2019

Cable glands and electrical fittings for electrical plants

ELFIT®

ELectrical FITtings for Hazardous Areas

ELFIT®

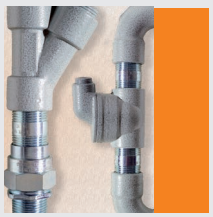
ELectrical FITtings for Hazardous Areas

INDICE

Pressacavi Ex-proof

Raccorderie per impianti elettrici

PRODOTTI

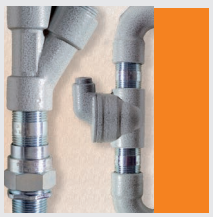


INDICE

Scatole di derivazione e infilaggio

Serie stagna

PRODOTTI



INTRODUCTION

FROM CABLE GLANDS TO ELECTRICAL FITTINGS ***FOR ELECTRICAL PLANTS***

1

Elfit S.p.a.: the value of experience

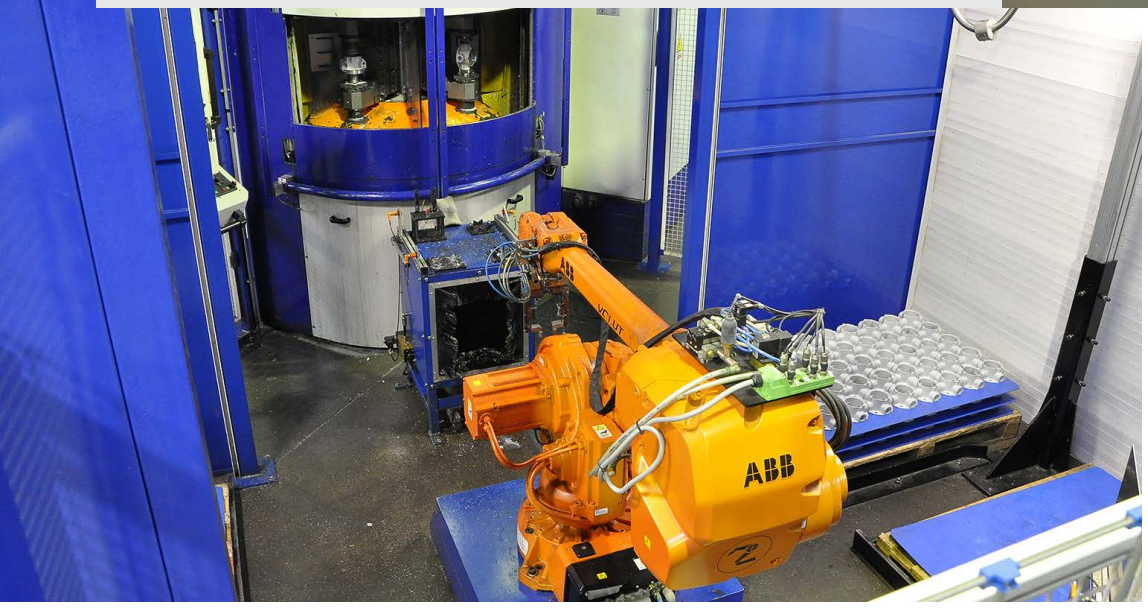
Fig.1e 2 Elfit's plant at the beginning of 80's

During the '70s, **Elfit** company was estabilished in order to carry out some strategic internal processes of Cortem and to provide the market with complementary lighting products, such as electrical equipment, cable glands and junction boxes. Thanks to its reliability and the service offered, it becomes an important player of Oil&Gas field with a highly qualified brand, both in Italy and internationally.
Due to a continuous improvement of technology and investments, Elfit is specialized in foundry, mechanical workshop and in the manufacturing of explosion and weather proof cable glands, junction boxes and electrical fitting.

Today Elfit, along with Cortem and Fondisonzo brands, forms **Cortem Group**, one of the main international leader of Oil&Gas for the explosion-proof field. The peculiarity of Cortem Group is the experience gained in almost 50 years of activity in the Ex field which results not only in the supply of simple Ex-products, but also in customized solutions.

Cortem Group's products are available in different executions, "Ex d", "Ex e", "Ex de", "Ex i", "Ex n", "Ex t", and are manufactured using low copper aluminium alloy, stainless steel and plastic materials which ensure strenght and duration over the time.

Their autenticity is guaranteed by the application of an adhesive label with a 3D matrix, an alphanumeric code and a QR code for smartphone readers, that protect the product from fakes. The alphanumeric code can be verified on the www.cortemgroup.com website.



CORTEM® GROUP

To be sure to be safe.

Fig.3

Above, Cortem Group's plant today

Fig.4 e 5

Above and on the left, the modern production technologies of Cortem Group

ELFIT® ELectrical FITtings for Hazardous Areas

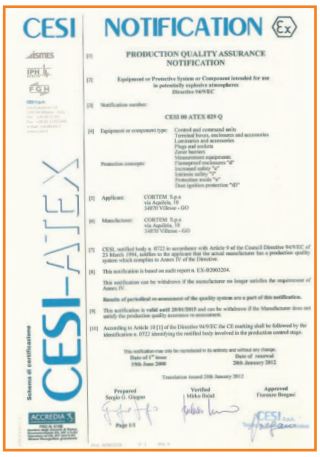
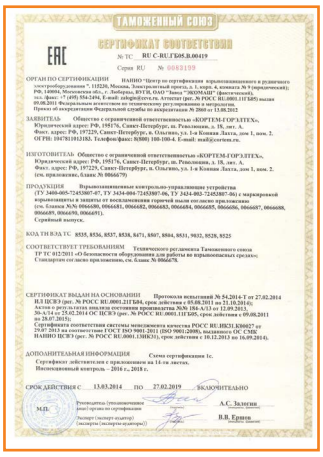
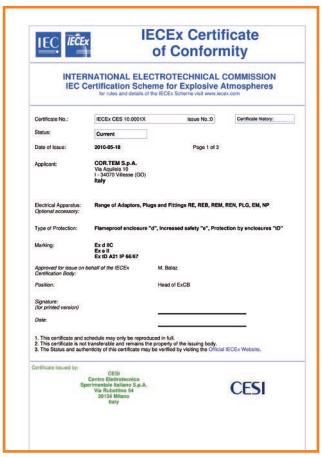


Fig.6
Products' certificates





Cortem Group electrical equipment are certified in accordance with the European standard ATEX, the International regulation IEC Ex, also obtained the regulatory compliance to INMETRO standard for Brazil and TR CU standards for the Eurasian Customs Union. Respecting these strict international construction rules, guarantees the safety of people and environment.
Cortem Group manufactures its products using modern processes, plants and qualified personnel. The quality management system conforms to UNI EN ISO 9001:2008 standard.
Furthermore, Cortem Group has developed an Occupational Safety and Health Management System certified according to OHSAS 18001:2007 Standard.

The Elfit production included in this catalogue can be summarized in the following macro-categories:

1. Ex-proof cable glands with compression ring and barrier cable glands for armoured and non-armoured cable; plastic cable glands for non-armoured cables and other applications.
2. Electrical fittings: three pieces unions, adaptors, closing plugs, available with different threads and methods of protection, 90°elbows, open elbows, couplings, sealing fittings and pulling fittings, rigid and flexible conduits.
3. Ex-proof junction boxes and pulling boxes.
4. Weather-proof pulling boxes and cable glands.

Fig.7
Management system certificates

2. The cable gland

If we go back in time to the end of the first half of the last century, electrical systems suitable for hazardous areas were mainly realized in conduit "Freez moon" type and the ending on the input/output of flameproof enclosures were realized with sealing fittings next to the boxes (the old standard CEI 64-2 said that sealing fittings had to be positioned at a maximum distance of 450mm and only one joint was allowed between two enclosures with a distance not higher than 900mm).
This technique, still required today for some particular cases, except that distances have to be in compliance with the current standard EN 60079-1, had the disadvantage of having to cut the cable in case of reinstatement, with economical increases due to the impossibility to recover the cable because it is sealed into the sealing fitting.
The coming of cable gland has radically changed the plant approach, firstly simplifying the installation (image the difficult to align input/output conduits with entry/exit from junction boxes) and then giving the possibility to recover the cable in case of reinstatement.
Since the beginning of its activity, Elfit has been realizing products in compliance to current standards and in order to be used with a wide range of cables both armoured and non-armoured.
The cables usually used in on-shore and off-shore plants are divided in:

- non-armoured cables in PVC, for fixed sediment, with insulation class 0,6/1kV;

- insulated cables with wireframe ethylene prophylene (EPR) or (XLPE), insulation class 0,6/1kV;

- armoured steel wire (SWA) or armoured aluminium wire (AWA).

In a first production phase, cable glands were realized with a sealing rings kit due to manufacturing characteristic of these cables with different diameters that change from manufacturer to manufacturer.
Anyway, this solution caused a waste of spare materials because the exact diameters of cables are not usually available during the design phase.
To avoid the unused and the consequent waste of sealing rings, Elfit focuses its research activity towards the optimization of those gaskets.
The cable glands series features only one sealing ring suitable to the variables of cables size, both armoured and non-armoured. Moreover, it provides only one opening key that simplifies the assembly.
This new series has successfully got the product certification by international licensed authority.

Current standards relevant to products suitable to be installed in hazardous areas have settled a method to carry out plants that simplifies mounting and maintenance operations, always respecting what is defined by the standards.

2.1 THE SELECTION OF CABLE ENTRY SYSTEMS IN EXPLOSION-PROOF JUNCTION BOXES

The selection of the cable entry in explosion-proof junction boxes must comply with the requirements of EN 60079-14 standard and in particular:

- Cables with sheaths with low tensile strength, known as "easy tear", must not be used in areas with risk of explosion if not installed in protective conduit. Thermoplastic wire of the type in polyvinyl chloride (PVC) with a tensile strength of 2.5 N / mm2; in polyethylene with a tensile strength of 15.0 N / mm2 and cables in elastomeric polychloroprene or chlorosulfonated or polyethylene or similar polymers with a tensile strength of 15.0 N / mm^2, are commonly classified as "easy tear".
- The cables for fixed installations must be suitable to the environmental conditions and must be sheathed in thermoplastic, thermosetting or elastomeric material and mineral insulated metal sheathed.
- When there is the possibility of gas or vapour transfer through the interstices between the conductors of a cable, to a non-hazardous area or to a different hazardous area, the construction and the use of the cable must be designed so that to avoid the flame propagation (See Note 2 in Figure 8).
- When it is not applicable as described in paragraph above, must be used mineral insulated cables, with sealing, for example our barrier cable glands series FGAB ...
- The cable glands must be properly selected depending on the specific cable diameter. It is not allowed the use of sealing tapes, thermo-tightening sheath or other materials such as fillers for the achievement of the sealing diameter on the cable gland.
- The choice of the cable glands must comply with the provisions of Section 10.6.2 of EN 60079-14 which are summarized in the flow, in Figure 8.

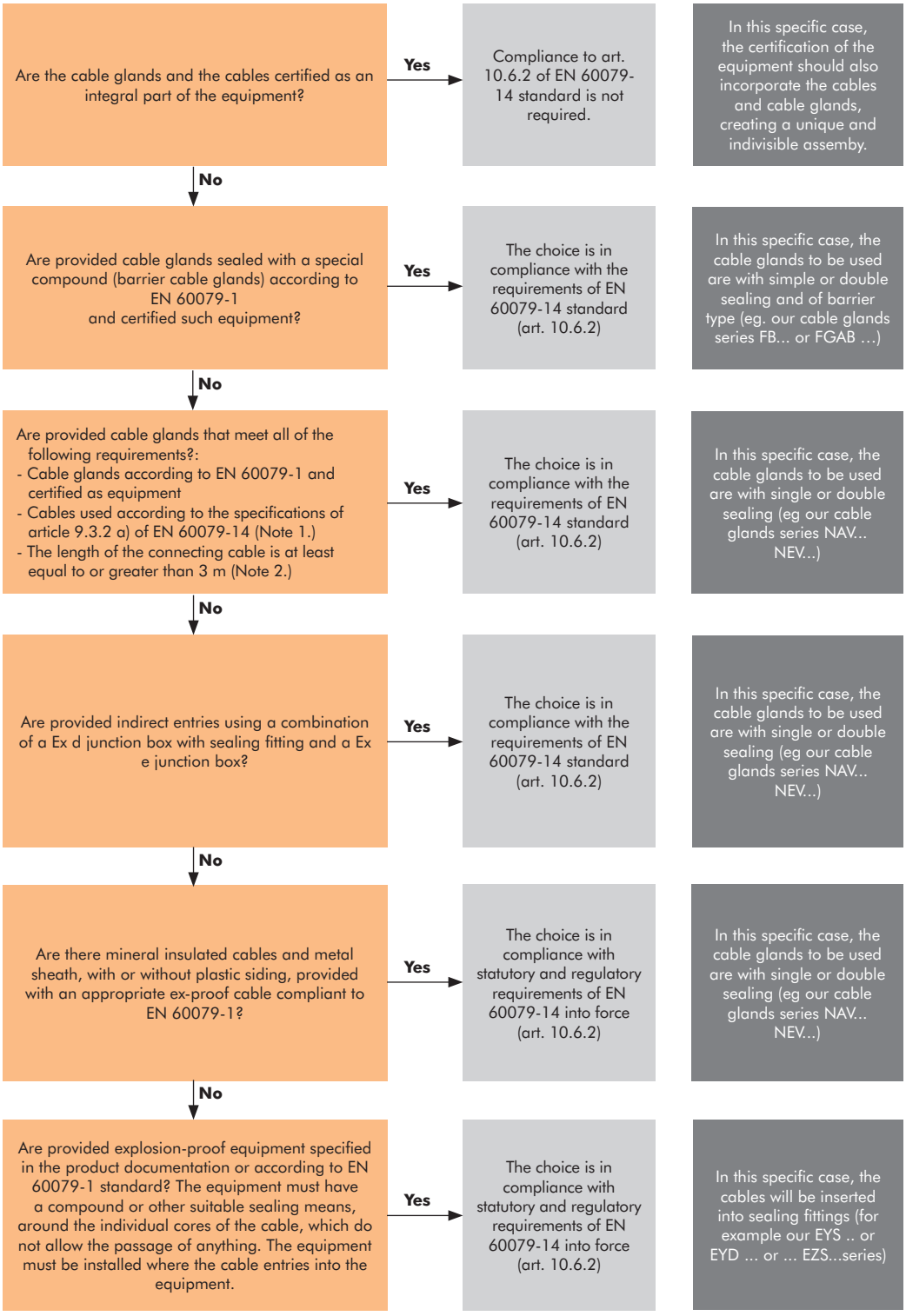


FIG.8 **Flow chart for the correct selection of the cable entry in Ex d junction boxes**

Note 1. With a sheath in thermoplastic, thermosetting or elastomeric material. They must be circular and compact. Any padding or sheath must be extruded. Any fillers must be non-hygroscopic.

Note 2. The minimum cable length is defined in order to limit the potential danger due to the transmission of flame through the cable. For the test procedures of restricted breathing of cables (Appendix E, extracted from EN 60079-14), you have to take a piece of cable with a length of 0.5 m and try it once installed in a sealed junction box of 5 liters (± 0.2 liters), in conditions of constant temperature. The cable is considered acceptable if the interval of time required to bring down to 0.15 kPa (15 mm of water column) an internal overpressure of 0.3 kPa (30 millimeters of water column) is equal to or greater than 5 s.

2.2 A COMPLETE RANGE OF SOLUTIONS FOR OIL&GAS APPLICATIONS

INDUSTRIAL PLANTS WITH RISK OF EXPLOSION: CABLE GLANDS WITH COMPRESSION RING FOR AMOURED AND NON-ARMOURED CABLE

NAV, NEV, NAVF, NAVN, NEVP SERIES

For armoured and non-armoured cable, protection method flame-proof "Ex db", increased safety "Ex eb", dusts protection "Ex tb", 'Ex nR' restricted breathing, Zone 1, 21, 2, 22, Gas group IIC, Dusts group IIIC, IP 66/67. The have only one sealing ring that guarantees explosion and IP protection, they are available with male and female threaded hub for armored cables with lead sheath and for non-armored flat/heating cables, optical fiber cables.

INDUSTRIAL PLANTS WITH RISK OF EXPLOSION: BARRIER CABLE GLANDS FOR ARMOURED AND NON-ARMOURED CABLE

FB, FGAB, FBF SERIES

For armoured and non-armoured cable, protection method explosion-proof "Ex d", increased safety "Ex e", protection against dusts "Ex tb", intrinsically safe "Ex i", Zone 1, 21, 2, 22, Gas group IIC, Dusts group IIIC, IP66/67. Barrier cable glands are supplied with a resin finishing kit composed by resin, spatula for mixing and protective gloves.

INDUSTRIAL PLANTS WITH RISK OF EXPLOSION: CABLE GLANDS FOR NON-ARMOURED CABLES IN HIGH RESISTANCE POLYAMIDE

UNI SERIES

For non-armoured cables, protection method increased safety "Ex e", "Ex tb" for dusts, "Ex i" intrinsically safe, Zone 1, 21, 2, 22, Gas group IIC, Dusts group IIIC, IP66/68, ISO and PG threads. Cable glands are easy to install, impact resistant until 7J and guarantee Ex and IP protection on to the external sheat of the cable.

WEATHER PROOF SERIES FOR INDUSTRIAL AND NAVAL APPLICATION, ENERGY PRODUCTION PLANTS, MOTORS, BOARD MACHINERY

TEV, TEVD SERIES

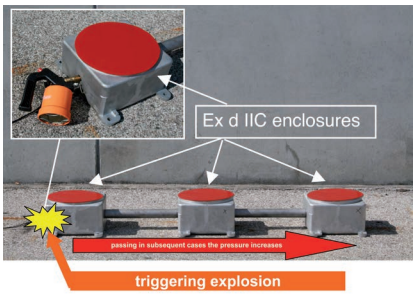
For armoured and non-armoured cable, IP66/67. They have only one sealing ring that guarantees watertight sealing. They are provided with high-tech and high mechanical performance compression rings and gaskets with high-temperature resistance.

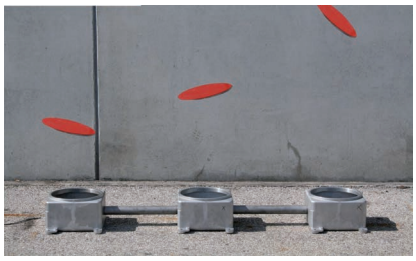
2.3 THE MARKING OF THE CABLE GLAND BY LASER ENGRAVING

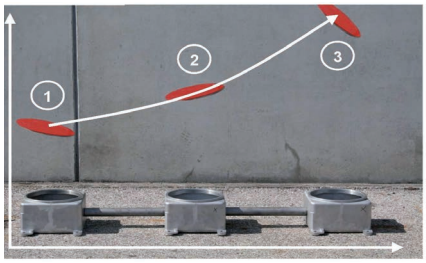
Metal cable glands, whether they are simply sealed for unarmoured cables, whether they are double-sealed for armored cables or barrier-type, are marked by Cortem Group through laser engraving.
The use of laser marking on metals allows extremely rapid and precise processing to guarantee a greater visibility and a constant traceability of the products over time, also thanks to the constant and continuous technological updating of the machinery.
The laser marking process on metals offers significant advantages:
- it is an extremely precise and clean method realized through a non-contact procedure that does not require preventive or subsequent processing;
- guarantees the identification and the traceability of products with a very high resolution finish;
- ensures acids and chemicals resistant working;
In our laboratories all the necessary verification tests have been carried out: aging cycles, aimed at checking the permanence of the marking, resistance to changing ambient temperatures, from -60 ° C to + 150° C, tests in wet saline environment, seal tests to chemical and petrochemical agents with presence of hydrocarbons.

2.4 CABLE INSTALLATION AND CONDUIT INSTALLATION

It is important to check the match system between different enclosures that, contrary to industrial equipment (concerning standards EN 61439), requires to install specific sealed fittings between two junction boxes, so as to avoid the spread of a possible explosion that could accidentally occur in one of those enclosures.
As it is shown in the images sequence below reported, the lack of sealed fittings causes not only the passage of the explosion to the next enclosure, but it even generates an increase of the pressure originated from that explosion, with a consequent greater risk of damages to people.
The standard EN 60079-1, section 13.2.2, says "The distance from the face of the seal closest to the enclosure (or intended end-use enclosure), and the





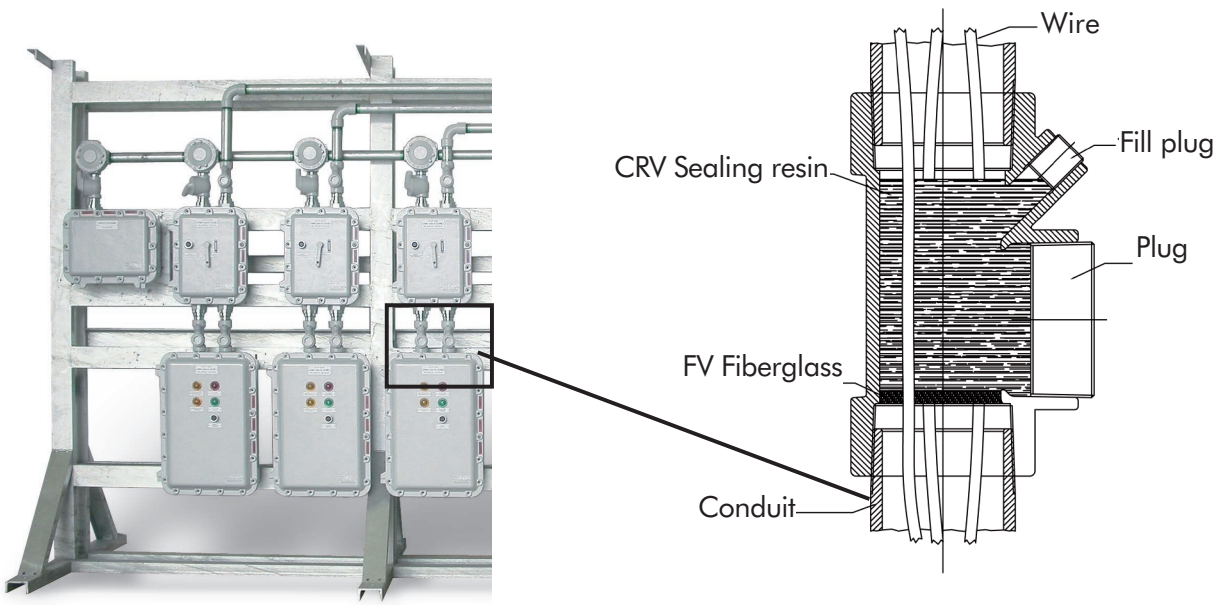


outside wall of the enclosure (or intended end-use enclosure) shall be as small as practical, but in no case more than the size of the conduit or 50 mm, whichever is the lesser", so the sealed fitting should be installed next to the junction box, to give the right functional warranty, as specified on section 10.5 of Standard EN 60079-14 which says *"A conduit sealing device is considered as fitted immediately at the entry of the flameproof enclosure when the device is fixed to the enclosure either directly or through an accessory necessary for coupling according to the manufacturer's instructions".*
In the conduit installation, the electric cables run in a system of rigid conduits and enter explosion-proof boxes by means of sealed fittings. This avoids possible explosions to expand and spread inside the housings (Fig. 9). The outlet of every “Ex d” box features a sealed fitting which prevents explosions from spreading to other sections, delimits the volume of the “Ex d” electrical construction to a value close to that for which it has been proven, and separates the conduit installation from a possible part made with external cables.
In conduit installations, wires pass inside a threaded conduit "freez moon"

and though a sealed fitting; these sealed fitting must be filled with the right mixture of bi-component resin. This method effectively protects cables against mechanical and chemical damage. One disadvantage is that it is difficult to change the wiring later on.
On Fig. 9 there is an example of cable installation with mounting of sealing joints.
Cable installation, with use of specific cable glands, can be realized both with direct and indirect entry.

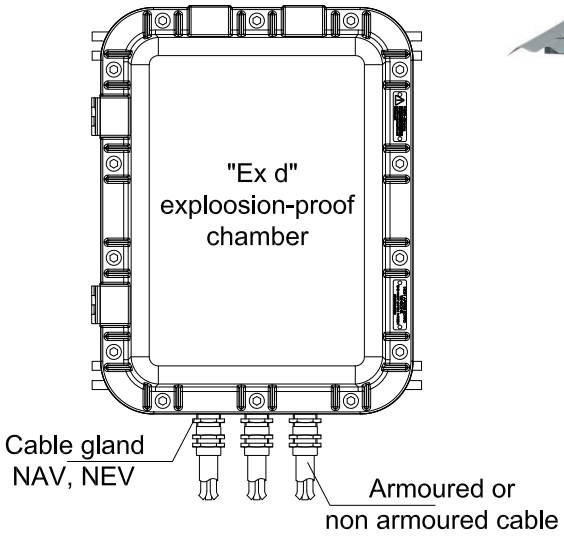
In the cable installation with direct entry, (Fig. 10) cable glands are restricted

FIG.9 **Example conduit installation. Between the enclusures, EYS series sealing fittings are visible**



directly on one or more sides of the "Ex d" enclosure and, thanks to their peculiarity, they realize the same segregation degree of the sealed fitting with the advantage of being inspect (possible cable replacement).
In the cable installation with indirect entry, (Fig. 11) cable glands are increased safety "Ex e" type and tested on one or more sides of the enclosure in "Ex e" execution. By means of sealed bushings, the "Ex e" box is connected to the "Ex d" box.

FIG.10 Example of directly cable entry



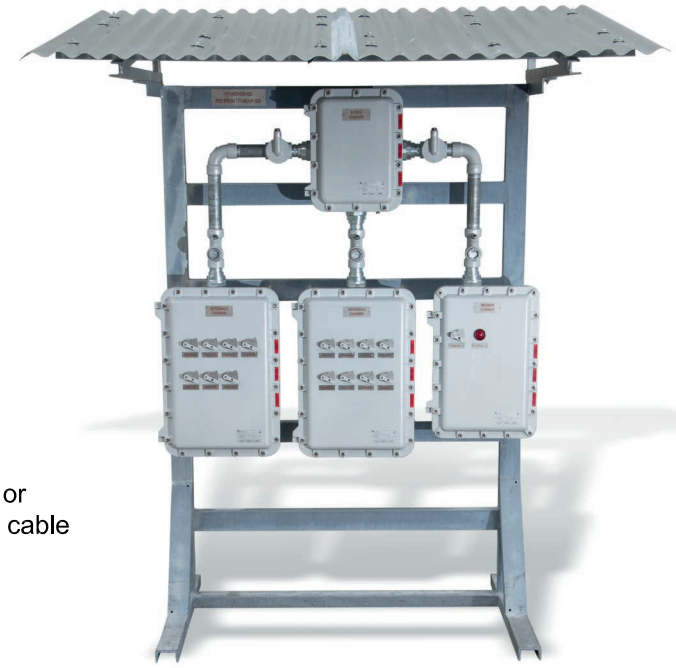
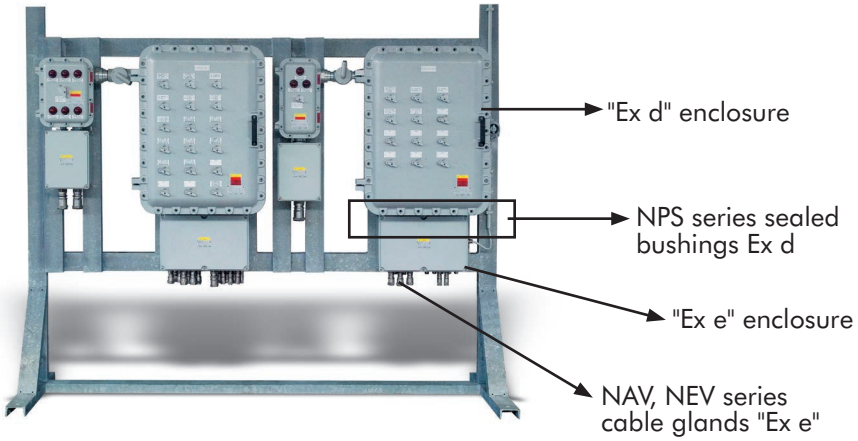
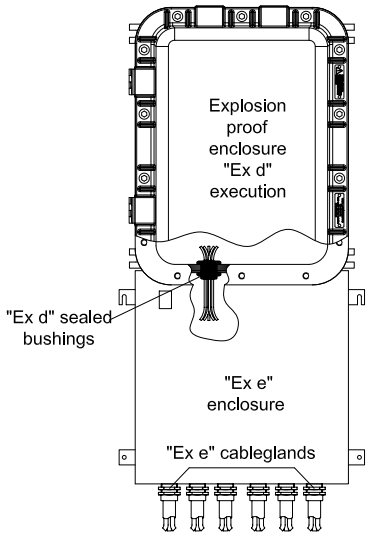


FIG.11 Example of indirect cable entry



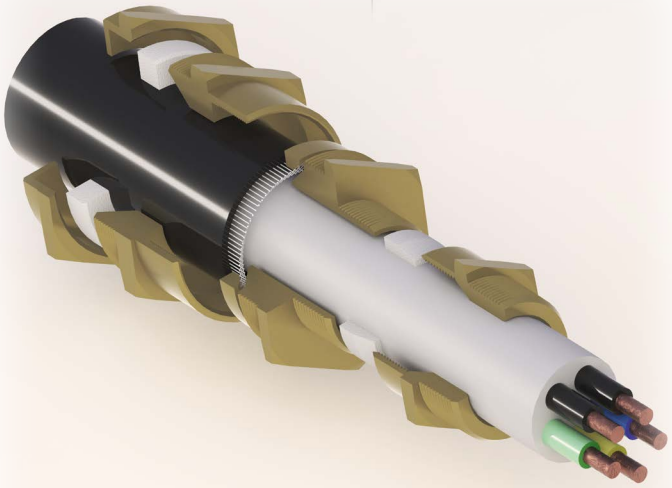


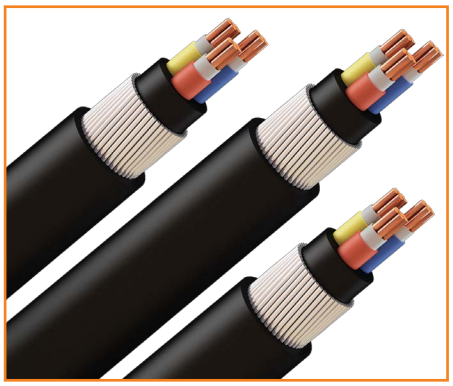
3. Type of electrical cables

Electrical cables can be of two types: copper and aluminium made. When electrical cables and/or conductors are constructed of ropes or wire of aluminium, the terminal connections such as terminals or attacks of equipment, must be suitable for the coupling with aluminium in order to avoid electrolyte corrosion effects resulting from couplings with brass/aluminium or copper/aluminium.

Such aluminium cables and/or conductors, with the exception of intrinsically safe systems and with limited energy, must usually have a section not less than 16mmq and the connections must ensure that the distances of surface insulation and in the air are not reduced by the additional means required for connection.

Must not be used cables with traction strength of internal and external sheath less than 8.5 MPa. Cables with traction resistance lower to 8.5 MPa are commonly known as "easy tear" cables.





Cables used for fixed installations in dangerous areas, under operating conditions (hot cables) must be suitable for the environmental conditions and must have the following features:

- be made of thermoplastic, thermosetting or elastomeric material, they must be circular and compact, any padding and sheaths must be extruded and any fillers must be of non-hygroscopic material;
- or they must be made with mineral insulation under metal sheath;
- or they must be of a special type, such as flat cables that must be coupled with cable glands suitable for such types of cables, having however the same constructive features as described above.

When there is a probability of gas or vapour transferring through the interstices between the individual cable cores and the cable leads to a non-dangerous

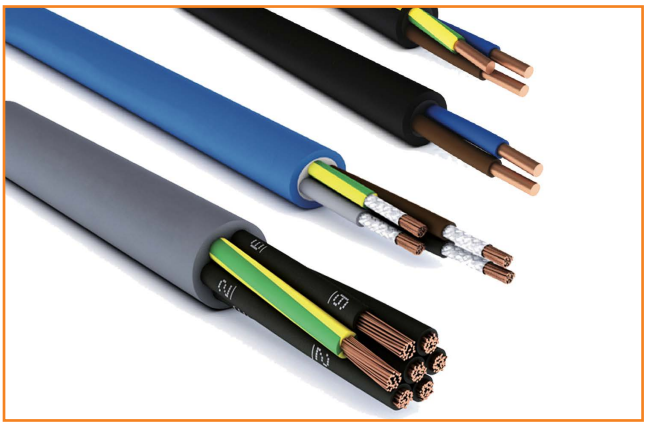
place or in zones with a different explosion hazard, the intended construction and use of the cable falls in the provision of paragraph 10.6.2, paragraph b) of

> Flexible cables used for fixed installations in dangerous areas, with the exception of intrinsically safe cables, must be suitable for the environmental conditions and must have one of the following features:

IEC/EN 60079-14.

- be made of hard rubber sheath for ordinary use;
- be made of polychloroprene sheath for ordinary use;
- be made of hard rubber sheath for heavy use;
- be made of polychloroprene sheath for heavy use;
- be made with thermoplastic insulation and of robust construction equivalent to the one of flexible cable with hard rubber sheaths for heavy use.

The cable temperature must never exceed the value of temperature relative to the specific Temperature Class assigned to the installation area for such cables.
All cables for fixed installation must have the characteristics of non-propagation of the flame, in agreement to IEC 603321-2 or IEC 60332-3-22 standard or to other kind of protection such as laying in sand filled tubs or using flame retardant barriers installed at the entrance of the cables in the classified area, in order to prevent the propagation of the flame and, consequently, an explosion.



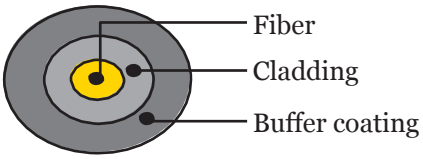
3.1 TYPICAL COMPOSITION OF ELECTRICAL CABLES

Premise

Here below we'll explain the typical cable formation, without getting into specifics of the constructive form which, referring to the paragraph 9 of 60079-14 standard, may be of different form and function, in relation to specific plant requirements. ELFIT, aware of these necessity, has created a series of specific accessories for the installation of cables such as:

- Flat cables, specific for handling and lifting systems of and suitable for transport systems for use in lifting systems, automated logistics and vertical storage systems, also suitable for use in cable chains for moving machines. (Source LAPP GROUP).

- Cables for transporting light signals (optical fibers). The transmission of a signal in fiber optic cables takes place through the principles of reflection and refraction of the light beam obtained by converting an electrical signal or pulse. The light beam that passes through the conductor, plastic or glass, is reflected (rebounds) with a certain angle of incidence on the cladding of the conductor called "cladding", inside the optical fiber. The goodness of the transmission over long distances will depend on the transparency and purity of the material constituting the optical fiber, hence the lesser refraction along the transmission line. In a time where the demand of fast and secure data networks is constantly growing, fiber optic cables are indispensable and irreplaceable (Source LAPP GROUP). This type of cable is in fact better than the classic cables as it does not have the strand formation but it is like a single conductor.



a) Primary insulation

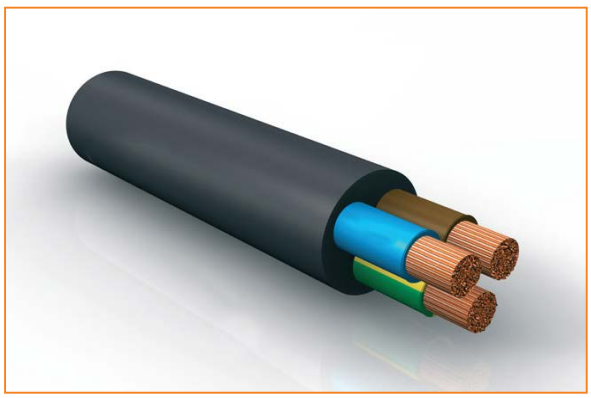
Cables with primary insulation in Polyvinyl Chloride (PVC)

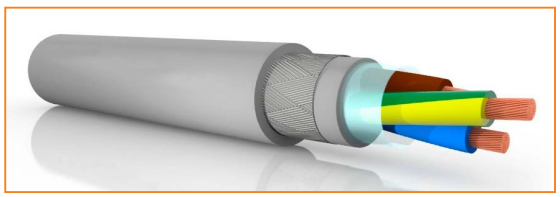
PVC is a versatile material that allows multiple content and different needs and it is the most commonly used for primary isolation in cables installed in generalized environments such as power supply utilities, signalling, lighting and, in general, all industrial electrical equipment.

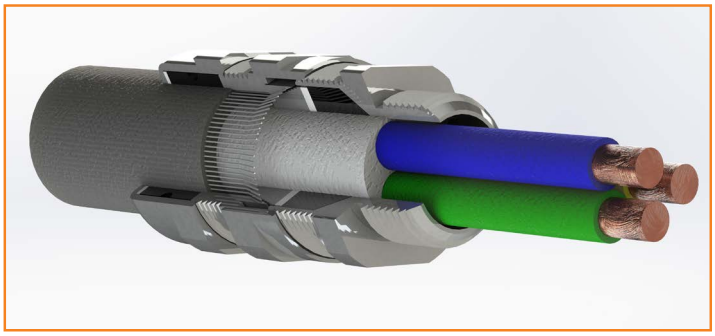
Its operating temperature can range from 70° C to 125° C, depending on the different formulation of the compound used. The addition of special additives and plasticizers increases the strength of the compound at high temperature.
Special PVC with a higher oxygen index, are used in the case of compliance with non-propagating fire tests in accordance with standards CEI 20-22/2, CEI 20-2 /3, IEC 332.3A, IEC 332.3C.

Cables with primary insulation in Polyethylene (PE)

Polyethylene (PE) is the most commonly used material for primary insulation of coaxial radiofrequency cables, which, due to its low dielectric constant (er = 2.3), it allows to produce low-capacity cables with speed of signal transmission which can also reach 0.8c (c = light speed)







in the case of cellular polyethylene. Furthermore, the dielectric constant and the factor of loss are largely independent from temperature and frequency.

Cables with primary insulation in cross-linked polyethylene (XLPE)

The crosslinked polyethylene (XLPE) is used for the primary insulation of cables of low, medium and high voltage, for signalling and control cables. The crosslinking process improves the cracking resistance under stress, the cold resistance and, as it does not melt like an elastomer, it is able to withstand thermal loads up to 120° C.

Cables with primary insulation in polypropylene (PP)

Polypropylene (PP) is used for the primary insulation of telecommunication cables, telephony, data transmission which, as mentioned for cables in PE, thanks to its low dielectric constant (er = 2.3), allows to realize low-capacity cables, with signal transmission speeds that can reach up to 0.75 ÷ 0.8c (c = light speed), in the case of cellular polypropylene.
Furthermore, the dielectric constant and the loss factor are largely independent from temperature and frequency and, in comparison to polyethylene, the polypropylene is more rigid.

Cables with primary insulation in Thermoplastic Rubber (TPE-O)

Thermoplastic rubber (TPE-O) is used for primary insulation for cables installed in generalized environments such as power supply, signalling, lighting and, in general, for all the electrical equipment of industrial type, combining the performance of vulcanized rubbers such as heat and low deformation resistance and the ease of processing of thermoplastic materials.
This type of cable finds particular use as primary insulation for spiral and extensible cables, particularly in the automation sector where the flexibility is a key requirement.

Cables with primary insulation in thermoplastic elastomer with polyester base (TPE-E)

Polyester (TPE-E) is used for primary insulation of cables installed in generalized environments such as power supply, signalling, lighting and, in general, all industrial electrical equipment, when it is required good resistance to flex, abrasion, impact, even at very low temperatures, temperature peaks and to chemical and atmospheric agents.

b) Secondary coating (sheaths)

With regard to PVC coating material, TPE-O and TPE-E, it's worth what written for primary isolation.

Cables with polyethylene sheath (PE)

Polyethylene is used as a secondary cable coating when it is required to lay it outdoors or in wet environments; in fact, this material has excellent resistance to water and salt solutions.

