	40.40	M50	1½"
50s	M50	1½"	2"	15.00	15.00	M63	2"	0.40	1.60	31.50	38.20	35.20	46.70	M50	2"
50	M50	2"	2"	15.00	15.00	M63	2½"	0.60	1.60	35.80	44.00	40.40	53.00	M63	2"
63s	M63	2"	2½"	15.00	15.00	M75	2½"	0.60	1.60	41.70	50.00	45.60	59.40	M63	2½"
63	M63	2½"	2½"	15.00	15.00	M75	3"	0.60	1.60	47.50	56.00	54.60	65.80	M75	2½"
75s	M75	2½"	3"	15.00	15.00	M90	3"	0.60	1.60	55.00	62.00	59.00	72.00	M90	3"
75	M75	3"	3"	15.00	15.00	M90	3½"	0.60	1.60	62.00	68.00	66.70	78.40	M90	3"
90	M90	3½"	3½"	18.00	18.00	M100	4"	0.80	1.60	67.00	79.00	76.20	90.30	M100	3½"

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type “C”	Standard Connection Thread Type “F”	Shroud Type	Accessories
20s16	E1FXRF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

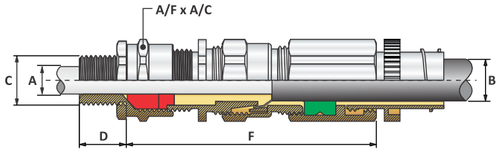
Item Code : 20s16E1FXRF 1 11 12 PS 5
Code Meaning : E1FXRF-20s16-M20(M)-1/2”NPT(F) Brass Cable Gland with M20 Standard Connection Fittings

20s16=Gland Size, E1FXRF=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F),
PS= With PVC Shroud, 5=With Lock Nut.

E1FUFC Ex “d” Cable Gland

Size : 16mm to 50mm & ½" to 1½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating flexible conduit connection facility.
Designed to prevent cold flow.
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Entry Optional Thread "C"		Armoured Range		Cable Dia.			
								Wire Armour (W)	Strip Armour (X)	Bedding Dia."A"		Overall Dia."B"	
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT			Min.	Max.	Min.	Max.
16	M16	½"	¾"	15.00	15.00	M25	¾"	0.90	0.30-1.00	3.10	8.60	6.10	13.10
20s16	M20	½"	¾"	15.00	15.00	M25	¾"	0.90	0.30-1.00	3.10	8.60	6.10	13.10
20s	M20	½"	¾"	15.00	15.00	M25	¾"	0.90-1.25	0.30-1.00	6.20	11.70	9.50	15.90
20	M20	½"	¾"	15.00	15.00	M25	¾"	0.90-1.25	0.40-1.00	6.50	13.90	12.50	20.90
25	M25	¾"	1"	15.00	15.00	M32	1"	1.25-1.60	0.40-1.20	11.30	19.90	19.90	26.20
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	1.60-2.00	0.40-1.20	17.00	26.20	23.70	33.90
40	M40	1¼"	1½"	15.00	15.00	M50	1½"	1.60-2.00	0.40-1.60	23.60	32.10	27.90	40.40
50s	M50	1½"	2"	15.00	15.00	M63	2"	2.00-2.50	0.40-1.60	31.50	38.20	35.20	46.70
50	M50	2"	2"	15.00	15.00	M63	2½"	2.00-2.50	0.60-1.60	35.80	44.00	40.40	53.00

Conduit Pipe Detail

Ordering Suffix	Internal Diameter of Conduit B	Max. External Diameter of Conduit G
A010	9.50	15.00
A030	11.70	17.40
A040	13.00	20.00
A045	13.90	20.00
A050	15.60	21.60
A060	14.70	21.50
A066	16.90	23.40
A070	18.00	24.00
A075	18.70	25.00
A080	20.00	26.30
A105	20.70	27.00
A110	22.30	28.50
A115	23.70	32.00
A120	25.10	31.00
A250	28.10	35.80
A280	30.40	38.00
A285	32.00	38.00
A300	36.40	45.00
A385	38.00	45.50
A450	46.50	58.70
A500	51.20	61.00
A550	51.20	61.00

Flexible Conduit Selection Table

Gland Size	Types of Conduits							
20s16	A010	A030	A045	A060	A066	-	-	-
20S	A050	A066	A070	A080	-	-	-	-
20	A050	A066	A070	A075	A080	A110	A120	A285
25	A105	A110	A115	A120	A250	A280	A285	A300
32	A250	A280	A300	A385	-	-	-	-
40	A300	A450	-	-	-	-	-	-
50S	A450	A500	A550	-	-	-	-	-
50	A450	A500	A550	-	-	-	-	-

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Ordering Suffix for Conduit	Material	Thread Type	Shroud Type	Accessories
20s16	E1FUFC	A066	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
			Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
			Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
				BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
				Optional Metric-16		Earth Tag-9
				Optional NPT-17		
				Optional BSP-20		

How to Order ?

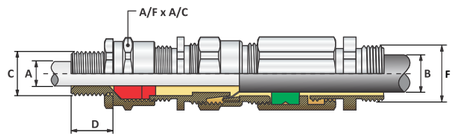
Item Code : 20s16E1FUFC-A066 1 11 PS 5
Code Meaning : E1FUFC-20s16 Brass Cable Gland with A066 Conduit

20s16=Gland Size, E1FUFC=Gland Code, A066=Conduit Size
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

E1FURM Ex "d" Cable Gland

Size : 16mm to 90mm & ½" to 3½"
Standard : EN60079-0:2012+A11:2013, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility.
Designed to prevent cold flow.
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer.
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Entry Optional Thread "C"		Armour Range		Cable Dia.				Standard Connection Thread "F"	
								Wire Armour (W)	Strip Armour (X)	Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT			Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	M16	½"	¾"	15.00	15.00	M25	¾"	0.9	0.3-1.0	3.10	8.60	6.10	13.10	M20	½"
20s16	M20	½"	¾"	15.00	15.00	M25	¾"	0.9	0.3-1.0	3.10	8.60	6.10	13.10	M20	½"
20s	M20	½"	¾"	15.00	15.00	M25	¾"	0.9-1.25	0.3-1.0	6.20	11.70	9.50	15.90	M20	½"
20	M20	½"	¾"	15.00	15.00	M25	¾"	0.9-1.25	0.4-1.0	6.50	13.90	12.50	20.90	M25	¾"
25	M25	¾"	1"	15.00	15.00	M32	1"	1.25-1.6	0.4-1.2	11.30	19.90	19.90	26.20	M32	1"
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	1.6-2.0	0.4-1.2	17.00	26.20	23.70	33.90	M40	1¼"
40	M40	1¼"	1½"	15.00	15.00	M50	1½"	1.6-2.0	0.4-1.6	23.60	32.10	27.90	40.40	M50	1½"
50s	M50	1½"	2"	15.00	15.00	M63	2"	2.0-2.5	0.4-1.6	31.50	38.20	35.20	46.70	M63	2"
50	M50	2"	2"	15.00	15.00	M63	2½"	2.0-2.5	0.6-1.6	35.80	44.00	40.40	53.00	M63	2"
63s	M63	2"	2½"	15.00	15.00	M75	2½"	2.0-2.5	0.6-1.6	41.70	50.00	45.60	59.40	M75	2½"
63	M63	2½"	2½"	15.00	15.00	M75	3"	2.0-2.5	0.6-1.6	47.50	56.00	54.60	65.80	M75	2½"
75s	M75	2½"	3"	15.00	15.00	M90	3"	2.0-2.5	0.6-1.6	55.00	62.00	59.00	72.00	M90	3"
75	M75	3"	3"	15.00	15.00	M90	3½"	2.5-3.00	0.6-1.6	62.00	68.00	66.70	78.40	M90	3"
90	M90	3½"	3½"	18.00	18.00	M100	4"	3.0-3.50	0.8-1.6	67.00	79.00	76.20	90.30	M100	3½"

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type "C"	Standard Connection Thread Type "F"	Shroud Type	Accessories
20s16	E1FURM	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

Item Code : 20s16E1FURM 1 11 12 PS 5
Code Meaning : E1FURM-20s16-M20(M)-1/2"NPT(M) Brass Cable Gland with M20 Standard Connection Fittings

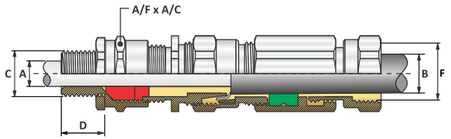
20s16=Gland Size, E1FURM=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F),
PS= With PVC Shroud, 5=With Lock Nut.