Cables with polyurethane sheath (TPE-U)

Polyurethane is used as a secondary coating for cables when flexibility features are required in a wide range of temperatures, ranging from -40° C to +100 ° C, toughness, resistance to chemicals and oils, hydrolysis resistance (Polyether polyurethanes), resistance to atmospheric agents and microbial (Polyether polyurethane), low coefficient friction (special polyurethane matte and silk surface: matte finish/low gloss compound), elastic memory.
It is used for spiral and extensible cables, in the automation sector, automotive, in electronics cables, for geophysical research, power supply of equipment, tools and industrial machines, signalling and command when it is required good resistance to flex for, abrasion, impact, very low temperatures and chemical and weather agents.

c) Conductors

The material used is mainly bare copper or tinned copper or aluminium.
Tinned copper is recommended when welding is required in the shortest possible time.
The conductors used may be of the type:

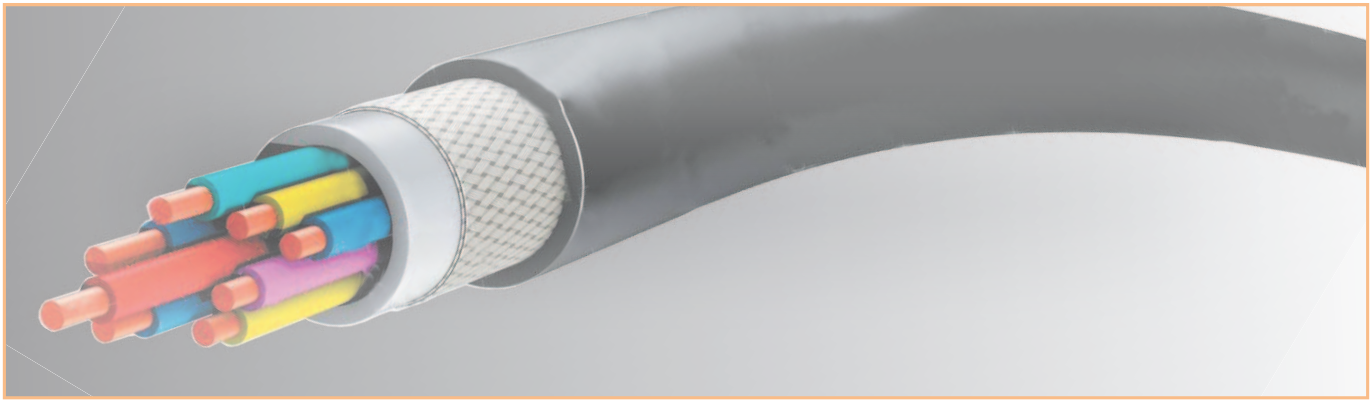
- *solid conductors*
- *bunched stranded conductors*
- *concentric stranded conductors*

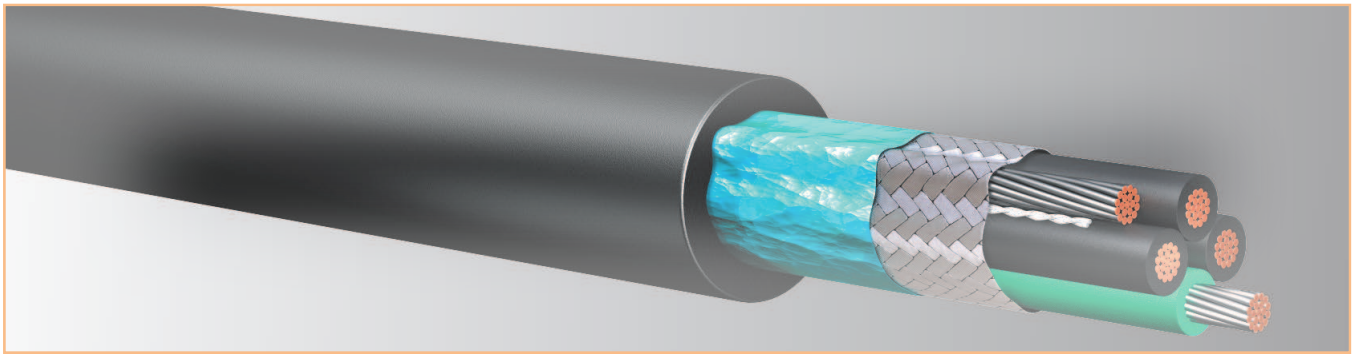
or of different flexibility depending on the application requested.

d) Armour

Typical types of armour used are:

- *smooth aluminium sheath, or metal braid armour (sock)*
- *lead alloy sheath*
- *non-alloy lead sheath*
- *cylindrical reinforcement wire, normally in steel*
- *steel reinforced reinforcement*
- *steel plate reinforcement*





e) Shielding

Typical types of shields used are:

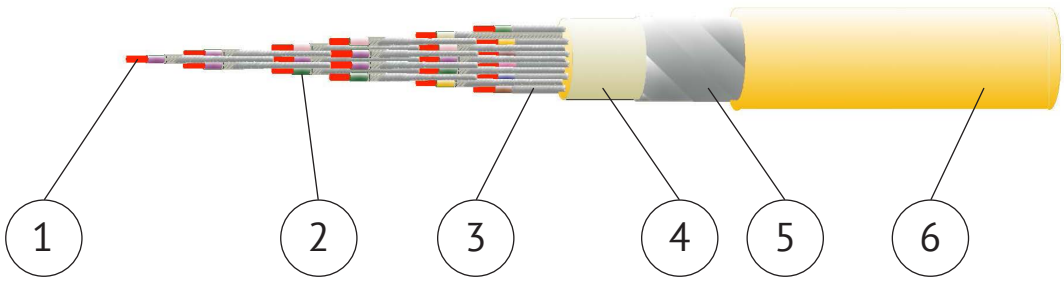
- *metallic paper or charcoal or aluminium tape screen*
- *strip or strip screen or copper wire*
- *braid or copper sleeve*
- *double braid or double copper braid*
- *longitudinal strip of corrugated steel*
- *coated aluminium longitudinal tape screen*

3.2 TYPICAL CHARACTERISTICS OF THE MATERIALS USED FOR THE INSULATION OF THE CABLES

Acronym	Material	Operating temperature °C	Density (g/cm^3)	Halogen content (%)	Dielectric constant (1MHz)	Dielectric strength (kV/mm)
PVC	Polyvinylchloride	15 ÷ 90	1,25 ÷ 1,5	35	4,5	> 12
PVC (spec.)	Polyvinylchloride	-40 ÷ +125	1,25 ÷ 1,5	35	4,5	> 12
PE	Polyethylene	-50 ÷ +80	0,92 ÷ 0,96	0	2,3	> 22
XLPE	Crosslinked polyethylene	-60 ÷ +120	0,91 ÷ 0,92	0	2,3	> 22
PP	Polypropylene	+40 ÷ +105	0,9	0	2,3	> 22
TPE-O	Thermoplastic rubber	-40 ÷ +125	0,95 ÷ 0,98	0	2,7	> 20
TPE-E	Thermoplastic elastomer based on polyester	-40 ÷ +105	1,20 ÷ 1,25	0	-	> 10
TPE-U	Polyurethane	-40 ÷ +90	1,12	0	-	> 10
TPE-U (spec.)	Polyurethane	-40 ÷ +105	1,12	0	-	> 10

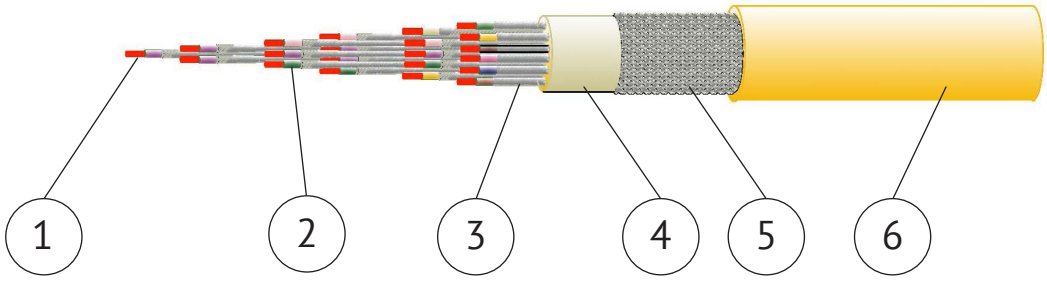
Some examples of electro-instrument cable

Instrumentation cables with shielding on individual core and total shielding



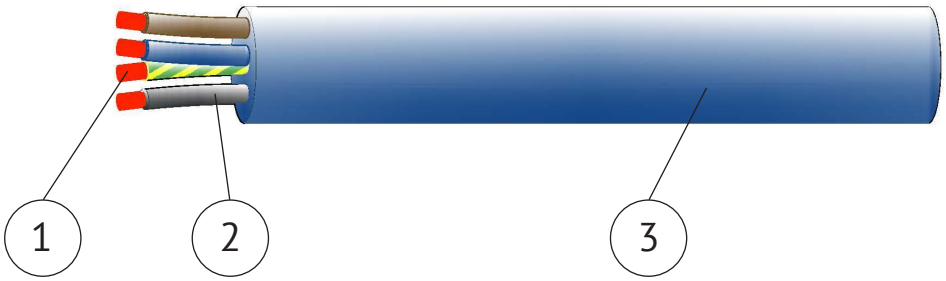
1	Conductor	Concentric copper conductor
2	Insulation	Synthetic rubber or ethylenepropylene rubber
3	Screen	Copper braid shield on individual cores
4	Filling	Non-hydrous material mixture
5	Shielding	Shielding tapes, wires or copper strips on the set of wire cores
6	Outer sheath	Common PVC, synthetic rubber or ethylenepropylene rubber

Instrumentation cables, with shielding on the individual core and outer armour



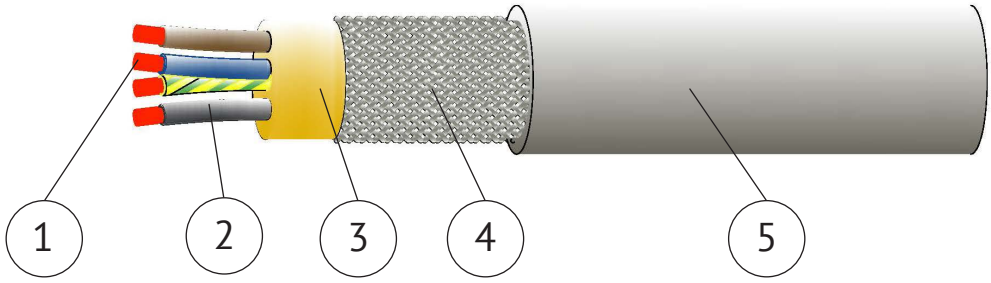
1	Conductor	Concentric copper conductor
2	Insulation	Synthetic rubber or ethylenepropylene rubber
3	Screen	Copper braid shield on individual cores
4	Filling	Non-hydrous material mixture
5	Armour	Braid armour made of steel wires or steel plates or steel strips
6	Outer sheath	Common PVC, synthetic rubber or ethylenepropylene rubber

Common PVC, synthetic rubber or ethylenepropylene rubber



1	Conductor	Concentric copper conductor
2	Insulation	Synthetic rubber or ethylenepropylene rubber
3	Outer sheath	Common PVC, synthetic rubber or ethylenepropylene rubber

Instrumentation cables, with shielding on the individual core and outer armour



1	Conductor	Concentric copper conductor
2	Insulation	Synthetic rubber or ethylenepropylene rubber
3	Filling	Non-hydrous material mixture
4	Armour	Braid armour made of steel wires or steel plates or steel strips
5	Outer sheath	Common PVC, synthetic rubber or ethylenepropylene rubber

Due to the wide variety of low and medium voltage cables and the different coding systems at international level, we provide a brief description of the coding criterion below.

Cable designation coding according to Italian standard CEI 20-27.

Reference to Standards	H	Cable conforming to harmonized standards	Conductor material	-	Copper
	A	Authorized national type cable		A	Aluminium
	N	Other type of national cable	Natura del materiale dell'isolante	V	Common PVC
Rated Voltage Uo/U	01	100/100V		V2	PVC for a temperature of 90° C
	03	300/300V		R	Synthetic rubber for a temperature of 60° C
	05	300/500V		B	Ethylenepropylene rubber
	07	450/750V		N2	Polychloroprene for welding cables
	1	0,6/1Kv		Z	Cross-linked polyolefins with low-emission of toxic and corrosive gas and fumes
Metallic covering (shielding and armour)	C	Concentric copper conductor		Z1	Thermoplastic polyolefins with low-emission of toxic and corrosive gas and fumes
	C4	Copper braid shield on the set of cores	Materiale della guaina	V	Common PVC
	C5	Copper braid shield on individual cores		V2	PVC for a temperature of 90° C
	C7	Trips, plates or copper wires protection on the set of the cores		V5	PVC oil-resistant
	Z2	Round steel wire armour		R	Synthetic rubber
	Z3	Steel plates armour		B	Ethylenepropylene rubber
	Z4	Steel strips armour		N	Polychloroprene
	Z5	Steel wire braid armour		N8	Water-resistant polychloroprene
Cable shape	H2	Flat cables "not divisible"		Q	Polyurethane
	H6	Flat cable with three or more cores		N4	Polyethylene chlorosulfonate or chlorinated polyethylene
	H7	Cables with double layer insulation applied for extrusion		Z	Cross-linked polyolefins with low-emission of toxic and corrosive gas and fumes
Conductor shape	U	Rigid single wire		Z1	Thermoplastic polyolefins with low-emission of toxic and corrosive gas and fumes
	R	Rigid with round rope			
	F	Flexible for mobile laying			
	K	Flexible for fixing laying			
	D	Flexible for welding cables			
	E	Very flexible for welding cables			

Cable designation coding according to Italian standard UNEL 35011-2000

Nature and quality of insulation	E4	Crosslinked polyethylene compound having a characteristic temperature of 85°C
	G	Natural and/or synthetic rubber compound having a characteristic temperature of 60°C
	G4	Silicone rubber compound having a characteristic temperature of 180°C
	G7	High modulus ethylene-propylene rubber compound having a characteristic temperature of 90°C
	G8	Ethylene propylene rubber compound suitable also for cables without protective covering having a characteristic temperature of 85°C
	G9	Smooth, corrosive, flame retardant elastomeric compound, suitable for cables without protective covering with a characteristic temperature of 90°C
	G10	Crosslinked elastomeric mixture with low-development of fumes and toxic/corrosive gases having a characteristic temperature of 90°C
	G19	Crosslinked elastomeric mixture with low-development of fumes and toxic/corrosive gases having a characteristic temperature of 90° C
	G20	Crosslinked elastomeric mixture with low-development of fumes and toxic/corrosive gases having a characteristic temperature of 90° C
	M9	Crosslinked elastomeric mixture with low-development of fumes and toxic/corrosive gases having a characteristic temperature of 90° C
	R	Polyvinylchloride-based mixture having a temperature of 70° C, T11 and T12 quality
	R2	Polyvinylchloride-based mixture having a temperature of 70° C, R2 quality
	R4	Polyamide resin compound
	R5	Fluorocarbon resin mixture
	R5F	Fluorocarbon-copolymer based resin mixture tetrafluoroethylene-hexafluoropropylene (FEP)
	R5M	Fluorocarbon-copolymer based resin mixture tetrafluoroethylene-hexafluoropropylene
	R5P	Fluorocarbon-copolymer based resin mixture tetrafluoroethylene-hexafluoropropylene
	R7	Polyvinylchloride compound having a characteristic temperature of 90° C, T13 quality
	T4	One or more strips of molten glass or closed glass braid
	V	Glass impregnated canvas
	T	One or more strips of molten glass or closed glass braid
Cable shape	O	Cores, possibly with its own covering, combined with or without fillers, to form a round cable
	D	Cores, possibly with its own covering, combined with or without fillers, parallel flanked to form a flattened cable
	X	Cores, possibly with its own covering, combined with or without fillers, combined in a visible helix
	W	Parallel joined cores, with an intermediate groove
	W1	Parallel joined cores with an intermediate insulating strip

Degree of flexibility of the conductor	A	Aluminum conductor
	F	Flexible rope conductor of round shape
	FF	Very flexible rope conductor of round shape
	R	Rigid string-shaped conductor of round shape, normally compact
	U	Single thread conductor, with round shape
	E	Thermoplastic polyethylene based mixture
Metal covering (shield and armour)	A	Smooth aluminum sheath, or metal braid armour (sleeve)
	F	Cylindrical wires armour, normally made of steel
	H5	Coated aluminum longitudinal tape screen
	L	Coated aluminum longitudinal tape screen
	N	Steel reinforcement armour
	P	Non-alloy lead sheath
	Z	Steel plate armour
Concentric shields and conductors	C	Copper concentric conductor
	H	Metallic paper or charcoal or aluminum tape protection
	H1	Protection with ribbons or strips or copper wires
	H2	Braid or copper sleeve
	H3	Double braid or double copper sleeve
	H4	Longitudinal strip of corrugated steel
	H5	Covered aluminum longitudinal tape screen
Sheaths (non-metallic covering)	E	Ez-quality thermoplastic sheath
	E4	E4M quality cross-linked polyethylene sheath
	G	Natural and/or Synthetic Rubber Sheath Gy quality
	G6	High quality polyethylene chlorosulfonate base compound G6M
	K	Basic sheath of polypropylchloroprene or equivalent quality products Ky, Kn and Kz
	R	Basic quality polyvinylchloride sheath Tm1, Tm2 and Rz
	R4	Polyamide resin base sheath
	M1	Low-temperature thermoplastic sheath with with low-development of fumes and toxic/corrosive gases
	M2	Elastomeric sheath with low development of fumes, toxic and corrosive gases of quality M2
	M3	Elastomeric sheath with low development of fumes, toxic and corrosive gases of quality M3
	M4	Elastomeric sheath with low development of fumes, toxic and corrosive gases of quality M4
	T	Flexible braid (possibly impregnated) of normal type
	T1	Glass strip bandage
	T2	Flexible braid special type (possibly impregnated)
Supporting element	S	Supporting element, generally with metal body, incorporated In the non-metallic sheath
	Y	Supporting element, textile or metallic, included among the cores or bounded outside the cable

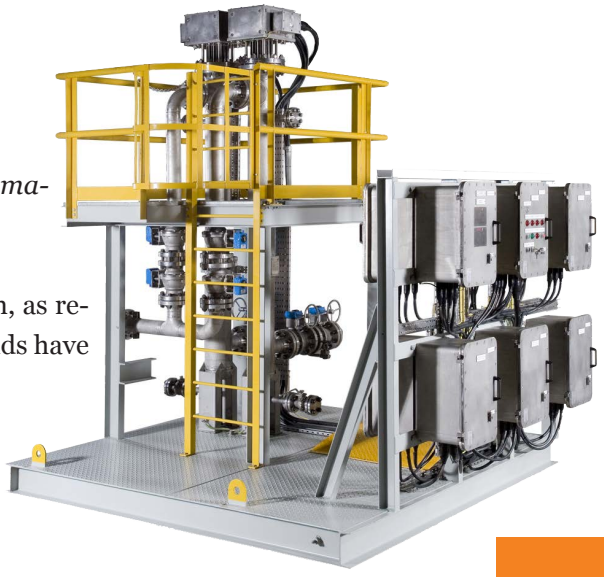
Cable designation according to the European CEI 20-27 / CENELEC HD361 system

Reference to Standards	H	Cable conforming to harmonized standards
	A	Recognized national type cable
	N	National type cable non-conforming to IEC Standard
Rated Voltage Uo/U	03	300/300V
	05	300/500V
	07	450/750V
	1	600/1000V
Insulating materials for sheathing	B	Ethylene propylene rubber for a continuous working temperature of 60° C
	G	Ethylene-vinyl acetate
	J	Glass fiber trace
	M	Mineral
	N	Polychloroprene
	N2	Special polychloroprene compound for cable covering for welders
	N4	Polyethylene chlorosulfonate or polyethylene chlorate
	N8	Special polychloroprene compound water-resistant
	Q	Polyurethane
	Q4	Polyamide
	R	Ordinary ethylenepropylene rubber and synthetic equivalent elastomer for a continuous operating temperature of 0°C.
	S	Silicon rubber
	T	Textile braid, impregnated or not, on the cores as a whole
	T6	Textile braid, impregnated or not, on the single core of a multipolar cable
	V	Commonly used polyvinyl chloride (or PVC)
	V2	PVC compound for a continuous operating temperature of 90°C
	V3	PVC compound for cables installed at low temperature
	V4	Cross-linked PVC
	V5	Special PVC compound oil resistant
	Z	Crosslinked polyolefinic compound that in case of combustion emits a low amount of fumes, toxic and corrosive gases
	Z1	Thermoplastic polyolefinic compound that in case of combustion emits a low amount of fumes, toxic and corrosive gases

Metallic covering (concentric conductor and screens)	C	Concentric copper conductor
	C4	Copper protection in the form of braid on the set of cores
	C5	Copper braid shield on individual cores
	C7	Strips, plates or copper wires protection
	A7	Aluminum protection
Special shapes and constructions	Z2	Steel wires armour
	Z3	Steel plates armour
	Z4	Steel strips armour
	Z5	Steel wire braid
Special shapes and constructions	H	"Divisible" flat cables with or without sheath
	H2	Flat cables "not divisible"
	H6	Flat cable with three cores, according to HD 359 or EN 50214
	H7	Double layer insulating cable applied for extrusion
	H8	Extensible rope
Degree of flexibility of the conductor	D	Flexible conductor for use in cables for arc welders, according to HD 22 part 6 (different flexibility of the Class 5 of HD 383)
	E	Flexible conductor for use in cables for arc welders, according to HD 22 part 6 (different flexibility of the Class 5 of HD 383)
	F	Flexible conductor of a flexible cable (flexibility according to Class 5 of HB 383)
	H	Very flexible conductor of a flexible cable (flexibility according to Class 6 of HB 383)
	K	Flexible conductor of a cable for fixed installations (if not differently specified, flexibility according to the Class 5 of HD 383)
	R	Sturdy, round, rope conductor
	U	Sturdy, round conductor with one wire
	Y	Conductor made of similar copper

As can be understood from the identification and cable formation tables, which vary in function of the applied regulations, who designs and produces cable glands has a considerable amount of selections to do in order to be able to satisfy the needs of the designer of electro-instrumental equipment and, last but not least, a careful analysis of the dimensioning of the mechanical seals according to the diameters below armour (Inner) and max. external cable diameter (outer).
In addition to the above, the plant technician must also pay close attention to the method to be adopted for the design and choice of cable gland, always keeping in mind the requirements of IEC/EN 60079-14 para. 10.6.2 (see Figure 8 in the previous paragraph).

3.3 TYPICAL EXAMPLES OF PLANT DESIGN



1. *Process skids, with control panels command placed on board the machine*

   In this case, since the distances of the connections are below the 3m, as required by IEC/EN 60079-14 paragraph 10.6.2. Sub b), the cable glands have to be of the barrier type.

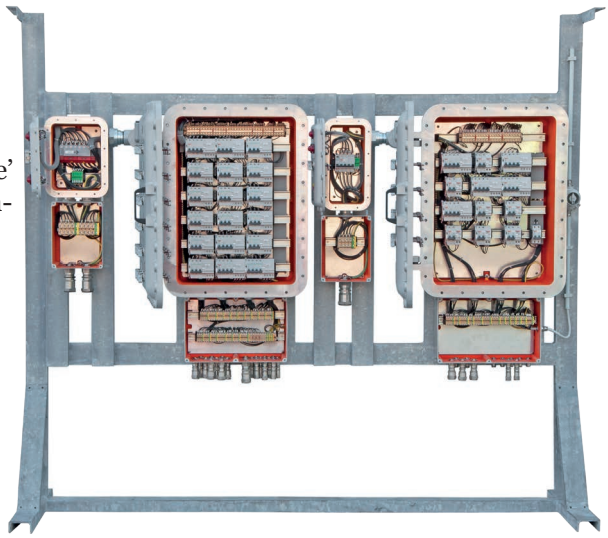
2. *Typical plant with motor power supply and local control columns*

In these cases, the distances of the connections above 3m, as required by IEC/EN 60079-14 paragraph 10.6.2. Sub b), the cable glands must be of the Ex-certified type, simple or double sealing (if the cable is armoured or not armoured), respecting all the conditions of sub b), that is:

- cable glands conforming to IEC/EN 60079-1 and certified as equipment.
- cables with thermoplastic, thermosetting or elastomeric sheath, of compact circular shape, with extruded padding or sleeves and non-hygroscopic material.
- the length of the connected cable is equal to or greater than 3m, making sure that the test are in accordance with the requirements of Annex I (Limited Breathing Ventilation Test) of IEC/EN 60079-14

3. *Distribution 'Ex de' panel boards*

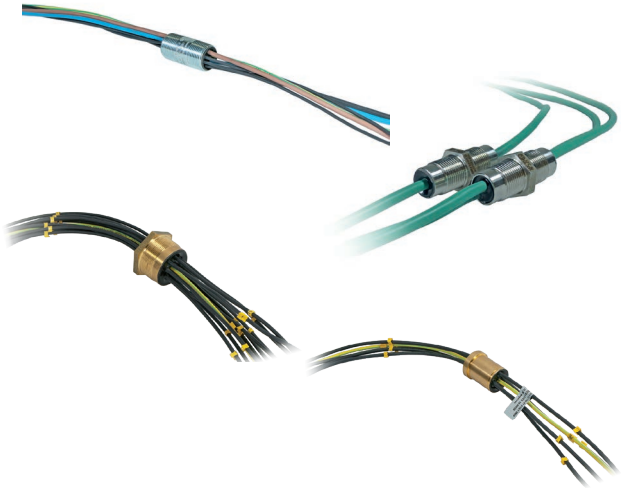
   In these cases, as the way of protection is of "Indirect" entry through 'Ex e' box and sealed passage between 'Ex e' and 'Ex d' junction box, the concept expressed in the standard IEC/EN 60079-14, para 10.6.2 sub. C), is respected: the cable glands can be of the Ex-certified type and with simple or double sealing (if the cable is armoured or not armoured).



4.
Electrical fittings, explosion proof and weather proof junction and pulling boxes

Considering the difficulty for designers to forecast the development of a plant since the first phases of its project and until the conclusion of the engineering, there are devices specifically thought to simplify the designer's job.
Elfit offers a wide range of electrical fittings which enables the realization of a complete electrical plant: three pieces unions, adaptors, closing plugs available in different threads and executions, 90° elbows, open elbows, couplings, sealing and pulling fittings, rigid and flexible conduits.

Moreover, Elfit manufactures explosion proof and weather proof junction boxes. The ex-proof junction boxes are available in different models, size and threads and can be used for the pulling or also for the junction of conductors. Weather proof junction boxes in aluminium, stainless steel and polyester can contain electrical and electronic instruments and be installed in any industrial environment.



5. Elfit foundry: Aluminium customized die-casting items

FIG.12 e 13
The working process of aluminium in Elfit foundry

Elfit foundry is able to realize aluminium customized die-casting items using primary and secondary alloys in various fields: electro-mechanical, hydraulic, transports, food, lighting and furniture. The service includes the feasibility study of product, die making with filling simulation package and the production of particular customized solutions.

ELFIT®

ELectrical FITtings for Hazardous Areas

Cable glands

Cable gland series NAV for non-armoured cables from 3/8" to 4"

NAV series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armored cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc. Thanks to their structure, they are particularly suitable both in harsh application, such as marine one, and places subjected to stress and mechanical shock as it often happens in all those places of the "heavy" industry where safety is a top priority. They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/68. The result is a cable gland which provides maximum performance in terms of reliability and safety over time, is compatible with a wide range of the main, commercially available cables, and complies with the most recent applicable regulations.

EMC TESTED

Classification: 2014/34/EU	Group II	Category 2GD/3G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex db IIC Gb - Ex eb IIC Gb II 2 D - Ex tb IIIC Db II 3G Ex nR IIC Gc - IP66/68	
Certification:	ATEX (category 2): IMQ 17 ATEX 016X ATEX (category 3): IMQ 17 ATEX 017X IEC Ex IECEx IMQ 17.0010X TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2016, EN 60079-7: 2015, EN 60079-15: 2012, EN 60079-31: 2015 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2011 IEC60079-1: 2014 IEC60079-7: 2015 IEC60079-15: 2015 IEC60079-31: 2013 RoHS Directive 2002/95/EC	
Operating temperature:	-60 °C +130 °C	
Protection rating:	IP66/68 *(30 metres - 12 hours)*	
Design	BS 6121: Part 1:1989, IEC 62444, EN 62444	

Certificates are available on www.cortemgroup.com

Interactive Point

NAV.. assembly instructions video

ACCESSORIES UPON REQUEST

Locknuts	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Sealing ring for flat/ healing cables
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**	
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**	
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**	
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**	
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**	
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**	
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**	
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**	Code and dimensions are in the page pagina A.12
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**	
	M115x1,5	**DL115IB**	**DL115IG**	**DL115IS**	

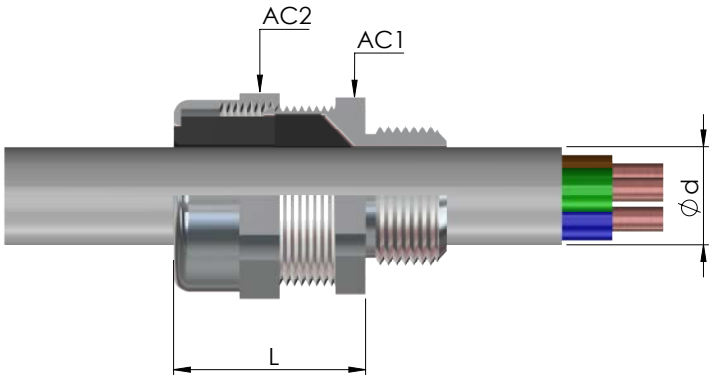
Nickel-plated brass earthing rings	ISO thread	Nickel-plated brass	Stainless steel	Serrated steinless steel lock washers	Code	Adapters and reducers of the **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	
	M75x1,5	**A731B**	**A731S**			
	M90x1,5	**A831B**	**A831S**			
	M100x1,5	**A103110IB**	**A103110IS**			
	M115x1,5	**A1031B**	**A1031S**			

Black TPV protector	CG	Code
	NAV01NB	**PGA1F**
	NAV1SNB	**PGA1N**
	NAV1NB	**PGA1**
	NAV2NB	**PGA2N**
	NAV3NB	**PGA4**
	NAV4NB	**PGA4**
	NAV5SNB	**PGA5**
	NAV5NB	**PGA5N**
	NAV6SNB	**PGA6**
	NAV6NB	**PGA6**
	NAV7SNB	**PGA7**
	NAV7NB	**GTR7** Heat shrinkable
	NAV8NB	
	NAV9NB	
	NAV10NB	

* For different threads, contact the sales department.

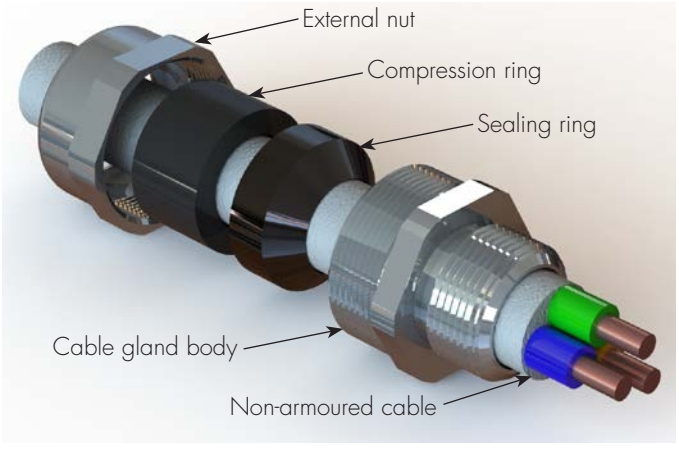
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLAND SELECTION TABLE

Code Nickel-plated brass	Thread	Code Nickel-plated brass	Thread	Dimensions in mm AC1	AC2	L	Range Ød min-max Outer sheath of the cable	Weight Kg
NAV01NB	3/8" NPT	**NAV16IB**	M16x1,5	24	24	34	3.5 - 8.6	0,086
NAV1SNB	1/2" NPT	**NAV20SIB**	M20x1,5	24	26	34	6.3 - 11.6	0,093
NAV1NB	1/2" NPT	**NAV20IB**	M20x1,5	30	32	37	6.5 - 14	0,126
NAV2NB	3/4" NPT	**NAV25IB**	M25x1,5	36	38	37	11 - 20	0,153
NAV3NB	1" NPT	**NAV32IB**	M32x1,5	45	47	40	17 - 27	0,232
NAV4NB	1 ¼" NPT	**NAV40IB**	M40x1,5	50	52	40	22 - 32	0,295
NAV5SNB	1 ½" NPT	**NAV50SIB**	M50x1,5	55	57	43	29.5 - 38	0,374
NAV5NB	2" NPT	**NAV50IB**	M50x1,5	60	62	43	35.5 - 44	0,329
NAV6SNB	2" NPT	**NAV63SIB**	M63x1,5	68	77	51	40 - 50	0,753
NAV6NB	2 ½" NPT	**NAV63IB**	M63x1,5	73	77	52	47 - 56	0,732
NAV7SNB	2 ½" NPT	**NAV75SIB**	M75x1,5	80	82	55	53 - 62	0,714
NAV7NB	3" NPT	**NAV75IB**	M75x1,5	85	90	56	59 - 68	0,627
NAV8NB	3" NPT	**NAV90IB**	M90x1,5	100	110	59	66 - 79	1,384
NAV9NB	3 ½" NPT	**NAV100IB**	M100x1,5	115	120	62	76 - 91	1,316
NAV10NB	4" NPT	**NAV115IB**	M115x1,5	120	130	62	86 - 98	1,937



Sample order code

NAV	6	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Silicone o-rings are supplied for cylindrical threads (ISO metric) for the pre-assembled IP seal on the cable gland*
- *The ISO7/1 thread version is available upon request (sample code NAV1B)*
- *Also available in stainless steel (sample code NAV1**S**)*
- *Other materials on request*
- *For "Ex i" intrinsic safety version, RAL 5015 blue nut (sample code NAV1**IA**)*

Cable glands series NAVF for non-armoured cable with female entry

NAVF series cable glands, with a female threaded outlet fitting, are suitable for use in areas with the risk of explosion, allowing the direct insertion of non-armoured cables in explosion proof enclosures, light fixtures, outlets, plugs, etc. Their structure makes them suitable for environments which are particularly difficult, such as marine environments, or where there are subjected to the mechanical stresses and impacts which often occur in heavy industry, where safety is the utmost priority. They are supplied with a sealing ring which is stretched over the cable at the inlet, ensuring 'Ex d' execution and an IP66/68 protection rating. The result is a cable gland which provides maximum performance, long-term reliability and safety, is compatible with a wide range of the main, commercially available cables, and complies with the most recent applicable regulations.

EMC TESTED

Interactive Point

NAV.. assembly instructions video

Classification: 2014/34/EU	Group II	Category 2GD/3G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex db IIC Gb - Ex eb IIC Gb II 2 D - Ex tb IIIC Db II 3G Ex nR IIC Gc - IP66/68	
Certification:	ATEX (category 2): IMQ 17 ATEX 016X ATEX (category 3): IMQ 17 ATEX 017X IEC Ex IECEx IMQ 17.0010X TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2016, EN 60079-7: 2015, EN 60079-15: 2012, EN 60079-31: 2015 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2011 IEC60079-1: 2014 IEC60079-7: 2015 IEC60079-15: 2015 IEC60079-31: 2013 RoHS Directive 2002/95/EC	
Operating temperature:	-60 °C +130 °C	
Protection rating:	IP66/68 *(30 metres - 12 hours)*	
Design	BS 6121: Part 1:1989, IEC 62444, EN 62444	

Certificates are available on www.cortemgroup.com

ACCESSORIES UPON REQUEST

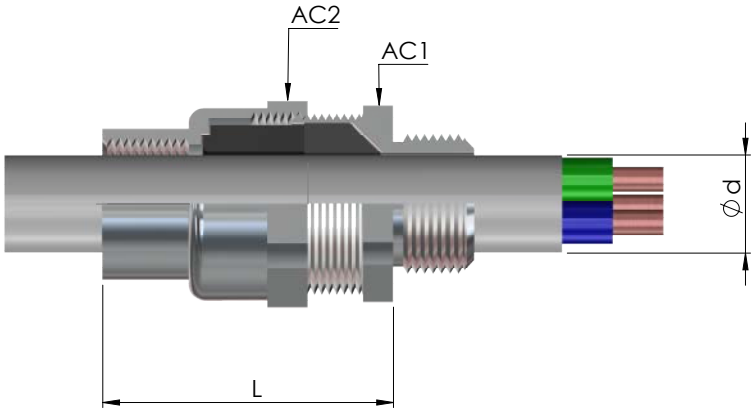
Locknuts	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Sealing ring for flat/ healing cables
	M16x1,5	DL01IB	DL01IG	DL01IS	
	M20x1,5	DL1IB	DL1IG	DL1IS	
	M25x1,5	DL2IB	DL2IG	DL2IS	
	M32x1,5	DL3IB	DL3IG	DL3IS	
	M40x1,5	DL4IB	DL4IG	DL4IS	
	M50x1,5	DL5IB	DL5IG	DL5IS	
	M63x1,5	DL6IB	DL6IG	DL6IS	
	M75x1,5	DL7IB	DL7IG	DL7IS	
	M90x1,5	DL8IB	DL8IG	DL8IS	Code and dimensions are in the page pagina A.12
	M100x1,5	DL10IB	DL10IG	DL10IS	
	M115x1,5	DL115IB	DL115IG	DL115IS	

Nickel-plated brass earthing rings	ISO thread	Nickel-plated brass	Stainless steel	Serrated steinless steel lock washers	Code	Adapters and reducers of the **RE...** series
	M16x1,5	A0131B	A0131S		RDI01IS/A4	
	M20x1,5	A1311IB	A1311IS		RDI1IS/A4	
	M25x1,5	A2312IB	A2312IS		RDI2IS/A4	
	M32x1,5	A3313IB	A3313IS		RDI3IS/A4	
	M40x1,5	A4314IB	A4314IS		RDI4IS/A4	
	M50x1,5	A5315IB	A5315IS		RDI5IS/A4	
	M63x1,5	A6316IB	A6316IS		RDI6IS/A4	
	M75x1,5	A731B	A731S			
	M90x1,5	A831B	A831S			
	M100x1,5	A103110IB	A103110IS			
	M115x1,5	A1031B	A1031S			

* For different threads, contact the sales department.

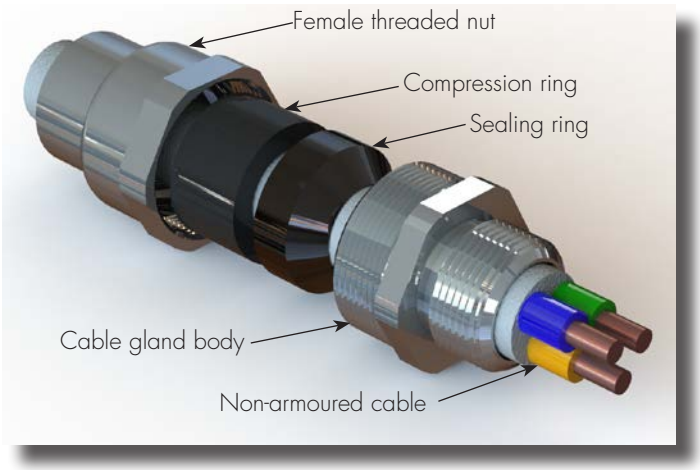
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLAND SELECTION TABLE

Code Nickel-plated brass	Thread	Code Nickel-plated brass	Thread	Dimensions in mm AC1	AC2	L	Range Ød min-max Outer sheath of the cable	Weight Kg
NAVF01NB	3/8" NPT	NAVF16IB	M16x1,5	24	24	53	3.5 - 8.6	0,107
NAVF1SNB	1/2" NPT	NAVF20SIB	M20x1,5	24	26	53	6.3 - 11.6	0,120
NAVF1NB	1/2" NPT	NAVF20IB	M20x1,5	30	32	56	6.5 - 14	0,155
NAVF2NB	3/4" NPT	NAVF25IB	M25x1,5	36	38	56	11 - 20	0,212
NAVF3NB	1" NPT	NAVF32IB	M32x1,5	45	47	59	17 - 27	0,276
NAVF4NB	1 ¼" NPT	NAVF40IB	M40x1,5	50	52	59	22 - 32	0,365
NAVF5SNB	1 ½" NPT	NAVF50SIB	M50x1,5	55	57	63	29.5 - 38	0,482
NAVF5NB	2" NPT	NAVF50IB	M50x1,5	60	62	63	35.5 - 44	0,428
NAVF6SNB	2" NPT	NAVF63SIB	M63x1,5	68	77	74	40 - 50	0,981
NAVF6NB	2 ½" NPT	NAVF63IB	M63x1,5	73	77	75	47 - 56	0,741
NAVF7SNB	2 ½" NPT	NAVF75SIB	M75x1,5	80	82	77	53 - 62	0,835
NAVF7NB	3" NPT	NAVF75IB	M75x1,5	85	90	78	59 - 68	0,934
NAVF8NB	3" NPT	NAVF90IB	M90x1,5	100	110	88	66 - 79	1,883
NAVF9NB	3 ½" NPT	NAVF100IB	M100x1,5	115	120	92	76 - 91	1,993
NAVF10NB	4" NPT	NAVF115IB	M115x1,5	120	130	92	86 - 98	2,332



Sample order code

NAVF	6	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Silicone o-rings are supplied for cylindrical threads (ISO metric) for the pre-assembled IP seal on the cable gland*
- *The ISO7/1 thread version is available upon request (sample code NAVF1B)*
- *Also available in stainless steel (sample code NAVF1**S**)*
- *Other materials on request*
- *For "Ex i" intrinsic safety version, RAL 5015 blue nut (sample code NAVF1**IA**)*

Cable glands series NAVN for non-armoured cable with male enrty

NAVN series cable glands, with a male outlet fitting, are suitable for use in areas with the risk of explosion, allowing the direct insertion of non-armoured cables in explosion proof enclosures, light fixtures, outlets, plugs, etc. Their structure makes them suitable for environments which are particularly difficult, such as marine environments, or where there are subjected to the mechanical stresses and impacts which often occur in heavy industry, where safety is the utmost priority. They are supplied with a sealing ring which is stretched over the cable at the inlet, ensuring 'Ex d' execution and an IP66/68 protection rating. The result is a cable gland which provides maximum performance, long-term reliability and safety, is compatible with a wide range of the main, commercially available cables, and complies with the most recent applicable regulations.

EMC TESTED

Classification: 2014/34/EU	Group II	Category 2GD/3G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex db IIC Gb - Ex eb IIC Gb II 2 D - Ex tb IIIC Db II 3G Ex nR IIC Gc - IP66/68	
Certification:	ATEX (category 2): IMQ 17 ATEX 016X ATEX (category 3): IMQ 17 ATEX 017X IEC Ex IECEx IMQ 17.0010X TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2016, EN 60079-7: 2015, EN 60079-15: 2012, EN 60079-31: 2015 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2011 IEC60079-1: 2014 IEC60079-7: 2015 IEC60079-15: 2015 IEC60079-31: 2013 RoHS Directive 2002/95/EC	
Operating temperature:	-60 °C +130 °C	
Protection rating:	IP66/68 *(30 metres - 12 hours)*	
Design	BS 6121: Part 1:1989, IEC 62444, EN 62444	

Certificates are available on www.cortemgroup.com

Interactive Point

NAV assembly instructions video

ACCESSORIES UPON REQUEST

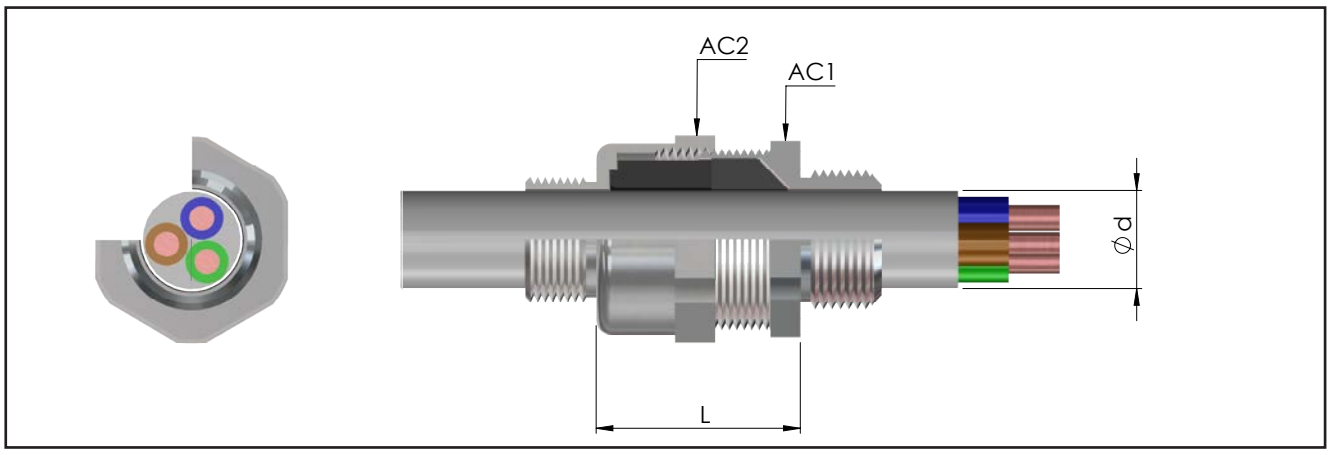
Locknuts	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Sealing ring for flat/ healing cables
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**	
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**	
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**	
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**	
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**	
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**	
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**	
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**	Code and dimensions are in the page pagina A.12
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**	
	M115x1,5	**DL115IB**	**DL115IG**	**DL115IS**	

Nickel-plated brass earthing rings	ISO thread	Nickel-plated brass	Stainless steel	Serrated steinless steel lock washers	Code	Adapters and reducers of the **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	
	M75x1,5	**A731B**	**A731S**			
	M90x1,5	**A831B**	**A831S**			
	M100x1,5	**A103110IB**	**A103110IS**			
	M115x1,5	**A1031B**	**A1031S**			

* For different threads, contact the sales department.

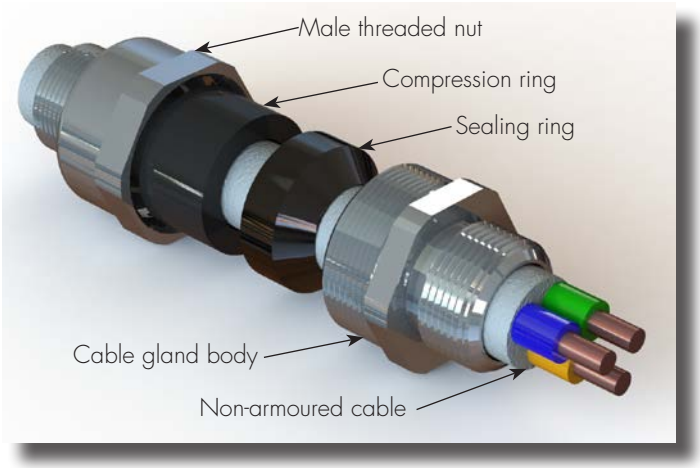
CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLAND SELECTION TABLE

Code Nickel-plated brass	Thread	Code Nickel-plated brass	Thread	Dimensions in mm AC1	AC2	L	Range Ød min-max Outer sheath of the cable	Weight Kg
NAVN01NB	3/8" NPT	NAVN16IB	M16x1,5	24	24	53	3.5 - 8.6	0,105
NAVN1SNB	1/2" NPT	NAVN20SIB	M20x1,5	24	26	53	6.3 - 11.6	0,122
NAVN1NB	1/2" NPT	NAVN20IB	M20x1,5	30	32	56	6.5 - 14	0,150
NAVN2NB	3/4" NPT	NAVN25IB	M25x1,5	36	38	56	11 - 20	0,192
NAVN3NB	1" NPT	NAVN32IB	M32x1,5	45	47	59	17 - 27	0,264
NAVN4NB	1 ¼" NPT	NAVN40IB	M40x1,5	50	52	59	22 - 32	0,360
NAVN5SNB	1 ½" NPT	NAVN50SIB	M50x1,5	55	57	63	29.5 - 38	0,486
NAVN5NB	2" NPT	NAVN50IB	M50x1,5	60	62	63	35.5 - 44	0,392
NAVN6SNB	2" NPT	NAVN63SIB	M63x1,5	68	77	74	40 - 50	1,034
NAVN6NB	2 ½" NPT	NAVN63IB	M63x1,5	73	77	75	47 - 56	0,715
NAVN7SNB	2 ½" NPT	NAVN75SIB	M75x1,5	80	82	77	53 - 62	0,984
NAVN7NB	3" NPT	NAVN75IB	M75x1,5	85	90	78	59 - 68	0,948
NAVN8NB	3" NPT	NAVN90IB	M90x1,5	100	110	88	66 - 79	1,804
NAVN9NB	3 ½" NPT	NAVN100IB	M100x1,5	115	120	92	76 - 91	1,858
NAVN10NB	4" NPT	NAVN115IB	M115x1,5	120	130	92	86 - 98	2,779



Sample order code

NAVN	6	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Silicone o-rings are supplied for cylindrical threads (ISO metric) for the pre-assembled IP seal on the cable gland*
- *The ISO7/1 thread version is available upon request (sample code NAVN1B)*
- *Also available in stainless steel (sample code NAVN1**S**)*
- *Other materials on request*
- *For "Ex i" intrinsic safety version, RAL 5015 blue nut (sample code NAVN1**IA**)*

Cable gland series NEV for armoured cables from 3/8" to 4"

NEV series cable glands are suitable for use in areas with the risk of explosion, allowing the direct insertion of non-armoured cables in explosion proof enclosures. They are supplied with a sealing ring which is stretched over the cable at the inlet to guarantee 'Ex d' execution, and a second compression ring which is stretched over the cable armour at the outlet to guarantee an IP 66/68 protection rating. The result is a cable gland which provides maximum performance in terms of reliability and safety over time, is compatible with a wide range of the main, commercially available cables, and complies with the most recent applicable regulations. Their structure makes them suitable for environments which are particularly difficult, such as marine environments, or where there are subjected to the mechanical stresses and impacts which often occur in heavy industry, where safety is the utmost priority.

EMC TESTED

Interactive Point

See Video with assembly instructions for NEV.. (light armoured)

See Video with assembly instructions for NEV.. (heavy armoured)

Classification: 2014/34/EU	Group II	Category 2GD/3G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex db IIC Gb - Ex eb IIC Gb II 2 D - Ex tb IIIC Db II 3G Ex nR IIC Gc - IP66/68	
Certification:	ATEX (category 2): IMQ 17 ATEX 016X ATEX (category 3): IMQ 17 ATEX 017X IEC Ex IECEx IMQ 17.0010X TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2016, EN 60079-7: 2015, EN 60079-15: 2012, EN 60079-31: 2015 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2011 IEC60079-1: 2014 IEC60079-7: 2015 IEC60079-15: 2015 IEC60079-31: 2013 RoHS Directive 2002/95/EC	
Operating temperature:	-60 °C +130 °C	
Protection rating:	IP66/68 *(30 metres - 12 hours)*	
Design	BS 6121: Part 1:1989, IEC 62444, EN 62444	

Certificates are available on www.cortemgroup.com

ACCESSORIES UPON REQUEST

Locknuts	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Sealing ring for flat/healing cables
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**	
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**	
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**	
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**	
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**	
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**	
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**	
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**	Code and dimensions are in the page pagina A.12
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**	
	M115x1,5	**DL115IB**	**DL115IG**	**DL115IS**	

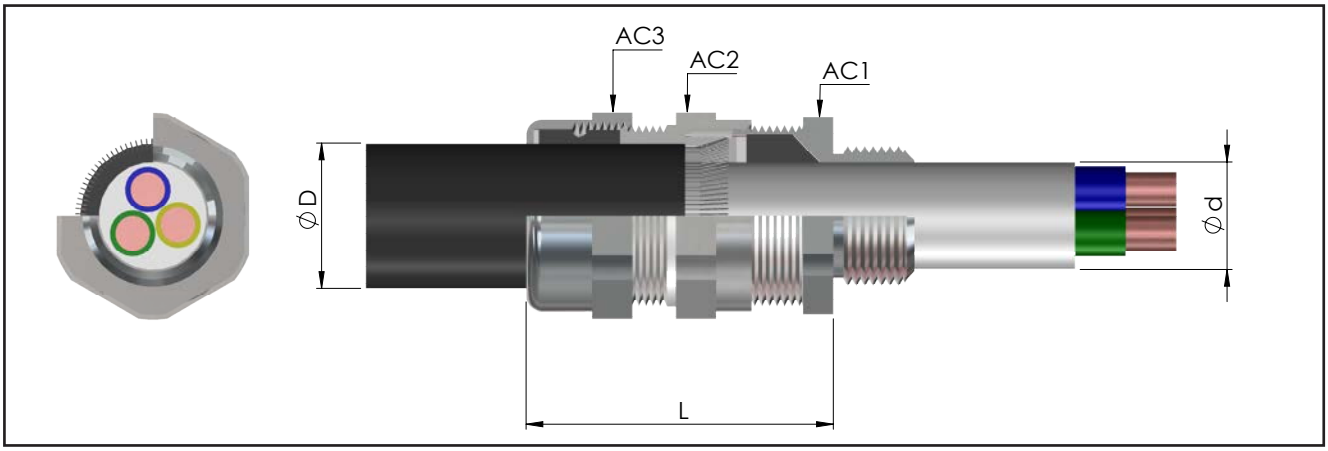
Nickel-plated brass earthing rings	ISO thread	Nickel-plated brass	Stainless steel	Serrated steinless steel lock washers	Code	Adapters and reducers of the **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	
	M75x1,5	**A731B**	**A731S**			
	M90x1,5	**A831B**	**A831S**			
	M100x1,5	**A103110IB**	**A103110IS**			
	M115x1,5	**A1031B**	**A1031S**			

Black TPV protector	CG	Code
	NEV01NB	**PGA1F**
	NEV1SNB	**PGA1N**
	NEV1NB	**PGA1**
	NEV2NB	**PGA2N**
	NEV3NB	**PGA4**
	NEV4NB	**PGA5**
	NEV5SNB	**PGA5**
	NEV5NB	**PGA5N**
	NEV6SNB	**PGA6**
	NEV6NB	**PGA7**
	NEV7SNB	**GTR7** Heat shrinkable
	NEV7NB	
	NEV8NB	
	NEV9NB	
	NEV10NB	

* For different threads, contact the sales department.

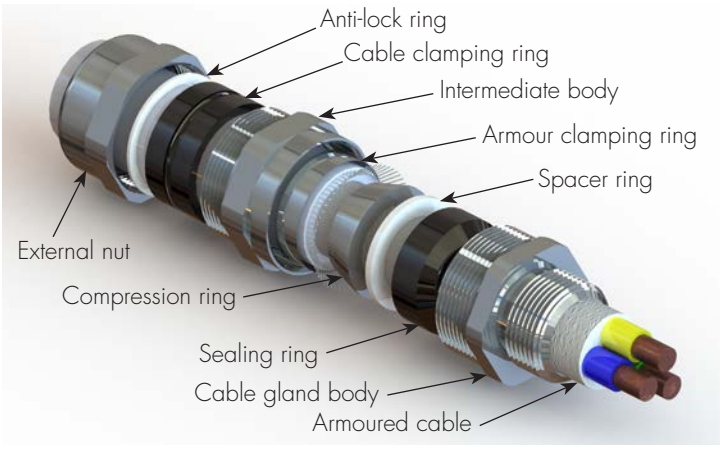
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLAND SELECTION TABLE

Code Nickel-plated brass	Thread	Code Nickel-plated brass	Thread	Dimensions in mm AC1	AC2	AC3	L	Range Ød min-max Internal cable sheath	ØD min-max Outer sheath of the cable	Armour thickness	Weight Kg
NEV01NB	3/8" NPT	**NEV16IB**	M16x1,5	24	24	24	59	3.5 - 8.6	6 - 13.2	0.2 - 1.3	0,145
NEV1SNB	1/2" NPT	**NEV20SIB**	M20x1,5	24	26	26	59	6.3 - 11.6	9.5 - 16	0.2 - 1.3	0,157
NEV1NB	1/2" NPT	**NEV20IB**	M20x1,5	30	32	32	61	6.5 - 14	12.5 - 21	0.2 - 1.4	0,215
NEV2NB	3/4" NPT	**NEV25IB**	M25x1,5	36	38	38	61	11 - 20	20 - 27.5	0.2 - 1.6	0,261
NEV3NB	1" NPT	**NEV32IB**	M32x1,5	45	47	47	72	17 - 27	23.5 - 34	0.2 - 2.0	0,433
NEV4NB	1 ¼" NPT	**NEV40IB**	M40x1,5	50	52	52	73	22 - 32	26 - 40	0.2 - 2.2	0,514
NEV5SNB	1 ½" NPT	**NEV50SIB**	M50x1,5	55	57	57	80	29.5 - 38	35 - 46.5	0.2 - 2.5	0,610
NEV5NB	2" NPT	**NEV50IB**	M50x1,5	60	62	62	81	35.5 - 44	38 - 53	0.2 - 2.5	0,562
NEV6SNB	2" NPT	**NEV63SIB**	M63x1,5	68	75	77	91	40 - 50	45.5 - 59.5	0.2 - 2.5	1,151
NEV6NB	2 ½" NPT	**NEV63IB**	M63x1,5	73	80	82	93	47 - 56	54.5 - 66	0.2 - 2.5	1,100
NEV7SNB	2 ½" NPT	**NEV75SIB**	M75x1,5	80	85	90	97	53 - 62	57 - 72	0.2 - 2.8	1,308
NEV7NB	3" NPT	**NEV75IB**	M75x1,5	85	95	100	99	59 - 68	66.5 - 78.5	0.2 - 2.8	1,538
NEV8NB	3" NPT	**NEV90IB**	M90x1,5	100	105	110	104	66 - 79	76.5 - 90	0.2 - 2.8	2,000
NEV9NB	3 ½" NPT	**NEV100IB**	M100x1,5	115	120	120	111	76 - 91	86 - 101	0.2 - 3.3	2,381
NEV10NB	4" NPT	**NEV115IB**	M115x1,5	120	125	130	112	86 - 98	100 - 110	0.2 - 3.5	2,783



Sample order code

NEV	6	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Silicone o-rings are supplied for cylindrical threads (ISO metric) for the pre-assembled IP seal on the cable gland*
- *The ISO7/1 thread version is available upon request (sample code NEV1B)*
- *Also available in stainless steel (sample code NEV1**S**)*
- *Other materials on request*
- *For "Ex i" intrinsic safety version, RAL 5015 blue nut (sample code NEV1S**IA**)*
- *Internal ring for armoured cables with larger cross-section*

Cable gland series NEVP for lead sheathed armoured cables

NEVP series cable glands are suitable for use in areas with the risk of explosion, allowing the direct insertion of armoured cables in explosion proof enclosures and the installation of lead sheathed cables. They are supplied with a sealing ring which is stretched over the cable at the inlet to guarantee 'Ex d' execution, and a second compression ring which is stretched over the cable armour at the outlet to guarantee an IP 66/68 protection rating, and a metal ring which affixes to the outer surface of the lead sheath as it is wound, fastening it in place. Their structure makes them suitable for environments which are particularly difficult, such as marine environments, or where there are subjected to the mechanical stresses and impacts which often occur in heavy industry, where safety is the utmost priority.

EMC TESTED

Interactive Point

Safety, use and maintenance instructions

Classification: 2014/34/EU	Group II	Category 2GD/3G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex db IIC Gb - Ex eb IIC Gb II 2 D - Ex tb IIIC Db II 3G Ex nR IIC Gc - IP66/68	
Certification:	ATEX (category 2): IMQ 17 ATEX 016X ATEX (category 3): IMQ 17 ATEX 017X IEC Ex IECEx IMQ 17.0010X TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2016, EN 60079-7: 2015, EN 60079-15: 2012, EN 60079-31: 2015 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2011 IEC60079-1: 2014 IEC60079-7: 2015 IEC60079-15: 2015 IEC60079-31: 2013 RoHS Directive 2002/95/EC	
Operating temperature:	-60 °C +130 °C	
Protection rating:	IP66/68 *(30 metres - 12 hours)*	
Design	BS 6121: Part 1:1989, IEC 62444, EN 62444	

Certificates are available on www.cortemgroup.com

ACCESSORIES UPON REQUEST

Locknuts	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Sealing ring for flat/ healing cables
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**	
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**	
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**	
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**	
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**	
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**	
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**	
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**	Code and dimensions are in the page pagina A.12
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**	
	M115x1,5	**DL115IB**	**DL115IG**	**DL115IS**	

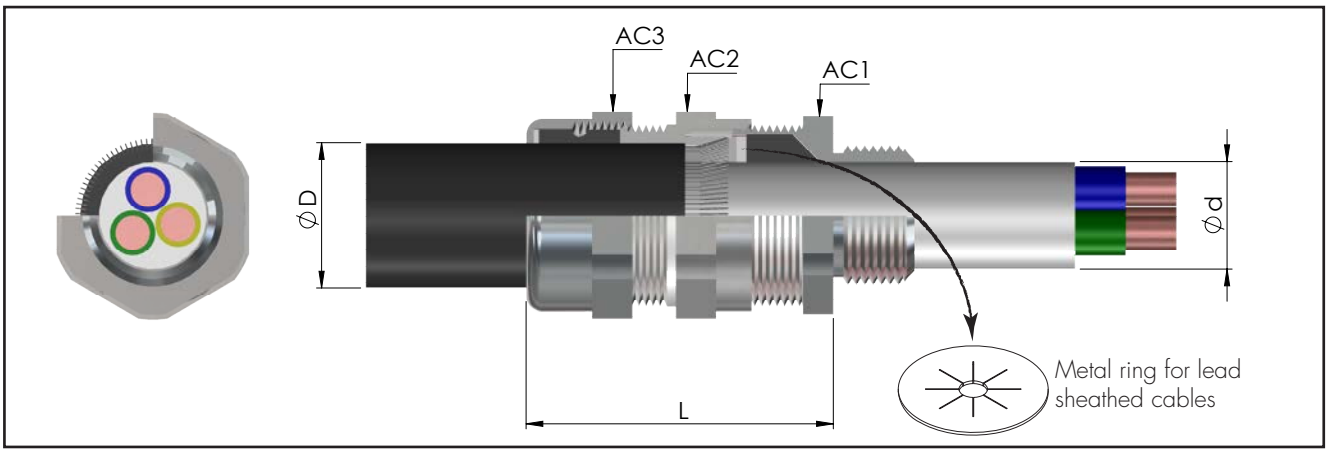
Nickel-plated brass earthing rings	ISO thread	Nickel-plated brass	Stainless steel	Serrated steinless steel lock washers	Code	Adapters and reducers of the **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	
	M75x1,5	**A731B**	**A731S**			
	M90x1,5	**A831B**	**A831S**			
	M100x1,5	**A103110IB**	**A103110IS**			
	M115x1,5	**A1031B**	**A1031S**			

Black TPV protector	CG	Code
	NEVP01NB	**PGA1F**
	NEVP1SNB	**PGA1N**
	NEVP1NB	**PGA1**
	NEVP2NB	**PGA2N**
	NEVP3NB	**PGA4**
	NEVP4NB	**PGA5**
	NEVP5SNB	**PGA5**
	NEVP5NB	**PGA5N**
	NEVP6SNB	**PGA6**
	NEVP6NB	**PGA7**
	NEVP7SNB	**GTR** Heat shrinkable
	NEVP7NB	
	NEVP8NB	
	NEVP9NB	
	NEVP10NB	

* For different threads, contact the sales department.

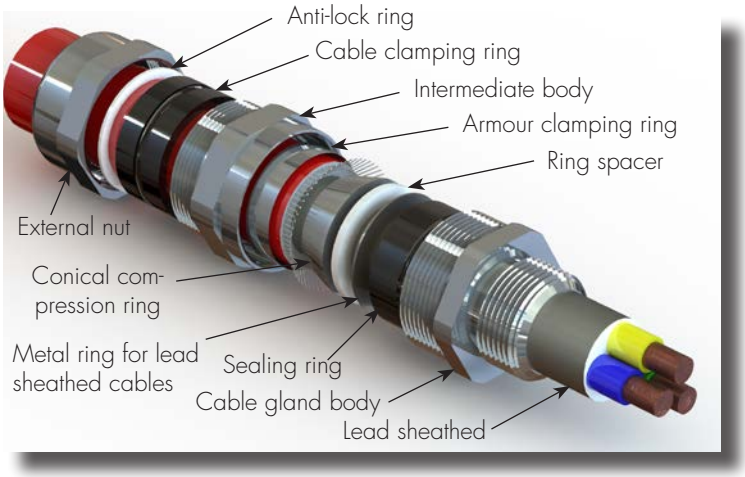
ED.2019

CORTEM GROUP®
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLAND SELECTION TABLE

Code Nickel-plated brass	Thread	Code Nickel-plated brass	Thread	Dimensions in mm AC1	AC2	AC3	L	Range Ød min-max Internal cable sheath	ØD min-max Outer sheath of the cable	Armour thickness	Weight Kg
NEVP01NB	3/8" NPT	**NEVP16IB**	M16x1,5	24	24	24	59	3.5 - 8.6	6 - 13.2	0.2 - 1.3	0,145
NEVP1SNB	1/2" NPT	**NEVP20SIB**	M20x1,5	24	26	26	59	6.3 - 11.6	9.5 - 16	0.2 - 1.3	0,157
NEVP1NB	1/2" NPT	**NEVP20IB**	M20x1,5	30	32	32	61	6.5 - 14	12.5 - 21	0.2 - 1.4	0,215
NEVP2NB	3/4" NPT	**NEVP25IB**	M25x1,5	36	38	38	61	11 - 20	20 - 27.5	0.2 - 1.6	0,261
NEVP3NB	1" NPT	**NEVP32IB**	M32x1,5	45	47	47	72	17 - 27	23.5 - 34	0.2 - 2.0	0,433
NEVP4NB	1 ¼" NPT	**NEVP40IB**	M40x1,5	50	52	52	73	22 - 32	26 - 40	0.2 - 2.2	0,514
NEVP5SNB	1 ½" NPT	**NEVP50SIB**	M50x1,5	55	57	57	80	29.5 - 38	35 - 46.5	0.2 - 2.5	0,610
NEVP5NB	2" NPT	**NEVP50IB**	M50x1,5	60	62	62	81	35.5 - 44	38 - 53	0.2 - 2.5	0,562
NEVP6SNB	2" NPT	**NEVP63SIB**	M63x1,5	68	75	77	91	40 - 50	45.5 - 59.5	0.2 - 2.5	1,151
NEVP6NB	2 ½" NPT	**NEVP63IB**	M63x1,5	73	80	82	93	47 - 56	54.5 - 66	0.2 - 2.5	1,100
NEVP7SNB	2 ½" NPT	**NEVP75SIB**	M75x1,5	80	85	90	97	53 - 62	57 - 72	0.2 - 2.8	1,308
NEVP7NB	3" NPT	**NEVP75IB**	M75x1,5	85	95	100	99	59 - 68	66.5 - 78.5	0.2 - 2.8	1,538
NEVP8NB	3" NPT	**NEVP90IB**	M90x1,5	100	105	110	104	66 - 79	76.5 - 90	0.2 - 2.8	2,000
NEVP9NB	3 ½" NPT	**NEVP100IB**	M100x1,5	115	120	120	111	76 - 91	86 - 101	0.2 - 3.3	2,381
NEVP10NB	4" NPT	**NEVP115IB**	M115x1,5	120	125	130	112	86 - 98	100 - 110	0.2 - 3.5	2,783



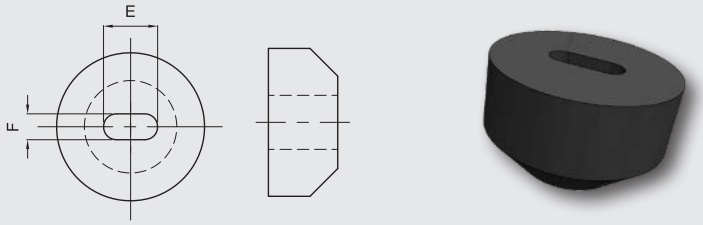
Sample order code

NEVP	6	N	B
MODEL	SIZE	THREAD	MATERIAL

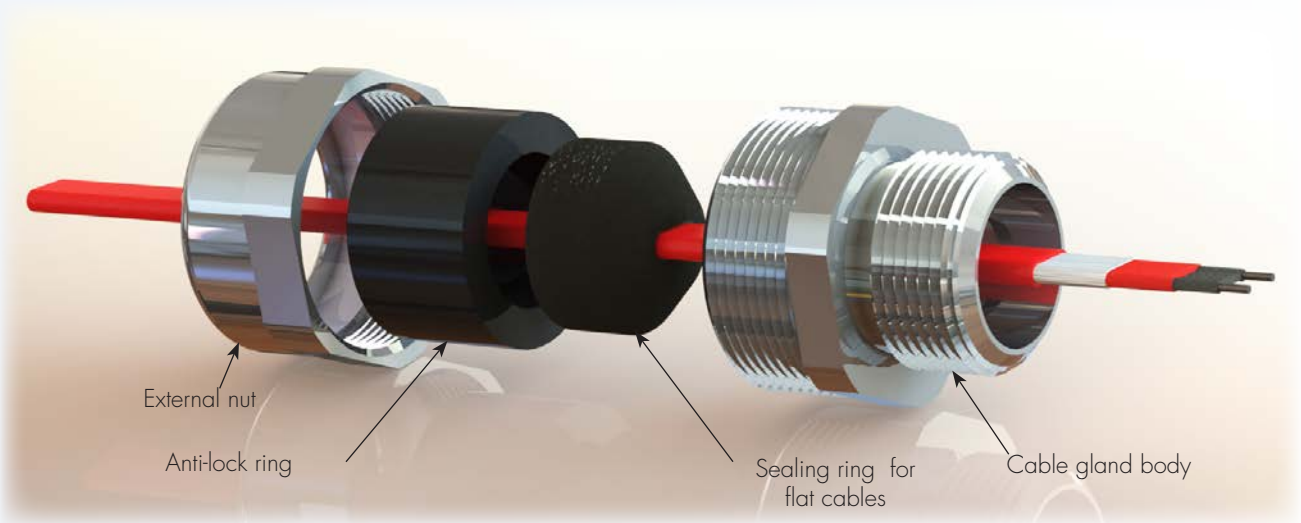
TECHNICAL NOTES:

- *Silicone o-rings are supplied for cylindrical threads (ISO metric) for the pre-assembled IP seal on the cable gland*
- *The ISO7/1 thread version is available upon request (sample code NEVP1B)*
- *Also available in stainless steel (sample code NEVP1**S**)*
- *Other materials on request*
- *For "Ex i" intrinsic safety version, RAL 5015 blue nut (sample code NEVP1S**IA**)*
- *Internal ring for armoured cables with larger cross-section*

Cable glands for non-armoured cables: Sealing ring for flat / heating cables



Cable gland type		E	F	Code
NAV..01N..	NAV..16I..	7.7	5.5	**H01-567**
NAV..1SN..	NAV..20SI..	7.7	5.5	**H1S-567/1**
NAV..1SN..	NAV..20SI..	8.7	3.5	**H1S-567/2**
NAV..1SN..	NAV..20SI..	9.7	4.1	**H1S-567/3**
NAV..1SN..	NAV..20SI..	10.2	4.1	**H1S-567/4**
NAV..1SN..	NAV..20SI..	10.7	4.6	**H1S-567/5**
NAV..1SN..	NAV..20SI..	10.7	5.1	**H1S-567/6**
NAV..1SN..	NAV..20SI..	10.7	6.1	**H1S-567/7**
NAV..1N..	NAV..20I..	7.7	5.5	**H1-567/1**
NAV..1N..	NAV..20I..	8.7	3.5	**H1-567/2**
NAV..1N..	NAV..20I..	9.7	4.1	**H1-567/3**
NAV..1N..	NAV..20I..	10.2	4.1	**H1-567/4**
NAV..1N..	NAV..20I..	10.7	4.6	**H1-567/5**
NAV..1N..	NAV..20I..	10.7	5.1	**H1-567/6**
NAV..1N..	NAV..20I..	10.7	6.1	**H1-567/7**
NAV..1N..	NAV..20I..	11.7	5.6	**H1-567/8**
NAV..2N..	NAV..25I..	7.7	5.5	**H2-567/1**
NAV..2N..	NAV..25I..	8.7	3.5	**H2-567/2**
NAV..2N..	NAV..25I..	9.7	4.1	**H2-567//3**
NAV..2N..	NAV..25I..	10.2	4.1	**H2-567/4**
NAV..2N..	NAV..25I..	10.7	4.6	**H2-567/5**
NAV..2N..	NAV..25I..	10.7	5.1	**H2-567/6**
NAV..2N..	NAV..25I..	10.7	6.1	**H2-567/7**
NAV..2N..	NAV..25I..	11.7	5.6	**H2-567/8**



ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

WHILE STOCK LAST

REV series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armored cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/67. Designed with a single opening key, they are less bulky and easier to install. Thanks to their structure, they are particularly suitable both in harsh application, such as marine one, and places subjected to stress and mechanical shock as it often happens in all those places of the "heavy" industry where safety is a top priority. REV series cable glands has three types of protection 'Ex d', 'Ex e' and 'Ex tb'.

Interactive Point

REV assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dusts)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

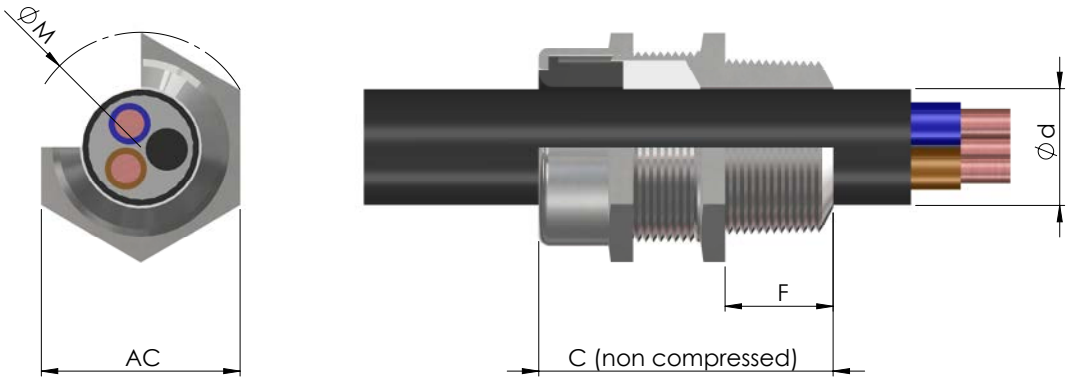
Accessories upon request

Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Nickel-plated brass earthing rings	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threads contact the sales office.

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm				Range	Weight
		AC	ØM	F	C	Ød min-max Outer sheath of the cable	Kg
REV01B	3/8" ISO7/1	24	28	15	44	5 - 10	0,062
REVL1B	1/2" ISO7/1	24	28	18	47	5 - 10	0,079
REV1B	1/2" ISO7/1	24	28	18	47	7 - 12	0,070
REV2B	3/4" ISO7/1	32	37	18	48,5	12 - 18	0,104
REV3B	1" ISO7/1	40	47	22	59,5	18 - 24	0,172
REV4B	1 ¼" ISO7/1	48	56	22	60	24 - 30	0,252
REV5B	1 ½" ISO7/1	53	62	24	64	30 - 35	0,316
REV6B	2" ISO7/1	63	73	24	64	35 - 45	0,424
REV01NB	3/8" NPT	24	28	16	45	5 - 10	0,062
REVL1NB	1/2" NPT	24	28	20	49	5 - 10	0,079
REV1NB	1/2" NPT	24	28	20	49	7 - 12	0,070
REV2NB	3/4" NPT	32	37	20	50,5	12 - 18	0,104
REV3NB	1" NPT	40	47	26	63,5	18 - 24	0,172
REV4NB	1 ¼" NPT	48	56	26	64	24 - 30	0,252
REV5NB	1 ½" NPT	53	62	26	66	30 - 35	0,316
REV6NB	2" NPT	63	73	27	67	35 - 45	0,424
REV01IB	M16x1,5	24	28	16	45	5 - 10	0,062
REVL1IB	M20x1,5	24	28	16	45	5 - 10	0,079
REV1IB	M20x1,5	24	28	16	45	7 - 12	0,070
REV2IB	M25x1,5	32	37	16	46,5	12 - 18	0,104
REV3IB	M32x1,5	40	47	16	53,5	18 - 24	0,172
REV4IB	M40x1,5	48	56	16	54	24 - 30	0,252
REV5IB	M50x1,5	53	62	16	56	30 - 35	0,316
REV6IB	M63x1,5	63/65	73	18	58	35 - 45	0,424

Example of Order Code

REV	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REV1**S**)*
- *Available also in galvanized steel (example code REV1**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REV1S**IA**)*

WHILE STOCK LAST

REVL series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... This series can accommodate smaller cable diameters than the standard required for each measure. In this way, the use of reducers is avoid.They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/67.

Interactive Point

REV assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

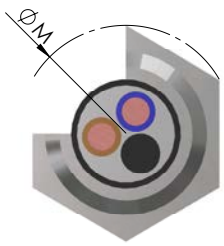
Accessories upon request

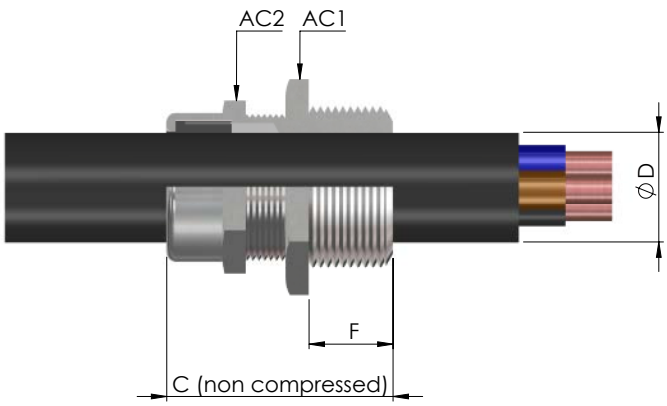
Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA1F**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA2R**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA3**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA4**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA5**

Nickel-plated brass earthing rings *	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6315IB**	**A6315IS**		**RDI6IS/A4**	

* For different threads contact the sales office.

vendite@elfit.com info@elfit.com
www.elfit.com





CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	Ød min-max Outer sheath of the cable	Kg
REVL1B	1/2" ISO7/1	24	24	28	18	47	5 - 10	0,079
REVL2B	3/4" ISO7/1	32	24	37	18	47	7 - 12	0,116
REVL3B	1" ISO7/1	40	32	47	22	52,5	12 - 18	0,184
REVL4B	1 ¼" ISO7/1	48	40	56	22	59,5	18 - 24	0,310
REVL5B	1 ½" ISO7/1	53	48	62	24	62	24 - 30	0,387
REVL6B	2" ISO7/1	63	53	73	24	64	30 - 35	0,420
REVL1NB	1/2" NPT	24	24	28	20	48	5 - 10	0,079
REVL2NB	3/4" NPT	32	24	37	20	49	7 - 12	0,116
REVL3NB	1" NPT	40	32	47	26	56,5	12 - 18	0,184
REVL4NB	1 ¼" NPT	48	40	56	26	63,5	18 - 24	0,310
REVL5NB	1 ½" NPT	53	48	62	26	64	24 - 30	0,387
REVL6NB	2" NPT	63	53	73	27	67	30 - 35	0,420
REVL1IB	M20x1,5	24	24	28	16	45	5 - 10	0,079
REVL2IB	M25x1,5	32	24	37	16	45	7 - 12	0,116
REVL3IB	M32x1,5	40	32	47	16	46,5	12 - 18	0,184
REVL4IB	M40x1,5	48	40	56	16	53,5	18 - 24	0,310
REVL5IB	M50x1,5	53	48	62	16	54	24 - 30	0,387
REVL6IB	M63x1,5	63/65	53	73	18	58	30 - 35	0,420

Example of Order Code

REVL	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVL1**S**)*
- *Available also in galvanized steel (example code REVL1**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVL1S**IA**)*

WHILE STOCK LAST

REV/REVS series cable glands from 2 1/2'' to 4'' are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/67.
Thanks to their structure, they are particularly suitable both in harsh application, such as marine one, and places subjected to stress and mechanical shock as it often happens in all those places of the "heavy" industry where safety is a top priority.
REV series cable glands has three types of protection 'Ex d', 'Ex e' and 'Ex tb'.

Interactive Point

REV assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

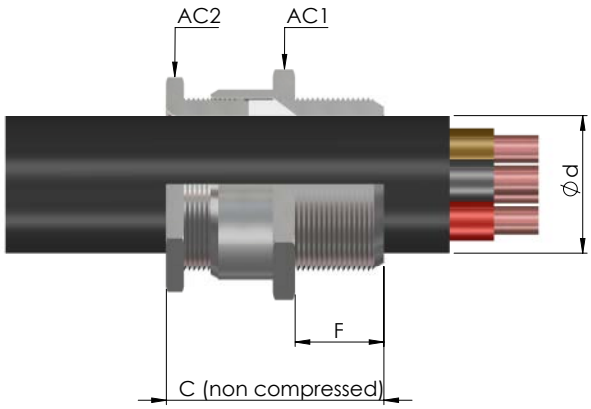
Accessories upon request

Locknut *	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Nickel-plated brass earthing rings *	Code	Adaptors and reducers **RE...** series
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**		**A7317IB**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**		**A8318IB**	
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**		**A10310IB**	

* For different threads contact the sales office.

Note
Shrouds for cable glands upon request.
Idented washer in stainless steel upon request.

CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	Ød min-max Outer sheath of the cable	Kg
REV7B	2 ½" ISO7/1	84	73	90	30	100	46 - 55	1,492
REVS7B	2 ½" ISO7/1	90	84	100	30	100	55 - 62	1,452
REV8B	3" ISO7/1	100	94	106	30	100	62 - 70	1,944
REVS8B	3" ISO7/1	105	98	110	30	100	70 - 78	1,791
REV9B	3 ½" ISO7/1	115	105	120	30	101	76 - 84	2,356
REVS9B	3 ½" ISO7/1	120	112	125	30	101	84 - 92	2,302
REV10B	4" ISO7/1	115	105	120	30	101,5	76 - 84	3,010
REVS10B	4" ISO7/1	120	112	125	30	101,5	84 - 92	2,457
REV7NB	2 ½" NPT	84	73	90	30	110	46 - 55	1,492
REVS7NB	2 ½" NPT	90	84	100	30	110	55 - 62	1,452
REV8NB	3" NPT	100	94	106	30	112	62 - 70	1,944
REVS8NB	3" NPT	105	98	110	30	112	70 - 78	1,791
REV9NB	3 ½" NPT	115	105	120	30	114	76 - 84	2,356
REVS9NB	3 ½" NPT	120	112	125	30	114	84 - 92	2,302
REV10NB	4" NPT	115	105	120	30	115,5	76 - 84	3,010
REVS10NB	4" NPT	120	112	125	30	115,5	84 - 92	2,457
REV7IB	M75x1,5	84	73	90	30	88	46 - 55	1,492
REVS7IB	M75x1,5	90	84	100	30	88	55 - 62	1,452
REV8IB	M90x1,5	100	94	106	30	88	62 - 70	1,944
REVS8IB	M90x1,5	105	98	110	30	88	70 - 78	1,791
REV10IB	M100x1,5	115	105	120	30	89,5	76 - 84	3,010
REVS10IB	M100x1,5	120	112	125	30	89,5	84 - 92	2,457

Example of Order Code

REVS	7	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVS7**S**)*
- *Available also in galvanized steel (example code REVS7**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REV8S**IA**)*

REVF series cable glands for non-armoured cable with a female entry

REVF series cable glands, with a female threaded entry, are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/67. Designed with a single opening key, they are less bulky and easier to install.

Interactive Point

REVF assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

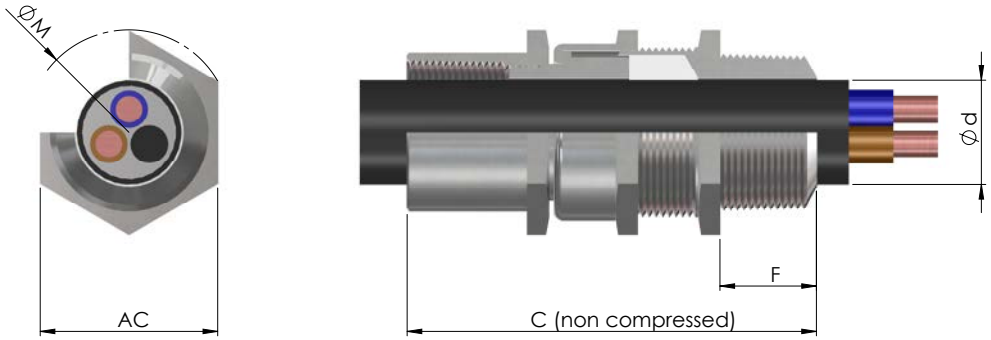
Certificates are available on www.cortemgroup.com

Accessories upon request

Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Nickel-plated brass earthing rings *	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threads contact the sales office.