CABTEK electrical accessories

E1FURF Ex "d" Cable Gland

Size : 16mm to 90mm & ½" to 3½"
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Application : For indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination with rotating rigid conduit connection facility.
Designed to prevent cold flow.
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Serrated Washer



Gland Selection Chart

Size	Standard Entry Thread "C"			Entry Thread Length"D"		Entry Optional Thread "C"		Armour Range		Cable Dia.				Standard Connection Thread "F"	
								Wire Armour (W)	Strip Armour (X)	Bedding Dia."A"		Overall Dia."B"			
	Metric	NPT/BSP	ET	Metric	NPT	Metric	NPT			Min.	Max.	Min.	Max.	Metric	NPT/BSP(G)
16	M16	½"	¾"	15.00	15.00	M25	¾"	0.9	0.3-1.0	3.10	8.60	6.10	13.10	M20	½"
20s16	M20	½"	¾"	15.00	15.00	M25	¾"	0.9	0.3-1.0	3.10	8.60	6.10	13.10	M20	½"
20s	M20	½"	¾"	15.00	15.00	M25	¾"	0.9-1.25	0.3-1.0	6.20	11.70	9.50	15.90	M20	½"
20	M20	½"	¾"	15.00	15.00	M25	¾"	0.9-1.25	0.4-1.0	6.50	13.90	12.50	20.90	M25	¾"
25	M25	¾"	1"	15.00	15.00	M32	1"	1.25-1.6	0.4-1.2	11.30	19.90	19.90	26.20	M32	1"
32	M32	1"	1¼"	15.00	15.00	M40	1¼"	1.6-2.0	0.4-1.2	17.00	26.20	23.70	33.90	M40	1¼"
40	M40	1¼"	1½"	15.00	15.00	M50	1½"	1.6-2.0	0.4-1.6	23.60	32.10	27.90	40.40	M50	1½"
50s	M50	1½"	2"	15.00	15.00	M63	2"	2.0-2.5	0.4-1.6	31.50	38.20	35.20	46.70	M50	2"
50	M50	2"	2"	15.00	15.00	M63	2½"	2.0-2.5	0.6-1.6	35.80	44.00	40.40	53.00	M63	2"
63s	M63	2"	2½"	15.00	15.00	M75	2½"	2.0-2.5	0.6-1.6	41.70	50.00	45.60	59.40	M63	2½"
63	M63	2½"	2½"	15.00	15.00	M75	3"	2.0-2.5	0.6-1.6	47.50	56.00	54.60	65.80	M75	2½"
75s	M75	2½"	3"	15.00	15.00	M90	3"	2.0-2.5	0.6-1.6	55.00	62.00	59.00	72.00	M90	3"
75	M75	3"	3"	15.00	15.00	M90	3½"	2.5-3.00	0.6-1.6	62.00	68.00	66.70	78.40	M90	3"
90	M90	3½"	3½"	18.00	18.00	M100	4"	3.0-3.50	0.8-1.6	67.00	79.00	76.20	90.30	M100	3½"

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type"C"	Standard Connection Thread Type "F"	Shroud Type	Accessories
20s16	E1FURF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

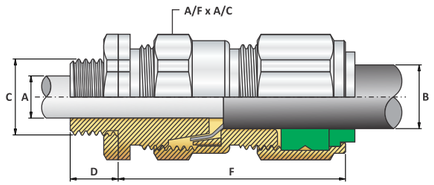
Item Code : 20s16E1FURF 1 11 12 PS 5
Code Meaning : E1FURF-20s16-M20(M)-1/2"NPT(F) Brass Cable Gland with M20 Standard Connection Fittings

20s16=Gland Size, E1FURF=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(F),
PS= With PVC Shroud, 5=With Lock Nut.

CWe Ex "e" Cable Gland

Size : 16mm to 90mm & ½" to 3½"
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing environmental seal on the cable outer sheath. Also provides mechanical cable retention & electrical continuity via armoured wire termination in indoor and outdoor hazardous area with all types of SWA cable. Designed to prevent cold flow.
IECEx Certificate No. : IECEx ITS 16.0041X
ATEX Certificate No. : ITS16ATEX100935X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
PESO Certificate No. : P427828/3

Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armoured (SWA) Cable
Seal Material : LSOH Silicone Seal & Nylon Washer
Features : Outer Compression Seal and Universal Armoured Ring
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



Gland Selection Chart

Size	Standard Thread Size "C"			Optional Thread		Thread Length "D"	Cable Dia. "A" Max.	Cable Dia. "B"		Armour Wire Dia.	Protrusion Length "F"	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP			Min.	Max.				
16	16	½"	¾"	25	¾"	15.00	8.60	6.10	13.10	0.90	47.50	24.00	26.20
20s16	20	½"	¾"	25	¾"	15.00	8.60	6.10	13.10	0.90	47.50	24.00	26.20
20S	20	½"	¾"	25	¾"	15.00	11.70	9.50	15.90	0.9-1.25	47.50	24.00	26.20
20	20	½"	¾"	25	¾"	15.00	13.90	12.50	20.90	0.9-1.25	50.50	30.00	33.00
25	25	¾"	1"	32	1"	15.00	19.90	19.90	26.20	1.25-1.60	59.20	36.00	39.20
32	32	1"	1¼"	40	1¼"	15.00	23.70	23.70	33.90	1.60-2.00	59.00	46.00	50.60
40	40	1¼"	1½"	50	1½"	15.00	32.10	27.90	40.40	1.60-2.00	61.40	55.00	60.00
50S	50	1½"	2"	63	2"	15.00	38.20	35.20	46.70	2.00-2.50	62.00	60.00	65.00
50	50	2"	2"	63	2½"	15.00	44.00	40.40	53.00	2.00-2.50	65.60	70.00	75.00
63S	63	2"	2½"	75	2½"	15.00	50.00	45.60	59.40	2.00-2.50	63.60	75.00	80.00
63	63	2½"	2½"	75	3"	15.00	56.00	54.60	65.80	2.00-2.50	66.60	80.00	85.00
75S	75	2½"	3"	90	3"	15.00	62.00	59.00	72.00	2.00-2.50	74.50	90.00	95.00
75	75	3"	3"	90	3½"	15.00	68.00	66.70	78.40	2.00-2.50	76.25	100.00	110.00
90	90	3½"	3 ½"	100	4"	18.00	79.00	76.20	90.30	3.00-3.50	97.60	112.00	122.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	CWe	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

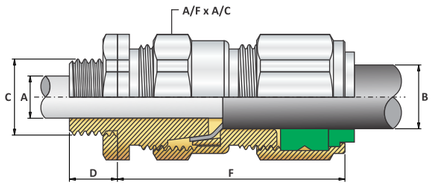
Item Code: 20s16CWe 1 11 PS 5
Code Meaning: CWe-20s16 Brass Cable Gland.

20s16=Gland Size, CWe=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

CXe Ex "e" Cable Gland

Size : 16mm to 90mm & ½" to 3½"
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing environmental seal on the cable outer sheath. Also provides mechanical cable retention & electrical continuity via armoured wire termination in indoor and outdoor hazardous area with all types of STA/ASA cable. Superior EMC performance. Deluge seal optional
IECEx Certificate No. : IECEx ITS 16.0041X
ATEX Certificate No. : ITS16ATEX100935X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
PESO Certificate No. : P427828/3

Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Wire Braid Armour, Screened Flexible Wire Braid (CY/SY), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Aluminium Strip Armour (ASA)
Seal Material : LSOH Silicone Seal & Nylon Washer
Features : Outer Compression Seal and Universal Armoured Ring
Accessories : PVC Shroud, Earth Tag, Thread Seal



Gland Selection Chart

Size	Standard Thread Size "C"			Optional Thread		Thread Length "D"	Cable Dia. "A" Max.	Cable Dia. "B"		Armour Wire Dia	Protrusion Length "F"	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT			Min.	Max.				
16	16	½"	¾"	25	¾"	15.00	8.60	6.10	13.10	0.3-1.0	47.50	24.00	26.20
20s16	20	½"	¾"	25	¾"	15.00	8.60	6.10	13.10	0.3-1.0	47.50	24.00	26.20
20S	20	½"	¾"	25	¾"	15.00	11.70	9.50	15.90	0.3-1.0	47.50	24.00	26.20
20	20	½"	¾"	25	¾"	15.00	13.90	12.50	20.90	0.4-1.0	50.50	30.00	33.00
25	25	¾"	1"	32	1"	15.00	19.90	19.90	26.20	0.4-1.2	59.20	36.00	39.20
32	32	1"	1¼"	40	1¼"	15.00	23.70	23.70	33.90	0.4-1.2	59.00	46.00	50.60
40	40	1¼"	1½"	50	1½"	15.00	32.10	27.90	40.40	0.4-1.6	61.40	55.00	60.00
50S	50	1½"	2"	63	2"	15.00	38.20	35.20	46.70	0.4-1.6	62.00	60.00	65.00
50	50	2"	2"	63	2 ½"	15.00	44.00	40.40	53.00	0.6-1.6	65.60	70.00	75.00
63S	63	2"	2½"	75	2½"	15.00	50.00	45.60	59.40	0.6-1.6	63.60	75.00	80.00
63	63	2½"	2½"	75	3"	15.00	56.00	54.60	65.80	0.6-1.6	66.60	80.00	85.00
75S	75	2½"	3"	90	3"	15.00	62.00	59.00	72.00	0.6-1.6	74.50	90.00	95.00
75	75	3"	3"	90	3½"	15.00	68.00	66.70	78.40	0.6-1.6	76.25	100.00	110.00
90	90	3½"	3 ½"	100	4"	18.00	79.00	76.20	90.30	0.8-1.6	97.60	112.00	122.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	CXe	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

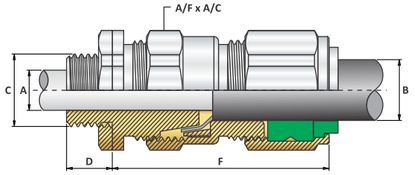
Item Code: 20s16CXe 1 11 PS 5
Code Meaning: CXe-20s16 Brass Cable Gland.