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm				Range	Weight
		AC1	ØM	F	C	Ød min-max Outer sheath of the cable	Kg
REVF01B	3/8" ISO7/1	24	28	15	69,5	5 - 10	0,116
REVF1B	1/2" ISO7/1	24	28	18	75,5	7 - 12	0,132
REVF2B	3/4" ISO7/1	32	37	18	77	12 - 18	0,212
REVF3B	1" ISO7/1	40	47	22	92	18 - 24	0,330
REVF4B	1 ¼" ISO7/1	48	56	22	92,5	24 - 30	0,498
REVF5B	1 ½" ISO7/1	53	62	24	98,5	30 - 35	0,617
REVF6B	2" ISO7/1	63	73	24	98,5	35 - 45	0,771
REVF01NB	3/8" NPT	24	28	15	68,5	5 - 10	0,116
REVF1NB	1/2" NPT	24	28	18	76,5	7 - 12	0,132
REVF2NB	3/4" NPT	32	37	18	78	12 - 18	0,212
REVF3NB	1" NPT	40	47	22	94	18 - 24	0,330
REVF4NB	1 ¼" NPT	48	56	22	95,5	24 - 30	0,498
REVF5NB	1 ½" NPT	53	62	24	97,5	30 - 35	0,617
REVF6NB	2" NPT	63	73	24	98,5	35 - 45	0,771
REVF01IB	M16x1,5	24	28	15	70,5	5 - 10	0,116
REVF1IB	M20x1,5	24	28	18	70,5	7 - 12	0,132
REVF2IB	M25x1,5	32	37	18	72	12 - 18	0,212
REVF3IB	M32x1,5	40	47	22	79	18 - 24	0,330
REVF4IB	M40x1,5	48	56	22	79,5	24 - 30	0,498
REVF5IB	M50x1,5	53	62	24	82,5	30 - 35	0,617
REVF6IB	M63x1,5	63/65	73	24	84,5	35 - 45	0,771

Example of Order Code

REVF	2	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVF4**S**)*
- *Available also in galvanized steel (example code REVF4**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVF4S**IA**)*
- *It's available upon request a version with mixed thread, of the same equivalence and size (example code for cable gland in nickel-plated brass Male 1" NPT - Female M32x1,5:REVF3**NI**B)*

REVN series cable glands for non-armoured cable with a male entry

REVN series cable glands, with a male threaded entry, are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and the IP 66/67. Designed with a single opening key, they are less bulky and easier to install.

Interactive Point

REVN assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

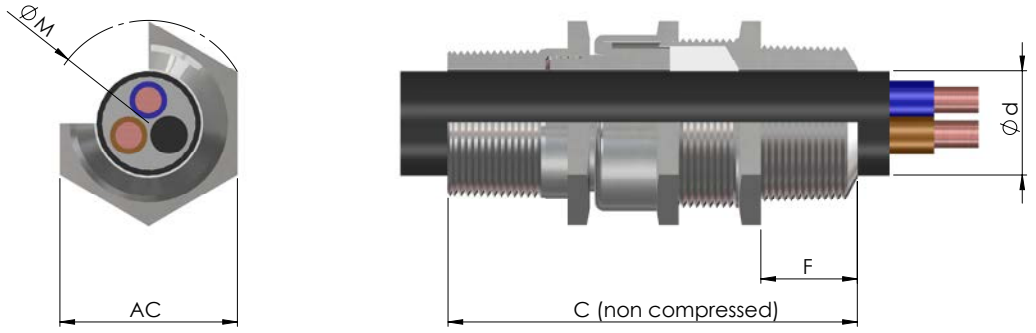
Certificates are available on www.cortemgroup.com

Accessories upon request

Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Nickel-plated brass earthing rings *	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threads contact the sales office.



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm				Range	Weight
		AC1	ØM	F	C	Ød min-max Outer sheath of the cable	Kg
REVN01B	3/8" ISO7/1	24	28	15	69,5	5 - 10	0,140
REVN1B	1/2" ISO7/1	24	28	18	75,5	7 - 12	0,138
REVN2B	3/4" ISO7/1	32	37	18	77	12 - 18	0,205
REVN3B	1" ISO7/1	40	47	22	92	18 - 24	0,340
REVN4B	1 ¼" ISO7/1	48	56	22	92,5	24 - 30	0,491
REVN5B	1 ½" ISO7/1	53	62	24	98,5	30 - 35	0,632
REVN6B	2" ISO7/1	63	73	24	98,5	35 - 45	0,867
REVN01NB	3/8" NPT	24	28	15	71,5	5 - 10	0,140
REVN1NB	1/2" NPT	24	28	18	79,5	7 - 12	0,138
REVN2NB	3/4" NPT	32	37	18	81	12 - 18	0,205
REVN3NB	1" NPT	40	47	22	100	18 - 24	0,340
REVN4NB	1 ¼" NPT	48	56	22	100,5	24 - 30	0,491
REVN5NB	1 ½" NPT	53	62	24	102,5	30 - 35	0,632
REVN6NB	2" NPT	63	73	24	104,5	35 - 45	0,867
REVN01IB	M16x1,5	24	28	15	72,5	5 - 10	0,140
REVN1IB	M20x1,5	24	28	18	66,5	7 - 12	0,138
REVN2IB	M25x1,5	32	37	18	74	12 - 18	0,205
REVN3IB	M32x1,5	40	47	22	82	18 - 24	0,340
REVN4IB	M40x1,5	48	56	22	75,5	24 - 30	0,491
REVN5IB	M50x1,5	53	62	24	77,5	30 - 35	0,632
REVN6IB	M63x1,5	63	73	24	81,5	35 - 45	0,867

Example of Order Code

REVN	2	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVN4**S**)*
- *Available also in galvanized steel (example code REVN4**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVN4S**IA**)*
- *It's available upon request a version with mixed thread, of the same equivalence and size (example code for cable gland in nickel-plated brass Male 1" NPT - Female M32x1,5:REVN3**NIB**)*

WHILE STOCK LAST

REVD series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and a second sealing ring that tightens on the outer sheath of the cable to ensure the IP 66/67 degree of protection avoiding the ingress of water, moisture, rain and dust. Designed with a single opening key, they are less bulky and easier to install. Thanks to their structure, they are particularly suitable both in harsh application, such as marine one, and places subjected to stress and mechanical shock as it often happens in all those places of the "heavy" industry where safety is a top priority. REVD series cable glands has three types of protection 'Ex d', 'Ex e' and 'Ex tb'.

EMC TESTED

Interactive Point

REVD assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

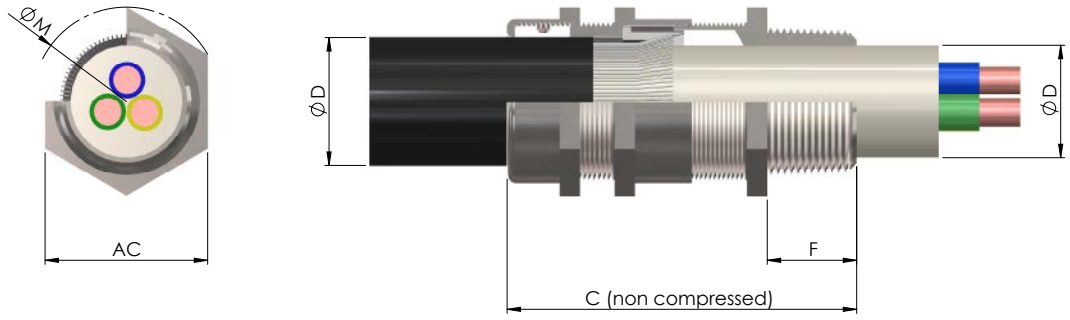
Certificates are available on www.cortemgroup.com

Accessories upon request

Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Nickel-plated brass earthing rings *	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M16x1,5	**A0131B**	**A0131S**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threads contact the sales office.



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm				Range		Standard armour thickness	Increased armour thickness upon request	Weight
		AC	ØM	F	C	Ød min-max Under armour	ØD min-max Outer sheath of the cable			Kg
REVD01B	3/8" ISO7/1	24	28	15	69	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
REVDL1B	1/2" ISO7/1	24	28	18	72	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
REVD1B	1/2" ISO7/1	24	28	18	72	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
REVD2B	3/4" ISO7/1	32	37	18	73,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
REVD3B	1" ISO7/1	40	47	22	86,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
REVD4B	1 ¼" ISO7/1	48	56	22	89	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
REVD5B	1 ½" ISO7/1	53	62	24	94	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
REVD6B	2" ISO7/1	63	73	24	94	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632
REVD01NB	3/8" NPT	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
REVDL1NB	1/2" NPT	24	28	20	74	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
REVD1NB	1/2" NPT	24	28	20	74	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
REVD2NB	3/4" NPT	32	37	20	75,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
REVD3NB	1" NPT	40	47	26	90,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
REVD4NB	1 ¼" NPT	48	56	26	93	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
REVD5NB	1 ½" NPT	53	62	26	96	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
REVD6NB	2" NPT	63	73	27	97	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632
REVD01IB	M16x1,5	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
REVDL1IB	M20x1,5	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
REVD1IB	M20x1,5	24	28	16	70	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
REVD2IB	M25x1,5	32	37	16	71,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
REVD3IB	M32x1,5	40	47	16	80,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
REVD4IB	M40x1,5	48	56	16	83	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
REVD5IB	M50x1,5	53	62	16	86	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
REVD6IB	M63x1,5	63/65	73	18	88	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632

Example of Order Code

REVD	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVD1**S**)*
- *Available also in galvanized steel (example code REVD1**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVD1S**IA**)*
- *Internal ring nut for cables with armour with increased section*

WHILE STOCK LAST

REVDL series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of non-armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc...This series can accommodate smaller cable diameters than the standard required for each measure. In this way, the use of reductions is avoided. They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and a second sealing ring that tightens on the outer sheath of the cable to ensure the IP 66/67 degree of protection avoiding the ingress of water, moisture, rain and dust.

EMC TESTED

Interactive Point

REVD assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

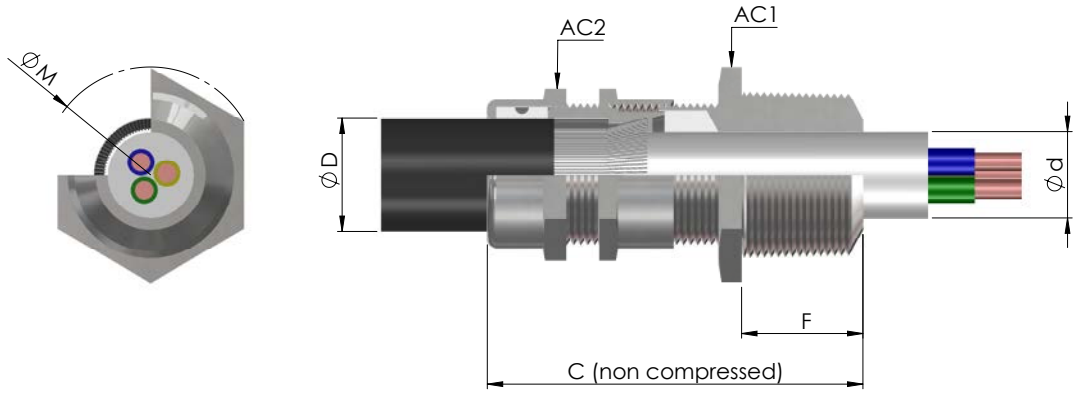
Certificates are available on www.cortemgroup.com

Accessories upon request

Locknut	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Shrouds black TPV made	Code
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA1F**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA2R**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA3**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA4**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA5**

Nickel-plated brass earthing rings *	For ISO threading	Nickel-plated brass	Stainless steel	Stainless steel idented washers *	Code	Adaptors and reducers **RE...** series
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6315IB**	**A6315IS**		**RDI6IS/A4**	

* For different threads contact the sales office.



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range		Standard armour thickness	Increased armour thickness upon request	Weight
		AC1	AC2	ØM	F	C	Ød min-max Under armour	ØD min-max Outer sheath of the cable			Kg
REVDL1B	1/2" ISO7/1	24	24	28	18	72	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
REVDL2B	3/4" ISO7/1	32	24	37	18	72	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
REVDL3B	1" ISO7/1	40	32	47	22	77,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
REVDL4B	1 ¼" ISO7/1	48	40	56	22	86,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
REVDL5B	1 ½" ISO7/1	53	48	62	24	91	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
REVDL6B	2" ISO7/1	63	53	73	24	94	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632
REVDL1NB	1/2" NPT	24	24	28	20	74	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
REVDL2NB	3/4" NPT	32	24	37	20	74	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
REVDL3NB	1" NPT	40	32	47	26	81,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
REVDL4NB	1 ¼" NPT	48	40	56	26	90,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
REVDL5NB	1 ½" NPT	53	48	62	26	93	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
REVDL6NB	2" NPT	63	53	73	27	97	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632
REVDL1IB	M20x1,5	24	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
REVDL2IB	M25x1,5	32	24	37	16	70	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
REVDL3IB	M32x1,5	40	32	47	16	71,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
REVDL4IB	M40x1,5	48	40	56	16	80,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
REVDL5IB	M50x1,5	53	48	62	16	83	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
REVDL6IB	M63x1,5	63/65	73	73	18	88	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632

Example of Order Code

REVDL	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVDL1**S**)*
- *Available also in galvanized steel (example code REVDL1**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVDL1S**IA**)*
- *Internal ring nut for cables with armour with increased section*

WHILE STOCK LAST

REVD/REVDS series cable glands are suitable for use in hazardous areas with danger of explosion to enable direct insertion of armoured cables into explosion-proof junction boxes, lighting fixtures, plugs and sockets, etc... They are provided with one sealing ring which tightens the incoming cable ensuring the 'Ex d' way of protection and a second sealing ring that tightens on the outer sheath of the cable to ensure the IP 66/67 degree of protection avoiding the ingress of water, moisture, rain and dust.

EMC TESTED

Interactive Point

REVD assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex tb IIIC Db - IP66/67	
Certification:	ATEX CESI 13 ATEX 019 X	
	IECEx IECEx CES 13.0005X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C +110°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

Accessories upon request

Locknut *	ISO thread	Nickel-plated brass	Galvanized steel	Stainless steel	Nickel-plated brass earthing rings *	Code	Adaptors and reducers RE... series
	M75x1,5	DL7IB	DL7IG	DL7IS		A7317IB	
	M90x1,5	DL8IB	DL8IG	DL8IS		A8318IB	
	M100x1,5	DL10IB	DL10IG	DL10IS		A10310IB	

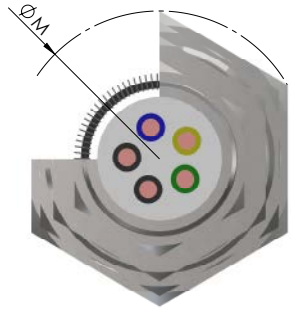
* For different threads contact the sales office.

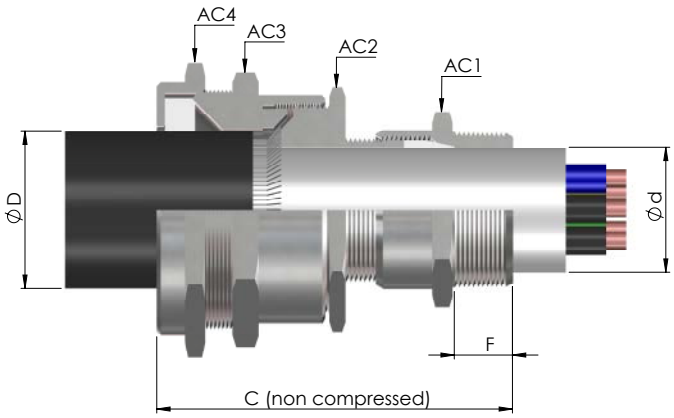
Note

Shrouds for cable glands upon request.
Idented washer in stainless steel upon request.

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com





CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm							Range		Armour thickness min-max	Weight
		AC1	AC2	AC3	AC4	ØM	F	C	Ød min-max Under armour	ØD min-max Outer sheath of the cable		Kg
REVD7B	2 ½" ISO7/1	84	105	118	127	140	30	185	46 - 55	54 - 78	1,8 - 3,5	5,515
REVDS7B	2 ½" ISO7/1	90	105	118	127	140	30	185	55 - 62	54 - 78	1,8 - 3,5	5,515
REVD8B	3" ISO7/1	110	113	130	140	148	30	185	62 - 70	64 - 90	2 - 4	5,896
REVDS8B	3" ISO7/1	105	113	130	140	148	30	185	70 - 78	64 - 90	2 - 4	5,896
REVD9B	3 ½" ISO7/1	115	135	144	153	160	30	187	76 - 84	88 - 104	2,5 - 4	6,365
REVDS9B	3 ½" ISO7/1	120	135	144	153	160	30	187	84 - 92	88 - 104	2,5 - 4	6,365
REVD10B	4" ISO7/1	115	135	144	153	160	30	187,5	76 - 84	88 - 104	2,5 - 4	7,721
REVDS10B	4" ISO7/1	120	135	144	153	160	30	187,5	84 - 92	88 - 104	2,5 - 4	7,721
REVD7NB	2 ½" NPT	84	105	118	127	140	30	195	46 - 55	54 - 78	1,8 - 3,5	5,515
REVDS7NB	2 ½" NPT	90	105	118	127	140	30	195	55 - 62	54 - 78	1,8 - 3,5	5,515
REVD8NB	3" NPT	100	113	130	140	148	30	197	62 - 70	64 - 90	2 - 4	5,896
REVDS8NB	3" NPT	105	113	130	140	148	30	197	70 - 78	64 - 90	2 - 4	5,896
REVD9NB	3 ½" NPT	115	135	144	153	160	30	200	76 - 84	88 - 104	2,5 - 4	6,365
REVDS9NB	3 ½" NPT	120	135	144	153	160	30	200	84 - 92	88 - 104	2,5 - 4	6,365
REVD10NB	4" NPT	115	135	144	153	160	30	201,5	76 - 84	88 - 104	2,5 - 4	7,721
REVDS10NB	4" NPT	120	135	144	153	160	30	201,5	84 - 92	88 - 104	2,5 - 4	7,721
REVD7IB	M75x1,5	84	105	118	127	140	30	173	46 - 55	54 - 78	1,8 - 3,5	5,515
REVDS7IB	M75x1,5	90	105	118	127	140	30	173	55 - 62	54 - 78	1,8 - 3,5	5,515
REVD8IB	M90x1,5	100	113	130	140	148	30	173	62 - 70	64 - 90	2 - 4	5,896
REVDS8IB	M90x1,5	105	113	130	140	148	30	173	70 - 78	64 - 90	2 - 4	5,896
REVD10IB	M100x1,5	115	135	144	153	160	30	175,5	76 - 84	88 - 104	2,5 - 4	7,721
REVDS10IB	M100x1,5	120	135	144	153	160	30	175,5	84 - 92	88 - 104	2,5 - 4	7,721

Example of Order Code

REVD	7	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Available also in stainless steel (example code REVD7**S**)*
- *Available also in galvanized steel (example code REVD7**G**)*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code REVD9S**IA**)*

FB series barrier cable glands for non-armoured cable are used to ensure the IP 66/67 degree and the explosion protection in applications with regulations of installation according to EN-IEC 60079-14:2015 Standard.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 00 ATEX 075X	
	IECEx IECEx CES 14.0015X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-20°C +100°C	
Degree of protection:	IP66/67	

Interactive Point

FB assembly instructions video

Certificates are available on www.cortemgroup.com

Accessories upon request

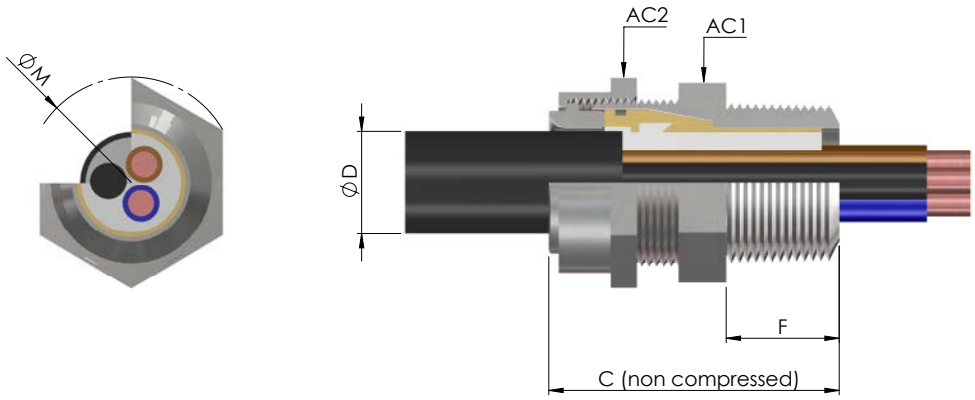
Locknut *	ISO thread	Nickel-plated brass	Shrouds black TPV made	Code	Nickel-plated brass earthing rings *	Code
	M20x1,5	DL1IB		PGA1		A1311IB
	M25x1,5	DL2IB		PGA2		A2312IB
	M32x1,5	DL3IB		PGA3		A3313IB
	M40x1,5	DL4IB		PGA6R		A4314IB
	M50x1,5	DL5IB		PGA6R		A5315IB
	M63x1,5	DL6IB		PGA6		A6316IB
	M75x1,5	DL7IB		PGA8		A7317IB
	M90x1,5	DL8IB		PGA8		A8318IB

Stainless steel idented washers *	For ISO threading	Code	Adaptors and reducers RE... series
	M20	RDI1IS/A4	
	M25	RDI2IS/A4	
	M32	RDI3IS/A4	
	M40	RDI4IS/A4	
	M50	RDI5IS/A4	
	M63	RDI6IS/A4	

* For different threads contact the sales office.

CORTEM GROUP®

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	ØD min-max	Kg
FB1BK/3	1/2" ISO7/1	27	30	35	19	59	5 - 13	0,140
FB2BK/3	3/4" ISO7/1	32	35	41	19	60	11 - 18	0,170
FB3BK/2	1" ISO7/1	40	42	49	26	65,5	17 - 24	0,275
FB4BK	1 ¼" ISO7/1	53	60	69	26	68	23 - 30	0,390
FB5BK	1 ½" ISO7/1	60	67	77	26	68,5	29 - 38	0,510
FB6BK	2" ISO7/1	72	79	91	26	69	36 - 49	0,720
FB7BK	2 ½" ISO7/1	95	105	121	32	84	44 - 61	1,220
FB8BK	3" ISO7/1	105	115	133	32	86	59 - 74	1,580
FB1NBK/3	1/2" NPT	27	30	35	19	59	5 - 13	0,140
FB2NBK/3	3/4" NPT	32	35	41	19	60	11 - 18	0,170
FB3NBK/2	1" NPT	40	42	49	26	65,5	17 - 24	0,275
FB4NBK	1 ¼" NPT	55	60	69	26	68	23 - 30	0,390
FB5NBK	1 ½" NPT	60	67	77	26	68,5	29 - 38	0,510
FB6NBK	2" NPT	72	79	91	26	69	36 - 49	0,720
FB7NBK	2 ½" NPT	90	105	121	32	84	44 - 61	1,220
FB8NBK	3" NPT	105	115	133	32	86	59 - 74	1,580
FB1IBK/3	M20x1,5	27	30	35	16	56	5 - 13	0,140
FB2IBK/3	M25x1,5	32	35	41	16	57	11 - 18	0,170
FB3IBK/2	M32x1,5	40	42	49	16	55,5	17 - 24	0,275
FB4IBK	M40x1,5	55	60	69	16	58	23 - 30	0,390
FB5IBK	M50x1,5	60	67	77	16	58,5	29 - 38	0,510
FB6IBK	M63x1,5	72	79	91	18	59	36 - 49	0,720
FB7IBK	M75x1,5	95	105	121	18	70	44 - 61	1,220
FB8IBK	M90x1,5	105	115	133	18	72	59 - 74	1,580

Example of Order Code

FB	3	I	B	K	/	2
MODEL	SIZE	THREAD	MATERIAL	KIT OF SEALING RINGS		SUPPLIED IN PACKAGES

Resin compound kit:
Cable glands are supllied with a resin bag, mixing spatula and protective gloves.

For sealing system, diameter and maximum number of conductors to be used see "Sealing method" chapter

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Other materials upon request*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code FB5BK**IA**)*

FBF series barrier cable glands for non-armoured cable with female exit

FBF series barrier cable glands for non-armoured cable with female threaded exit are used to ensure the IP 66/67 degree and explosion protection in applications where the prescriptions of installation are required according to EN-IEC 60079-14:2015 Standards.

Interactive Point

FB assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 00 ATEX 075	
	IECEx IECEx CES 14.0015X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-20°C +60°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

Accessories upon request

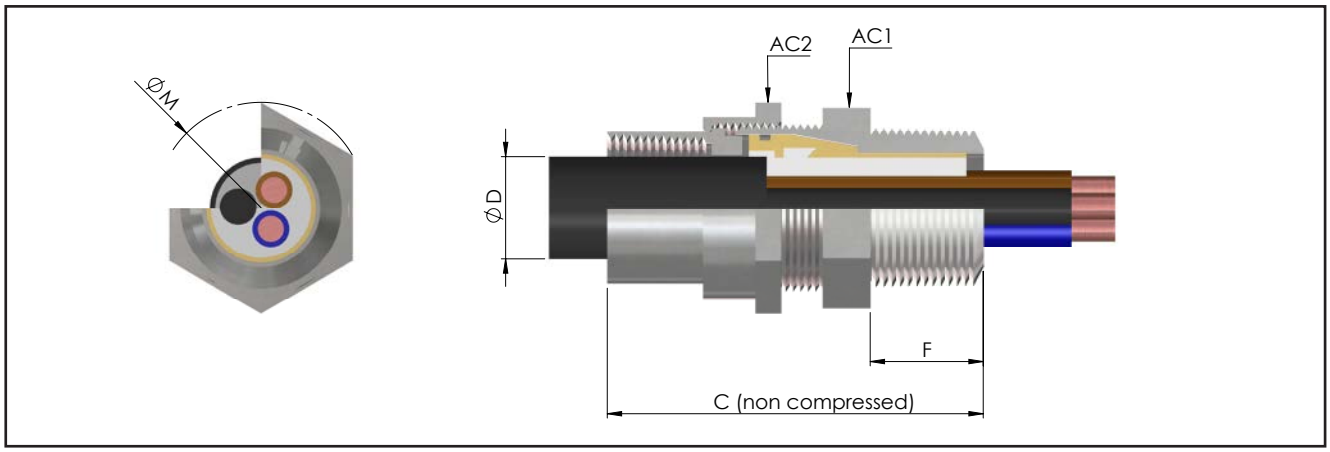
Locknut *	ISO thread	Nickel-plated brass	Shrouds black TPV made	Code	Nickel-plated brass earthing rings *	Code
	M20x1,5	DL1IB		PGA1		A1311IB
	M25x1,5	DL2IB		PGA2		A2312IB
	M32x1,5	DL3IB		PGA3		A3313IB
	M40x1,5	DL4IB		PGA6R		A4314IB
	M50x1,5	DL5IB		PGA6R		A5315IB
	M63x1,5	DL6IB		PGA6		A6316IB
	M75x1,5	DL7IB		PGA8		A7317IB
	M90x1,5	DL8IB		PGA8		A8318IB

Stainless steel idented washers *	For ISO threading	Code	Adaptors and reducers RE... series
	M20	RDI1IS/A4	
	M25	RDI2IS/A4	
	M32	RDI3IS/A4	
	M40	RDI4IS/A4	
	M50	RDI5IS/A4	
	M63	RDI6IS/A4	

* For different threads contact the sales office.

CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	ØD min-max	Kg
FBF1BK	1/2" ISO7/1	27	30	35	19	68	5 - 13	0,180
FBF2BK	3/4" ISO7/1	32	35	41	19	68	11 - 18	0,220
FBF3BK	1" ISO7/1	40	42	49	26	78	17 - 24	0,420
FBF4BK	1 ¼" ISO7/1	53	60	69	26	78	23 - 30	0,800
FBF5BK	1 ½" ISO7/1	60	67	77	26	78	29 - 38	1,010
FBF6BK	2" ISO7/1	72	79	91	26	78	36 - 49	1,420
FBF7BK	2 ½" ISO7/1	95	105	121	32	102	44 - 61	2,530
FBF8BK	3" ISO7/1	105	115	133	32	102	59 - 74	2,930
FBF1NBK	1/2" NPT	27	30	35	19	68	5 - 13	0,180
FBF2NBK	3/4" NPT	32	35	41	19	68	11 - 18	0,220
FBF3NBK	1" NPT	40	42	49	26	78	17 - 24	0,420
FBF4NBK	1 ¼" NPT	55	60	69	26	78	23 - 30	0,800
FBF5NBK	1 ½" NPT	60	67	77	26	78	29 - 38	1,010
FBF6NBK	2" NPT	72	79	91	26	78	36 - 49	1,420
FBF7NBK	2 ½" NPT	90	105	121	32	102	44 - 61	2,530
FBF8NBK	3" NPT	105	115	133	32	102	59 - 74	2,930
FBF1IBK	M20x1,5	27	30	35	16	55	5 - 13	0,180
FBF2IBK	M25x1,5	32	35	41	16	55	11 - 18	0,220
FBF3IBK	M32x1,5	40	42	49	16	56	17 - 24	0,420
FBF4IBK	M40x1,5	55	60	69	16	58	23 - 30	0,800
FBF5IBK	M50x1,5	60	67	77	16	58	29 - 38	1,010
FBF6IBK	M63x1,5	72	79	91	18	60	36 - 49	1,420
FBF7IBK	M75x1,5	95	105	121	18	62	44 - 61	2,530
FBF8IBK	M90x1,5	105	115	133	18	62	59 - 74	2,930

Example of Order Code

FBF	3	I	B	K
MODEL	SIZE	THREAD	MATERIAL	KIT OF SEALING RINGS

Resin compound kit:
Cable glands are supllied with a resin bag, mixing spatula and protective gloves.

For sealing system, diameter and maximum number of conductors to be used see "Sealing method" chapter

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Other materials upon request*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code FBF5BK**IA**)*
- *It's available upon request a version with mixed thread, of the same equivalence and size (example code for cable gland in nickel-plated brass Male 1"NPT - Female M32x1,5: FBF3**NI**BK)*

FBN series barrier cable glands for non-armoured cable with male exit

FBN series barrier cable glands for non-armoured cable with threaded male exit, are used to ensure the IP 66/67 degree and the explosion protection in applications where the prescriptions of installation are required according to EN-IEC 60079-14:2015 Standards.

Interactive Point

FB assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 00 ATEX 075	
	IECEx IECEx CES 14.0015X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-20°C +60°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

Accessories upon request

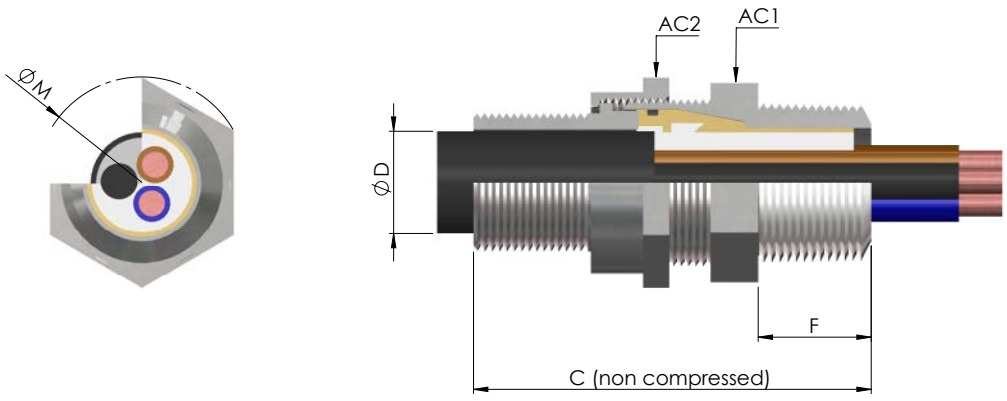
Locknut *	ISO thread	Nickel-plated brass	Shrouds black TPV made	Code	Nickel-plated brass earthing rings *	Code
	M20x1,5	DL1IB		PGA1		A1311IB
	M25x1,5	DL2IB		PGA2		A2312IB
	M32x1,5	DL3IB		PGA3		A3313IB
	M40x1,5	DL4IB		PGA6R		A4314IB
	M50x1,5	DL5IB		PGA6R		A5315IB
	M63x1,5	DL6IB		PGA6		A6316IB
	M75x1,5	DL7IB		PGA8		A7317IB
	M90x1,5	DL8IB		PGA8		A8318IB

Stainless steel idented washers *	For ISO threading	Code	Adaptors and reducers RE... series
	M20	RDI1IS/A4	
	M25	RDI2IS/A4	
	M32	RDI3IS/A4	
	M40	RDI4IS/A4	
	M50	RDI5IS/A4	
	M63	RDI6IS/A4	

* For different threads contact the sales office.

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	ØD min-max	Kg
FBN1BK	1/2" ISO7/1	27	30	35	19	75	5 - 13	0,180
FBN2BK	3/4" ISO7/1	32	35	41	19	75	11 - 18	0,220
FBN3BK	1" ISO7/1	40	42	49	26	82	17 - 24	0,420
FBN4BK	1 ¼" ISO7/1	53	60	69	26	94	23 - 30	0,800
FBN5BK	1 ½" ISO7/1	60	67	77	26	94	29 - 38	1,010
FBN6BK	2" ISO7/1	72	79	91	26	94	36 - 49	1,420
FBN7BK	2 ½" ISO7/1	95	105	121	32	106	44 - 61	2,530
FBN8BK	3" ISO7/1	105	115	133	32	106	59 - 74	2,930
FBN1NBK	1/2" NPT	27	30	35	19	68	5 - 13	0,180
FBN2NBK	3/4" NPT	32	35	41	19	68	11 - 18	0,220
FBN3NBK	1" NPT	40	42	49	26	78	17 - 24	0,420
FBN4NBK	1 ¼" NPT	55	60	69	26	78	23 - 30	0,800
FBN5NBK	1 ½" NPT	60	67	77	26	78	29 - 38	1,010
FBN6NBK	2" NPT	72	79	91	26	78	36 - 49	1,420
FBN7NBK	2 ½" NPT	90	105	121	32	102	44 - 61	2,530
FBN8NBK	3" NPT	105	115	133	32	102	59 - 74	2,930
FBN1IBK	M20x1,5	27	30	35	16	55	5 - 13	0,180
FBN2IBK	M25x1,5	32	35	41	16	55	11 - 18	0,220
FBN3IBK	M32x1,5	40	42	49	16	56	17 - 24	0,420
FBN4IBK	M40x1,5	55	60	69	16	58	23 - 30	0,800
FBN5IBK	M50x1,5	60	67	77	16	58	29 - 38	1,010
FBN6IBK	M63x1,5	72	79	91	18	60	36 - 49	1,420
FBN7IBK	M75x1,5	95	105	121	18	62	44 - 61	2,530
FBN8IBK	M90x1,5	105	115	133	18	62	59 - 74	2,930

Example of Order Code

FBN	3	I	B	K
MODEL	SIZE	THREAD	MATERIAL	KIT OF SEALING RINGS

Resin compound kit:
Cable glands are supllied with a resin bag, mixing spatula and protective gloves.

For sealing system, diameter and maximum number of conductors to be used see "Sealing method" chapter

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Other materials upon request*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code FBN5BK**IA**)*
- *It's available upon request a version with mixed thread, of the same equivalence and size (example code for cable gland in nickel-plated brass Male 1"NPT - Female M32x1,5: FBN3**NI**BK)*

FGAB series barrier cable glands for armoured cable are used to ensure the IP 66/67 degree and the explosion protection in applications where prescriptions of installation are required according to EN-IEC 60079-14:2015 certification.

Interactive Point

FGAB assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 00 ATEX 075	
	IECEx IECEx CES 14.0015X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and European Directive 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008, IEC 60079-7: 2006-07 Directive RoHS 2002/95/CE	
Operating temperature:	-20°C +60°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

Accessories upon request

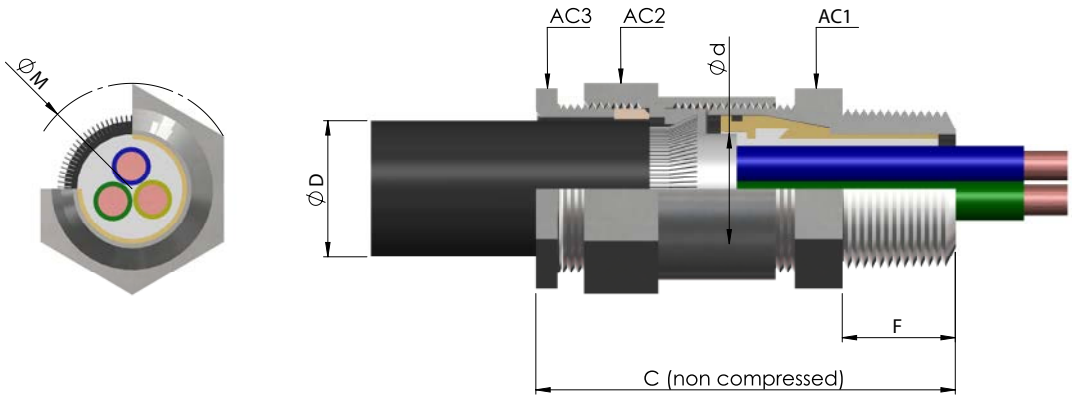
Locknut *	ISO thread	Nickel-plated brass	Shrouds black TPV made	Code	Nickel-plated brass earthing rings *	Code
	M20x1,5	DL1IB		PGA1		A1311IB
	M25x1,5	DL2IB		PGA2		A2312IB
	M32x1,5	DL3IB		PGA3		A3313IB
	M40x1,5	DL4IB		PGA6R		A4314IB
	M50x1,5	DL5IB		PGA6R		A5315IB
	M63x1,5	DL6IB		PGA6		A6316IB
	M75x1,5	DL7IB		PGA7		A7317IB
	M90x1,5	DL8IB		PGA8		A8318IB

Stainless steel idented washers *	For ISO threading	Code	Adaptors and reducers RE... series
	M20	RDI1IS/A4	
	M25	RDI2IS/A4	
	M32	RDI3IS/A4	
	M40	RDI4IS/A4	
	M50	RDI5IS/A4	
	M63	RDI6IS/A4	

* For different threads contact the sales office.

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Nickel-plated brass	Thread	Dimensions in mm						Range		Armour thickness min-max	Weight
		AC1	AC2	AC3	ØM	F	C	ØD min-max	Ød min-max		Kg
FGAB1BK/3	1/2" ISO7/1	27	30	27	35	19	84	8 - 18	5 - 13	0,5 - 1,4	1,122 (3pc)
FGAB2BK/3	3/4" ISO7/1	32	35	32	41	19	85	17 - 25	11 - 18	0,5 - 1,8	1,251 (3pc)
FGAB3BK/2	1" ISO7/1	40	42	40	49	26	94,5	23 - 32	17 - 24	0,5 - 2	1,116 (2pc)
FGAB4BK	1 ¼" ISO7/1	53	60	50	69	26	98	29 - 39	23 - 30	0,9 - 2	1,170
FGAB5BK	1 ½" ISO7/1	60	67	55	77	26	98,5	36 - 46	29 - 38	1,2 - 2,5	1,305
FGAB6BK	2" ISO7/1	72	79	72	91	26	99	44 - 60	36 - 49	1,3 - 2,5	1,577
FGAB7BK	2 ½" ISO7/1	95	105	82	121	32	115	51 - 70	44 - 61	1,3 - 2,5	3,000
FGAB8BK	3" ISO7/1	105	115	103	133	32	117	65 - 84	59 - 74	1,5 - 3,2	3,650
FGAB1NBK/3	1/2" NPT	27	30	27	35	19	84	8 - 18	5 - 13	0,5 - 1,4	1,122 (3pc)
FGAB2NBK/3	3/4" NPT	32	35	32	41	19	85	17 - 25	11 - 18	0,5 - 1,8	1,251 (3pc)
FGAB3NBK/2	1" NPT	40	42	40	49	26	94,5	23 - 32	17 - 24	0,5 - 2	1,116 (2pc)
FGAB4NBK	1 ¼" NPT	55	60	50	69	26	98	29 - 39	23 - 30	0,9 - 2	1,170
FGAB5NBK	1 ½" NPT	60	67	55	77	26	98,5	36 - 46	29 - 38	1,2 - 2,5	1,305
FGAB6NBK	2" NPT	72	79	72	91	26	99	44 - 60	36 - 49	1,3 - 2,5	1,577
FGAB7NBK	2 ½" NPT	90	105	82	121	32	115	51 - 70	44 - 61	1,3 - 2,5	3,000
FGAB8NBK	3" NPT	105	115	103	133	32	117	65 - 84	59 - 74	1,5 - 3,2	3,650
FGAB1IBK/3	M20x1,5	27	30	27	35	16	81	8 - 18	5 - 13	0,5 - 1,4	1,122 (3pc)
FGAB2IBK/3	M25x1,5	32	35	32	41	16	82	17 - 25	11 - 18	0,5 - 1,8	1,251 (3pc)
FGAB3IBK/2	M32x1,5	40	42	40	49	16	84,5	23 - 32	17 - 24	0,5 - 2	1,116 (2pc)
FGAB4IBK	M40x1,5	55	60	50	69	16	88	29 - 39	23 - 30	0,9 - 2	1,170
FGAB5IBK	M50x1,5	60	67	55	77	16	88,5	36 - 46	29 - 38	1,2 - 2,5	1,305
FGAB6IBK	M63x1,5	72	79	72	91	18	89	44 - 60	36 - 49	1,3 - 2,5	1,577
FGAB7IBK	M75x1,5	95	105	82	121	18	101	51 - 70	44 - 61	1,3 - 2,5	3,000
FGAB8IBK	M90x1,5	105	115	103	133	18	103	65 - 84	59 - 74	1,5 - 3,2	3,650

Example of Order Code

FGAB	3	I	B	K	/	2
MODEL	SIZE	THREAD	MATERIAL	KIT OF SEALING RINGS		SUPPLIED IN PACKAGES

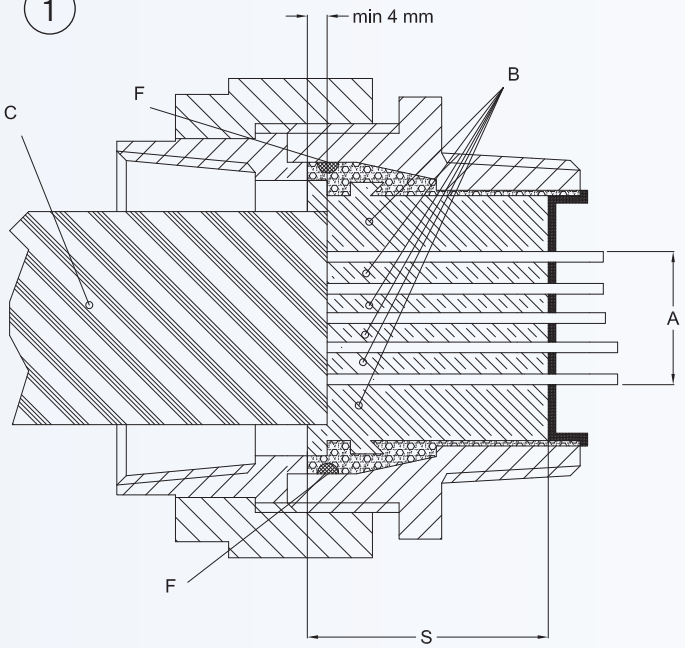
Resin compound kit: Cable glands are supllied with a resin bag, mixing spatula and protective gloves.