20s16=Gland Size, CXe=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

CUe Ex “e” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing environmental seal on the cable outer sheath. Also provides mechanical cable retention & electrical continuity via armoured wire termination in indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
PESO Certificate No. : P427828/3

Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**
Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Seal Material : LSOH Silicone Seal & Nylon Washer
Features : Outer Compression Seal and Universal Armoured Ring
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. “A” Max.	Cable Dia. “B”		Armoured Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT			Min.	Max.	Wire Armour (W)	Strip Armour (X)			
16	16	½”	¾”	25	¾”	15.00	8.60	6.10	13.10	0.90	0.3-1.0	47.50	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	8.60	6.10	13.10	0.90	0.3-1.0	47.50	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	11.70	9.50	15.90	0.9-1.25	0.3-1.0	47.50	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	13.90	12.50	20.90	0.9-1.25	0.4-1.0	50.50	30.00	33.00
25	25	¾”	1"	32	1"	15.00	19.90	19.90	26.20	1.25-1.60	0.4-1.2	59.20	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	23.70	23.70	33.90	1.60-2.00	0.4-1.2	59.00	46.00	50.60
40	40	1¼”	1½”	50	1½”	15.00	32.10	27.90	40.40	1.60-2.00	0.4-1.6	61.40	55.00	60.00
50S	50	1½”	2"	63	2"	15.00	38.20	35.20	46.70	2.00-2.50	0.4-1.6	62.00	60.00	65.00
50	50	2"	2"	63	2½”	15.00	44.00	40.40	53.00	2.00-2.50	0.6-1.6	65.60	70.00	75.00
63S	63	2"	2½”	75	2½”	15.00	50.00	45.60	59.40	2.00-2.50	0.6-1.6	63.60	75.00	80.00
63	63	2½”	2½”	75	3”	15.00	56.00	54.60	65.80	2.00-2.50	0.6-1.6	66.60	80.00	85.00
75S	75	2½”	3"	90	3"	15.00	62.00	59.00	72.00	2.00-2.50	0.6-1.6	74.50	90.00	95.00
75	75	3"	3”	90	3½”	15.00	68.00	66.70	78.40	2.00-2.50	0.6-1.6	76.25	100.00	110.00
90	90	3½”	3 ½”	100	4”	18.00	79.00	76.20	90.30	3.00-3.50	0.8-1.6	97.60	112.00	122.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	CUe	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

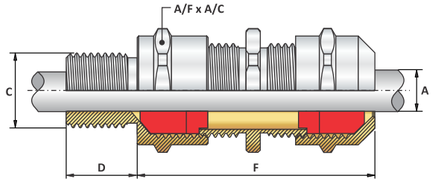
Item Code: 20s16CUe 1 11 PS 5
Code Meaning: CUe-20s16 Brass Cable Gland.

20s16=Gland Size, CUe=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

SS2KGP Ex “d” Cable Gland

Size : 16mm to 90mm & ½" to 3½”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Function : Providing flameproof seal on cable inner & outer sheath, and a secondary environmental seal on cable outer sheath in indoor and outdoor hazardous area. Designed to prevent cold flow.
ATEX Certificate No. : TI16ATEX 671-1 X
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Features : Displacement Seal
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Dia. “A”		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT/BSP		Min.	Max.			
16	16	½”	¾”	25	¾”	15.00	3.10	8.60	61.60	24.00	26.20
20s16	20	½”	¾”	25	¾”	15.00	3.10	8.60	61.60	24.00	26.20
20S	20	½”	¾”	25	¾”	15.00	6.20	11.70	60.85	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	6.50	13.90	61.35	27.00	29.50
25	25	¾”	1"	32	1"	15.00	11.30	19.90	75.75	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	17.00	26.20	79.80	41.00	45.00
40	40	1¼”	1½”	50	1½”	15.00	23.60	32.10	76.10	50.00	55.00
50S	50	1½”	2"	63	2"	15.00	31.50	38.20	79.00	55.00	60.00
50	50	2"	2"	63	2½”	15.00	35.80	44.00	81.35	60.00	65.00
63S	63	2"	2½”	75	2½”	15.00	41.70	50.00	88.00	70.00	75.00
63	63	2½”	2½”	75	3"	15.00	47.50	56.00	88.00	75.00	80.00
75S	75	2½”	3"	90	3"	15.00	55.00	62.00	94.00	80.00	85.00
75	75	3"	3”	90	3½”	15.00	62.00	68.00	94.00	85.00	90.00
90	90	3½”	3½”	100	4”	18.00	67.00	79.00	114.00	110.00	118.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	SS2KGP	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

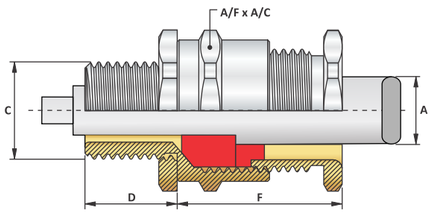
Item Code: 20s16SS2KGP 1 11 PS 5
Code Meaning: SS2KGP-20s16 Brass Cable Gland.

20s16=Gland Size, SS2KGP=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

A2FFF- Ex “d” Cable Gland

Size : 20mm to 32mm & ½" to 1”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing flameproof seal on outer sheaths of Flat Form Unarmoured & Braid Armour cable in indoor and outdoor hazardous area. Designed to prevent cold flow.
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Features : Displacement Seal
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer



For Sizes : 20s, 20, 20R, 25 & 25R

For Sizes : 25s

For Sizes : 32s & 32

Gland Selection Chart

Size	Standard Thread Size “C”			Thread Length “D”	Cable Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET		Min.	Max.			
20s	20	½”	¾”	15.00	4.0x6.2	6.8x11.7	27.30	24.00	26.20
20	20	½”	¾”	15.00	5.7x8.0	8.7x13.5	27.80	27.00	29.50
20R	20	½”	¾”	15.00	4.8x8.1	6.2x13.5	27.80	27.00	29.50
25s	25	¾”	1"	15.00	4.0x6.2	6.8x11.7	35.80	36.00	39.20
25	25	¾”	1"	15.00	5.7x8.0	8.7x13.5	35.80	36.00	39.20
25R	25	¾”	1"	15.00	4.0x10.6	7.0x16.2	35.80	36.00	39.20
32s	32	1"	1¼”	15.00	4.0x6.2	6.8x11.7	37.90	41.00	45.00
32	32	1"	1¼”	15.00	5.7x8.0	8.7x13.5	37.90	41.00	45.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s	A2FFF	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

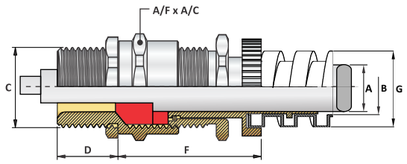
Item Code: 20sA2FFF 1 11 PS 5
Code Meaning: A2FFF-20s Brass Cable Gland.

20s=Gland Size, A2FFF=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

A2FFFC- Ex “d” Cable Gland

Size : 20mm to 32mm & ½" to 1”
Standard : EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014
Function : Providing flameproof seal on outer sheaths of Flat Form Unarmoured & Braid Armour cable in indoor and outdoor hazardous area with rotating flexible conduit connection facility. Designed to prevent cold flow.
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP66 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Features : Displacement Seal
Seal Material : LSOH Silicone Seal & Nylon Washer
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer



For Sizes : 20s, 20, 20R, 25 & 25R

For Sizes : 25s

For Sizes : 32s & 32

Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Range A		Protrusion Length “F”	A/F	A/C
	Metric	NPT	ET	Metric	NPT		Min.	Max.			
20S	20	½”	¾”	25	¾”	15.00	4.0x6.2	6.8x11.7	35.25	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	5.7x8.0	8.7x13.5	36.40	27.00	29.50
20R	20	½”	¾”	25	¾”	15.00	4.8x8.1	6.2x13.5	36.40	27.00	29.50
25S	25	¾”	1"	32	1"	15.00	4.0x6.2	6.8x11.7	45.50	36.00	39.20
25	25	¾”	1"	32	1"	15.00	5.7x8.0	8.7x13.5	45.50	36.00	39.20
25R	25	¾”	1"	32	1"	15.00	4.0x10.6	7.0x16.2	45.50	36.00	39.20
32S	32	1"	1¼”	40	1¼”	15.00	4.0x6.2	6.8x11.7	47.00	41.00	45.00
32	32	1"	1¼”	40	1¼”	15.00	5.7x8.0	8.7x13.5	47.00	41.00	45.00

Conduit Pipe Detail

Ordering Suffix	Internal Diameter of Conduit B	Max. External Diameter of Conduit G
A010	9.50	15.00
A030	11.70	17.40
A040	13.00	20.00
A045	13.90	20.00
A050	15.60	21.60
A060	14.70	21.50
A066	16.90	23.40
A070	18.00	24.00
A075	18.70	25.00
A080	20.00	26.30
A105	20.70	27.00
A110	22.30	28.50
A115	23.70	32.00
A120	25.10	31.00
A250	28.10	35.80
A280	30.40	38.00
A285	32.00	38.00
A300	36.40	45.00
A385	38.00	45.50

Flexible Conduit Selection Table

Gland Size	Types of Conduits								
20s16	A010	A030	-	-	-	-	-	-	-
20S	A025	A040	A045	A050	A060	-	-	-	-
20	A050	A066	A070	A075	A080	A110	A120	A285	-
25	A075	A080	A105	A110	A115	A120	A250	A280	A285
32	A120	A250	A280	A290	A300	A385	-	-	-

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Ordering Suffix for Conduit	Material	Thread Type	Shroud Type	Accessories
20s	A2FFFC	A040	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
			Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
			Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
				BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
				Optional Metric-16		Earth Tag-9
				Optional NPT-17		
				Optional BSP-20		

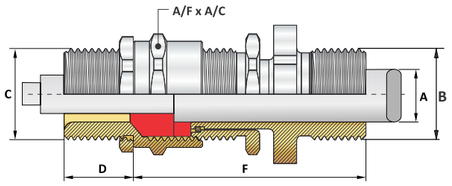
How to Order ?

Item Code : 20sA2FFFC A040 1 11 PS 5
Code Meaning : A2FFFC-20s Brass Cable Gland with A040 Conduit

20s=Gland Size, A2FFFC=Gland Code, A040=Conduit Size
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

A2FFRM- Ex “d” Cable Gland

Size	:	20mm to 32mm & ½" to 1”	**Ingress Protection**	:	IP66 as per EN 60529.
Standard	:	EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014	**Operating Temp.**	:	-60°C to +125°C
Function	:	Providing flameproof seal on outer sheaths of Flat Form Unarmoured & Braid Armour cable in indoor and outdoor hazardous area with rotating male rigid conduit connection facility. Designed to prevent cold flow.	**Material**	:	Brass CW614N/CW617N/EN12165, Stainless Steel 316L
			Thread	:	Metric, NPT, BSP, ET and PG
			Features	:	Displacement Seal
			Seal Material	:	LSOH Silicone Seal & Nylon Washer
			Accessories	:	PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer
EAC Certificate No.	:	TC RU C-IN.ГБ08.B.02588			
Code of Protection	:	**Ex db IIC Gb, Ex tb IIIC Db**			



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Conduit Connection Thread “B”			Cable Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT		Metric	NPT	BSP	Min.	Max.			
20S	20	½”	¾”	25	¾”	15.00	20	½”	½”	4.0x6.2	6.8x11.7	49.00	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	20	½”	½”	5.7x8.0	8.7x13.5	49.50	27.00	29.50
20R	20	½”	¾”	25	¾”	15.00	20	½”	½”	4.8x8.1	6.2x13.5	49.50	27.00	29.50
25S	25	¾”	1"	32	1"	15.00	25	¾”	¾”	4.0x6.2	6.8x11.7	58.00	36.00	39.20
25	25	¾”	1"	32	1"	15.00	25	¾”	¾”	5.7x8.0	8.7x13.5	58.00	36.00	39.20
25R	25	¾”	1"	32	1"	15.00	25	¾”	¾”	4.0x10.6	7.0x16.2	58.00	36.00	39.20
32S	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	4.0x6.2	6.8x11.7	60.50	41.00	45.00
32	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	5.7x8.0	8.7x13.5	60.50	41.00	45.00

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type ‘C”	Conduit Connection Thread Type “B”	Shroud Type	Accessories
20s	A2FFRM	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

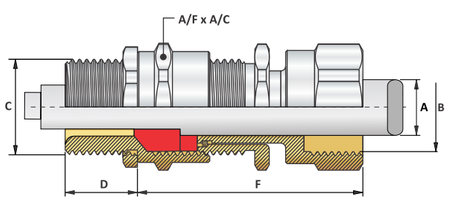
How to Order ?

Item Code: 20sA2FFRM 1 11 12 PS 5
Code Meaning: A2FFRM-20s-M20(M)-1/2”NPT(M) Brass Cable Gland with Shroud and Lock Nut

20s=Gland Size, A2FFRM=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(B), PS= With PVC Shroud, 5=With Lock Nut.

A2FFRF- Ex “d” Cable Gland

Size	:	20mm to 32mm & ½" to 1”	**Ingress Protection**	:	IP66 as per EN 60529.
Standard	:	EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014	**Operating Temp.**	:	-60°C to +125°C
Function	:	Providing flameproof seal on outer sheaths of Flat Form Unarmoured & Braid Armour cable in indoor and outdoor hazardous area with rotating female rigid conduit connection facility. Designed to prevent cold flow.	**Material**	:	Brass CW614N/CW617N/EN12165, Stainless Steel 316L
			Thread	:	Metric, NPT, BSP, ET and PG
			Features	:	Displacement Seal
			Seal Material	:	LSOH Silicone Seal & Nylon Washer
			Accessories	:	PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer
EAC Certificate No.	:	TC RU C-IN.ГБ08.B.02588			
Code of Protection	:	**Ex db IIC Gb, Ex tb IIIC Db**			



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Conduit Connection Thread “B”			Cable Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT		Metric	NPT	BSP	Min.	Max.			
20S	20	½”	¾”	25	¾”	15.00	20	½”	½”	4.0x6.2	6.8x11.7	45.30	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	20	½”	½”	5.7x8.0	8.7x13.5	45.80	27.00	29.50
20R	20	½”	¾”	25	¾”	15.00	20	½”	½”	4.8x8.1	6.2x13.5	45.80	27.00	29.50
25S	25	¾”	1"	32	1"	15.00	25	¾”	¾”	4.0x6.2	6.8x11.7	54.30	36.00	39.20
25	25	¾”	1"	32	1"	15.00	25	¾”	¾”	5.7x8.0	8.7x13.5	54.30	36.00	39.20
25R	25	¾”	1"	32	1"	15.00	25	¾”	¾”	4.0x10.6	7.0x16.2	54.30	36.00	39.20
32S	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	4.0x6.2	6.8x11.7	59.40	41.00	45.00
32	32	1"	1¼”	40	1¼”	15.00	32	1"	1"	5.7x8.0	8.7x13.5	59.40	41.00	45.00

Product Code for Ordering Purpose

Size	Type	Material	Entry Thread Type “C”	Conduit Connection Thread Type “B”	Shroud Type	Accessories
20s	A2FFRF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	BSP Thread-15	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	Optional Metric-16	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16	Optional NPT-17		Earth Tag-9
			Optional NPT-17	Optional BSP-20		
			Optional BSP-20			

How to Order ?

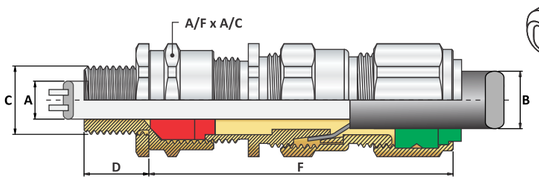
Item Code: 20sA2FFRF 1 11 12 PS 5
Code Meaning: A2FFRF-20s-M20(M)-1/2”NPT(F) Brass Cable Gland with Shroud and Lock Nut

20s=Gland Size, A2FFRF=Gland Code,
1= With Brass Material, 11=Entry Metric Thread(C), 12=Conduit Thread(B), PS= With PVC Shroud, 5=With Lock Nut.