For sealing system, diameter and maximum number of conductors to be used see "Sealing method" chapter

TECHNICAL NOTES:

- *The silicone o-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on cable gland*
- *Other materials upon request*
- *For "Ex i" intrinsically safe marking, blu nut RAL 5015 (example code FGAB5BK**IA**)*

1

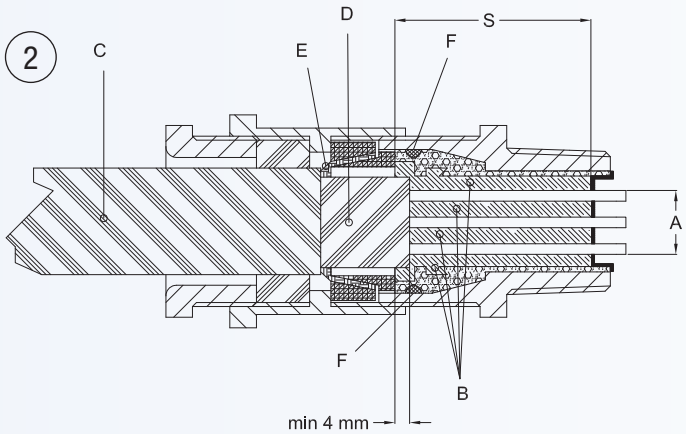


Note:

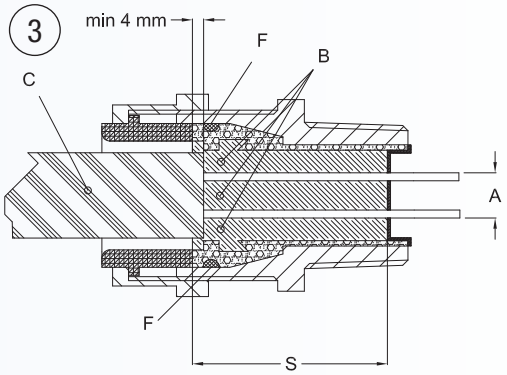
1. Amount of resin S≥20mm
2. a= sealed conductors
3. b= bi-component resin
4. c= external sheat of cable
5. d= internal sheat of cable
6. e= cable armour
7. f= sealing ring for IP protection
8. min. 4 mm (sealing for external sheat of the cable mandatory)

Examples of resined barrier cable glands:
1. FBF series for non-armoured cable
2. FGAB series for amoured cable
3. FB series for non-armoured cable

2



3



DIMENSIONS (mm)

Conductors section mm²	Maximum number of conductors	Ø internal cable min-max	Ø external cable min-max	Size NPT cable gland
1,0	4	5-10	8-14	1/2"
1,5	7	5-13	8-18	1/2"
	12	11-18	17-25	3/4"
	27	17-24	23-32	1"
	37	23-30	29-39	1 ¼"
2,5	5	5-13	8-18	1/2"
	10	11-18	17-25	3/4"
	19	17-24	23-32	1"
4,0	3	5-13	8-18	1/2"
	5	11-18	17-25	3/4"
6,0	1	5-13	8-18	1/2"
	5	11-18	17-25	3/4"
10,0	1	5-13	8-18	1/2"
	3	11-18	17-25	3/4"
	5	17-24	23-32	1"

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

DIMENSIONS (mm)				
Conductors section mm²	Maximum number of conductors	Ø internal cable min-max	Ø external cable min-max	Size NPT cable gland
16,0	1	5-13	8-18	1/2"
	2	11-18	17-25	3/4"
	4	17-24	23-32	1"
	5	23-30	29-39	1 ¼"
25,0	1	5-13	8-18	1/2"
	1	11-18	17-25	3/4"
	3	17-24	23-32	1"
	5	23-30	29-39	1 ¼"
35,0	1	5-13	8-18	1/2"
	1	11-18	17-25	3/4"
	3	17-24	23-32	1"
	5	23-30	29-39	1 ¼"
50,0	1	11-18	17-25	3/4"
	1	17-24	23-32	1"
	3	23-30	29-39	1 ¼"
	4	29-38	36-46	1 ½"
	5	36-49	44-60	2"
70,0	1	11-18	17-25	3/4"
	1	17-24	23-32	1"
	2	23-30	29-39	1 1/4"
	4	29-38	36-46	1 1/2"
	5	36-49	44-60	2"
95,0	1	17-24	23-32	1"
	1	23-30	29-39	1 ¼"
	2	29-38	36-46	1 ½"
	5	36-49	44-60	2"
120,0	1	17-24	23-32	1"
	1	23-30	29-39	1 ¼"
	1	29-38	36-46	1 ½"
	4	36-49	44-60	2"
150,0	1	17-24	23-32	1"
	1	23-30	29-39	1 ¼"
	1	29-38	36-46	1 ½"
	3	36-49	44-60	2"
	4	44-61	51-70	2 ½"
185,0	1	23-30	29-39	1 ¼"
	1	29-38	36-46	1 ½"
	1	36-49	44-60	2"
	4	44-61	51-70	2 ½"
240,0	1	23-30	29-39	1 ¼"
	1	29-38	36-46	1 ½"
	1	36-49	44-60	2"
	3	44-61	51-70	2 ½"
	4	59-74	65-84	3"
300,0	1	29-38	36-46	1 ½"
	1	36-49	44-60	2"
	1	44-61	51-70	2 ½"
	4	59-74	65-84	3"
400,0	1	23-30	29-39	1 ¼"
	1	29-38	36-46	1 ½"
	1	36-49	44-60	2"
	1	44-61	51-70	2 ½"
500,0	1	29-37,5	36-46	1 ½"
	1	36-48,5	44-60	2"
	1	44-61	51-70	2 ½"
630,0	1	29-38	36-46	1 ½"
	1	36-49	44-60	2"
	1	44-61	51-70	2 ½"

UNI series cable glands in polyamide with ISO thread are used in hazardous areas to allow direct insertions of unrmoured cables into Ex e (UNI..XE) or Ex i (UNI..XI) equipment or junction boxes.
They can be installed easily, they are strikes resistant until 7J and they ensure Ex e and IP protection on the cable external sheath.

Interactive Point

UNI assembly instructions video

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex e IIC Gb Ex tb IIIC Db IP66/68*	
Certification:	ATEX IMQ 16 ATEX 005X	
	IECEx IECEx IMQ 15.0009X	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-11: 2012, EN 60079-31: 2014 and European Directive 2014/34/UE IEC 60079-0: 2011, IEC 60079-7: 2006, IEC 60079-11: 2012, IEC 60079-31: 2014 Directive RoHS 2002/95/CE	
Operating temperature:	-60°C +70°C	
Degree of protection:	IP66/68	

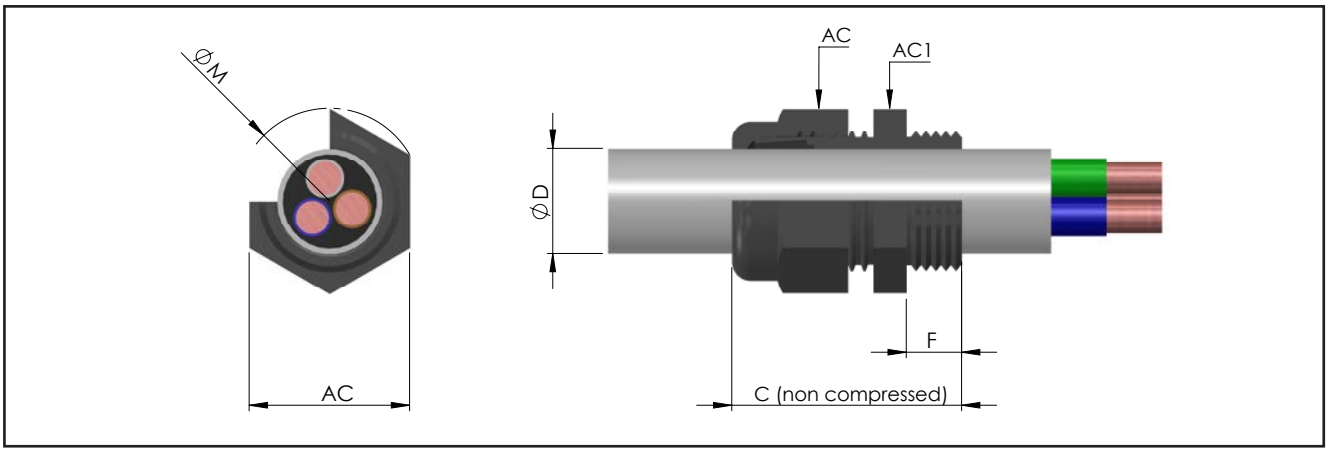
Certificates are available on www.cortemgroup.com

* Ex e IIC cable glands can be used with Ex i circuits. The nut of these cable gland shall be painted blue and marking will not be changed. The nut of these cable gland shall be painted blue and marking will not be changed.

Accessories upon request

Locknut	ISO thread	Code	Material	Plugs for IP ptotection	ISO thread	Code
	M12x1,5	**DL02IXEP**	Polyamide		M12x1,5	**PT02**
	M16x1,5	**DL01IXEP**			M16x1,5	**PT01**
	M20x1,5	**DL1IXEP**			M20x1,5	**PT1**
	M25x1,5	**DL2IXEP**			M25x1,5	**PT2**
	M32x1,5	**DL3IXEP**			M32x1,5	**PT3**
	M40x1,5	**DL4IXEP**			M40x1,5	**PT4**
	M50x1,5	**DL5IXEP**			M50x1,5	**PT5**
	M63x1,5	**DL6IXEP**			M63x1,5	**PT6**

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION TABLE

Code Polyamide	Method of protection	Thread	Dimensions in mm					Range	Weight
			AC	AC1	ØM	F	C	ØD min-max	Kg
UNI02XE7	Ex e	M12x1,5	15	15	17	10	32	4 - 6,5	0,004
UNI01LXE7		M16x1,5	22	22	25	15	44,5	6 - 10	0,006
UNI1LXE7		M20x1,5	24	24	28	15	45	7 - 12	0,010
UNI2LXE7DS		M25x1,5	33	33	38	15	50	12 - 14	0,016
UNI2LXE7		M25x1,5	33	33	38	15	50	14 - 18	0,016
UNI3XE7		M32x1,5	42	42	48	15	55,5	19 - 25	0,042
UNI4XE7		M40x1,5	53	53	60	18	68	23 - 32	0,074
UNI5XE7		M50x1,5	60	60	69	18	72	31 - 38	-
UNI6XE7		M63x1,5	65	65	75	18	72	35 - 44	-
UNI02XI7	Ex i	M12x1,5	15	15	17	10	32	4 - 6,5	0,004
UNI01LXI7		M16x1,5	22	22	25	15	44,5	6 - 10	0,006
UNI1LXI7		M20x1,5	24	24	28	15	45	7 - 12	0,010
UNI2LXI7		M25x1,5	33	33	38	15	50	14 - 18	0,016
UNI3XI7		M32x1,5	42	42	48	15	55,5	19 - 25	0,042
UNI4XI7		M40x1,5	53	53	60	18	68	23 - 32	0,074
UNI5XI7		M50x1,5	60	60	69	18	72	31 - 38	-
UNI6XI7		M63x1,5	65	65	75	18	72	35 - 44	-

Example of Order Code

UNI	2	L	XE	7
MODEL	SIZE	INCREASED THREAD LENGHT	METHOD OF PROTECTION Ex e	SERIE 7J

TECHNICAL NOTES:

- *Silicone gaskets*
- *Color of cable gland black RAL 9005 (Ex e) or blue RAL 5015 (Ex i)*
- *Strikes resistant 7J*
- *Different lenght of thread*

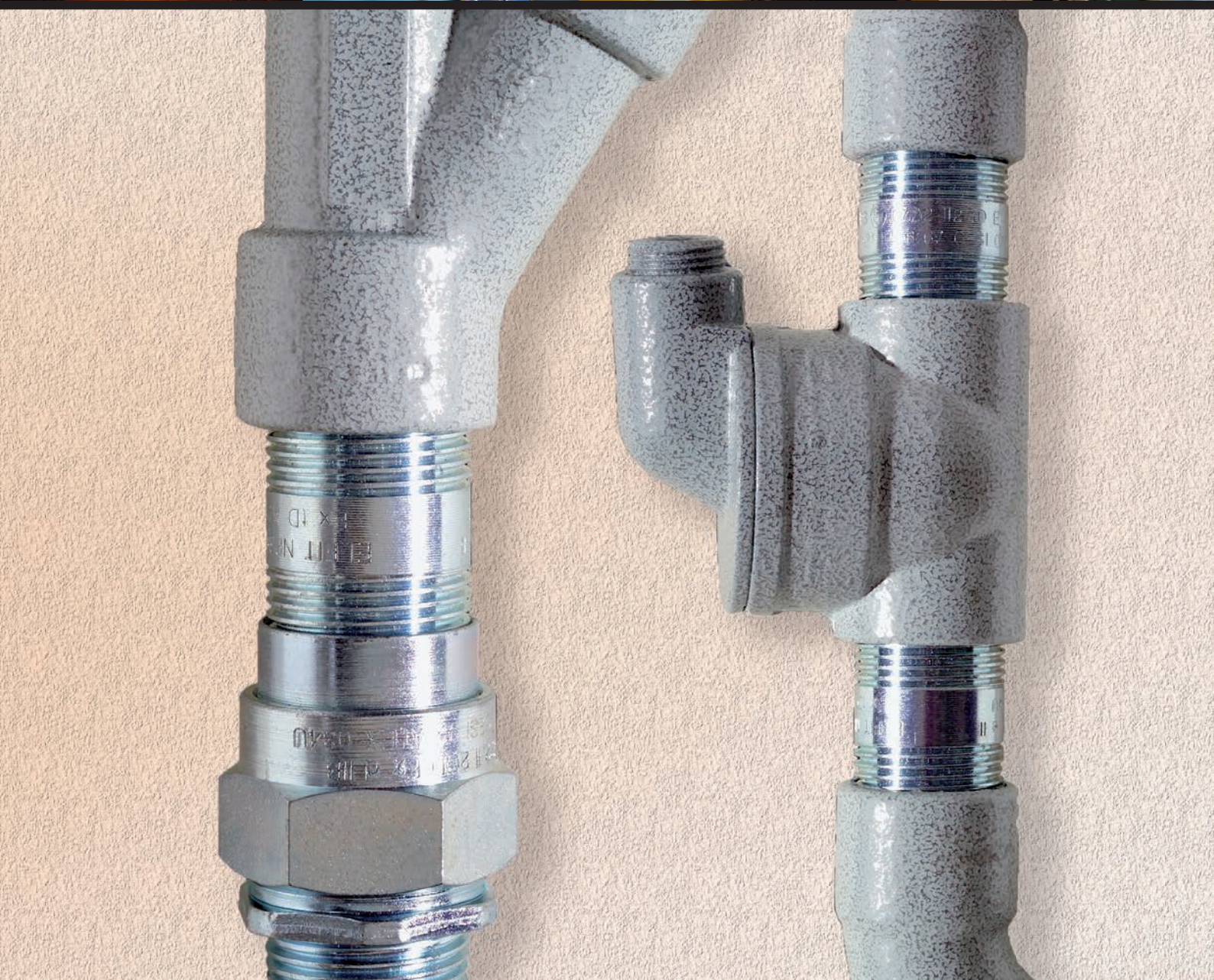
vendite@elfit.com info@elfit.com
www.elfit.com

ELFIT®

ELectrical FITtings for Hazardous Areas

Electrical fittings for electrical plants



BMF series three pieces unions for IIB gas group enable an independent rotation and the connection between pipes, enclosures or different equipment.

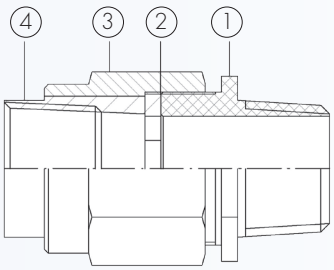
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (B..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Three pieces unions series	Materials	Gaskets	Ambient temperature
BMF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
BMF...S	Stainless steel **(S)**	Silicone	-60°C +60°C

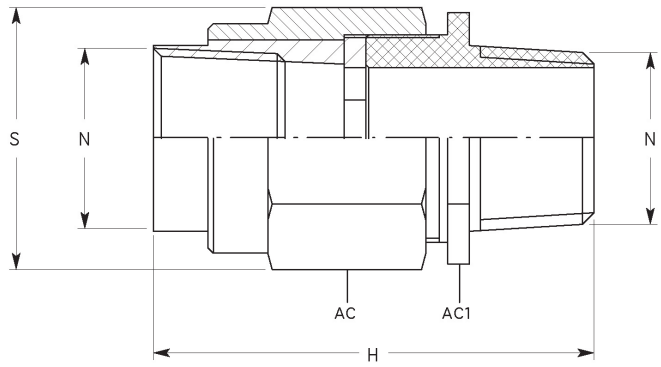
Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Female threaded bushing

vendite@elfit.com info@elfit.com
www.elfit.com



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
BMF1G	1/2" ISO7/1	60	35	30	27	0,150
BMF2G	3/4" ISO7/1	61	40	35	32	0,185
BMF3G	1" ISO7/1	71,5	48	42	40	0,300
BMF4G	1 ¼" ISO7/1	86	60	55	59	0,760
BMF5G	1 ½" ISO7/1	86,5	75	70	67	1,000
BMF6G	2" ISO7/1	88	90	84	77	1,400
BMF7G	2 ½" ISO7/1	107	117	108	99	2,350
BMF8G	3" ISO7/1	109	132	121	108	2,800
BMF10G	4" ISO7/1	116,5	152	145	135	4,160
BMF1NG	1/2" NPT	60	35	30	27	0,150
BMF2NG	3/4" NPT	61	40	35	32	0,185
BMF3NG	1" NPT	71,5	48	42	40	0,300
BMF4NG	1 ¼" NPT	86	60	55	59	0,760
BMF5NG	1 ½" NPT	86,5	75	70	67	1,000
BMF6NG	2" NPT	88	90	84	77	1,400
BMF7NG	2 ½" NPT	107	117	108	99	2,350
BMF8NG	3" NPT	109	132	121	108	2,800
BMF10NG	4" NPT	116,5	152	145	135	4,160
BMF1IG	M20x1,5	60	35	30	27	0,150
BMF2IG	M25x1,5	61	40	35	32	0,185
BMF3IG	M32x1,5	71,5	48	42	40	0,300
BMF4IG	M40x1,5	86	60	55	59	0,760
BMF5IG	M50x1,5	86,5	75	70	67	1,000
BMF6IG	M63x1,5	88	90	84	77	1,400
BMF7IG	M75x1,5	107	117	108	99	2,350
BMF8IG	M90x1,5	109	132	121	108	2,800
BMF10IG	M100x1,5	116,5	152	145	135	4,160

Order code example

BMF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code BMF1**S**)*
- *Available also upon request in nickel-plated brass (example code BMF1**B**)*
- *It is possible supply mixed thread, of the same equivalence, adding code for female thread (sample code for fitting in galvanised steel Male 1"NPT - Female M32x1,5: BMF3NIG)*

BFF series three pieces unions for IIB gas group enable an independent rotation and connection between pipes, enclosures or different equipment.

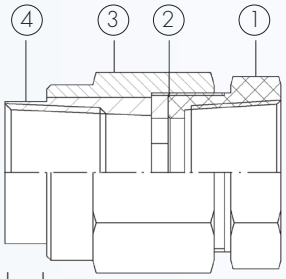
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (B..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

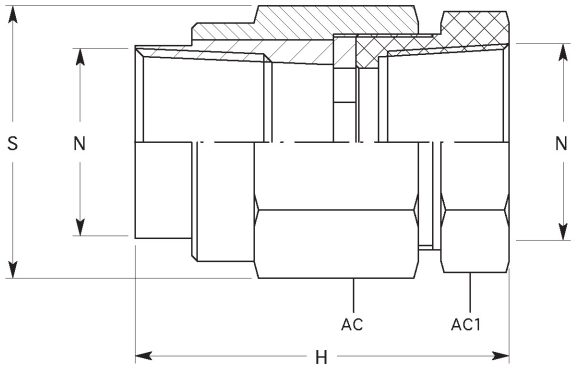
Three pieces unions series	Materials	Gaskets	Ambient temperature
BFF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
BFF...S	Stainless steel **(S)**	Silicone	-60°C +60°C

Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Female body
2. Gasket
3. Nut
4. Female threaded bushing



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
BFF1G	1/2" ISO7/1	57	35	30	27	0,125
BFF2G	3/4" ISO7/1	57	40	35	32	0,150
BFF3G	1" ISO7/1	67	48	42	40	0,235
BFF4G	1 ¼" ISO7/1	63	60	55	59	0,640
BFF5G	1 ½" ISO7/1	63	75	70	67	0,960
BFF6G	2" ISO7/1	64	90	84	77	1,220
BFF7G	2 ½" ISO7/1	71	117	108	99	2,240
BFF8G	3" ISO7/1	71	132	121	108	2,600
BFF10G	4" ISO7/1	77	152	145	135	3,700
BFF1NG	1/2" NPT	57	35	30	27	0,125
BFF2NG	3/4" NPT	57	40	35	32	0,150
BFF3NG	1" NPT	67	48	42	40	0,235
BFF4NG	1 ¼" NPT	63	60	55	59	0,640
BFF5NG	1 ½" NPT	63	75	70	67	0,960
BFF6NG	2" NPT	64	90	84	77	1,220
BFF7NG	2 ½" NPT	71	117	108	99	2,240
BFF8NG	3" NPT	71	132	121	108	2,600
BFF10NG	4" NPT	77	152	145	135	3,700
BFF1IG	M20x1,5	57	35	30	27	0,125
BFF2IG	M25x1,5	57	40	35	32	0,150
BFF3IG	M32x1,5	67	48	42	40	0,235
BFF4IG	M40x1,5	63	60	55	59	0,640
BFF5IG	M50x1,5	63	75	70	67	0,960
BFF6IG	M63x1,5	64	90	84	77	1,220
BFF7IG	M75x1,5	71	117	108	99	2,240
BFF8IG	M90x1,5	71	132	121	108	2,600
BFF10IG	M100x1,5	77	152	145	135	3,700

Order code example

BFF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code BFF1**S**)*
- *Available also upon request in nickel-plated brass (example code BFF1**B**)*

BMM series three pieces unions for IIB gas group enable an independent rotation and connection between pipes, enclosures or different equipment.

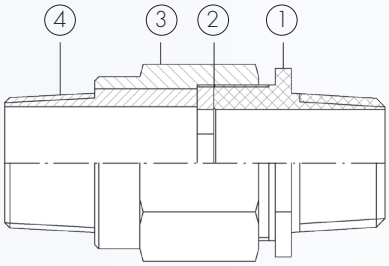
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (B..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

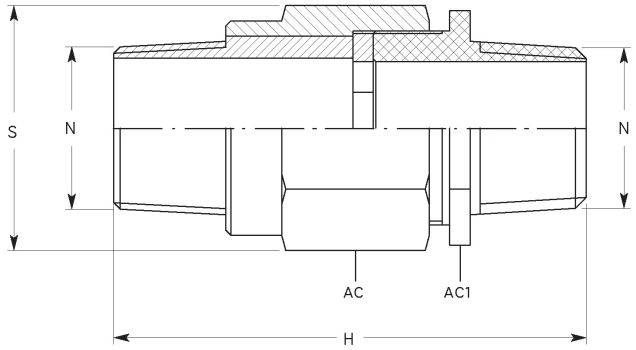
Three pieces unions series	Materials	Gaskets	Ambient temperature
BMM...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
BMM...S	Stainless steel **(S)**	Silicone	-60°C +60°C

Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Male threaded bushing



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
BMM1G	1/2" ISO7/1	64	35	30	27	0,125
BMM2G	3/4" ISO7/1	66	40	35	32	0,150
BMM3G	1" ISO7/1	76	48	42	40	0,235
BMM4G	1 ¼" ISO7/1	91	60	55	59	0,640
BMM5G	1 ½" ISO7/1	92	75	70	67	0,960
BMM6G	2" ISO7/1	94	90	84	77	1,220
BMM7G	2 ½" ISO7/1	118	117	108	99	2,240
BMM8G	3" ISO7/1	122	132	121	108	2,600
BMM10G	4" ISO7/1	132	152	145	135	3,700
BMM1NG	1/2" NPT	64	35	30	27	0,125
BMM2NG	3/4" NPT	66	40	35	32	0,150
BMM3NG	1" NPT	76	48	42	40	0,235
BMM4NG	1 ¼" NPT	91	60	55	59	0,640
BMM5NG	1 ½" NPT	92	75	70	67	0,960
BMM6NG	2" NPT	94	90	84	77	1,220
BMM7NG	2 ½" NPT	118	117	108	99	2,240
BMM8NG	3" NPT	122	132	121	108	2,600
BMM10NG	4" NPT	132	152	145	135	3,700
BMM1IG	M20x1,5	64	35	30	27	0,125
BMM2IG	M25x1,5	66	40	35	32	0,150
BMM3IG	M32x1,5	76	48	42	40	0,235
BMM4IG	M40x1,5	91	60	55	59	0,640
BMM5IG	M50x1,5	92	75	70	67	0,960
BMM6IG	M63x1,5	94	90	84	77	1,220
BMM7IG	M75x1,5	118	117	108	99	2,240
BMM8IG	M90x1,5	122	132	121	108	2,600
BMM10IG	M100x1,5	132	152	145	135	3,700

Order code example

BMM	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code BMM1**S**)*
- *Available also upon request in nickel-plated brass (example code BMM1**B**)*

RBMF series three pieces unions suitable for IIB gas group and extreme temperatures enable an independent rotation and connection between pipes, enclosures or different equipment.

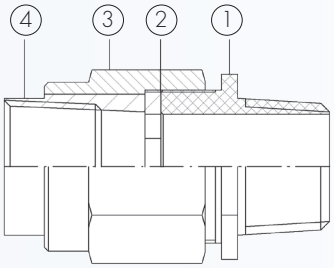
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (RB..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Three pieces unions series	Materials	Gaskets	Ambient temperature
RBMF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +150°C
RBMF...S	Stainless steel **(S)**	Silicone	-60°C +150°C

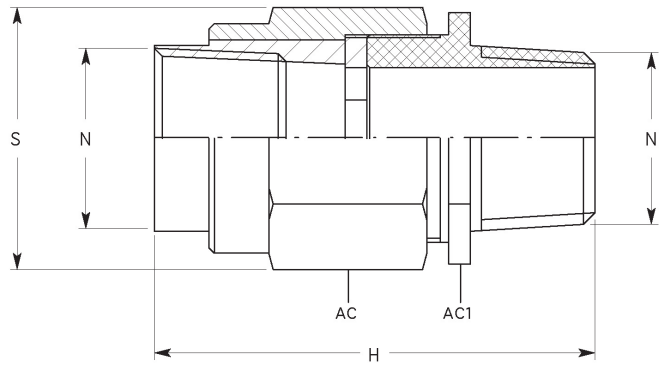
Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Female threaded bushing

vendite@elfit.com info@elfit.com
www.elfit.com



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RBMF1G	1/2" ISO7/1	71	35	30	27	0,150
RBMF2G	3/4" ISO7/1	72	40	35	32	0,185
RBMF3G	1" ISO7/1	82,5	48	42	40	0,300
RBMF4G	1 ¼" ISO7/1	86	60	55	59	0,760
RBMF5G	1 ½" ISO7/1	86,5	75	70	67	1,000
RBMF6G	2" ISO7/1	88	90	84	77	1,400
RBMF7G	2 ½" ISO7/1	107	117	108	99	2,350
RBMF8G	3" ISO7/1	109	132	121	108	2,800
RBMF10G	4" ISO7/1	116,5	152	145	135	4,160
RBMF1NG	1/2" NPT	71	35	30	27	0,150
RBMF2NG	3/4" NPT	72	40	35	32	0,185
RBMF3NG	1" NPT	82,5	48	42	40	0,300
RBMF4NG	1 ¼" NPT	86	60	55	59	0,760
RBMF5NG	1 ½" NPT	86,5	75	70	67	1,000
RBMF6NG	2" NPT	88	90	84	77	1,400
RBMF7NG	2 ½" NPT	107	117	108	99	2,350
RBMF8NG	3" NPT	109	132	121	108	2,800
RBMF10NG	4" NPT	116,5	152	145	135	4,160
RBMF1IG	M20x1,5	71	35	30	27	0,150
RBMF2IG	M25x1,5	72	40	35	32	0,185
RBMF3IG	M32x1,5	82,5	48	42	40	0,300
RBMF4IG	M40x1,5	86	60	55	59	0,760
RBMF5IG	M50x1,5	86,5	75	70	67	1,000
RBMF6IG	M63x1,5	88	90	84	77	1,400
RBMF7IG	M75x1,5	107	117	108	99	2,350
RBMF8IG	M90x1,5	109	132	121	108	2,800
RBMF10IG	M100x1,5	116,5	152	145	135	4,160

Order code example

RBMF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RBMF1**S**)*
- *Available also in nickel-plated brass (example code RBMF1**B**)*
- *It is possible supply mixed thread, of the same equivalence (sample code for fitting in galvanised steel Male 1"NPT - Female M32x1,5: RBMF3NG)*

RBFF series three pieces unions suitable for IIB gas group and extreme temperatures enable an independent rotation and connection between pipes, enclosures or different instruments.

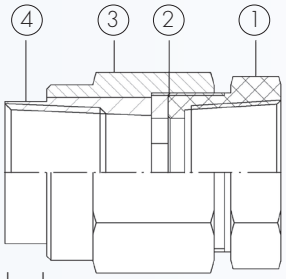
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (RB..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Three pieces unions series	Materials	Gaskets	Ambient temperature
RBFF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +150°C
RBFF...S	Stainless steel **(S)**	Silicone	-60°C +150°C

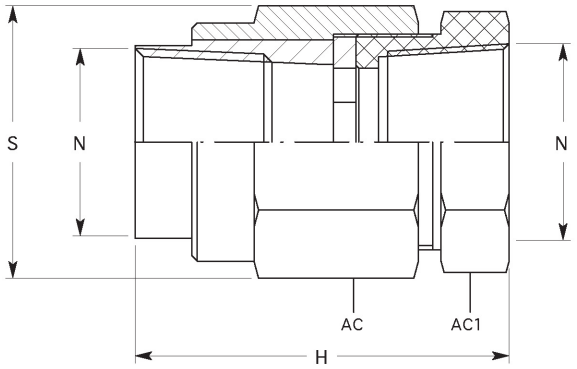
Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Female body
2. Gasket
3. Nut
4. Female threaded bushing

vendite@elfit.com info@elfit.com
www.elfit.com



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RBFF1G	1/2" ISO7/1	57	35	30	27	0,125
RBFF2G	3/4" ISO7/1	57	40	35	32	0,150
RBFF3G	1" ISO7/1	67	48	42	40	0,235
RBFF4G	1 ¼" ISO7/1	63	60	55	59	0,640
RBFF5G	1 ½" ISO7/1	63	75	70	67	0,960
RBFF6G	2" ISO7/1	64	90	84	77	1,220
RBFF7G	2 ½" ISO7/1	71	117	108	99	2,240
RBFF8G	3" ISO7/1	71	132	121	108	2,600
RBFF10G	4" ISO7/1	77	152	145	135	3,700
RBFF1NG	1/2" NPT	57	35	30	27	0,125
RBFF2NG	3/4" NPT	57	40	35	32	0,150
RBFF3NG	1" NPT	67	48	42	40	0,235
RBFF4NG	1 ¼" NPT	63	60	55	59	0,640
RBFF5NG	1 ½" NPT	63	75	70	67	0,960
RBFF6NG	2" NPT	64	90	84	77	1,220
RBFF7NG	2 ½" NPT	71	117	108	99	2,240
RBFF8NG	3" NPT	71	132	121	108	2,600
RBFF10NG	4" NPT	77	152	145	135	3,700
RBFF1IG	M20x1,5	57	35	30	27	0,125
RBFF2IG	M25x1,5	57	40	35	32	0,150
RBFF3IG	M32x1,5	67	48	42	40	0,235
RBFF4IG	M40x1,5	63	60	55	59	0,640
RBFF5IG	M50x1,5	63	75	70	67	0,960
RBFF6IG	M63x1,5	64	90	84	77	1,220
RBFF7IG	M75x1,5	71	117	108	99	2,240
RBFF8IG	M90x1,5	71	132	121	108	2,600
RBFF10IG	M100x1,5	77	152	145	135	3,700

Order code example

RBFF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RBFF1**S**)*
- *Available also in nickel-plated brass (example code RBFF1**B**)*

RBMM series three pieces unions suitable for IIB gas group and extreme temperatures enable an independent rotation and connection between pipes, enclosures or different instruments.

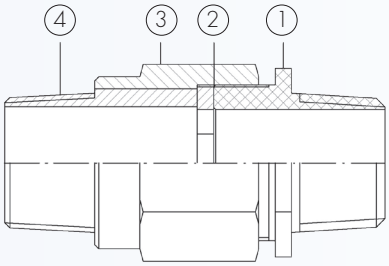
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67 (RB..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

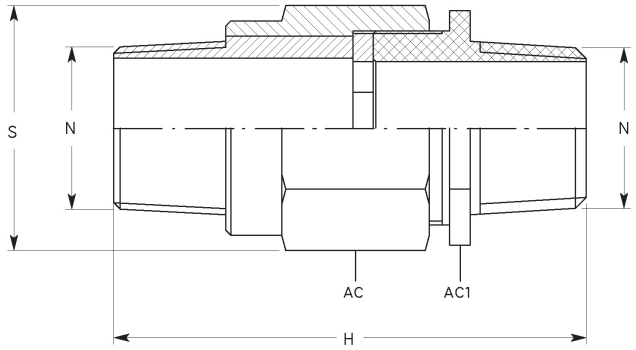
Three pieces unions series	Materials	Gaskets	Ambient temperature
RBMM...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +150°C
RBMM...S	Stainless steel **(S)**	Silicone	-60°C +150°C

Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Male threaded bushing



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RBMM1G	1/2" ISO7/1	87	35	30	27	0,125
RBMM2G	3/4" ISO7/1	89	40	35	32	0,150
RBMM3G	1" ISO7/1	99	48	42	40	0,235
RBMM4G	1 ¼" ISO7/1	125	60	55	59	0,640
RBMM5G	1 ½" ISO7/1	126	75	70	67	0,960
RBMM6G	2" ISO7/1	127	90	84	77	1,220
RBMM7G	2 ½" ISO7/1	161	117	108	99	2,240
RBMM8G	3" ISO7/1	165	132	121	108	2,600
RBMM10G	4" ISO7/1	171	152	145	135	3,700
RBMM1NG	1/2" NPT	87	35	30	27	0,125
RBMM2NG	3/4" NPT	89	40	35	32	0,150
RBMM3NG	1" NPT	99	48	42	40	0,235
RBMM4NG	1 ¼" NPT	125	60	55	59	0,640
RBMM5NG	1 ½" NPT	126	75	70	67	0,960
RBMM6NG	2" NPT	127	90	84	77	1,220
RBMM7NG	2 ½" NPT	161	117	108	99	2,240
RBMM8NG	3" NPT	165	132	121	108	2,600
RBMM10NG	4" NPT	171	152	145	135	3,700
RBMM1IG	M20x1,5	87	35	30	27	0,125
RBMM2IG	M25x1,5	89	40	35	32	0,150
RBMM3IG	M32x1,5	99	48	42	40	0,235
RBMM4IG	M40x1,5	125	60	55	59	0,640
RBMM5IG	M50x1,5	126	75	70	67	0,960
RBMM6IG	M63x1,5	127	90	84	77	1,220
RBMM7IG	M75x1,5	161	117	108	99	2,240
RBMM8IG	M90x1,5	165	132	121	108	2,600
RBMM10IG	M100x1,5	171	152	145	135	3,700

Order code example

RBMM	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RBMM1**S**)*
- *Available also in nickel-plated brass (example code RBMM1**B**)*

RMF series three pieces unions for IIC gas group enable an independent rotation and connection between pipes, enclosures or different instruments.

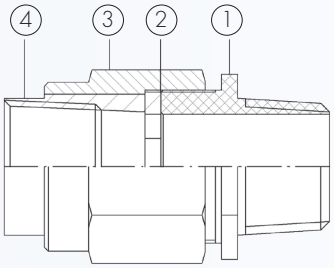
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67 (R..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Three pieces unions series	Materials	Gaskets	Ambient temperature
RMF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
RMF...S	Stainless steel **(S)**	Silicone	-60°C +60°C

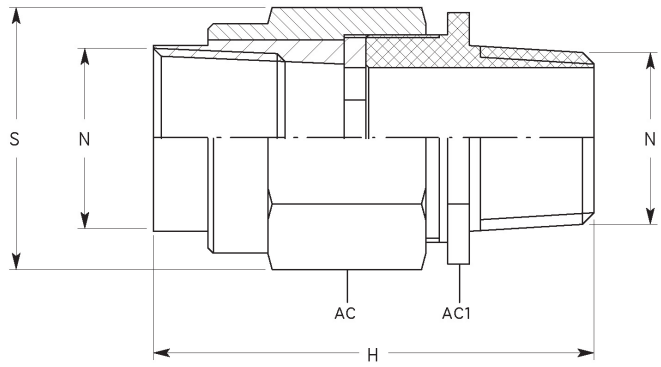
Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Female threaded bushing

vendite@elfit.com info@elfit.com
www.elfit.com



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RMF1G	1/2" ISO7/1	71	35	30	27	0,200
RMF2G	3/4" ISO7/1	71	40	35	32	0,230
RMF3G	1" ISO7/1	82	48	42	40	0,380
RMF4G	1 ¼" ISO7/1	87	60	55	59	0,940
RMF5G	1 ½" ISO7/1	87	75	70	67	1,125
RMF6G	2" ISO7/1	87	90	84	77	1,540
RMF7G	2 ½" ISO7/1	98	117	108	99	3,125
RMF8G	3" ISO7/1	98	132	121	108	3,990
RMF10G	4" ISO7/1	112	152	145	135	4,160
RMF1NG	1/2" NPT	71	35	30	27	0,200
RMF2NG	3/4" NPT	71	40	35	32	0,230
RMF3NG	1" NPT	82	48	42	40	0,380
RMF4NG	1 ¼" NPT	87	60	55	59	0,940
RMF5NG	1 ½" NPT	87	75	70	67	1,125
RMF6NG	2" NPT	87	90	84	77	1,540
RMF7NG	2 ½" NPT	98	117	108	99	3,125
RMF8NG	3" NPT	98	132	121	108	3,990
RMF10NG	4" NPT	112	152	145	135	4,160
RMF1IG	M20x1,5	71	35	30	27	0,200
RMF2IG	M25x1,5	71	40	35	32	0,230
RMF3IG	M32x1,5	82	48	42	40	0,380
RMF4IG	M40x1,5	87	60	55	59	0,940
RMF5IG	M50x1,5	87	75	70	67	1,125
RMF6IG	M63x1,5	87	90	84	77	1,540
RMF7IG	M75x1,5	98	117	108	99	3,125
RMF8IG	M90x1,5	98	132	121	108	3,990
RMF10IG	M100x1,5	112	152	145	135	4,160

Order code example

RMF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RMF1**S**)*
- *Available also in nickel-plated brass (example code RMF1**B**)*
- *It is possible supply mixed thread, of the same equivalence (sample code for fitting in galvanised steel Male 1"NPT - Female M32x1,5: RMF3NIG)*

RFF series three pieces unions for IIC gas group enable an independent rotation and connection between pipes, enclosures or different equipment.

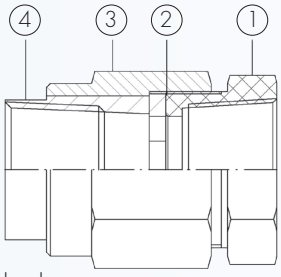
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67 (R..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

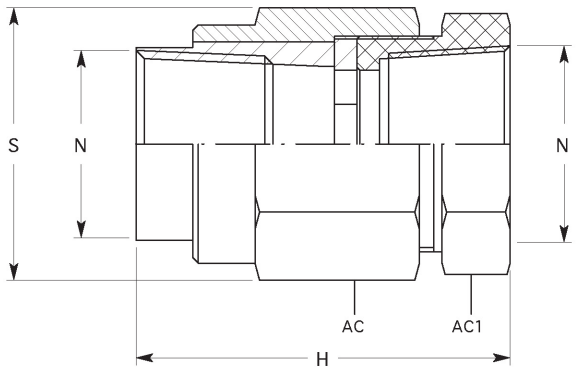
Three pieces unions series	Materials	Gaskets	Ambient temperature
RFF...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
RFF...S	Stainless steel **(S)**	Silicone	-60°C +60°C

Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Female body
2. Gasket
3. Nut
4. Female threaded bushing



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RFF1G	1/2" ISO7/1	58	35	30	27	0,170
RFF2G	3/4" ISO7/1	58	40	35	32	0,200
RFF3G	1" ISO7/1	68	48	42	40	0,315
RFF4G	1 ¼" ISO7/1	63	60	55	59	0,820
RFF5G	1 ½" ISO7/1	66	75	70	67	1,020
RFF6G	2" ISO7/1	66	90	84	77	1,390
RFF7G	2 ½" ISO7/1	71	117	108	99	2,520
RFF8G	3" ISO7/1	71	132	121	108	2,900
RFF10G	4" ISO7/1	86	152	145	135	3,700
RFF1NG	1/2" NPT	58	35	30	27	0,170
RFF2NG	3/4" NPT	58	40	35	32	0,200
RFF3NG	1" NPT	68	48	42	40	0,315
RFF4NG	1 ¼" NPT	63	60	55	59	0,820
RFF5NG	1 ½" NPT	66	75	70	67	1,020
RFF6NG	2" NPT	66	90	84	77	1,390
RFF7NG	2 ½" NPT	71	117	108	99	2,520
RFF8NG	3" NPT	71	132	121	108	2,900
RFF10NG	4" NPT	86	152	145	135	3,700
RFF1IG	M20x1,5	58	35	30	27	0,170
RFF2IG	M25x1,5	58	40	35	32	0,200
RFF3IG	M32x1,5	68	48	42	40	0,315
RFF4IG	M40x1,5	63	60	55	59	0,820
RFF5IG	M50x1,5	66	75	70	67	1,020
RFF6IG	M63x1,5	66	90	84	77	1,390
RFF7IG	M75x1,5	71	117	108	99	2,520
RFF8IG	M90x1,5	71	132	121	108	2,900
RFF10IG	M100x1,5	86	152	145	135	3,700

Order code example

RFF	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RFF1**S**)*
- *Available also in nickel-plated brass (example code RFF1**B**)*

RMM series three pieces unions for IIC gas group enable an independent rotation and connection between pipes, enclosures or different equipment.

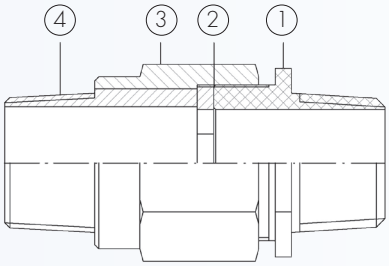
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67 (R..)	
Certification:	ATEX CESI 99 ATEX 034U	
	IECEx IECEx CES 10.0002U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Three pieces unions series	Materials	Gaskets	Ambient temperature
RMM...	Galvanised steel **(G)**, Nickel-plated brass **(B)**	Silicone	-20°C +60°C
RMM...S	Stainless steel **(S)**	Silicone	-60°C +60°C

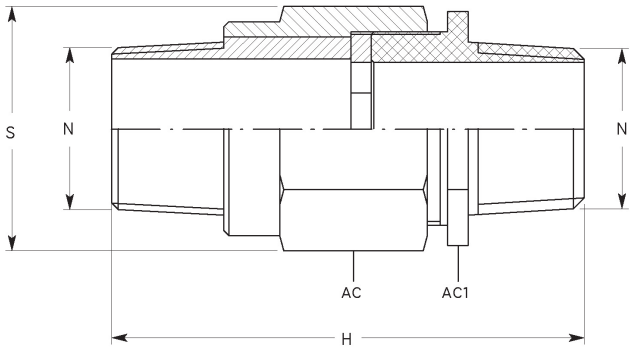
Certificates are available on www.cortemgroup.com

COMPOSITION OF STANDARD UNION



1. Male body
2. Gasket
3. Nut
4. Male threaded bushing

vendite@elfit.com info@elfit.com
www.elfit.com



UNIONS SELECTION TABLE

Code In galvanised steel	Thread N	Dimensions in mm				Weight
		H	S	AC	AC1	Kg
RMM1G	1/2" ISO7/1	97	35	30	27	0,220
RMM2G	3/4" ISO7/1	97	40	35	32	0,290
RMM3G	1" ISO7/1	110	48	42	40	0,425
RMM4G	1 ¼" ISO7/1	125	60	55	59	1,200
RMM5G	1 ½" ISO7/1	125	75	70	67	1,500
RMM6G	2" ISO7/1	125	90	84	77	1,900
RMM7G	2 ½" ISO7/1	142	117	108	99	4,000
RMM8G	3" ISO7/1	142	132	121	108	4,000
RMM10G	4" ISO7/1	150	152	145	135	5,160
RMM1NG	1/2" NPT	97	35	30	27	0,220
RMM2NG	3/4" NPT	97	40	35	32	0,290
RMM3NG	1" NPT	110	48	42	40	0,425
RMM4NG	1 ¼" NPT	125	60	55	59	1,200
RMM5NG	1 ½" NPT	125	75	70	67	1,500
RMM6NG	2" NPT	125	90	84	77	1,900
RMM7NG	2 ½" NPT	142	117	108	99	4,000
RMM8NG	3" NPT	142	132	121	108	4,000
RMM10NG	4" NPT	150	152	145	135	5,160
RMM1IG	M20x1,5	97	35	30	27	0,220
RMM2IG	M25x1,5	97	40	35	32	0,290
RMM3IG	M32x1,5	110	48	42	40	0,425
RMM4IG	M40x1,5	125	60	55	59	1,200
RMM5IG	M50x1,5	125	75	70	67	1,500
RMM6IG	M63x1,5	125	90	84	77	1,900
RMM7IG	M75x1,5	142	117	108	99	4,000
RMM8IG	M90x1,5	142	132	121	108	4,000
RMM10IG	M100x1,5	150	152	145	135	5,160

Order code example

RMM	6	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled on the union*
- *Available also in stainless steel (example code RMM1**S**)*
- *Available also in nickel-plated brass (example code RMM1**B**)*

RE male - female adaptors

Reducers and adaptors are used to join instruments, enclosures, pipes and hubs of different diameter and threads.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

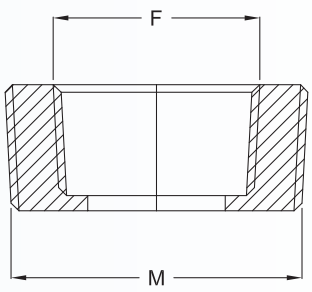
Operating temperature:

Adaptors	Material	Ambient temperature
RE...	Galvanised steel **(G)**	-20°C +80°C
RE...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
RE...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.cortemgroup.com

SELECTION TABLE OF STANDARD ADAPTORS

Thread ISO7/1		Ø FEMALE F								
		1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"
Ø MALE M	3/8"	**RE3814**								
	1/2"	**RE114**	**RE138**							
	3/4"	**RE214**	**RE238**	**RE21**						
	1"	**RE314**	**RE338**	**RE31**	**RE32**					
	1 ¼"	**RE414**	**RE438**	**RE41**	**RE42**	**RE43**				
	1 ½"	**RE514**	**RE538**	**RE51**	**RE52**	**RE53**	**RE54**			
	2"	**RE614**	**RE638**	**RE61**	**RE62**	**RE63**	**RE64**	**RE65**		
	2 ½"			**RE71**	**RE72**	**RE73**	**RE74**	**RE75**	**RE76**	
	3"			**RE81**	**RE82**	**RE83**	**RE84**	**RE85**	**RE86**	**RE87**



Order code example of standard adaptors

RE	31	G
MODEL	SIZE	MATERIAL

TECHNICAL NOTES:

- *Available with other threads (example code RE31**NG**)*
- *Available in different materials (example code RE31**A**)*
- *Size over 3" upon request*

CORTEM GROUP®

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

SPECIAL ADAPTORS (MIXED THREADS)

Order code example

(Adaptor type RE, male 1 ½" Gk, female M32x1,5, galvanised steel)

RE	G	M	5	I	F	32	G

MODEL

Thread type
N= NPT ANSI ASME B1.20.1
I= ISO metric pitch 1,5 (if pitch is no specified)
NC=N.P.S.M.
P= Pg DIN 40430
C= UNI ISO 228/1
G= ISO 7/1

Adaptor type
M= male
F= female

Size
(see thread codification)

Material
G = Galvanised steel A = Aluminium
S = Stainless steel B = Brass

Size
(see thread codification)

Adaptor type
M= male
F= female

Thread type
N= NPT ANSI ASME B1.20.1
I= ISO metric pitch 1,5 (if pitch is no specified)
NC=N.P.S.M.
P= Pg DIN 40430
C= UNI ISO 228/1
G= ISO 7/1

THREAD CODIFICATION

NPT, N.P.S.M., UNI ISO 228/1, ISO7/1

02	01	1	2	3	4	5	6	7	8	9	10	12	14
1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"	5"	6"

ISO Metric

12	16	20	25	32	40	50	63	75	90	100	63X2	75X2	90X2
M12x1,5	M16x1,5	M20x1,5	M25x1,5	M32x1,5	M40x1,5	M50x1,5	M63x1,5	M75x1,5	M90x1,5	M100x1,5	M63x2	M75x2	M90x2

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48

Adaptors REB female - male

Reducers and adaptors are used to join instruments, enclosures, pipes and hubs of different diameter and threads.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

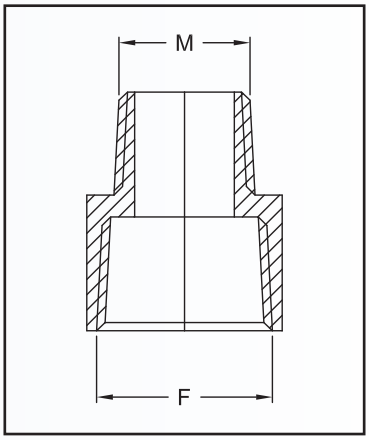
Operating temperature:

Adaptors	Material	Ambient temperature
REB...	Galvanised steel **(G)**	-20°C +80°C
REB...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
REB...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.cortemgroup.com

SELECTION TABLE OF STANDARD ADAPTORS

Thread ISO7/1		Ø MALE M								
		1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"
Ø FEMALE F	3/8"	REB3814								
	1/2"	REB114	REB138							
	3/4"	REB214	REB238	REB21						
	1"	REB314	REB338	REB31	REB32					
	1 ¼"	REB414	REB438	REB41	REB42	REB43				
	1 ½"	REB514	REB538	REB51	REB52	REB53	REB54			
	2"	REB614	REB638	REB61	REB62	REB63	REB64	REB65		
	2 ½"			REB71	REB72	REB73	REB74	REB75	REB76	
	3"			REB81	REB82	REB83	REB84	REB85	REB86	REB87



Order code example of standard adaptors

REB	31	G
MODEL	SIZE	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled*
- *Available with other threads (example code REB31**N**G)*
- *Available in different materials (example code REB31**A**)*

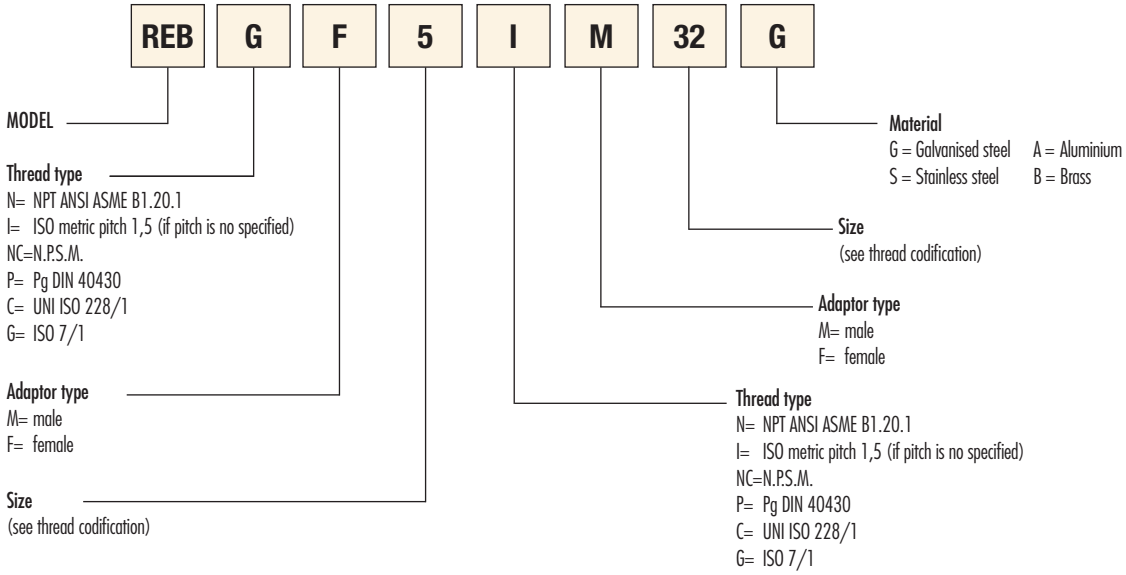
CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

SPECIAL ADAPTORS (MIXED THREADS)

Order code example

(Adaptor type REB, female 1 ½" Gk, male M32x1,5, galvanised steel)



THREAD CODIFICATION

NPT, N.P.S.M., UNI ISO 228/1, ISO7/1

02	01	1	2	3	4	5	6	7	8	9	10	12	14
1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"	5"	6"

ISO Metric

12	16	20	25	32	40	50	63	75	90	100	63X2	75X2	90X2
M12x1,5	M16x1,5	M20x1,5	M25x1,5	M32x1,5	M40x1,5	M50x1,5	M63x1,5	M75x1,5	M90x1,5	M100x1,5	M63x2	M75x2	M90x2

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48

Adaptors REM female - female

Reducers and adaptors are used to join instruments, enclosures, pipes and hubs of different diameter and threads.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

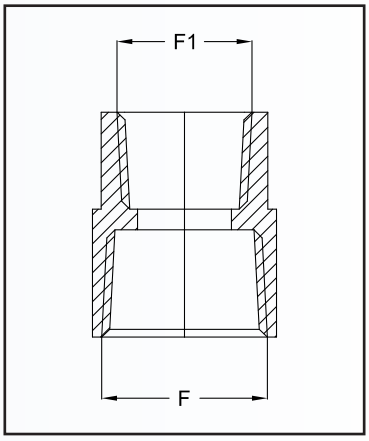
Operating temperature:

Adaptors	Material	Ambient temperature
REM...	Galvanised steel **(G)**	-20°C +80°C
REM...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
REM...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.cortemgroup.com

SELECTION TABLE OF STANDARD ADAPTORS

Thread ISO7/1		Ø FEMALE F1								
		1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"
Ø FEMALE F	3/8"	REM3814								
	1/2"	REM114	REM138							
	3/4"	REM214	REM238	REM21						
	1"	REM314	REM338	REM31	REM32					
	1 ¼"	REM414	REM438	REM41	REM42	REM43				
	1 ½"	REM514	REM538	REM51	REM52	REM53	REM54			
	2"	REM614	REM638	REM61	REM62	REM63	REM64	REM65		
	2 ½"			REM71	REM72	REM73	REM74	REM75	REM76	
	3"			REM81	REM82	REM83	REM84	REM85	REM86	REM87



Order code example of standard adaptors

REM (MODEL) 31 (SIZE) G (MATERIAL)

TECHNICAL NOTES:

- *Available with other threads (example code REM31**NG**)*
- *Available in different materials (example code REM31**A**)*

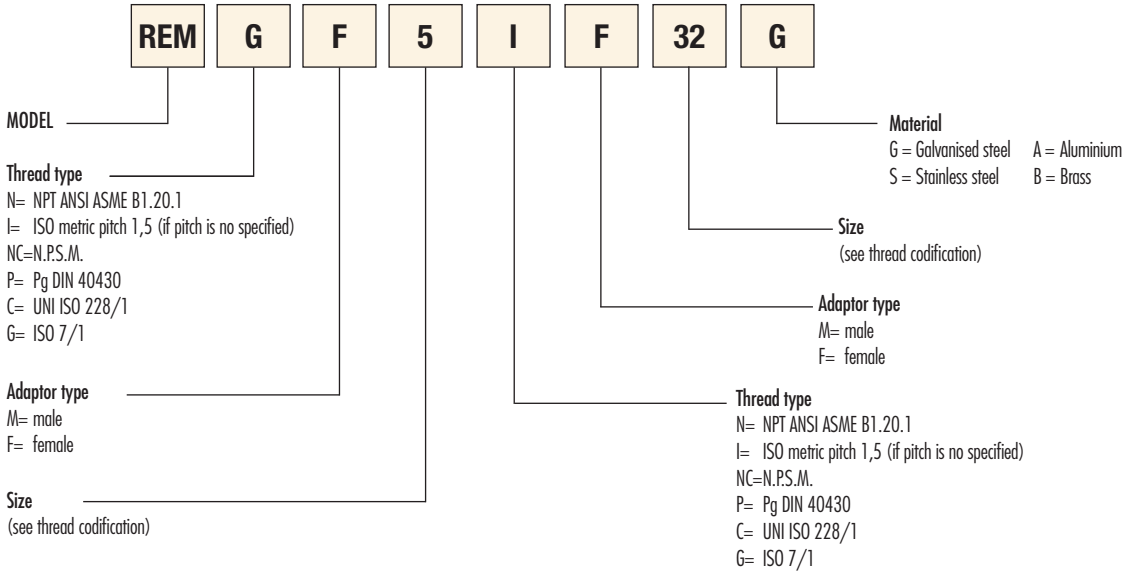
CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

SPECIAL ADAPTORS (MIXED THREADS)

Order code example

(Adaptor type REM, female 1 ½" Gk, female M32x1,5, galvanised steel)



THREAD CODIFICATION

NPT, N.P.S.M., UNI ISO 228/1, ISO7/1

02	01	1	2	3	4	5	6	7	8	9	10	12	14
1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"	5"	6"

ISO Metric

12	16	20	25	32	40	50	63	75	90	100	63X2	75X2	90X2
M12x1,5	M16x1,5	M20x1,5	M25x1,5	M32x1,5	M40x1,5	M50x1,5	M63x1,5	M75x1,5	M90x1,5	M100x1,5	M63x2	M75x2	M90x2

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48

Adaptors REN male - male

Reducers and adaptors are used to join instruments, enclosures, pipes and hubs of different diameter and threads.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

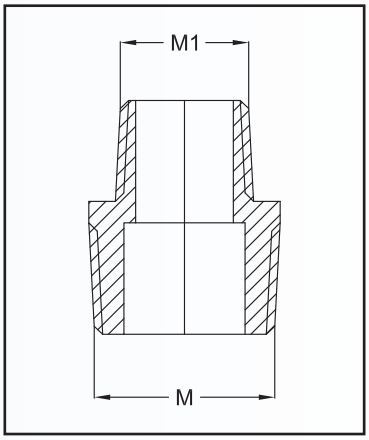
Operating temperature:

Adaptors	Material	Ambient temperature
REN...	Galvanised steel **(G)**	-20°C +80°C
REN...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
REN...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.cortemgroup.com

SELECTION TABLE OF STANDARD ADAPTORS

Thread ISO7/1		Ø MALE F								
		1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"
Ø MALE M	3/8"	REN3814								
	1/2"	REN114	REN138							
	3/4"	REN214	REN238	REN21						
	1"	REN314	REN338	REN31	REN32					
	1 ¼"	REN414	REN438	REN41	REN42	REN43				
	1 ½"	REN514	REN538	REN51	REN52	REN53	REN54			
	2"	REN614	REN638	REN61	REN62	REN63	REN64	REN65		
	2 ½"			REN71	REN72	REN73	REN74	REN75	REN76	
	3"			REN81	REN82	REN83	REN84	REN85	REN86	REN87



Order code example of standard adaptors

REN	31	G
MODEL	SIZE	MATERIAL

TECHNICAL NOTES:

- *The silicone O-ring for the IP protection for cylindrical threads (ISO metric) is supplied already assembled*
- *Available with other threads (example code REN31**N**G)*
- *Available in different materials (example code REN31**A**)*

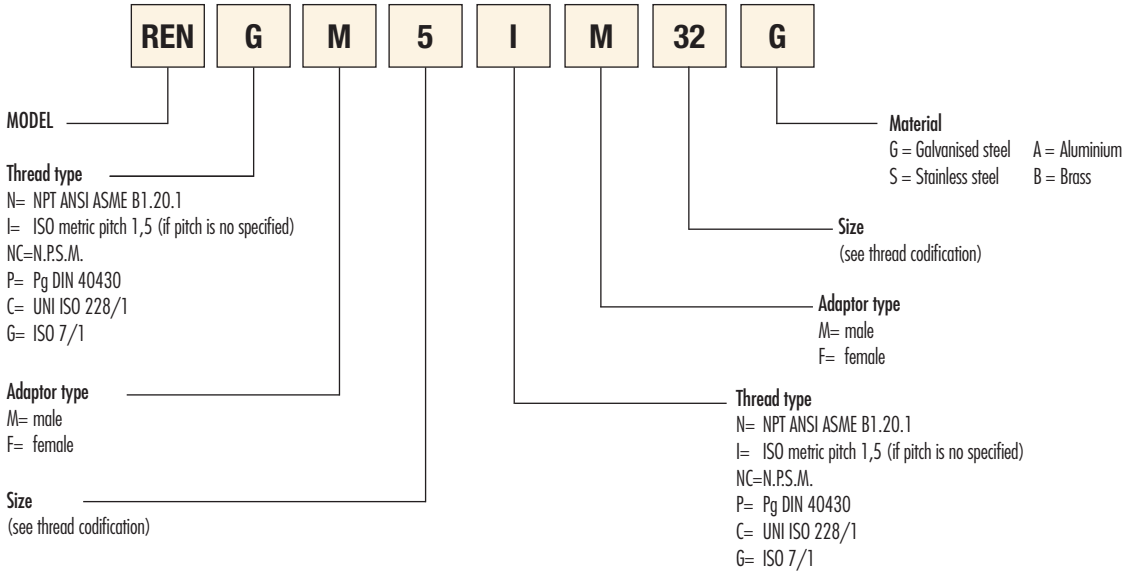
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

SPECIAL ADAPTORS (MIXED THREADS)

Order code example

(Adaptor type REN, male 1 ½" Gk, male M32x1,5, galvanised steel)



THREAD CODIFICATION

NPT, N.P.S.M., UNI ISO 228/1, ISO7/1

02	01	1	2	3	4	5	6	7	8	9	10	12	14
1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"	5"	6"

ISO Metric

12	16	20	25	32	40	50	63	75	90	100	63X2	75X2	90X2
M12x1,5	M16x1,5	M20x1,5	M25x1,5	M32x1,5	M40x1,5	M50x1,5	M63x1,5	M75x1,5	M90x1,5	M100x1,5	M63x2	M75x2	M90x2

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48

PLG series plugs are used for close-up unused entries. They feature a hexagonal recessed-type head to ensure the opening with proper tools only.

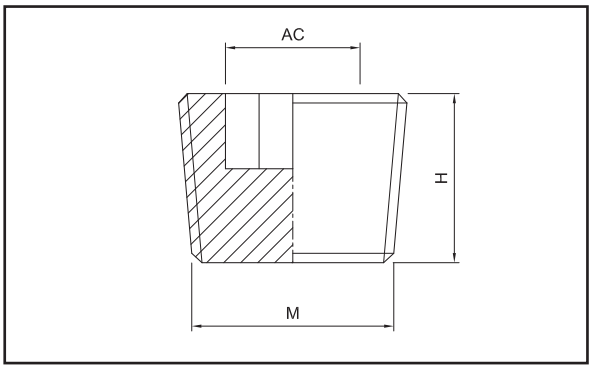
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Close-up plugs	Material	Ambient temperature
PLG...	Galvanised steel **(G)**	-20°C +80°C
PLG...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
PLG...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.cortemgroup.com

CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



SELECTION TABLE FOR PLUGS WITH STANDARD CONICAL THREAD

Code	Thread M	Dimensions in mm		Material	Weight
		AC	H		Kg
PLG02NG	1/4" NPT	8	23	Galvanised steel	0,014
PLG01NG	3/8" NPT	8	14	Galvanised steel	0,024
PLG1NG	1/2" NPT	13	18	Galvanised steel	0,034
PLG2NG	3/4" NPT	17	18	Galvanised steel	0,054
PLG3NG	1" NPT	19	24	Galvanised steel	0,124
PLG4NA	1 ¼" NPT	24	24	Aluminium	0,061
PLG5NA	1 ½" NPT	35	24	Aluminium	0,063
PLG6NA	2" NPT	36	24	Aluminium	0,109
PLG7NA	2 ½" NPT	50	30	Aluminium	0,169
PLG8NA	3" NPT	50	30	Aluminium	0,242
PLG10NA	4" NPT	85	30	Aluminium	0,489
PLG12NA	5" NPT	102	32	Aluminium	0,735
PLG14NA	6" NPT	119	32	Aluminium	1,00
PLG02G	1/4" ISO 7/1	8	23	Galvanised steel	0,014
PLG01G	3/8" ISO 7/1	8	14	Galvanised steel	0,024
PLG1G	1/2" ISO 7/1	13	18	Galvanised steel	0,034
PLG2G	3/4" ISO 7/1	17	18	Galvanised steel	0,054
PLG3G	1" ISO 7/1	19	24	Galvanised steel	0,124
PLG4A	1 ¼" ISO 7/1	24	24	Aluminium	0,061
PLG5A	1 ½" ISO 7/1	35	24	Aluminium	0,063
PLG6A	2" ISO 7/1	36	24	Aluminium	0,109
PLG7A	2 ½" ISO 7/1	50	30	Aluminium	0,169
PLG8A	3" ISO 7/1	50	30	Aluminium	0,242
PLG10A	4" ISO 7/1	85	30	Aluminium	0,489
PLG12A	5" ISO 7/1	102	32	Aluminium	0,735
PLG14A	6" ISO 7/1	119	32	Aluminium	1,00

Order code example

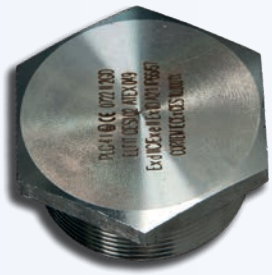
PLG	10	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Available also in stainless steel (example code PLG3**S**)*
- *Available also in nickel plated brass (example code PLG1**B**)*
- *Available also in aluminium (example code PLG2**A**)*
- *Available also in galvanized steel (example code PLG6**G**)*

PLG male close-up plugs with cylindrical thread

PLG series plugs are used for close-up unused entries. They feature a hexagonal external head to ensure the opening with proper tools only.



Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

Operating temperature:

Close-up plugs	Material	Gaskets	Ambient temperature
PLG...	Galvanised steel **(G)**	Silicone	-20°C +80°C
PLG...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	Silicone	-40°C +150°C
PLG...	Stainless steel **(S)**	Silicone	-60°C +150°C

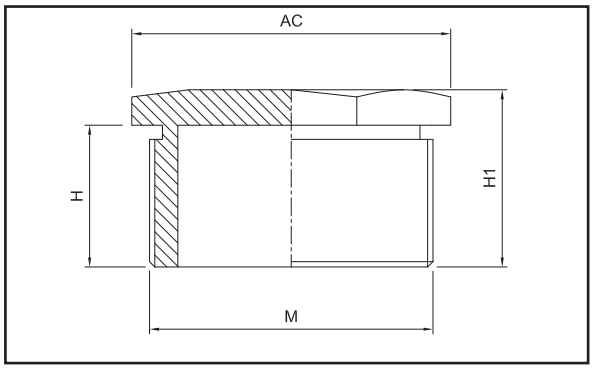
Certificates are available on www.cortemgroup.com

ACCESSORIES OPON REQUEST

Lock nuts *	Thread ISO228	Code	Material	ISO metric thread	Code	Material
	1/4"	**DL02G**	Galvanised steel	M12x1,5	DL02IB	Nickel-plated brass
	3/8"	**DL01G**	Galvanised steel	M16x1,5	DL01IB	Nickel-plated brass
	1/2"	**DL1G**	Galvanised steel	M20x1,5	DL1IB	Nickel-plated brass
	3/4"	**DL2G**	Galvanised steel	M25x1,5	DL2IB	Nickel-plated brass
	1"	**DL3G**	Galvanised steel	M32x1,5	DL3IB	Nickel-plated brass
	1 ¼"	**DL4G**	Galvanised steel	M40x1,5	DL4IB	Nickel-plated brass
	1 ½"	**DL5A**	Aluminium	M50x1,5	DL5IB	Nickel-plated brass
	2"	**DL6A**	Aluminium	M63x1,5	DL6IB	Nickel-plated brass
	2 ½"	**DL7A**	Aluminium	M75x1,5	DL7IB	Nickel-plated brass
	3"	**DL8A**	Aluminium	M90x1,5	DL8IB	Nickel-plated brass
	3 ½"	**DL9A**	Aluminium	-	-	-
	4"	**DL10A**	Aluminium	M100x1,5	DL10IB	Nickel-plated brass

* For different material contact the sales office.

CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



SELECTION TABLE FOR PLUGS WITH CYLINDRICAL THREAD

Code	Thread M	Dimensions in mm			Material	Weight
		AC	H	H1		Kg
PLG02C...	1/4" UNI ISO 228/1	17	16	21	On request	0,014
PLG01C...	3/8" UNI ISO 228/1	22	16	21		0,024
PLG1C...	1/2" UNI ISO 228/1	25	20	25		0,034
PLG2C...	3/4" UNI ISO 228/1	32	20	25		0,054
PLG3C...	1" UNI ISO 228/1	38	24	29		0,124
PLG4C...	1 ¼" UNI ISO 228/1	45	24	29		0,061
PLG5C...	1 ½" UNI ISO 228/1	55	24	29		0,063
PLG6C...	2" UNI ISO 228/1	65	24	29		0,109
PLG7C...	2 ½" UNI ISO 228/1	85	24	29		0,169
PLG8C...	3" UNI ISO 228/1	100	24	29		0,242
PLG10C...	4" UNI ISO 228/1	120	24	29		0,489
PLG01I...	M16x1,5	20	16	21	On request	0,014
PLG1I...	M20x1,5	24	16	21		0,024
PLG2I...	M25x1,5	30	16	21		0,034
PLG3I...	M32x1,5	36	16	21		0,054
PLG4I...	M40x1,5	46	16	21		0,124
PLG5I...	M50x1,5	55	16	21		0,061
PLG6I...	M63x1,5	70	18	23		0,063
PLG7I...	M75x1,5	85	18	23		0,109
PLG8I...	M90x1,5	95	18	23		0,169
PLG10I...	M100x1,5	105	18	23		0,242

Order code example

PLG	8	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Available also in stainless steel (example code PLG3I**S**)*
- *Available also in nickel plated brass (example code PLG1I**B**)*
- *Available also in aluminium (example code PLG2I**A**)*
- *Available also in galvanized steel (example code PLG2I**G**)*
- *Available also with PG thread (example code PLG5**P**A)*

THREAD CODIFICATION

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48

PLG series plugs are used for close-up unused entries. They feature a hexagonal external head to ensure the opening with proper tools only.

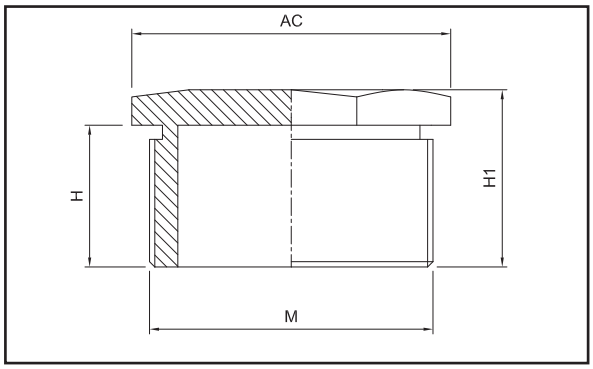
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD - Ex e IIC Gb Ex tb IIIC Db IP66/68	
Certification:	ATEX IMQ 16 ATEX 005X	
	IECEx IECEx IMQ 15.0009X	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-11: 2012, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2011, IEC 60079-7: 2006, IEC 60079-11: 2012, IEC 60079-31: 2014 Directive RoHS 2002/95/CE	
Ambient Temp.:	-60°C +70°C	
Degree of protection:	IP66/68	

Certificates are available on www.cortemgroup.com

ACCESSORIES OPON REQUEST			
Lock nuts	ISO metric thread	Code	Material
	M12x1,5	DL02IXEP	polyamide
	M16x1,5	DL01IXEP	
	M20x1,5	DL1IXEP	
	M25x1,5	DL2IXEP	
	M32x1,5	DL3IXEP	
	M40x1,5	DL4IXEP	
	M50x1,5	DL5IXEP	
	M63x1,5	DL6IXEP	

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



SELECTION TABLE FOR PLUGS WITH CYLINDRICAL THREAD

Code polyamide	Thread M	Dimensions in mm			Weight
		AC	H	H1	Kg
PLG02IXE7	M12x1,5	15	10	15	0,002
PLG01ILXE7	M16x1,5	19	15*	19,3	0,003
PLG1ILXE7	M20x1,5	23	15*	21	0,005
PLG2ILXE7	M25x1,5	28	15*	20,8	0,007
PLG3IXE7	M32x1,5	36	15	22,8	0,012
PLG4IXE7	M40x1,5	46	18	26,5	0,024
PLG5IXE7	M50x1,5	55	18	27,5	0,035
PLG6IXE7	M63x1,5	69	18	27,5	0,051
PLG1PXE7	PG 7	15	10	15	0,002
PLG2PXE7	PG 9	19	11	15	0,003
PLG3PXE7	PG 11	21	11	16	0,004
PLG4PLXE7	PG 13,5	24	15	20	0,005
PLG5PXE7	PG 16	28	11	17	0,007
PLG6PLXE7	PG 21	31	15	21	0,009
PLG7PXE7	PG 29	41	15	23	0,020
PLG8PXE7	PG 36	50	18	26,5	0,030
PLG9PXE7	PG 42	58	18	27,5	0,038
PLG10PXE7	PG 48	69	18	27,5	0,045

*** reduced lenght thread (10mm) upon request.**

Order code example

PLG	2	I	L	XE	7
MODEL	SIZE	THREAD	INCREASED LENGHT THREAD	Marking Ex e	SERIE 7J

TECHNICAL NOTES:

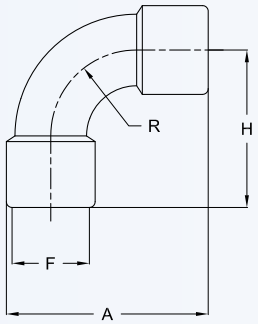
- *Silicone gaskets*
- *Black color plug RAL 9005 (Ex e)*
- *Impact resistance 7J*

Elbows with ELF series female-female hubs, ELMF series male-female hubs and ELM series male-male hubs enable the 90° deviations of pipes.

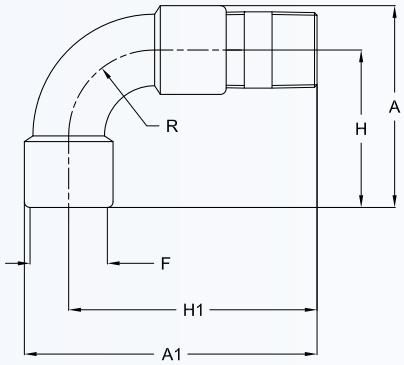
Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 01 ATEX 104U	
	IECEx IECEx CES 15.0005U	All IEC Ex, TR CU and CCoE certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2013, IEC60079-1: 2009, IEC60079-7: 2008, IEC60079-31: 2011 Directive RoHS 2002/95/CE	
Operating temp.:	-60°C +150°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

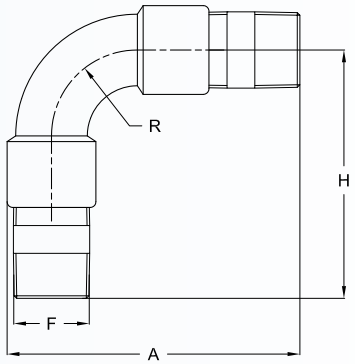
ELF



ELMF



ELM



THREAD CODIFICATION

NPT, N.P.S.M., UNI ISO 228/1

02	01	1	2	3	4	5	6	7	8	9	10	12	14
1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"	5"	6"

ISO Metric

12	16	20	25	32	40	50	63	75	90	100	63X2	75X2	90X2
M12x1,5	M16x1,5	M20x1,5	M25x1,5	M32x1,5	M40x1,5	M50x1,5	M63x1,5	M75x1,5	M90x1,5	M100x1,5	M63x2	M75x2	M90x2

CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

SELECTION TABLE OF ELF 90° ELBOWS

Code In aluminium	Thread F	Dimensions in mm			Weight
		A	H	R	Kg
ELF02	1/4" ISO 7/1	41	55	30	0,09
ELF01	3/8" ISO 7/1	41	55	30	0,08
ELF1	1/2" ISO 7/1	60	45	30	0,12
ELF2	3/4" ISO 7/1	75	55	30	0,10
ELF3	1" ISO 7/1	85	65	35	0,20
ELF4	1 ¼" ISO 7/1	100	75	50	0,39
ELF5	1 ½" ISO 7/1	110	87	50	0,37
ELF6	2" ISO 7/1	135	98	60	0,62
ELF7	2 ½" ISO 7/1	175	135	65	0,88
ELF8	3" ISO 7/1	210	160	85	1,48
ELF10	4" ISO 7/1	270	200	150	3,00

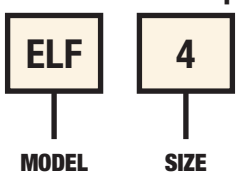
SELECTION TABLE OF ELMF 90° ELBOWS

Code In aluminium	Thread F	Dimensions in mm					Weight
		A	A1	H	H1	R	Kg
ELMF02	1/4" ISO 7/1	41	51	55	65	30	0,09
ELMF01	3/8" ISO 7/1	41	51	55	65	30	0,08
ELMF1	1/2" ISO 7/1	60	97	45	85	30	0,17
ELMF2	3/4" ISO 7/1	75	107	55	95	30	0,17
ELMF3	1" ISO 7/1	85	130	65	110	35	0,29
ELMF4	1 ¼" ISO 7/1	100	145	75	125	50	0,52
ELMF5	1 ½" ISO 7/1	110	153	87	125	50	0,50
ELMF6	2" ISO 7/1	135	180	98	143	60	0,79
ELMF7	2 ½" ISO 7/1	175	220	135	185	65	1,43
ELMF8	3" ISO 7/1	210	255	160	205	85	2,20
ELMF10	4" ISO 7/1	270	300	200	245	150	3,93

SELECTION TABLE OF ELM 90° ELBOWS

Code In aluminium	Thread F	Dimensions in mm			Weight
		A	H	R	Kg
ELM02	1/4" ISO 7/1	51	65	25	0,09
ELM01	3/8" ISO 7/1	51	65	25	0,08
ELM1	1/2" ISO 7/1	97	56	30	0,21
ELM2	3/4" ISO 7/1	107	56	30	0,22
ELM3	1" ISO 7/1	130	70	35	0,38
ELM4	1 ¼" ISO 7/1	145	85	50	0,64
ELM5	1 ½" ISO 7/1	153	85	50	0,64
ELM6	2" ISO 7/1	180	143	60	0,96
ELM7	2 ½" ISO 7/1	220	185	65	1,99
ELM8	3" ISO 7/1	255	205	85	2,92
ELM10	4" ISO 7/1	300	245	150	4,86

Order code example



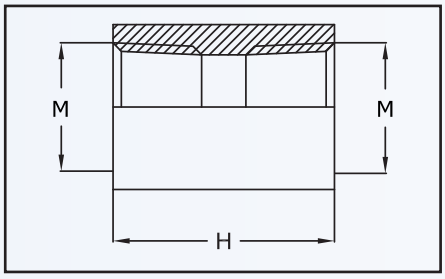
TECHNICAL NOTES:

- *Available also with NPT thread (example code ELF3**N**)*
- *Available upon request with ISO metric thread (example code ELF4**I**)*

EM series couplings with female-female hubs, enable the connection between male hubs.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 01 ATEX 104U	All ATEX, IEC Ex, TR CU and CCoE certification data can be downloaded at www.cortemgroup.com
	IECEx IECEx CES 15.0005U	
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2013, IEC60079-1: 2009, IEC60079-7: 2008, IEC60079-31: 2011 Directive RoHS 2002/95/CE	
Operating temp.:	-20°C +80°C (-60°C +150°C)	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com



Order code example

EM	4	G
MODEL	SIZE	MATERIAL

SELECTION TABLE OF EM COUPLINGS

Code In galvanised steel	Thread F	Dimensions in mm H	Weight Kg
EM1G	1/2" ISO 7/1	39	0,090
EM2G	3/4" ISO 7/1	39	0,080
EM3G	1" ISO 7/1	51	0,150
EM4G	1 ¼" ISO 7/1	51	0,270
EM5G	1 ½" ISO 7/1	51	0,270
EM6G	2" ISO 7/1	51	0,450
EM7G	2 ½" ISO 7/1	65	0,650
EM8G	3" ISO 7/1	65	0,800
EM10G	4" ISO 7/1	65	1,000
EM12G	5" ISO 7/1	65	2,300
EM14G	6" ISO 7/1	65	2,800

TECHNICAL NOTES:

- *Available also with NPT thread (example code EM3**N**G)*
- *Available also with UNI ISO228/1 thread (example code EM2**C**G)*
- *Available also with ISO METRIC thread (example code EM4**I**G)*
- *Available also in stainless steel (example code EM2**S**)*
- *Available also in aluminium (example code EM2**A**)*
- *Available also in nickel plated brass (example code EM2**B**)*
- *For threads equivalence have a look at the correlation table in the last page*

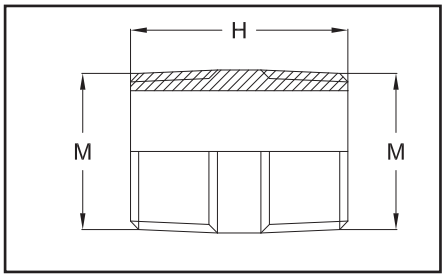
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

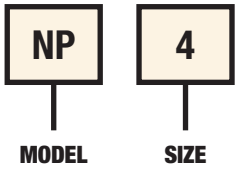
NP series nipples with male-male hubs, enable the connection between two female hubs.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 01 ATEX 104U	All ATEX, IEC Ex, TR CU and CCoE certification data can be downloaded at www.cortemgroup.com
	IECEx IECEx CES 15.0005U	
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2013, IEC60079-1: 2009, IEC60079-7: 2008, IEC60079-31: 2011 Directive RoHS 2002/95/CE	
Operating temp.:	-20°C +80°C (-60°C +150°C)	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com



Order code example



SELECTION TABLE OF NP NIPPLES

Code In galvanised steel	Thread F	Dimensions in mm H	Weight Kg
NP1G	1/2" ISO 7/1	48	0,05
NP2G	3/4" ISO 7/1	48	0,06
NP3G	1" ISO 7/1	60	0,10
NP4G	1 ¼" ISO 7/1	55	0,14
NP5G	1 ½" ISO 7/1	55	0,15
NP6G	2" ISO 7/1	55	0,20
NP7G	2 ½" ISO 7/1	68	0,45
NP8G	3" ISO 7/1	68	0,70
NP10G	4" ISO 7/1	68	1,0
NP12G	5" ISO 7/1	68	1,25
NP14G	6" ISO 7/1	68	1,27

TECHNICAL NOTES:

- *Available also with NPT thread (example code NP3**N**G)*
- *Available also with UNI ISO228/1 thread (example code NP2**C**G)*
- *Available also with ISO METRIC thread (example code NP4**I**G)*
- *Available also in stainless steel (example code NP2**S**)*
- *Available also in aluminium (example code NP2**A**)*
- *Available also in nickel plated brass (example code NP2**B**)*
- *For threads equivalence have a look at the correlation table in the last page*

Our resin-filled sealing fittings can be divided into two different categories: sealing fittings and sealing bushing.
The sealing fittings prevent gases, vapours or flames from spreading through the system of pipes in the electrical system. Such products can be divided into:
EYS vertical sealing fitting;
EZS horizontal sealing fitting;
EYD vertical sealing fitting complete of drain valve to breath a possible condensation developed inside the pipes;

The multicable sealing bushings are suitable to be assembled on junction boxes, electrical motors, panel boards and other electrical devices built in accordance to the Ex d IIC method of protection.
The standard sealing bushings are:
TP threaded sealing bushing;
CP sealing bushing with cylindrical joint;
NPS sealing nipple.