E1FUFF Ex “d” and Ex “e” Cable Gland

Size : 16mm to 32mm & ½" to 1”
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Application : For indoor & outdoor hazardous area use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid (e.g. CY / SY), Armoured & Jacketed providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Superior EMC performance. Designed to prevent cold flow, Deluge seal optional
EAC Certificate No. : TC RU C-IN.ГБ08.B.02588
Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP67 as per EN 60529.
Operating Temp. : -60°C to +125°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, BSP, ET and PG
Cable Type : Single Wire Armour (SWA), Aluminium Wire Armour (AWA), Pliable Wire Armour (PWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA), Screened Flexible (EMC) Wire Braid.
Features : Displacement Seal and Universal Armoured Ring
Seal Material : LSOH Silicone Seal & Nylon Washer.
Accessories : PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer



Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Cable Range “A”		Cable Range “B”		Armour Range		Protrusion Length “F”	A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT		Min.	Max.	Min.	Max.	Wire Armour (W)	Strip Armour (X)			
20s	20	½”	¾”	25	¾”	15.00	4x6.2	6.8x11.7	4.5x7.9	7.0x11.7	0.9-1.25	0.3-1.0	68.65	24.00	26.20
20	20	½”	¾”	25	¾”	15.00	5.7x8	8.7x13.5	4.5x11.0	9.0x13.5	0.9-1.25	0.4-1.0	72.15	30.00	33.00
20R	20	½”	¾”	25	¾”	15.00	4.8x8.1	6.2x13.5	5.4x10.7	8.3x16.1	0.9-1.25	0.4-1.0	72.15	30.00	33.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories
20s16	E1FUFF	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8
			Optional Metric-16		Earth Tag-9
			Optional NPT-17		
			Optional BSP-20		

How to Order ?

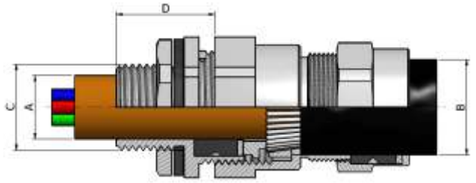
Item Code: 20s16E1FU 1 11 PS 5
Code Meaning: E1FU-20s16 Brass Cable Gland.

20s16=Gland Size, E1FU=Gland Code,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=With Lock Nut.

Double Compression Flameproof Cable Gland

Size : 16mm to 90mm & 1/2" to 4”
Standard : EN / IEC 60079-0: 2012+A11:2013/2011, EN / IEC 60079-1: 2014 & EN / IEC 60079-31: 2014/2013
Application : For indoor & outdoor hazardous area use with all types of SWA/STA cable providing flameproof seal on cable inner sheath and environmental seal on cable outer sheaths. Also provides mechanical retention & electrical continuity via armour wire termination.
Ingress Protection : IP67
CIMFR Certificate No. : CMF 19 INEx 0033
PESO Certificate No. : P462800

Code of Protection : **Ex d IIB / IIC**
Material : Brass CW614N, Nickel Plated Brass, SS316L
Thread : Metric, NPT, ET
Operating Temp. : -20°C to +110°C
Cable Type : Single Wire Armour (SWA) Cable, Steel Tape Armour (STA)
Features : Compression Seal and Armored Ring
Seal Material : Neoprene Seal and Nylon Washer
Accessories : PVC Shroud, Earth Tag, Serrated Washer, Entry Thread Seal



Gland Selection Chart

Gland Size	Indian Gland Equivalent Size	Entry Thread “C”			Optional Thread		Thread Length “D”	Cable Dia. “A”		Cable Dia. “B”		Armour Wire Dia.	A/F	A/C
		Metric	ET	NPT	Metric	ET		Min.	Max.	Min.	Max.			
16	01SS	M16	3/4"	1/2"	M20	-	15	4.00	8.60	6.60	13.10	0.80-1.40	20.00	22.00
20S	01S	M20	3/4"	1/2"	M25	-	15	5.50	11.70	10.20	15.90	0.80-1.40	22.00	24.20
20	01, 02	M20	3/4"	1/2"	M25	1”	15	6.50	13.90	15.00	21.00	0.80-1.40	27.00	29.20
25	03, 04	M25	1”	3/4"	M32	11/4"	15	10.00	19.90	19.90	26.20	0.80-1.40	35.00	38.00
32	05, 06	M32	11/4"	1”	M40	11/2"	15	14.00	26.20	26.00	33.00	0.80-1.40	41.00	45.00
40	07, 08	M40	11/2"	11/4"	M50	2”	15	23.60	32.10	31.50	40.00	0.80-1.40	47.50	52.00
50S	09	M50	2”	11/2"	M63	21/2”	15	31.50	38.20	37.00	46.00	0.80-1.40	56.50	61.50
50	010	M50	2”	2”	M63	21/2”	15	34.00	44.00	45.00	52.00	0.80-1.40	60.50	65.50
63S	011S, 11	M63	21/2”	2”	M75	3”	15	41.00	50.00	50.00	59.00	0.80-1.40	68.00	73.00
63	012	M63	21/2”	21/2”	M75	3”	15	46.50	56.00	59.00	65.00	0.80-1.40	75.00	80.00
75S	013A	M75	3”	3”	M90	31/4"	15	53.00	62.00	64.00	72.00	0.80-1.40	83.50	89.00
75	013	M75	31/4"	31/2"	M90	31/2"	15	59.00	68.00	70.00	78.40	0.80-1.40	89.00	93.00
90	014	M90	31/2"	4”	M100	4”	15	69.00	79.00	78.00	86.00	0.80-1.40	100.00	110.00

Dimensions are in mm

Product Code for Ordering Purpose

Size	Type	Material	Thread Type “C”	Shroud Type	Accessories
20s	CDCF	Brass -1	Standard Metric-11	PVC Shroud -PS	Lock Nut -5
		Stainless Steel -2	Standard NPT-12		IP Washer -6
		Nickel Plated -3	Standard ET-13		
			Optional Metric-16		
			Optional ET-18		

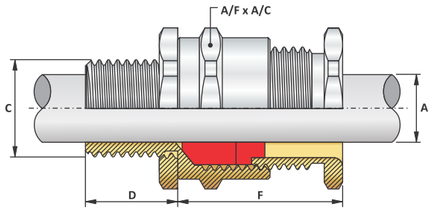
How to Order ?

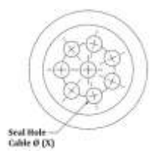
Item Code: 20sCDCF 1 11 PS 5
Code Meaning: CDCF-20s Brass Cable Gland with shroud+Lock Nut

20s=Gland Size, CDCF=Gland Type,
1= With Brass Material, 11=With Standard Metric Thread,
PS= With PVC Shroud, 5=Lock Nut

A2F-MH Ex “d” and Ex “e” Cable Gland with Multi Hole Seal

Size	: 16mm to 32mm & ½" to 1”	**Ingress Protection**	: IP66/IP67 as per EN 60529.
Standard	: EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013	**Operating Temp.**	: -60°C to +135°C
		Material	: Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Function	: Providing flameproof seal on outer sheaths of all types of unarmoured cable in indoor and outdoor hazardous area.	**Thread**	: Metric, NPT, BSP, ET and PG
		Features	: Displacement Seal
IECEx Certificate No.	: Coming soon	**Seal Material**	: LSOH Silicone Seal & Nylon Washer
ATEX Certificate No.	: Coming soon	**Accessories**	: PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer
PESO Certificate No.	: Coming soon		
Code of Protection	: **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**		





Gland Selection Chart

Size	Standard Thread Size “C”			Optional Thread		Thread Length “D”	Multi Hole Seal Detail			Cable Dia. A		A/F	A/C
	Metric	NPT/BSP	ET	Metric	NPT		Seal Hole Cable Ø (X)	Number of Holes	Ordering Suffix for Seal	Min.	Max.		
16	16	½”	¾”	25	¾”	15.00	1.5	1 to 6	A	3.10	8.60	21.00	23.00
	16	½”	¾”	25	¾”	15.00	2.0	1 to 5	B	3.10	8.60	21.00	23.00
20	20	½”	¾”	25	¾”	15.00	2.5	1 to 7	A	6.50	13.90	27.00	29.50
	20	½”	¾”	25	¾”	15.00	3.0	1 to 4	B	6.50	13.90	27.00	29.50
25	25	¾”	1"	32	1"	15.00	2.5	1 to 7	A	11.30	19.90	36.00	39.20
	25	¾”	1"	32	1"	15.00	3.0	1 to 4	B	11.30	19.90	36.00	39.20
	25	¾”	1"	32	1"	15.00	3.6	1 to 3	C	11.30	19.90	36.00	39.20
	25	¾”	1"	32	1"	15.00	4.0	1 to 7	D	11.30	19.90	36.00	39.20
32	32	1"	1¼”	40	1¼”	15.00	2.5	1 to 7	A	17.00	26.20	41.00	45.00
	32	1"	1¼”	40	1¼”	15.00	3.0	1 to 4	B	17.00	26.20	41.00	45.00
	32	1"	1¼”	40	1¼”	15.00	3.6	1 to 3	C	17.00	26.20	41.00	45.00
	32	1"	1¼”	40	1¼”	15.00	4.0	1 to 7	D	17.00	26.20	41.00	45.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Shroud Type	Accessories	Seal Type	Seal with Holes
20	A2FMH	Brass-1	Standard Metric-11	PVC Shroud-PS	Lock Nut-5	A	Between 1 to 7. (Respectively According to Sizes*)
		Stainless Steel-2	Standard NPT-12	LSF Shroud-LS	IP Washer-6	B	
		Nickel Plated-3	ET Thread-13	LSOH Shroud-SL	Serrated Washer-7	C	
			BSP Thread-15	PCP Shroud-PC	Ingress Disc-8	D	
			Optional Metric-16		Earth Tag-9		
			Optional NPT-17				

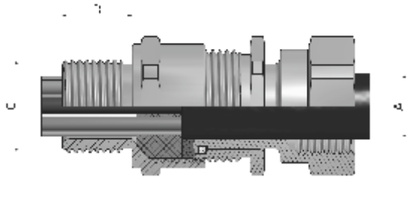
How to Order ?

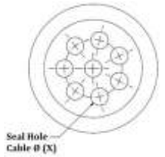
Item Code: 20 A2FMH 3 11 PS 5 A 4
Code Meaning: A2FMH-20 Nickle Plated Cable Gland with seal included four holes of 2.5mm.

20 =Gland Size, A2FMH = Gland Type,
3 =With Nickle Plated Brass Material
11=With Standard Metric Thread, MP10 = Conduit Size
PS= With PVC Shroud, 5=With Lock Nut,
A=Ordering suffix for seal type, 4=Number of Holes

A2FMHRF- Ex “d” Cable Gland with Multihole Seal

Size	: 16mm to 32mm & ½" to 1”	**Ingress Protection**	: IP66/IP67 as per EN 60529.
Standard	: EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-31:2014	**Operating Temp.**	: -60°C to +135°C
		Material	: Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Function	: Providing flameproof seal on outer sheaths of Flat Form Unarmoured & Braid Armour cable in indoor and outdoor hazardous area with rotating female rigid conduit connection facility.	**Thread**	: Metric, NPT, BSP, ET and PG
		Features	: Displacement Seal
IECEx Certificate No.	: Coming soon	**Seal Material**	: LSOH Silicone Seal & Nylon Washer
ATEX Certificate No.	: Coming soon	**Accessories**	: PVC Shroud, Earth Tag, Thread Seal, Adaptor & Reducer, Serrated Washer
PESO Certificate No.	: Coming soon		
Code of Protection	: : **Ex db IIC Gb, Ex tb IIIC Db**		





Gland Selection Chart

Size	Standard Thread “C”		Optional Thread		Thread Length “D”	Conduit Connection Thread		Multi Hole Seal Detail			Cable Dia. A		A/F	A/C
	Metric	NPT	Metric	NPT		Metric	NPT	Seal Hole Cable Ø (X)	Number of Holes	Ordering Suffix for Seal	Min.	Max.		
16	16	½”	25	¾”	15.00	20	½”	1.5	1 to 6	A	3.10	8.60	24.00	26.20
	16	½”	25	¾”	15.00	20	½”	2.0	1 to 5	B	3.10	8.60	24.00	26.20
20	20	½”	25	¾”	15.00	20	½”	2.5	1 to 7	A	6.50	13.90	27.00	29.50
	20	½”	25	¾”	15.00	20	½”	3.0	1 to 4	B	6.50	13.90	27.00	29.50
25	25	¾”	32	1"	15.00	25	¾”	2.5	1 to 7	A	11.30	19.90	36.00	39.20
	25	¾”	32	1"	15.00	25	¾”	3.0	1 to 4	B	11.30	19.90	36.00	39.20
	25	¾”	32	1"	15.00	25	¾”	3.6	1 to 3	C	11.30	19.90	36.00	39.20
	25	¾”	32	1"	15.00	25	¾”	4.0	1 to 7	D	11.30	19.90	36.00	39.20
32	32	1"	40	1¼”	15.00	32	1"	2.5	1 to 7	A	17.00	26.20	41.00	45.00
	32	1"	40	1¼”	15.00	32	1"	3.0	1 to 4	B	17.00	26.20	41.00	45.00
	32	1"	40	1¼”	15.00	32	1"	3.6	1 to 3	C	17.00	26.20	41.00	45.00
	32	1"	40	1¼”	15.00	32	1"	4.0	1 to 7	D	17.00	26.20	41.00	45.00

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Conduit Connection Thread Type “B”	Shroud Type	Accessories	Seal Type	Seal with Holes
20	A2FMHRF	Brass-1	Standard Metric-11	Standard Metric-11	PVC Shroud-PS		A	Between 1 to 7. (Respectively According to Sizes*)
		Stainless Steel-2	Standard NPT-12	Standard NPT-12	LSF Shroud-LS		B	
		Nickel Plated-3	ET Thread-13	Optional BSP-20	PCP Shroud-PC		C	
			BSP Thread-15				D	
			Optional Metric-16					
			Optional NPT-17					

How to Order ?

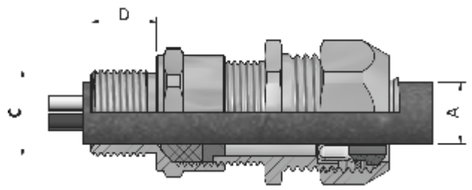
Item Code: 20 A2FMHRF 3 11 12 PS 5 A 4
Code Meaning: A2FMHRF-20-M20(M)-1/2”NPT(F) Nickle Plated Cable Gland with Shroud and Lock Nut with seal included four holes of 2.5mm.

20 =Gland Size, A2FMHRF = Gland Type,
1 =With Nickle Plated Brass Material
11=With Standard Metric Thread, 12=Conduit Thread(B),
PS= With PVC Shroud, 5=With Lock Nut,
A=Ordering suffix for seal type, 4=Number of Holes

A2F Liquid Tight Straight Conduit Gland

Size : 16mm to 40mm & 3/8" to 1 1/4"
Function : Suitable for all types Liquid Tight Conduit.
Protection Class : **IP 66/IP 67**
Construction : Unlike normal conduit glands which have a two piece construction these conduit glands have a four piece construction and use an additional O-Ring to achieve IP66/IP67 protection levels.
The additional components inside this gland are ferrule and clamping ring which in combination are able to create an IP66/IP67 protection levels.

Operating Temp. : -60°C to +135°C
Material : Nickle Plated Brass, Stainless Steel 316L
Thread : Metric, NPT
Seal Material : LSOH Silicone Seal
Features : Displacement Seal



Gland Selection Chart

Size	Standard Thread Size "C"		Thread Length "D"	Cable Dia. A		Conduit Diameter		Suitable for Conduit Size	Ordering Suffix for Conduit Size
	Metric	NPT		Min	Max	Inner Dia.	Outer Dia.		
16	M16x1.5	3/8"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s16	M20x1.5	1/2"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s	M20x1.5	1/2"	15.00	6.10	11.70	12.60	17.80	3/8"	MP10
20	M20x1.5	1/2"	15.00	6.50	13.90	16.00	21.10	1/2"	MP15
25	M25x1.5	3/4"	15.00	11.30	19.90	21.00	26.40	3/4"	MP20
32	M32x1.5	1"	15.00	17.00	26.20	26.50	33.10	1"	MP25
40	M40x1.5	1.1/4"	15.00	23.60	32.10	35.10	41.80	1.1/4"	MP32

Product Code for Ordering Purpose

Size	Type	Thread Type	Conduit Size	Material
16	A2FLTS	M16, M20..... (For Metric)	MP10, MP15.....	Brass-1
		38N, 12N.....(For NPT)		Stainless Steel-2
				Nickel Plated-3

How to Order ?

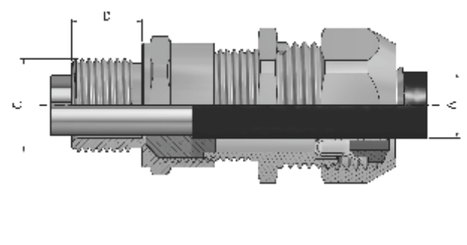
Item Code: 16 A2FLTS M16 MP10-3
Code Meaning: A2FLTS-16 Nickle plated Liquid Tight Straight Conduit Gland

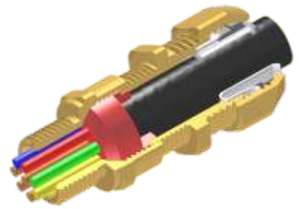
16 =Gland Size, A2FLTS = Gland Type, MP10 = Conduit Size
3 =With Nickle Plated Brass Material

A2F Liquid Tight Straight Conduit Gland with Multi Hole Seal

Size : 16mm to 32mm & 3/8" to 1"
Function : Suitable for all types Liquid Tight Conduit.
Protection Class : **IP 66/IP 67**
Construction : Unlike normal conduit glands which have a two piece construction these conduit glands have a four piece construction and use an additional O-Ring to achieve IP66/IP67 protection levels.
The additional components inside this gland are ferrule and clamping ring which in combination are able to create an IP66/IP67 protection levels.