The **ECD** drain and breather valves are used both on our EYD and EZD series sealing fittings and in any type of equipment for draining the inner condensation or for breathing out possible inner vapours.

CRV420 sealing compound

Two-component polyurethan resin for sealing bushing and sealing fittings

CRV 420 resin is an exclusive Elfit product. Its chemical composition has been improved after countless sealing tests, made in collaboration with CESI laboratory. CRV 420 resin has been certified along with the sealing fittings type EYS and EZS, so they need to be sold together and never separated. Sealings have to be made perfectly, in order to block the passage of gases, vapours or flames through pipes systems.

Ambient Temp.:	-20°C +100°C

Quantity of resin for each sealing fitting		
Dimensions	EYS/EYD quantity of resin	EZS/EZD quantity of resin
½"	35 g	140 g
¾"	50 g	140 g
1"	100 g	140 g
1 ¼"	240 g	390 g
1 ½"	240 g	390 g
2"	380 g	570 g
2 ½"	1250 g	1000 g
3"	1250 g	1000 g

SELECTION TABLE OF RESIN PACKAGE		
Code	**Component A**	**Component B**
CRV420/100	100 g	20 g
CRV420/300	300 g	60 g
CRV420/400	400 g	80 g
CRV420/1000	1000 g	200 g

For further details about the resin compound preparation and safety information, look the instructions supplied with CRV420 resin.

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

PREPARATION OF THE RESIN COMPOUND

Characteristics
Polyuretan black resin (after mixing the two components)
Hardening time: around 4 hours
Cathalizing time: 24 hours
Code: CRV 420

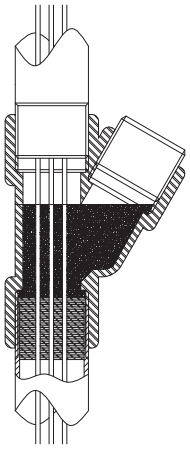
RESIN (Component A)
- Black compound
- Code: CRV420H71
- Mixing ratio: 100%

CATALYST AGENT (Component B)
- Brown compound
- Code: CRV420H72
- Mixing ratio: 25%

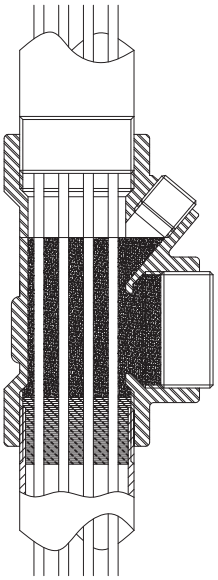
Ratio of compounds to be mixed
Ratio 100g (Compound A) with 20g (Compound B)
when ready to be used

Time of use for the mixed up compound
- Ambient temperature equal to 20°C within 30 minutes from the mixing
- Ambient temperature of 15°C within 45 minutes from the mixing

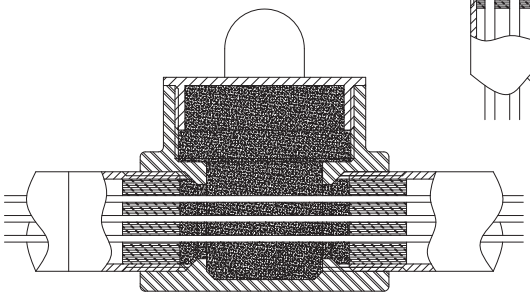
EYS - EYD



EYS - EYD



EZS



FV... glass fiber

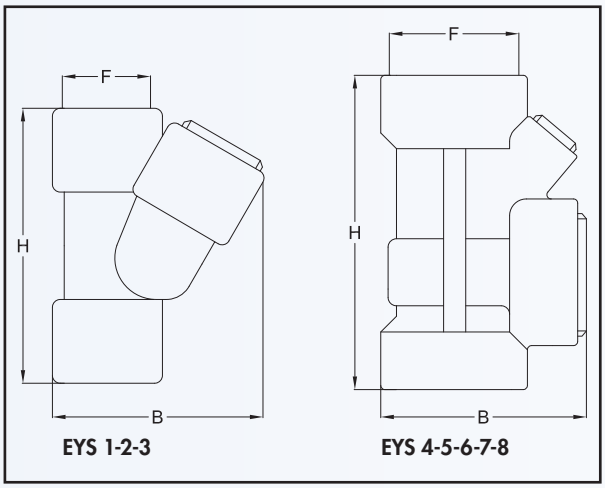
The glass fiber is inserted within sealing fittings to avoid that the sealing resin runs into the underlying connection pipe.

SELECTION TABLE OF GLASS FIBER	
Code	**Weight**
FV-1	250 g
FV-5	500 g
FV-10	1000 g

EYS series sealing fittings prevent the passage of gas, vapours or flames through the pipe system in the electrical installation.
They are used for vertical mounting and available in two different shapes, the first for dimensions less than 1", and the second up to 3" with an additional lateral opening for an easy introduction of the fiber. The sealing fittings must be installed as close as possible to the Ex d junction box and in accordance with the standard EN60079-1. They must be filled only with CRV420 resin that has to be requested in the amount indicated in the table. It is not allowed the use of other types of sealing compound.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66	
Certification:	ATEX CESI 03 ATEX 085X	
	IECEx IECEx CES 14.0019X	All IEC Ex, TR CU, CCoE certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2015-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Ambient Temp. (EYS):	-20°C +100°C	
Operating temperature:	-20°C +100°C	
Degree of protection:	IP66	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF EYS VERTICAL SEALING FITTINGS

Code In aluminium	Thread	Dimensions in mm		Amount of resin	Weight
	F	H	B	gr	Kg
EYS1	1/2" ISO 7/1	77	56	35	0,097
EYS2	3/4" ISO 7/1	87	66	50	0,147
EYS3	1" ISO 7/1	105	82	100	0,242
EYS4	1 ¼" ISO 7/1	145	84	240	0,576
EYS5	1 ½" ISO 7/1	145	84	240	0,528
EYS6	2" ISO 7/1	150	95	380	0,643
EYS7	2 ½" ISO 7/1	200	134	1250	1,580
EYS8	3" ISO 7/1	200	134	1250	1,480

TECHNICAL NOTES:

- *Available also with NPT thread (example code EYS2**N**)*
- *Available upon request in stainless steel. Contact our Sales Office for availability.*

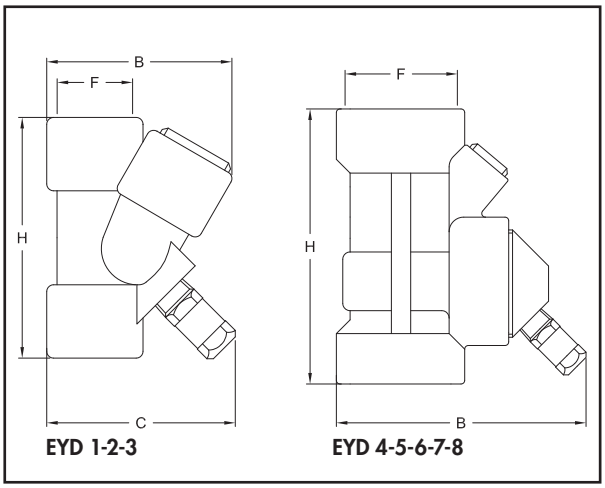
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

EYD series sealing fittings are equipped with ECD valve to drain the possible condensation inside the conduits. They are used for vertical mounting and available in two different shapes, the first for dimensions less than 1", and the second up to 3" with an additional lateral opening for easy introduction of the fiber. The sealing fittings have to be installed as close as possible to the Ex d junction box and in accordance with the standard EN60079-1. They must be filled only with CRV420 resin that has to be requested in the amount indicated in the table. It is not allowed the use of other types of sealing compound.

Classification: 2014/34/UE	Group II	Category 2G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIC Gb	
Certification	ATEX CESI 03 ATEX 085X	
	IECEx IECEx CES 14.0019X	All IEC Ex, TR CU, CCoE certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2015-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Ambient Temp. (EYD):	-20°C +60°C	
Operating temperature:	-20°C +100°C	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF EYS VERTICAL SEALING FITTINGS

Code In aluminium	Thread	Dimensions in mm			Amount of resin	Weight
	F	H	B	C	gr	Kg
EYD1	1/2" ISO 7/1	88	63	67	35	0,280
EYD2	3/4" ISO 7/1	100	72	78	50	0,310
EYD3	1" ISO 7/1	117	85	85	100	0,430
EYD4	1 ¼" ISO 7/1	145	120	120	240	0,720
EYD5	1 ½" ISO 7/1	145	120	120	240	0,600
EYD6	2" ISO 7/1	150	131	131	380	0,820
EYD7	2 ½" ISO 7/1	200	165	165	1250	1,580
EYD8	3" ISO 7/1	200	165	165	1250	1,480

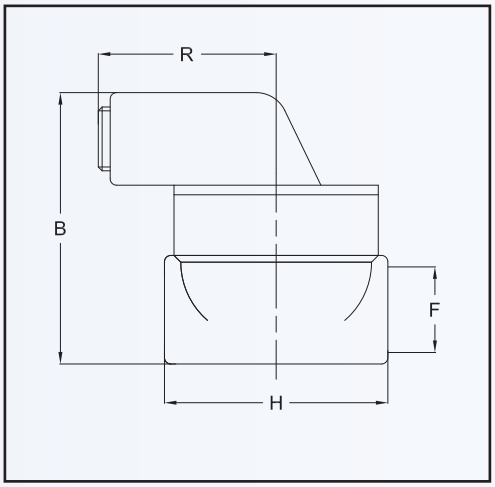
TECHNICAL NOTES:

- *Available also with NPT thread (example code EYD2**N**)*
- *Available upon request in stainless steel. Contact our Sales Office for availability.*

EZS series horizontal fittings prevent the passage of gas, vapours or flames through the pipe system in the electrical installation.
EZS series can be used both for horizontal and vertical mounting. The sealing fittings have to be installed as close as possible to the Ex d junction box and in accordance with the standard EN60079-1. They must be filled only with CRV420 resin that has to be requested in the amount indicated in the table. It is not allowed the use of other types of sealing compound.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66	
Certification:	ATEX CESI 03 ATEX 085X	
	IECEx IECEx CES 14.0019X	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2015-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Ambient Temp. (EZS):	-20°C +100°C	
Operating temperature:	-20°C +100°C	
Degree of protection:	IP66	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF EZS HORIZONTAL SEALING FITTINGS

Code In aluminium	Thread	Dimensions in mm			Amount of resin	Weight
	F	H	B	R	gr	Kg
EZS1	1/2" ISO 7/1	72	83	50	150	0,26
EZS2	3/4" ISO 7/1	72	83	50	140	0,25
EZS3	1" ISO 7/1	74	92	50	140	0,27
EZS4	1 ¼" ISO 7/1	98	110	80	390	0,52
EZS5	1 ½" ISO 7/1	98	110	80	390	0,48
EZS6	2" ISO 7/1	130	120	80	570	0,70
EZS7	2 ½" ISO 7/1	142	160	90	1000	1,50
EZS8	3" ISO 7/1	142	160	90	1000	1,74

TECHNICAL NOTES:

- *Available also with NPT thread (example code EZS2**N**)*
- *Available upon request in stainless steel*

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

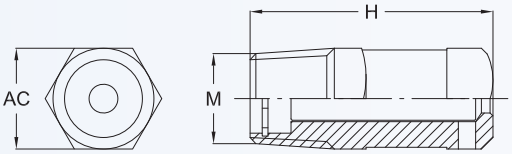
Drain and breather valves are suitable for use in any type of explosion proof enclosure to drain the condensation and vapours developed inside the enclosure.

Classification: 2014/34/UE	Group II	Category 2GD	
Installation: EN 60079.14	zone 1 - zone 2 (Gas)		ECD-1...
	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)	ECD-2...
Marking:	CE 0722 Ex II 2 G Ex d IIC/IIB Gb		ECD-1...
	CE 0722 Ex II 2 GD Ex d IIC/IIB - Ex e IIC Gb Ex tb IIIC Db IP66		ECD-2...
Certification:	ATEX CESI 01 ATEX 081U		
	IECEx IECEx CES 14.0016U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com	
	TR CU AVAILABLE		

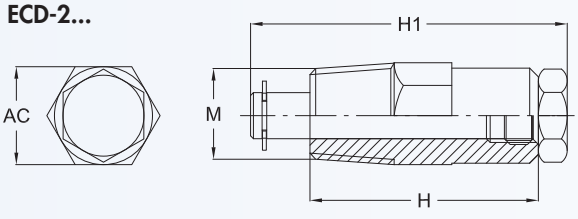
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC 60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2002/95/CE
Operating temp. (IIC):	-50°C +60°C
Operating temp. (IIB):	-50°C +150°C
Degree of protection:	IP66

Certificates are available on www.cortemgroup.com

ECD-1...



ECD-2...



SELECTION TABLE OF ECD VALVES

Code In stainless steel AISI 316	Thread	Dimensions in mm			Use	Weight
	F	H	H1	AC		Kg
ECD110S	3/8" ISO7/1	42	-	17	Drain	0,08
ECD115S	1/2" ISO7/1	43	-	22	Drain	0,08
ECDS110S	3/8" ISO7/1	42	-	17	Breather	0,10
ECD210S	3/8" ISO7/1	40	55	17	Drain	0,11
ECD215S	1/2" ISO7/1	40	55	22	Drain	0,20

TECHNICAL NOTES:

- *Available also in aluminium (example code ECD110)*
- *Available also with NPT thread (example code ECD110NS*
- *Available also with ISO METRIC thread*

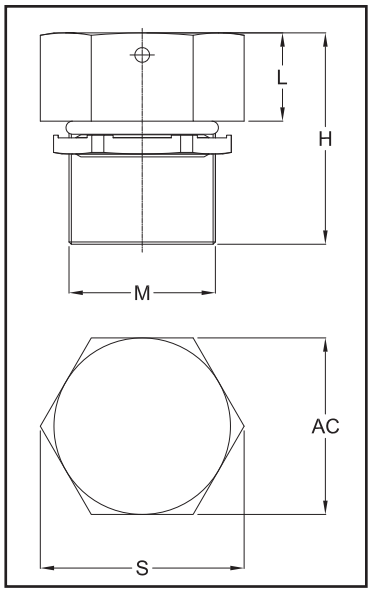
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

Automatic drainage and breather valves ECDE series are suitable to be used on increased safety, intrinsically safety or watertight enclosures to facilitate the elimination of condensation or vapors developed inside. Thanks to a precise mechanism, it is possible to obtain a continuous drainage and breathing of the junction box, protecting it from the possible formations of internal condensation and thus avoiding the periodic manual discharge, while ensuring a suitable IP degree of protection.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66	
Certification:	ATEX CML 16 ATEX 1351X	
	IECEx IECEx CML16.0124X	All IEC Ex certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2012, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC 60079-7: 2015, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Ambient temp.:	-60°C +150°C	
Degree of protection:	IP66	

Certificates are available on www.cortemgroup.com



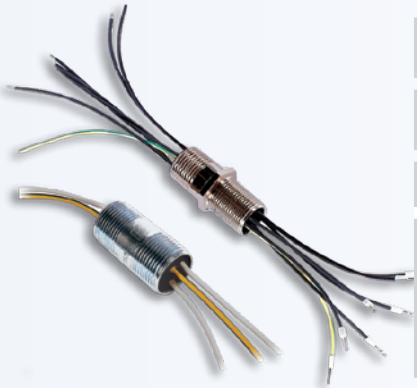
SELECTION TABLE OF ECDE VALVES

Code In stainless steel AISI 316	Code In nickel-plated brass	Thread	Dimensions in mm				Use
		M	H*	L	S	AC	
ECDE-B1S	ECDE-B1B	M20x1,5	26	13	28	24	Breather
ECDE-B2S	ECDE-B2B	M25x1,5	26	13	35	30	Breather
ECDE-D1S**	ECDE-D1B**	M20x1,5	26	13	28	24	Breather/Drain
ECDE-D2S**	ECDE-D2B**	M25x1,5	26	13	35	30	Breather/Drain

TECHNICAL NOTES:

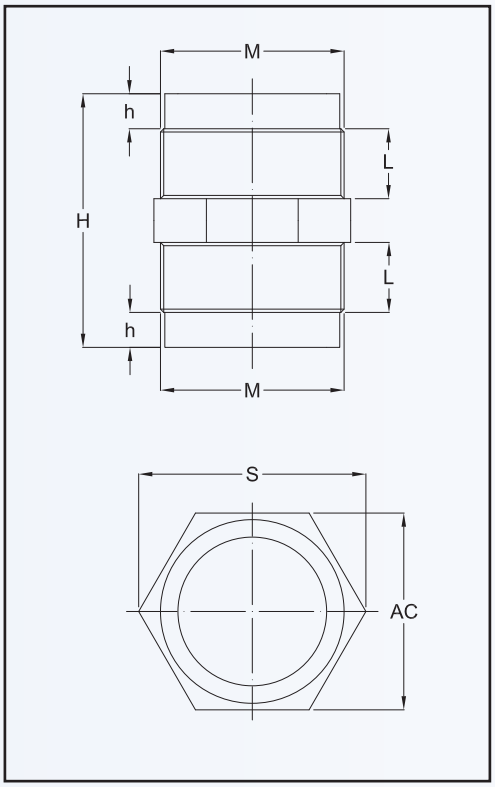
- * *Different lengths for thick junction boxes upon request.*
- ** *When the ECDE are intended for use as a drain, they must be installed at the bottom of the enclosure*

The sealed nipples are used to connect explosion-proof enclosures. The cables are sealed through a two-component resin set around each conductor.
Note: Please refer to the Sales Office for the available cables arrangements.



Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex d IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 01 ATEX 080U	
	IECEx IECEx CES 10.0003U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2014-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Operating temperature:	-50°C +110°C	
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

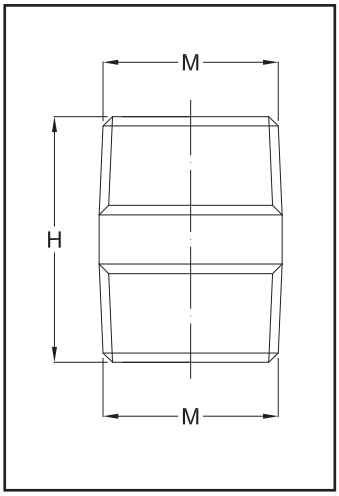


SELECTION TABLE OF ISO METRIC SEALED NIPPLES

Code In brass	ISO METRIC thread	Dimensions in mm				
	M	H	L	h	AC	S
NPS10	M10x1,5	54	16	8	14	16,5
NPS12	M12x1,5				16	19
NPS16	M16x1,5				20	23,5
NPS20	M20x1,5				24	28
NPS24	M24x1,5				30	34,5
NPS25	M25x1,5				30	34,5
NPS32	M32x1,5				36	42
NPS33	M33x1,5				36	42
NPS36	M36x1,5				40	46,5
NPS38	M38x1,5				42	48,5
NPS40	M40x1,5				45	52
NPS42	M42x1,5				45	52

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



SELECTION TABLE OF ISO 7/1 SEALED NIPPLES

Code In galvanised steel	Thread	Dimensions mm
	M	H
NPS1	1/2" ISO 7/1	48
NPS2	3/4" ISO 7/1	48
NPS3	1" ISO 7/1	60
NPS4	1 ¼" ISO 7/1	55
NPS5	1 ½" ISO 7/1	55

SELECTION TABLE OF NPT SEALED NIPPLES

Code In galvanised steel	Thread	Dimensions mm
	M	H
NPS1N	1/2" NPT	48
NPS2N	3/4" NPT	48
NPS3N	1" NPT	60
NPS4N	1 ¼" NPT	55
NPS5N	1 ½" NPT	55

Order method for sealing nipples

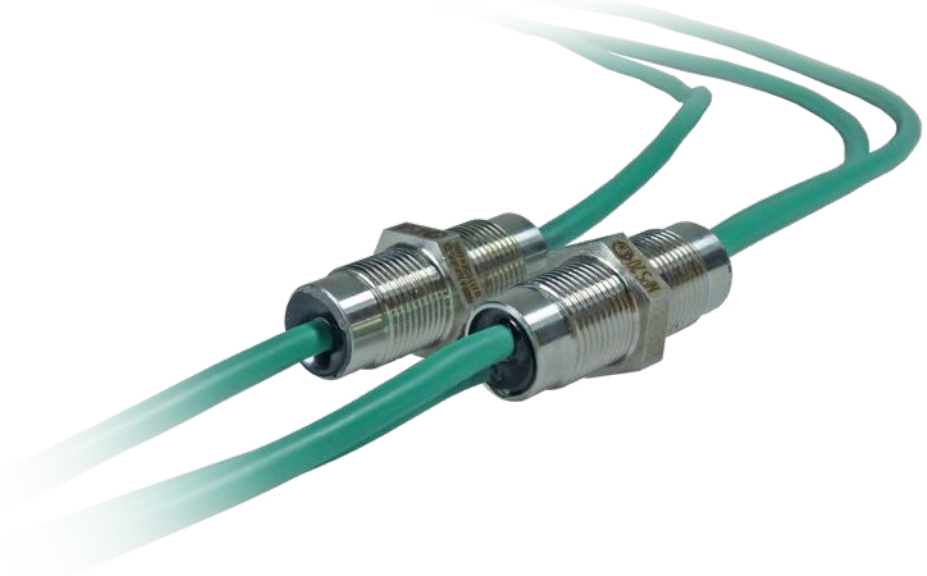
1. Indicate the NPS model based on the necessary thread type
2. Indicate amount, section, color of cables to be sealed in the nipple
3. Indicate the cables lenght on the two sides
4. Indicate the total amount of necessary sealed nipples

TECHNICAL NOTES:

- *The maximum quantity as well as the kind of usable cables are specified on "Maximum quantity and wires type tables" in the following pages*
- *Available the installation of terminals or connectors*
- *Possible numeration of cables*
- *Possible to strip the cables' extremities*
- *Available also in stainless steel*
- *Available also in galvanised steel*
- *It is possible to supply sealing nipples with mixed thread*
- *Request the lock nuts for the sealing nipples with ISO metric thread*

Upon request it's possible to supply sealing nipples with cables for thermocouples K type

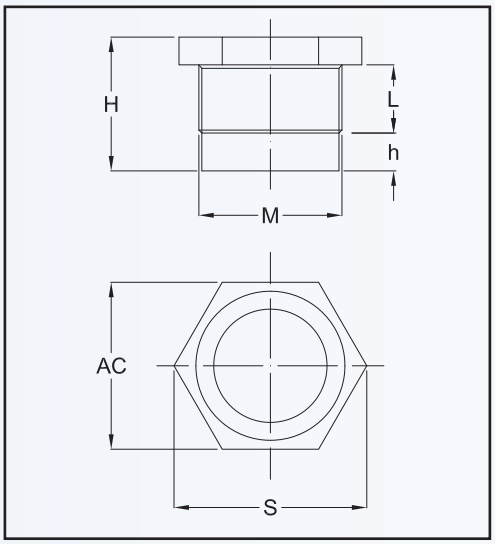
- *The maximum quantity and the kind of usable wires are specified on the following pages*



The sealing bushings are used to connect explosion-proof enclosures. The cables are sealed through a two-component resin set around each conductor.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIC Gb	
Certification:	ATEX CESI 01 ATEX 080	
	IECEx IECEx CES 10.0003U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2014-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Operating temperature:	-50°C +110°C	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF SEALING BUSHINGS WITH THREADED JOINT

Code In brass	ISO METRIC thread	Dimensions in mm				
	M	H	L	h	AC	S
TP	10	30	15	9	14	16,5
TP	12				16	19
TP	16				20	23,5
TP	24				28	32,5
TP	25				30	34,5
TP	33				36	42
TP	36				40	46,5
TP	38				42	48,5
TP	42				45	52

Order method for sealing bushings

1 Indicate the TP model based on the necessary thread type

2 Indicate amount, section, color of cables to be sealed in the nipple

3 Indicate cable lenght on the two sides

4 Indicate the total amount of necessary sealing nipples

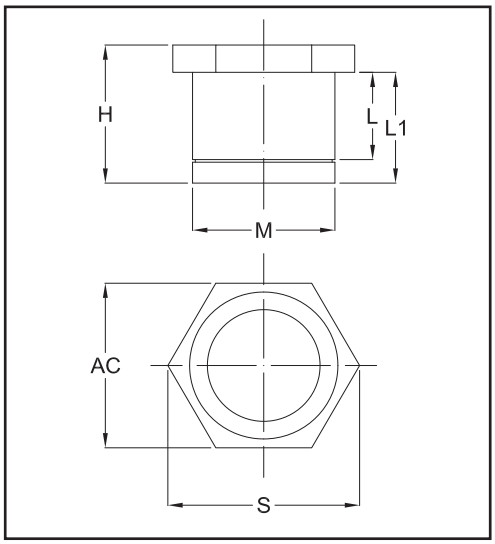
TECHNICAL NOTES:

- *The maximum quantity as well as the kind of usable cables are specified on "Maximum quantity and wires type tables" in the following pages*
- *Possible to strip the cables' extremities*
- *Available also in stainless steel*
- *Request the lock nuts for the block of the sealing bushings*

The sealing bushings are used to connect explosion-proof enclosures. The cables are sealed through a two-component resin set around each conductor.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIC Gb	
Certification:	ATEX CESI 01 ATEX 080	
	IECEx IECEx CES 10.0003U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2014, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2014-06, IEC60079-31: 2013 Directive RoHS 2002/95/CE	
Operating temperature:	-50°C +110°C	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF SEALING BUSHINGS WITH CYLINDRICAL JOINT

Code In brass	ISO METRIC thread	Dimensions in mm				
	M	H	L	L1	AC	S
CP	10	35	25,5	29	14	16,5
CP	12				16	19
CP	16				20	23,5
CP	24				28	32,5
CP	29				32	37
CP	33				36	42
CP	36				40	46,5
CP	38				42	48,5
CP	42				45	52

Order method for sealing bushings

1 Indicate the TP model based on the necessary thread type

2 Indicate amount, section, color of cables to be sealed in the nipple

3 Indicate cable lenght on the two sides

4 Indicate the total amount of necessary sealing nipples

TECHNICAL NOTES:

- *The maximum quantity as well as the kind of usable cables are specified on "Maximum quantity and wires type tables" in the following pages*
- *Possible to strip the cables' extremities*
- *Available also in stainless steel*
- *Request the lock nuts for the block of the sealing bushings*

Max. N. of wires	Wires size mm²	Rated current for continuous usage for max. temperature of 40°C	Rated Voltage	Thread size for TP - NPS		CP cylindrical Joint size
1	0,75	10 A	750 V	M10x1,5	1/8"	Ø 10
1				M12x1,5	1/4"	Ø 12
3				M16x1,5	3/8"	Ø 16
5				M20x1,5	1/2"	-
6				M24x1,5	-	Ø 24
6				M25x1,5	3/4"	Ø 25
8				-	-	Ø 29
12				M33x1,5	1"	Ø 33
15				M36x1,5	-	Ø 36
15				M38x1,5	-	Ø 38
48				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	1	12 A	1000 V	M10x1,5	1/8"	Ø 10
1				M12x1,5	1/4"	Ø 12
3				M16x1,5	3/8"	Ø 16
5				M20x1,5	1/2"	-
6				M24x1,5	-	Ø 24
6				M25x1,5	3/4"	Ø 25
8				-	-	Ø 29
12				M33x1,5	1"	Ø 33
15				M36x1,5	-	Ø 36
15				M38x1,5	-	Ø 38
21				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	1,5	15 A		M10x1,5	1/8"	Ø 10
1				M12x1,5	1/4"	Ø 12
3				M16x1,5	3/8"	Ø 16
5				M20x1,5	1/2"	-
6				M24x1,5	-	Ø 24
6				M25x1,5	3/4"	Ø 25
8				-	-	Ø 29
12				M33x1,5	1"	Ø 33
15				M38x1,5	-	Ø 38
36				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	2,5	20 A		M16x1,5	3/8"	Ø 16
3				M20x1,5	1/2"	-
3				M24x1,5	-	Ø 24
3				M25x1,5	3/4"	Ø 25
5				-	-	Ø 29
12				M33x1,5	1"	Ø 33
12				M38x1,5	-	Ø 38
21				M42x1,5	1 ¼" - 1 ½"	Ø 42
24						
1	4	27 A		M16x1,5	3/8"	Ø 16
2				M20x1,5	1/2"	-
3				M24x1,5	-	Ø 24
3				M25x1,5	3/4"	Ø 25
5				-	-	Ø 29
6				M33x1,5	1"	Ø 33
8				M36x1,5	-	Ø 36
8				M38x1,5	-	Ø 38
18				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	6	35 A		M16x1,5	3/8"	Ø 16
2				M20x1,5	1/2"	-
2				M24x1,5	-	Ø 24
2				M25x1,5	3/4"	Ø 25
4				-	-	Ø 29
6				M33x1,5	1"	Ø 33
6				M38x1,5	-	Ø 38
6				M42x1,5	1 ¼" - 1 ½"	Ø 42
12						
1	10	49 A		M24x1,5	3/4"	Ø 24
3				M33x1,5	1"	Ø 33
6				M36x1,5	-	Ø 36
6				M38x1,5	-	Ø 38
6				M42x1,5	1 ¼" - 1 ½"	Ø 42

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

Max. N. of wires	Wires size mm²	Rated current for continuous usage for max. temperature of 40°C	Rated Voltage	Thread size for TP - NPS		CP cylindrical Joint size
1	16	65 A	1000 V	M24x1,5	-	Ø 24
1				M25x1,5	3/4"	Ø 25
3				M33x1,5	1"	Ø 33
6				M36x1,5	-	Ø 36
6				M38x1,5	-	Ø 38
6				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	25	86 A		M24x1,5	-	Ø 24
1				M25x1,5	3/4"	Ø 25
3				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	35	107 A		M24x1,5	-	Ø 24
1				M25x1,5	3/4"	Ø 25
3				M42x1,5	1 ¼" - 1 ½"	Ø 42
1	50	132 A		M24x1,5	-	Ø 24
1				M25x1,5	3/4"	Ø 25
1				M33x1,5	1"	Ø 33
1	70	165 A		M33x1,5	1"	Ø 33
1				M36x1,5	-	Ø 36

Rated voltage 750V					
Max. N. of wires	Wires size mm²	Rated current for continuous usage for max. temperature of 40°C	Thread size for TP - NPS		CP cylindrical joint size
3	0,5	5 A	M10x1,5	1/8"	Ø 10
3			M12x1,5	1/4"	Ø 12
8			M16x1,5	3/8"	Ø 16
12			M20x1,5	1/2"	-
16			M24x1,5	-	Ø 24
16			M25x1,5	3/4"	Ø 25
20				-	Ø 29
20			M33x1,5	1"	Ø 33
25			M36x1,5	-	Ø 36
35			M38x1,5	-	Ø 38
45			M42x1,5	1 ¼" - 1 ½"	Ø 42

Wire capacity range with cables for thermocouples K type - Rated current 100/100V				
Max. N. of wires	Wires size mm²	Operating temperature	Thread size for TP - NPS	CP cylindrical joint size
1	2 x 0,22 2 x 0,50 2 x 0,80	110°C	M12x1,5	Ø 12
1			M16x1,5	Ø 16
2			M24x1,5	Ø 24
2			M25x1,5	Ø 25
5				Ø 29
5			M33x1,5	Ø 33
7			M36x1,5	Ø 36
7			M38x1,5	Ø 38
9			M42x1,5	Ø 42
1	2 x 1,00		M16x1,5	Ø 16
2			M24x1,5	Ø 24
2			M25x1,5	Ø 25
4				Ø 29
5			M33x1,5	Ø 33
7			M36x1,5	Ø 36
7			M38x1,5	Ø 38
9			M42x1,5	Ø 42
1	2 x 1,30 2 x 1,50		M16x1,5	Ø 16
2			M24x1,5	Ø 24
2			M25x1,5	Ø 25
4				Ø 29
5			M33x1,5	Ø 33
7			M36x1,5	Ø 36
7			M38x1,5	Ø 38
9			M42x1,5	Ø 42

TECHNICAL NOTES:

- *The rated current specified in the tables refers to a temperature of 40°C*
- *For other service temperatures up to 110°C, the derating of current must be evaluated by the end user.*
- *The resin must fill at least 20% of section (60079-1)*
- *For the type of cable allowed, please refer to the certificate*

Flexible conduits are used for connecting misaligned equipments or equipments subjected to vibrations, such as electrical motors. They are suitable for installation of lighting fixtures and in alternative to rigid conduits when they are difficult to install. SP series flexible conduits have a good flexibility and a very good damping effect against vibrations.

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIB Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 00 ATEX 048U	
	IECEx IECEx CES 14.0011U	All IEC Ex, TR CU and CCoE certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
	CCoE AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014, EN ISO 10807: 1996 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Degree of protection:	IP66/67	

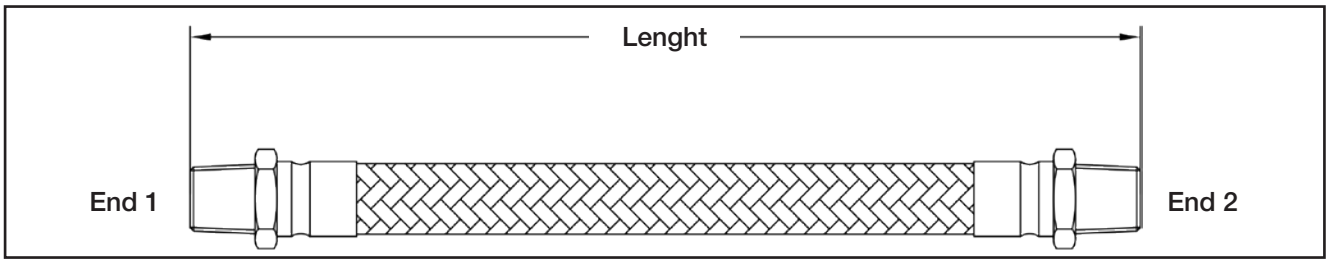
Certificates are available on www.cortemgroup.com

Ambient temperature

		Flexible conduit type	Method of protection	Construction material		Size	Ambient temperature
				Fixed fitting	Revolving fitting		
Fixed fitting		SPH - SPG - SPZ	Ex d IIC	Stainless steel	/	1/2" ÷ 1"	-20°C +150°C
				Galvanized steel	/	1 ¼" ÷ 4"	
		SPH - SPG - SPZ	Ex d IIC	Stainless steel	/	1/2" ÷ 1"	-60°C +150°C
Revolving fitting	B..	SPN - SPI - SPY - SPD SPP - SPE - SPT	Ex d IIB	Stainless steel	Galvanized steel	1/2" ÷ 1"	-20°C +60°C
				Galvanized steel	Galvanized steel	1 ¼" ÷ 4"	
		SPN - SPI - SPY - SPD SPP - SPE - SPT	Ex d IIB	Stainless steel	Stainless steel	1/2" ÷ 1"	-60°C +60°C
	R..	SPRN - SPRI - SPRY - SPRD SPRP - SPRE - SPRT	Ex d IIC	Stainless steel	Galvanized steel	1/2" ÷ 1"	-20°C +60°C
				Galvanized steel	Galvanized steel	1 ¼" ÷ 4"	
		SPRN - SPRI - SPRY - SPRD SPRP - SPRE - SPRT	Ex d IIC	Stainless steel	Stainless steel	1/2" ÷ 4"	-60°C +60°C
	RB..	SPRN - SPRI - SPRY - SPRD SPRP - SPRE - SPRT	Ex d IIB	Stainless steel	Stainless steel	1/2" ÷ 4"	-60°C +150°C

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



End 2 \ End 1		Method of protection IIC		Method of protection IIB		Method of protection IIC		Method of protection IIB (Ta +150°C)	
		Fixed male	Fixed female	Revolving male	Revolving female	Revolving male	Revolving female	Revolving male	Revolving female
Method of protection IIC	Fixed male	SPH	SPG	SPN	SPI	SPRN	SPRI	SPRN	SPRI
	Fixed female		SPZ	SPY	SPD	SPRY	SPRD	SPRY	SPRD
Method of protection IIB	Revolving male			SPP	SPE				
	Revolving female				SPT				
Method of protection IIC	Revolving male					SPRP	SPRE		
	Revolving female						SPRT		
Method of protection IIB	Revolving male							SPRP	SPRE
	Revolving female								SPRT

Order code example

SPH	1	6	G
MODEL	SIZE	LENGHT	MATERIAL

Flexible conduits: lenghts and method of protection		
Lenght (mm)		Mathod of protection
from	to	
≥ 300	≤ 5000	Ex d IIB ÷ Ex d IIC
≥ 5000	≤ 10000	Ex d IIB

Conduit standard lenght	
Cod.	mm
3	300
4	400
5	500
6	600
7	700
8	800
9	900
10	1000

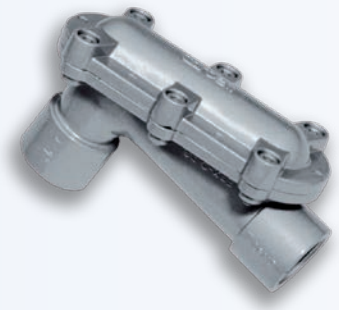
Thread hubs GAS UNI ISO 7/1

Size	1	2	3	4	5	6	7	8	9	10
Thread	1/2"	3/4"	1"	1 ¼"	1 ½"	2	2 ½"	3"	3 ½"	4"
Ø min. int.	12	16	25,1	32,2	38,2	50,1	63,1	73,1	73,1	100,1
Curving radius min.	40	60	75	90	110	150	200	225	225	280

TECHNICAL NOTES:

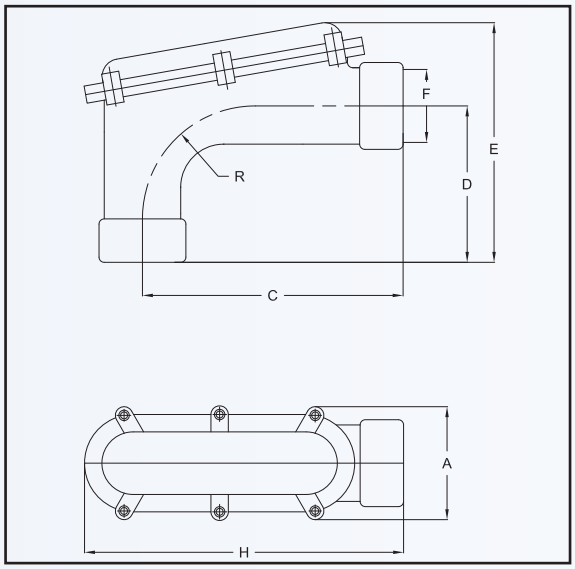
- *The flexible conduits and related fittings can be welded only by the manufacturer that certifies the method of protection*
- *Welded fittings: from 1/2 "to 1" stainless steel - from 1 1/4 "to 4" galvanized steel*
- *Revolving fittings: galvanized steel*
- *Flexible conduit with spiralled sheath : stainless steel*
- *Standard in galvanised steel (example code SPH56**G**)*
- *Available also in stainless steel (example code SPH56**S**)*
- *Available also with NPT thread (example code SPH3**N**10G)*
- *Available also with ISO thread ISO (example code SPH3**I**4G)*

LBH series open elbows L shaped with small radius are used for the cables insertion in conduit system of electrical installations.
The back opening enables an easy inspection of the installation and easy insertion of electrical cables.