Operating Temp. : -60°C to +135°C
Material : Nickle Plated Brass, Stainless Steel 316L
Thread : Metric, NPT
Seal Material : LSOH Silicone Seal
Features : Displacement Seal





Gland Selection Chart

Size*	Standard Thread "C"		Optional Thread		Thread Length "D"	Cable Dia. A		Multi Hole Seal Detail			Suitable for Conduit Size	Ordering Suffix for Conduit Size
	Metric	NPT	Metric	NPT		Min.	Max.	Seal Hole Cable Ø (X)	Number of Holes	Ordering Suffix for Seal		
16	16	½"	25	¾"	15.00	3.10	8.60	1.5	1 to 6	A	3/8"	MP10
	16	½"	25	¾"	15.00	3.10	8.60	2.0	1 to 5	B	3/8"	MP10
20	20	½"	25	¾"	15.00	6.50	13.90	2.5	1 to 7	A	1/2"	MP15
	20	½"	25	¾"	15.00	6.50	13.90	3.0	1 to 4	B	1/2"	MP15
25	25	¾"	32	1"	15.00	11.30	19.90	2.5	1 to 7	A	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	3.0	1 to 4	B	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	3.6	1 to 3	C	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	4.0	1 to 7	D	3/4"	MP20
32	32	1"	40	1¼"	15.00	17.00	26.20	2.5	1 to 7	A	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	3.0	1 to 4	B	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	3.6	1 to 3	C	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	4.0	1 to 7	D	1"	MP25

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Conduit Size	Seal Type	Seal with Holes
20	A2FLTSMH	Brass-1	Standard Metric-11	MP10	A	Between 1 to 7.
		Stainless Steel-2	Standard NPT-12	MP15	B	(Respectively According to Sizes*)
		Nickel Plated-3	Optional Metric-16	MP20	C	
			Optional NPT-17	MP25	D	

How to Order ?

Item Code: 20 A2FLTSMH 3 11 MP10 A 4
Code Meaning: A2FLTSMH-20 Nickle Plated Liquid Tight Straight Conduit Gland with seal included four holes of 2.5mm.

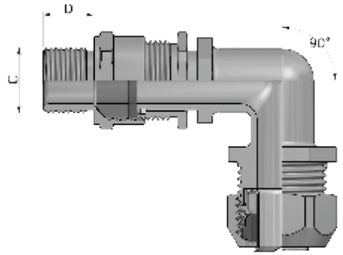
20 =Gland Size, A2FLTSMH = Gland Type,
3 =With Nickle Plated Brass Material
11=With Standard Metric Thread, MP10 = Conduit Size
A=Ordering suffix for seal type, 4=Number of Holes

A2F Liquid Tight Elbow Conduit Gland 90°

Size : 16mm to 40mm & 3/8" to 1 1/4"
Function : Suitable for all types Liquid Tight Conduit.
Protection Class : **IP 66/IP 67**
Construction : Unlike normal conduit glands which have a two piece construction these conduit glands have a four piece construction and use an additional O-Ring to achieve IP66/IP67 protection levels.

The additional components inside this gland are ferrule and clamping ring which in combination are able to create an IP67/IP67 protection levels.

Operating Temp. : -60°C to +135°C
Material : Nickle Plated Brass, Stainless Steel 316L
Thread : Metric, NPT
Seal Material : LSOH Silicone Seal
Features : Displacement Seal



Gland Selection Chart

Size	Standard Thread Size "C"		Thread Length "D"	Cable Dia. A		Conduit Diameter		Suitable for Conduit Size	Ordering Suffix for Conduit Size
	Metric	NPT		Min	Max	Inner Dia.	Outer Dia.		
16	M16x1.5	3/8"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s16	M20x1.5	1/2"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s	M20x1.5	1/2"	15.00	6.10	11.70	12.60	17.80	3/8"	MP10
20	M20x1.5	1/2"	15.00	6.50	13.90	16.00	21.10	1/2"	MP15
25	M25x1.5	3/4"	15.00	11.30	19.90	21.00	26.40	3/4"	MP20
32	M32x1.5	1"	15.00	17.00	26.20	26.50	33.10	1"	MP25
40	M40x1.5	1.1/4"	15.00	23.60	32.10	35.10	41.80	1.1/4"	MP32

Product Code for Ordering Purpose

Size	Type	Thread Type	Conduit Size	Material
16	A2FLTE	M16, M20..... (For Metric)	MP10, MP15.....	Brass-1
		38N, 12N.....(For NPT)		Stainless Steel-2
				Nickel Plated-3

How to Order ?

Item Code: 16 A2FLTE M16 MP10-3
Code Meaning: A2FLTE-16 Nickle plated Liquid Tight Elbow Conduit Gland

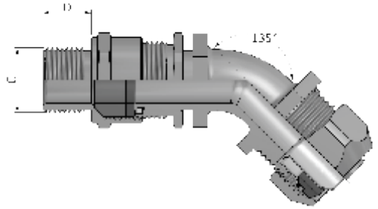
16 =Gland Size, A2FLTE = Gland Type, MP10 = Conduit Size
3 =With Nickle Plated Brass Material

A2F Liquid Tight Angled Conduit Gland 45°

Size : 16mm to 40mm & 3/8" to 1 1/4"
Function : Suitable for all types Liquid Tight Conduit.
Protection Class : **IP 66/IP 67**
Construction : Unlike normal conduit glands which have a two piece construction these conduit glands have a four piece construction and use an additional O-Ring to achieve IP66/IP67 protection levels.

The additional components inside this gland are ferrule and clamping ring which in combination are able to create an IP66/IP67 protection levels.

Operating Temp. : -60°C to +135°C
Material : Nickle Plated Brass, Stainless Steel 316L
Thread : Metric, NPT
Seal Material : LSOH Silicone Seal
Features : Displacement Seal



Gland Selection Chart

Size	Standard Thread Size "C"		Thread Length "D"	Cable Dia. A		Conduit Diameter		Suitable for Conduit Size	Ordering Suffix for Conduit Size
	Metric	NPT		Min	Max	Inner Dia.	Outer Dia.		
16	M16x1.5	3/8"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s16	M20x1.5	1/2"	15.00	3.10	8.60	12.60	17.80	3/8"	MP10
20s	M20x1.5	1/2"	15.00	6.10	11.70	12.60	17.80	3/8"	MP10
20	M20x1.5	1/2"	15.00	6.50	13.90	16.00	21.10	1/2"	MP15
25	M25x1.5	3/4"	15.00	11.30	19.90	21.00	26.40	3/4"	MP20
32	M32x1.5	1"	15.00	17.00	26.20	26.50	33.10	1"	MP25
40	M40x1.5	1.1/4"	15.00	23.60	32.10	35.10	41.80	1.1/4"	MP32

Product Code for Ordering Purpose

Size	Type	Thread Type	Conduit Size	Material
16	A2FLTA	M16, M20..... (For Metric)	MP10, MP15.....	Brass-1
		38N, 12N.....(For NPT)		Stainless Steel-2
				Nickel Plated-3

How to Order ?

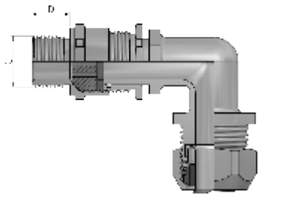
Item Code: 16 A2FLTA M16 MP10-3
Code Meaning: A2FLTA-16 Nickle plated Liquid Tight Angled Conduit Gland

16 =Gland Size, A2FLTA = Gland Type, MP10 = Conduit Size
3 =With Nickle Plated Brass Material

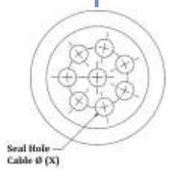
A2F Liquid Tight Elbow & Angle Conduit Gland with Multi Hole Seal

Size : 16mm to 32mm & 3/8" to 1"
Function : Suitable for all types Liquid Tight Conduit.
Construction : Unlike normal conduit glands which have a two piece construction these conduit glands have a four piece construction and use an additional O-Ring to achieve IP 67 protection levels.
The additional components inside this gland are ferrule and clamping ring which in combination are able to create an IP66/IP67 protection levels.

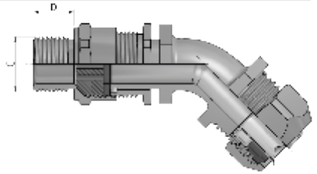
Operating Temp. : -60°C to +135°C
Protection Class : **IP66/IP67**
Material : Nickle Plated Brass, Stainless Steel 316L
Thread : Metric, NPT
Seal Material : LSOH Silicone Seal
Features : Displacement Seal



A2F-LTE-MH
Elbow Type



A2F-LTA-MH
Angle Type



Gland Selection Chart

Size	Standard Thread "C"		Optional Thread		Thread Length "D"	Cable Dia. A		Multi Hole Seal Detail			Suitable for Conduit Size	Ordering Suffix for Conduit Size
	Metric	NPT	Metric	NPT		Min.	Max.	Seal Hole Cable Ø (X)	Number of Holes	Ordering Suffix for Seal		
16	16	½"	25	¾"	15.00	3.1	8.60	1.5	1 to 6	A	3/8"	MP10
	16	½"	25	¾"	15.00	3.1	8.60	2.0	1 to 5	B	3/8"	MP10
20	20	½"	25	¾"	15.00	6.50	13.90	2.5	1 to 7	A	1/2"	MP15
	20	½"	25	¾"	15.00	6.50	13.90	3.0	1 to 4	B	1/2"	MP15
25	25	¾"	32	1"	15.00	11.30	19.90	2.5	1 to 7	A	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	3.0	1 to 4	B	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	3.6	1 to 3	C	3/4"	MP20
	25	¾"	32	1"	15.00	11.30	19.90	4.0	1 to 7	D	3/4"	MP20
32	32	1"	40	1¼"	15.00	17.00	26.20	2.5	1 to 7	A	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	3.0	1 to 4	B	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	3.6	1 to 3	C	1"	MP25
	32	1"	40	1¼"	15.00	17.00	26.20	4.0	1 to 7	D	1"	MP25

Product Code for Ordering Purpose

Size	Type	Material	Thread Type	Conduit Size	Seal Type	Seal with Holes
20	A2FLTEMH	Brass-1	Standard Metric-11	MP10	A	Between 1 to 7.
	A2FLTAMH	Stainless Steel-2	Standard NPT-12	MP15	B	(Respectively According to Sizes*)
		Nickel Plated-3	Optional Metric-16	MP20	C	
			Optional NPT-17	MP25	D	

How to Order ?

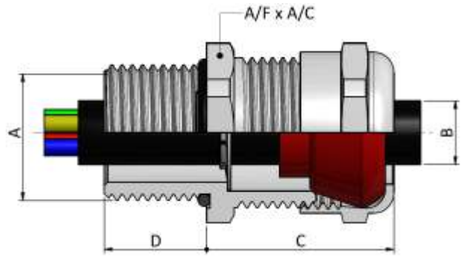
Item Code: 20 A2FLTEMH 3 11 MP10 A 4
Code Meaning: A2FLTEMH-20 Nickle Plated Liquid Tight Elbow Conduit Gland with seal included four holes of 2.5mm.

20 =Gland Size, A2FLTEMH = Gland Type,
3 =With Nickle Plated Brass Material
11=With Standard Metric Thread, MP10 = Conduit Size
A=Ordering suffix for seal type, 4=Number of Holes

EMC Cable Gland

Size : 12mm to 63mm & 1/4" to 2"
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing flameproof seal on outer sheaths of all types of unarmoured & Braided cable in indoor and outdoor hazardous area.
ATEX Certificate No. : XXXXXXXX
PESO Certificate No. : XXXXXXXX
Code of Protection : **Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db**

Ingress Protection : IP68/IP66 as per EN 60529.
Operating Temp. : -60°C to +135°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT
Features : Outer Displacement Seal
Seal Material : LSOH Silicone Seal



Gland Selection Chart

Size	Standard Thread Size "A"		Thread Length "D"	Cable Dia. B		Protrusion Length "C"	A/F	A/C
	Metric	NPT		Min.	Max.			
12	M12x1.5	1/4"	15.00	3.00	8.00	21.00	17.00	19.00
16	M16x1.5	3/8"	15.00	5.00	11.00	25.00	20.00	22.50
20	M20x1.5	1/2"	15.00	6.00	14.00	29.00	24.00	26.20
25	M25x1.5	3/4"	15.00	12.00	20.00	29.00	30.00	33.00
32	M32x1.5	1"	15.00	16.00	25.00	32.00	36.00	39.20
40	M40x1.5	1.1/4"	15.00	21.00	32.00	35.00	45.00	50.00
50	M50x1.5	1.1/2"	15.00	32.00	42.00	35.00	56.50	61.50
63	M63x1.5	2"	15.00	42.0	54.0	38.00	68.00	73.00

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Material	Thread Type
12	EMC	Brass-1	Metric-(M#)
		Stainless Steel-2	NPT-(#N)
		Nickel Plated-3	

How to Order ?

Item Code: 12-EMC-1-M12 / 12-EMC-1-14N (1/4" NPT)
Code Meaning: 12 EMC Brass Cable Gland with M12 Entry Thread.

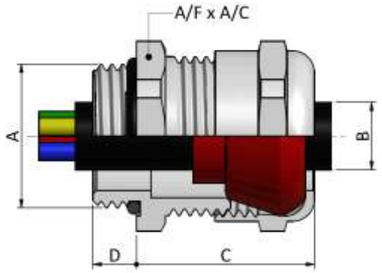
12=Gland Size, EMC=Gland Type,
1=With Brass Material, M12=With Standard Metric Thread,

CABTEK electrical accessories

IP68 Cable Gland

Size : 12mm to 63mm & 1/4" to 2"
Standard : EN/IEC 60079-0:2012+A11:2013/2011, EN/IEC 60079-1:2014, EN/IEC 60079-7:2015, EN/IEC 60079-31:2014/2013
Function : Providing flameproof seal on outer sheaths of all types of unarmoured & Braided cable in indoor and outdoor hazardous area.

Ingress Protection : IP68/IP66 as per EN 60529.
Operating Temp. : -60°C to +135°C
Material : Brass CW614N/CW617N/EN12165, Stainless Steel 316L
Thread : Metric, NPT, PG
Features : Outer Displacement Seal, Highest strain relief
Seal Material : LSOH Silicone Seal



Gland Selection Chart

Size	Standard Thread Size "A"		Thread Length "D"	Cable Dia. B		Protrusion Length "C"	A/F	A/C
	Metric	NPT		Min.	Max.			
12	M12x1.5	1/4"	5.00	3.00	8.00	21.00	17.00	19.00
16	M16x1.5	3/8"	5.00	5.00	11.00	25.00	20.00	22.50
20	M20x1.5	1/2"	6.00	6.00	14.00	29.00	24.00	26.20
25	M25x1.5	3/4"	7.00	12.00	20.00	29.00	30.00	33.00
32	M32x1.5	1"	8.00	16.00	25.00	32.00	36.00	39.20
40	M40x1.5	1.1/4"	9.00	21.00	32.00	35.00	45.00	50.00
50	M50x1.5	1.1/2"	9.00	32.00	42.00	35.00	56.50	61.50
63	M63x1.5	2"	10.00	42.00	54.00	38.00	68.00	73.00

Size	Standard Thread Size "A"	Thread Length "D"	Cable Ø		Protrusion Length "C"	A/F	A/C
			Min.	Max.			
PG7	PG7	5.00	3.00	8.00	21.00	17.00	19.00
PG9	PG9	6.00	6.00	11.00	25.00	20.00	22.50
PG11	PG11	6.00	7.00	12.00	27.00	22.00	24.00
PG13.5	PG13.5	6.00	8.00	14.00	29.00	24.00	26.20
PG16	PG16	6.50	10.00	17.00	29.00	27.00	29.25
PG21	PG21	8.00	16.00	23.00	31.00	33.00	36.00
PG29	PG29	9.00	20.00	29.00	35.00	42.00	45.00
PG36	PG36	9.00	29.00	39.00	35.00	53.00	58.00
PG42	PG42	10.00	36.00	46.00	35.00	60.00	65.00
PG48	PG48	10.00	40.00	50.00	38.00	65.00	70.00

Also available as per customer requirement

Product Code for Ordering Purpose

Size	Type	Material	Thread Type
12	IP68	Brass-1	Metric-(M#)
		Stainless Steel-2	NPT-(#N)
		Nickel Plated-3	PG (PG#)

How to Order ?

Item Code: 12-IP68-1-M12 / 12-IP68-1-PG7
Code Meaning: M12 IP68 Brass Cable Gland with M12 Entry Thread.

12=Gland Size, IP68=Gland Type,
1=With Brass Material, M12=With Standard Metric Thread,