Classification: 2014/34/UE	Group II	Category 2G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIB	
Certification:	ATEX CESI 03 ATEX 141U	
	TR CU AVAILABLE	All TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2006, EN 60079-1: 2004 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Ambient Temp.:	-20°C +60°C (Max. operating temperature +80°C)	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF LBH OPEN ELBOWS

Code In aluminium	Thread	Dimensions in mm						Weight
	F	A	H	C	D	E	R	Kg
LBH1	1/2" ISO 7/1	70	165	132	45	95	21	0,434
LBH2	3/4" ISO 7/1	70	165	132	45	95	21	0,404
LBH3	1" ISO 7/1	70	168	132	60	112	30	0,455
LBH4	1 ¼" ISO 7/1	100	230	175	83	155	50	1,277
LBH5	1 ½" ISO 7/1	110	265	220	83	132	70	1,142
LBH6	2" ISO 7/1	110	265	220	80	132	70	1,024
LBH7	2 ½" ISO 7/1	136	363	267	140	250	96	3,569
LBH8	3" ISO 7/1	136	363	267	140	250	96	3,171
LBH10	4" ISO 7/1	181	720	605	175	305	125	10,850

Order code example

LBH	4	N
MODEL	SIZE	THREAD

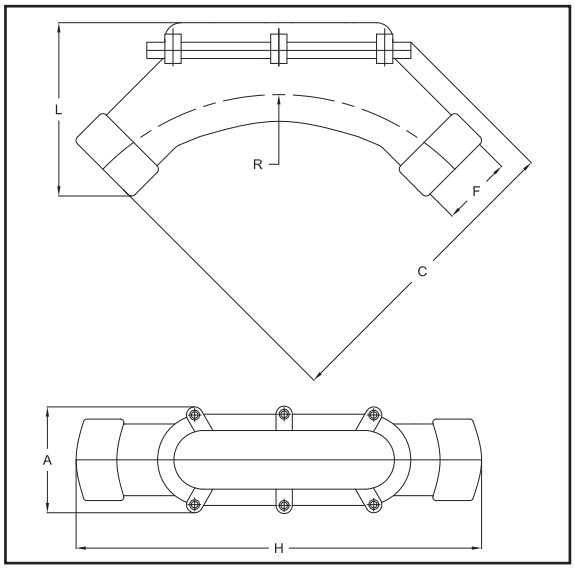
TECHNICAL NOTES:

- *Available also with NPT thread (example code LBH3**N**)*
- *Available also with ISO7/1RP thread (example code LBH2**C**)*
- *Available also with ISO METRIC thread (example code LBH4**I**)*
- *1/4" and 3/8" sizes can be obtained by assembling to the 1/2" LBH1 elbow the corresponding **RE114** or **RE138***

LBHS series open elbows with a large radius are used for the cables insertion in conduit system of electrical installations. The back opening enables an easy inspection of the installation and an easy insertion of electrical cables.

Classification: 2014/34/UE	Group II	Category 2G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIB	
Certification:	ATEX CESI 03 ATEX 141U	
	TR CU AVAILABLE	All TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2006, EN 60079-1: 2004 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Ambient Temp.:	-20°C +60°C (Max. operating temperature +80°C)	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF LBHS OPEN ELBOWS

Code In aluminium	Thread	Dimensions in mm					Weight
	F	A	H	C	L	R	Kg
LBHS1	1/2" ISO 7/1	70	305	197	110	195	0,543
LBHS2	3/4" ISO 7/1	70	305	197	110	195	0,467
LBHS3	1" ISO 7/1	70	300	190	110	195	0,629
LBHS4	1 ¼" ISO 7/1	105	400	288	145	260	1,539
LBHS5	1 ½" ISO 7/1	105	400	288	145	260	1,481
LBHS6	2" ISO 7/1	120	495	348	165	315	2,297
LBHS7	2 ½" ISO 7/1	142	565	448	205	350	4,473
LBHS8	3" ISO 7/1	149	688	478	220	445	4,914
LBHS10	4" ISO 7/1	164	910	680	310	574	11,110

Order code example

LBHS	4	N
MODEL	SIZE	THREAD

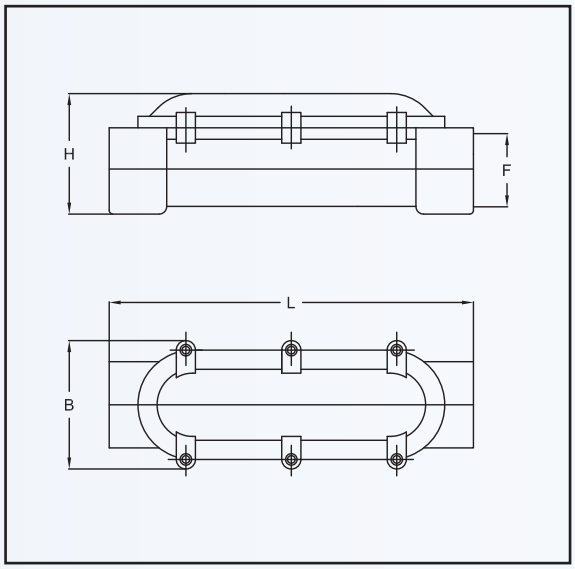
TECHNICAL NOTES:

- *Available also with NPT thread (example code LBHS3**N**)*
- *Available also with ISO METRIC thread (example code LBHS4**I**)*

EKC pulling boxes are used in conduit system of electrical plant to facilitate the cables insertion. The back opening enables an easy inspection of the installation and an easy insertion of electrical cables.

Classification: 2014/34/UE	Group II	Category 2G
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	
Marking:	CE 0722 Ex II 2 G Ex d IIB	
Certification:	ATEX CESI 03 ATEX 141U	
	TR CU AVAILABLE	All TR CU certification data can be downloaded at www.cortemgroup.com
Standards:	CENELEC EN 60079-0: 2006, EN 60079-1: 2004 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Ambient Temp.:	-20°C +60°C (Max. operating temperature +80°C)	

Certificates are available on www.cortemgroup.com



SELECTION TABLE OF EKC PULLING BOXES

Code In aluminium	Thread	Dimensions in mm			Weight
	F	H	L	S	Kg
EKC1	1/2" ISO 7/1	59	171	70	0,508
EKC2	3/4" ISO 7/1	59	171	70	0,485
EKC3	1" ISO 7/1	64	181	70	0,558
EKC4	1 ¼" ISO 7/1	87	240	99	1,211
EKC5	1 ½" ISO 7/1	87	240	99	1,135
EKC6	2" ISO 7/1	112	298	105	1,745
EKC7	2 ½" ISO 7/1	172	380	138	4,003
EKC8	3" ISO 7/1	172	380	138	3,609
EKC10	4" ISO 7/1	196	755	180	10,320

Order code example

EKC	4	N
MODEL	SIZE	THREAD

TECHNICAL NOTES:

- *Available also with NPT thread (example code EKC3**N**)*
- *Available also with ISO METRIC thread (example code EKC4**I**)*

CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

BC rigid conduits

Rigid conduits are used in hazardous areas to connect electrical equipment setting up a complete explosion proof system throught sealing fittings. The conduits are drown inside so that all roughness, which could damage the electrical cables, are eliminated.

Installation: EN 60079.14	zone 1 - zone 2 (Gas)
Standards:	EN 60079-0, EN 60079-1
Standard construction:	UNI 7683 galvanised steel conduit Standard bar lenght: 6 meters Plastic couplings for thread protection ISO7/1 thread
Upon request:	Thread NPT: (example code 1108001**N**) Bar of 3 meters: (example code 1108001V/**3000**)

SELECTION TABLE OF RIGID CONDUITS

Code	Thread
1108001V	1/2" ISO 7/1
1108002V	3/4" ISO 7/1
1108003V	1" ISO 7/1
1108004V	1 ¼" ISO 7/1
1108005V	1 ½" ISO 7/1
1108006V	2" ISO 7/1
1108007V	2 ½" ISO 7/1
1108008V	3" ISO 7/1
1108010V	4" ISO 7/1

DB...A aluminium bushing

DB...A series bushings are made in aluminium. They are screwed to the pipe end and they work as a cable guard. They prevent the cable from rubbing on any pipe burr/edge which could damage its sheath.

Standard construction:	Low copper content aluminium alloy body ISO 228 thread
Upon request:	Thread NPT: (example code DB3**NA**) Galvanised steel (example code DB3**G**) Stainless steel (example code DB3**S**)

SELECTION TABLE ALUMINIUM BUSHINGS

Code	Thread	Weight Kg
DB1A	1/2" ISO 7/1	0,012
DB2A	3/4" ISO 7/1	0,014
DB3A	1" ISO 7/1	0,020
DB4A	1 ¼" ISO 7/1	0,025
DB5A	1 ½" ISO 7/1	0,032
DB6A	2" ISO 7/1	0,046
DB7A	2 ½" ISO 7/1	0,062
DB8A	3" ISO 7/1	0,071
DB10A	4" ISO 7/1	0,107
DB12A	5" ISO 7/1	0,134

DB...PVC PVC bushings

DB... series bushings, PVC made, are screwed to the pipe end and they work as a cable guard. They prevent the cable from rubbing on any pipe burr/edge which could damage its sheath.

Standard construction:	PVC thermoplastic moulding ISO 228 thread

SELECTION TABLE FOR PVC BUSHING

Code	Thread	Weight Kg
DB1PVC	1/2" ISO 7/1	0,012
DB2PVC	3/4" ISO 7/1	0,014
DB3PVC	1" ISO 7/1	0,020
DB4PVC	1 ¼" ISO 7/1	0,025
DB5PVC	1 ½" ISO 7/1	0,032
DB6PVC	2" ISO 7/1	0,046
DB7PVC	2 ½" ISO 7/1	0,062
DB8PVC	3" ISO 7/1	0,071
DB10PVC	4" ISO 7/1	0,107
DB12PVC	5" ISO 7/1	0,134

DBT aluminium bushings with earth screw

DBT series bushings, aluminium made, are screwed to the pipe end and they work as a cable guard. They prevent the cable from rubbing on any pipe burr/edge which could damage its sheat.
They are equipped with earth screw for metal parts grounding.

Standard construction:	Low copper content aluminium alloy body Stainless steel screw ISO 228 thread
Upon request:	NPT thread: (example code DBT3NA) Galvanised steel (example code DBT3G) Stainless steel (example code DBT3S)

SELECTION TABLE ALUMINIUM BUSHINGS

Code	Thread	Weight Kg
DBT1A	1/2" ISO 7/1	0,016
DBT2A	3/4" ISO 7/1	0,018
DBT3A	1" ISO 7/1	0,024
DBT4A	1 ¼" ISO 7/1	0,033
DBT5A	1 ½" ISO 7/1	0,040
DBT6A	2" ISO 7/1	0,054
DBT7A	2 ½" ISO 7/1	0,070
DBT8A	3" ISO 7/1	0,079
DBT10A	4" ISO 7/1	0,115
DBT12A	5" ISO 7/1	0,142

MC female closing plugs

MC series female plugs are used to close pipes ends.

Standard construction:	Galvanised steel or aluminium Standard thread: ISO 7/1
Upon request:	NPT thread: (example code MC3NG) Stainless steel (example code MC3S)

SELECTION TABLE OF FEMALE CLOSING PLUGS

Code	Thread	Material	Weight Kg
MC1G	1/2" ISO 7/1	Galvanised steel	0,035
MC2G	3/4" ISO 7/1	Galvanised steel	0,039
MC3G	1" ISO 7/1	Galvanised steel	0,045
MC4G	1 ¼" ISO 7/1	Galvanised steel	0,052
MC5G	1 ½" ISO 7/1	Galvanised steel	0,285
MC6G	2" ISO 7/1	Galvanised steel	0,335
MC7A	2 ½" ISO 7/1	Aluminium	0,797
MC8A	3" ISO 7/1	Aluminium	0,887
MC10A	4" ISO 7/1	Aluminium	1,119

DL metal locknuts

DL series locknuts are used to block cable glands or fittings with cylindrical thread on 'Ex e' or 'Ex i' junction box flange or walls with drilling for cables entry.

Standard construction:	Galvanised steel o Aluminium (look at the table below) ISO 7/1 thread
Upon request:	Other threads Other materials

SELECTION TABLE OF DL LOCKNUTS

Code	Thread	Material	Weight Kg
DL1G	1/2" ISO 7/1	Galvanised steel	0,008
DL2G	3/4" ISO 7/1	Galvanised steel	0,011
DL3G	1" ISO 7/1	Galvanised steel	0,013
DL4G	1 ¼" ISO 7/1	Galvanised steel	0,037
DL5A	1 ½" ISO 7/1	Aluminium	0,027
DL6A	2" ISO 7/1	Aluminium	0,034
DL7A	2 ½" ISO 7/1	Aluminium	0,052
DL8A	3" ISO 7/1	Aluminium	0,092
DL10A	4" ISO 7/1	Aluminium	0,132
DL12A	5" ISO 7/1	Aluminium	0,245

DL...P polyamide locknuts

DL...P series locknuts are used to block polyamide cable glands with cylindrical thread on 'Ex e' or 'Ex i' junction box walls or flange with drilling for cables entry.

Standard construction:	Polyamide
Upon request:	Marking Ex i: (example code DL02IXIP)

SELECTION TABLE OF DL LOCKNUTS

Code	ISO thread	Weight Kg
DL02IXEP	M12x1,5	0,004
DL01IXEP	M16x1,5	0,005
DL1IXEP	M20x1,5	0,005
DL2IXEP	M25x1,5	0,006
DL3IXEP	M32x1,5	0,006
DL4IXEP	M40x1,5	0,009
DL5IXEP	M50x1,5	0,013
DL6IXEP	M63x1,5	0,019

SELECTION TABLE OF DL LOCKNUTS

Code	PG thread	Weight Kg
DL1PXEP	PG7	0,003
DL2PXEP	PG9	0,004
DL3PXEP	PG11	0,005
DL4PXEP	PG13,5	0,005
DL5PXEP	PG16	0,006
DL6PXEP	PG21	0,006
DL7PXEP	PG29	0,009
DL8PXEP	PG36	0,013
DL9PXEP	PG42	0,019
DL10PXEP	PG48	0,026

CORTEM GROUP®

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

MT series conduit clamps are used for mounting of cable conduits perpendicular to the support structure.

Standard construction:	Galvanised steel Galvanized bolts and nuts.

SELECTION TABLE OF CONDUIT CLAMPS

Code	Thread	Weight Kg
MT1	1/2"	0,093
MT2	3/4"	0,129
MT3	1"	0,150
MT4	1 ¼"	0,194
MT5	1 ½"	0,232
MT6	2"	0,275
MT7	2 ½"	0,310
MT8	3"	0,579
MT10	4"	-

U-bolts are used to fix rigid cable conduits to flat surfaces.

Standard construction:	Galvanised steel
Upon request:	Stainless steel (example code UBD3S)

SELECTION TABLE OF UBD U-BOLTS

Code	Ø cable conduits	Weight Kg
UBD1G	1/2"	0,035
UBD2G	3/4"	0,039
UBD3G	1"	0,045
UBD4G	1 ¼"	0,052
UBD5G	1 ½"	0,285
UBD6G	2"	0,335
UBD7G	2 ½"	0,797
UBD8G	3"	0,887
UBD10G	4"	1,119
UBD12G	5"	1,327

GF saddles

Saddles are used to fix cable conduits to walls or to flat surfaces.

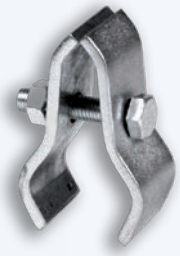
Standard construction:	Galvanised steel or aluminium
Upon request:	Stainless steel (example code GF3S)

SELECTION TABLE OF GF SADDLES

Code	Thread	Weight Kg
GF1G	1/2"	0,028
GF2G	3/4"	0,037
GF3G	1"	0,045
GF4G	1 ¼"	0,087
GF5G	1 ½"	0,115
GF6G	2"	0,156
GF7A	2 ½"	0,158
GF8A	3"	0,215
GF10A	4"	0,284
GF12A	5"	-

MP conduit clamps

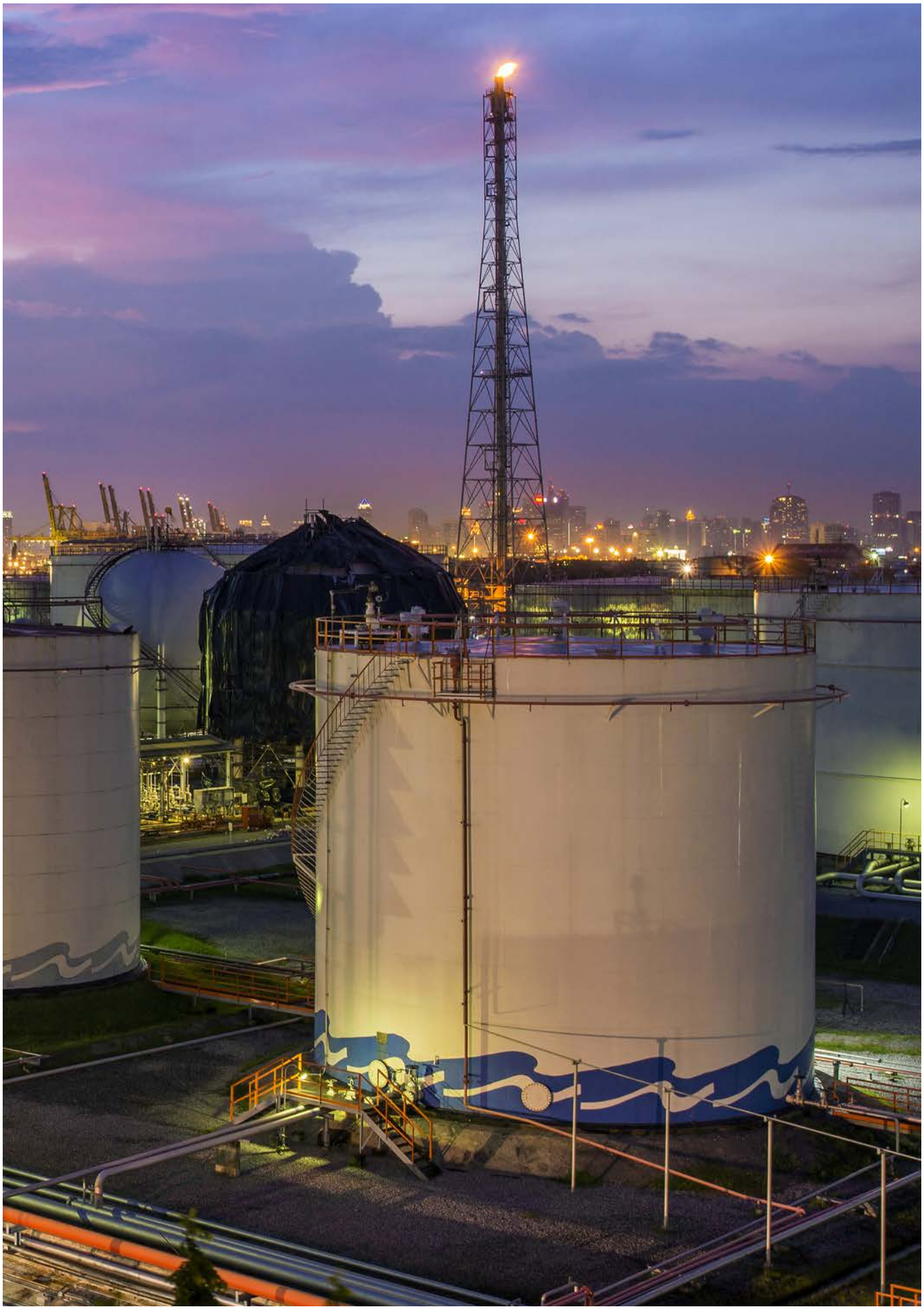
MP clamps are used for mounting cable conduits in paralell to the support structure.



Standard construction:	Galvanised steel
Upon request:	Stainless steel (example code MP3S)

SELECTION TABLE OF MP CONDUIT CLAMPS

Code	Diameter	Weight Kg
MP1	1/2"	0,138
MP2	3/4"	0,145
MP3	1"	0,198
MP4	1 ¼"	0,530
MP5	1 ½"	0,590
MP6	2"	-
MP7	2 ½"	-
MP8	3"	-
MP10	4"	-



CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

ELFIT®

ELectrical FITtings for Hazardous Areas

Junction and pulling boxes

S series junction boxes are usually installed for the conduit connection and can be used for the insertion of conductors only (empty boxes) or for the derivation of conductors (boxes with terminals).
The wide range offered includes several models with different sizes and threads.

EMPTY ENCLOSURES

Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex d IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 03 ATEX 032U	
	IECEx IECEx CES 15.0012U	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com
	TR CU AVAILABLE	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2009 e and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-31: 2008 Directive RoHS 2002/95/CE	
Operating temperature:	-40°C (-20°C) +110°C	CESI 03 ATEX 032U
	-40°C (-20°C) +160°C	CESI 03 ATEX 059U
Degree of protection:	IP66/67	

Certificates are available on www.cortemgroup.com

MECHANICAL FEATURES

Body and lid: Low copper content aluminium alloy. Screw-on lid with safety fastening grub screw
Gasket: Acid/hydrocarbon-resistant silicone, located between body and lid
Entries: GAS Rp UNI ISO 7/1 thread
Certification label: Adhesive label located on lid for size 6 and 9 boxes; on body for size 4
Bolts and screws: Stainless steel
Earth screws: Stainless steel. On inside and outside of body complete with anti-rotation brackets
Corrosion Resistance: The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN 60068-2-30 (hot/humid cycles) and EN 60068-2-11 (salt mist tests)

ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

AISI 316 L stainless steel boxes (Ex. SC16.1**S**)
Electropolished AISI 316 L stainless steel boxes (Ex. SC16.1**SE**)
Boxes coated with RAL 7035 paint (Ex. SC16.1**V**)
Boxes with different entry diameter

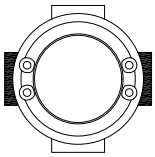
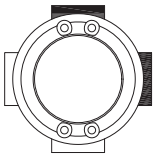
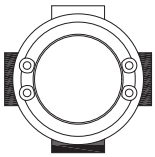
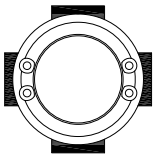
Other threads:
- NPT threads ANSI B1.20.1 (Ex. SC26.1**N**)
- GAS UNI ISO 228 thread (Ex. SC26.1**C**)
- Metric threads ISO 261/965 (Ex. SC26.1**I**)

AISI 316 L stainless steel box code SX-36.1SE with electropolished finish

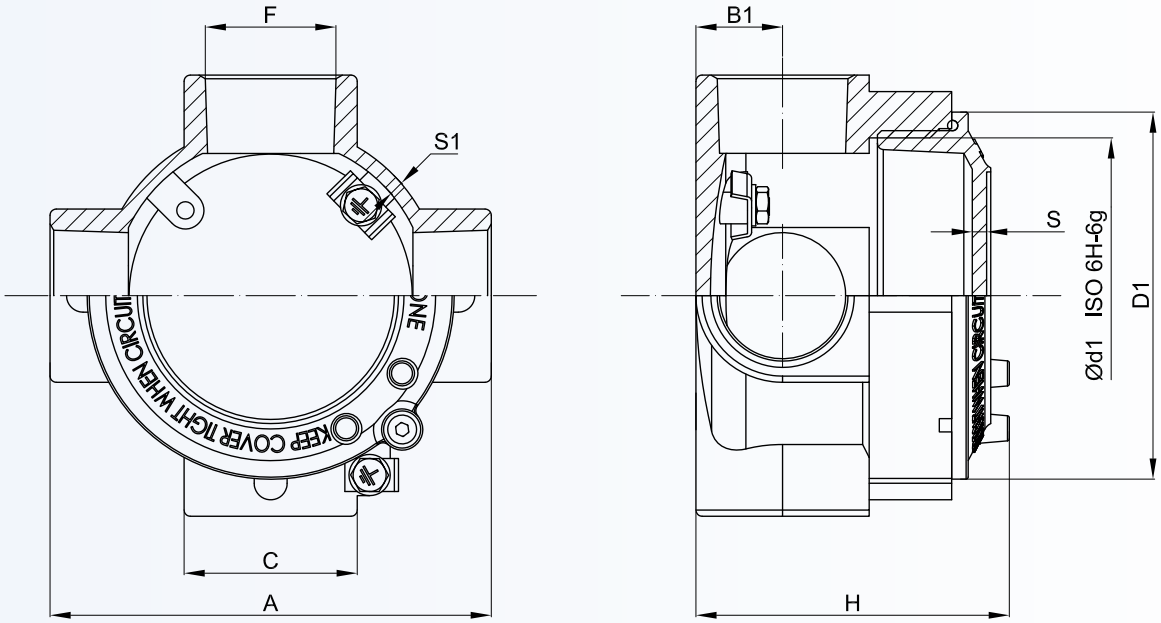
ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

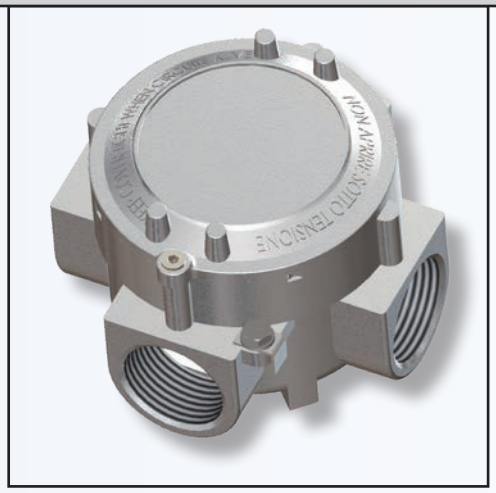
S SERIES ENCLOSURE SELECTION CHART

Code	Position of entries	GAS UNI ISO 7/1	Model	Outside dimensions mm A	D1	H	C	B1	Inside dimensions mm Ød1	S	S1	Weight kg
SC14.1		2 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,27
SC24.1		2 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,25
SC16.1		2 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,41
SC26.1		2 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,38
SC36.1		2 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,48
SC29.1		2 x 3/4"	B	190	146	105	60	30	130x2	4	7	
SC39.1		2 x 1"	B	190	146	105	60	30	130x2	4	7	1,30
SC59.1		2 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	
SC69.1		2 x 2"	B	190	146	110	70	35	130x2	4	7	1,54
SL14.1		2 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,28
SL24.1		2 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,24
SL16.1		2 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	
SL26.1		2 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,40
SL36.1		2 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,49
SL29.1		2 x 3/4"	B	166	146	105	60	30	130x2	4	7	1,61
SL39.1		2 x 1"	B	166	146	105	60	30	130x2	4	7	1,20
SL59.1		2 x 1 1/2"	B	166	146	105	60	30	130x2	4	7	1,45
SL69.1		2 x 2"	B	166	146	110	70	35	130x2	4	7	1,51
ST14.1		3 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,27
ST24.1		3 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	0,25
ST16.1		3 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,40
ST26.1		3 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,38
ST36.1		3 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,48
ST29.1		3 x 3/4"	B	190	146	105	60	30	130x2	4	7	1,77
ST39.1		3 x 1"	B	190	146	105	60	30	130x2	4	7	1,70
ST59.1		3 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	1,48
ST69.1		3 x 2"	B	190	146	110	70	35	130x2	4	7	1,53
SX14.1		4 x 1/2"	A	72	65	61	34	17	54x2	3,5	3,5	0,26
SX24.1		4 x 3/4"	A	72	65	61	34	17	54x2	3,5	3,5	
SX16.1		4 x 1/2"	A	100	89	67	34	17	80x2	3,5	3,5	0,39
SX26.1		4 x 3/4"	A	100	89	67	34	17	80x2	3,5	3,5	0,36
SX36.1		4 x 1"	A	107	89	75	42	21	80x2	3,5	3,5	0,43
SX29.1		4 x 3/4"	B	190	146	105	60	30	130x2	4	7	1,94
SX39.1		4 x 1"	B	190	146	105	60	30	130x2	4	7	1,85
SX59.1		4 x 1 1/2"	B	190	146	105	60	30	130x2	4	7	1,51
SX69.1		4 x 2"	B	190	146	110	70	35	130x2	4	7	1,63

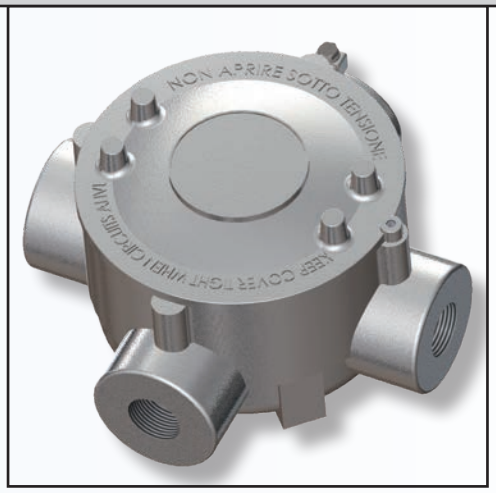
DIMENSIONAL DRAWING



MODEL A



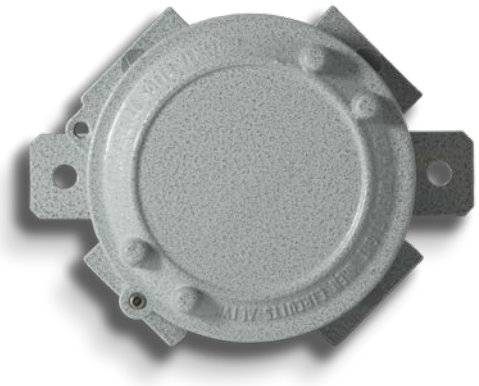
MODEL B



Code	MODEL	F GAS UNI ISO 7/1	Outside dimensions mm A	D1	H	C	B1	Inside dimensions mm Ød1	S	S1	Weight kg
SB14		2 x 1/2"	90	65	90	39	43	54x2	3,5	3,5	0,34
SB24		2 x 3/4"	90	65	90	39	43	54x2	3,5	3,5	0,34
SB16		2 x 1/2"	110	90	90	45	43	80x2	3,5	5	
SB26		2 x 3/4"	110	90	90	45	43	80x2	3,5	5	0,48
SB36		2 x 1"	114	90	96	45	52	80x2	3,5	5	0,54
SB49		2 x 1 1/4"	180	150	114	60	59	130x2	4	5	
SB59		2 x 1 1/2"	180	150	114	60	59	130x2	4	5	
SB69		2 x 2"	180	150	114	74	71	130x2	4	5	1,58

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com



MODEL SF

MODEL SSC

SF series enclosures (with wall-mounting bracket) and SSC series (with ceiling-mounting bracket) are installed on ducting paths as junction boxes for connecting and branching conductors.

Various different models are available and they can be supplied with multi-pole terminal strips or modular terminals.

MECHANICAL AND ELECTRICAL FEATURES

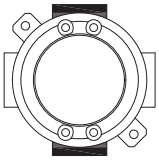
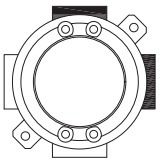
MOUNTING BRACKETS: Galvanized steel for SSC. Aluminium for SF.

Other features are identical to S series boxes

ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

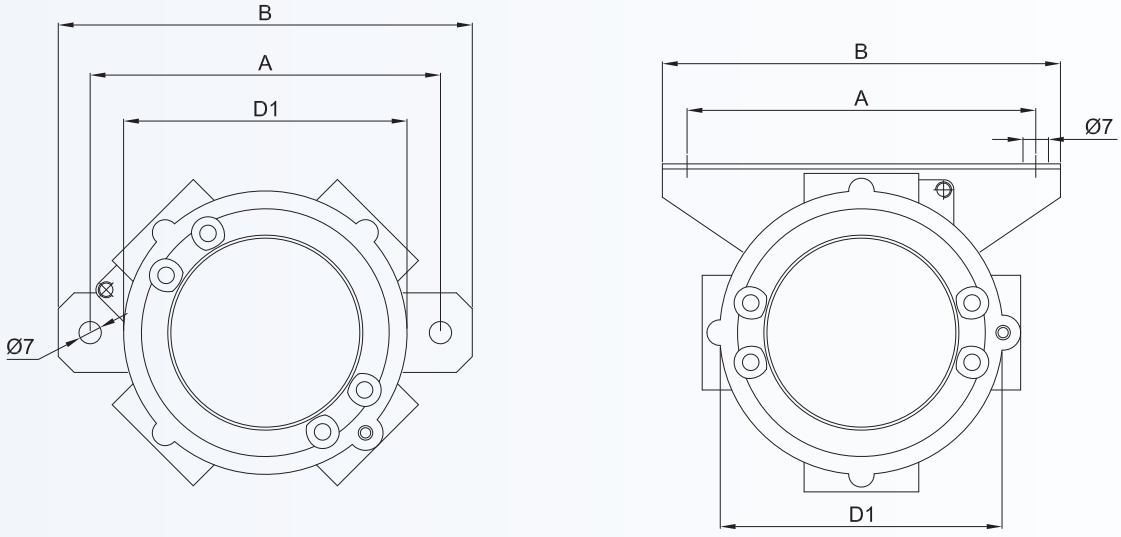
See S series boxes

SF... SSC... SERIES ENCLOSURE SELECTION CHART

Code	Position of entries	GAS UNI ISO 7/1	Outside dimensions mm			Weight
		F	D1	A	B	kg
SFC14.1		2 x 1/2"	65	75	90	0,30
SFC24.1		2 x 3/4"	65	75	90	0,28
SFC16.1		2 x 1/2"	89	110	130	0,45
SFC26.1		2 x 3/4"	89	110	130	0,42
SFC36.1		2 x 1"	89	110	130	0,52
SFC29.1		2 x 3/4"	146	160	180	1,37
SFC39.1		2 x 1"	146	160	180	1,35
SFC59.1		2 x 1 1/2"	146	160	180	
SFC69.1		2 x 2"	146	160	180	1,59
SFL14.1		2 x 1/2"	65	75	90	0,31
SFL24.1		2 x 3/4"	65	75	90	0,27
SFL16.1		2 x 1/2"	89	110	130	0,45
SFL26.1		2 x 3/4"	89	110	130	0,44
SFL36.1		2 x 1"	89	110	130	0,53
SFL29.1		2 x 3/4"	146	160	180	1,66
SFL39.1		2 x 1"	146	160	180	1,25
SFL59.1		2 x 1 1/2"	146	160	180	1,50
SFL69.1		2 x 2"	146	160	180	1,56

Code	Position of entries	GAS UNI ISO 7/1 F	Outside dimensions mm D1	A	B	Weight kg
SFT14.1		3 x 1/2"	65	75	90	0,30
SFT24.1		3 x 3/4"	65	75	90	0,28
SFT16.1		3 x 1/2"	89	110	130	0,44
SFT26.1		3 x 3/4"	89	110	130	0,42
SFT36.1		3 x 1"	89	110	130	0,52
SFT29.1		3 x 3/4"	146	160	180	1,82
SFT39.1		3 x 1"	146	160	180	1,75
SFT59.1		3 x 1 1/2"	146	160	180	1,53
SFT69.1		3 x 2"	146	160	180	1,58
SFX14.1		4 x 1/2"	65	75	90	0,29
SFX24.1		4 x 3/4"	65	75	90	
SFX16.1		4 x 1/2"	89	110	130	0,43
SFX26.1		4 x 3/4"	89	110	130	
SFX36.1		4 x 1"	89	110	130	0,47
SFX29.1		4 x 3/4"	146	160	180	1,98
SFX39.1		4 x 1"	146	160	180	1,90
SFX59.1		4 x 1 1/2"	146	160	180	1,56
SFX69.1		4 x 2"	146	160	180	1,68
SSC14.1		3 x 1/2"	65	65	80	0,38
SSC24.1		3 x 3/4"	65	65	80	0,36
SSC16.1		3 x 1/2"	89	110	125	0,57
SSC26.1		3 x 3/4"	89	110	125	0,54
SSC36.1		3 x 1"	89	110	125	0,64
SSC29.1		3 x 3/4"	146	130	150	1,94
SSC39.1		3 x 1"	146	130	150	1,91
SSC59.1		3 x 1 1/2"	146	130	150	
SSC69.1		3 x 2"	146	130	150	2,15

DIMENSIONAL DRAWING



vendite@elfit.com info@elfit.com
www.elfit.com

TERMINAL BOXES

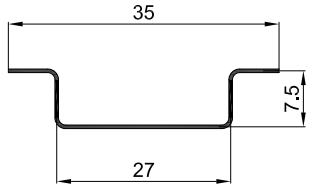
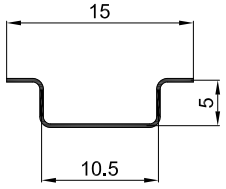
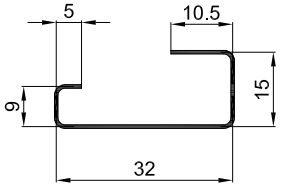
CHART 1

Ex d IIC rated terminal strips			
Ambient temperature	Terminal material	Temperature class	Maximum surface temperature
-20°C +40°C -40°C +40°C	Polyamide (PA)	T6	T85°C
-20°C +65°C -40°C +65°C	Melamine (KrG) Wemid Stamin (KrS)	T5	T100°C
-20°C +150°C -40°C +150°C	Ceramic (Steatite)	T3	T200°C

CHART 2

Ex e II or Ex i IIC rated terminal strips (ATEX-certified terminals)			
Ambient temperature	Terminal material	Temperature class	Maximum surface temperature
-20°C +40°C -40°C +40°C	Polyamide (PA)	T6	T85°C
-20°C +65°C -40°C +65°C	Melamine (KrG) Wemid Stamin (KrS)	T5	T100°C
-20°C +80°C -40°C +80°C	Melamine (KrG) Stamin (KrS) Ceramic (Steatite)	T4	T135°C

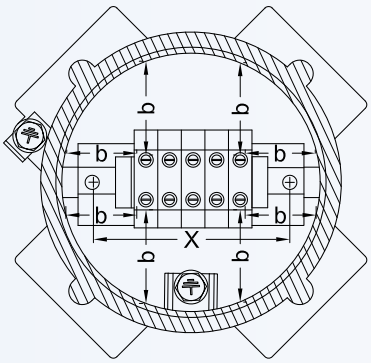
MOUNTING RAILS (as per standard IEC 60715)				
Terminal manufacturer	Terminal code	ENCLOSURE TYPE		
		S.1 - SB 14-24	S.1 - SB 16-26-36	S.1 - SB 29-39-49-59-69
		PROFILE TYPE		
CABUR	EDM	-	-	DIN PR/DIN/AC
	CBD	-	-	PR/3/AC
	SV	-	-	DIN PR/DIN/AC
	RN	-	PR/2/AC	PR/2/AC
WEIDMULLER	WDU	-	PR/3/AC	PR/3/AC
	SAK	-	-	DIN PR/DIN/AC
	BK	Bracket	Bracket	Bracket
	AKZ	-	PR/2/AC	PR/2/AC

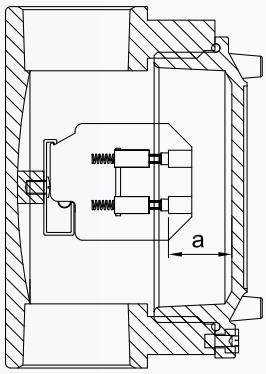
Top hat profile PR/3/AC	*Top hat profile PR/2/AC*	*DIN profile PR/DIN/AC*
		

Ex d IIC rated enclosures		*CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS*								
Enclosure type	**Size**	**1,5**	**2,5**	**4**	**6**	**10**	**16**	**25**	**35**	**70**
S.1 - SB	14-24	-	-	3	-	-	-	-	-	-
S.1 - SB	16-26-36	8	8	6	-	-	-	-	-	-
S.1	29-39-59-69	16	16	16	9	7	6	4	4	3
SB	49-59-69	16	16	16	10	8	7	5	5	4
Maximum current (A)	at 40°C	10	12.5	20	24	30	48	75	105	175
	at 65°C at 150°C	8	10.5	17	20	24	40	65	88	150
Maximum current density (A/mm^2) for terminals and cables		6.6	5	5	4	3	3	3	3	2.5
Maximum current (A) referring to 35% of the max. number of terminals as given in the table	at 40°C	13	19.5	24	30	50	64	100	140	210
	at 65°C at 150°C	10	12.5	20	24	30	48	75	105	175
Maximum current density (A/mm^2) for terminals and cables referring to 35% of the max. number of terminals as given in the table		8.5	7	6	5	5	4	4	4	3
Min.-max. rated voltage (V)		420 - 750								

Minimum distances for **Ex d IIC** rated enclosures with terminals

Enclosure type	**Size**	Minimum surface distance		S.1	SB
		a min.	b+b min.	x	x
S.1 - SB	14-24	6	20	40	40
S.1 - SB	16-26-36			58.5	50
S.1	29-39-59-69			100	85
SB	49-59-69				





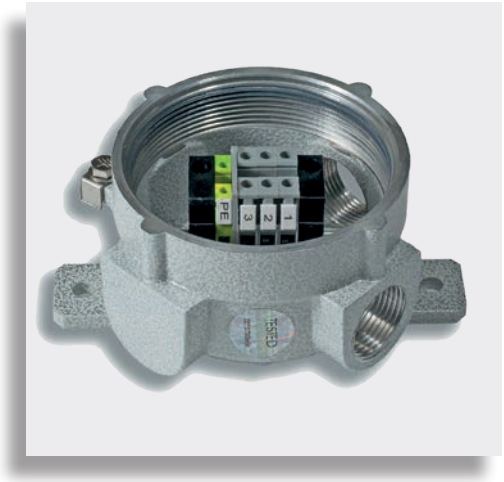
Enclosure code SFL-36.1 with 3 x AKZ-2.5 terminals and 1 x AKE2.5 earth terminal

ED.2019

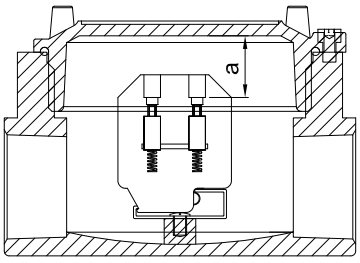
vendite@elfit.com info@elfit.com
www.elfit.com

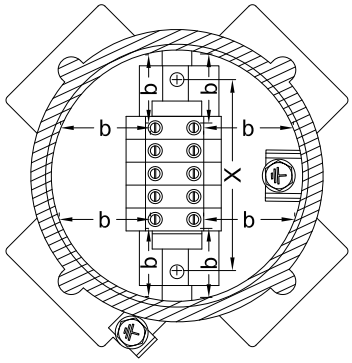
Ex e IIC rated enclosures		*CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS*														
Enclosure type	**Size**	**1,5**			**2,5**			**4**			**6**			**10**		
		Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3
S.1 - SB	14-24	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
S.1 - SB	16-26-36	8	8	8	8	8	8	6	6	6	-	-	-	-	-	-
S.1	29-39-59-69	16	16	16	16	16	16	16	14	14	9	9	9	7	7	7
SB	49-59-69	16	16	16	16	16	16	16	14	14	10	10	9	8	7	7
Maximum current (A)	at 40°C	8			10,5			17			20			24		
	at 65°C at 150°C	5,5			7,5			12			14			17		
Maximum current density (A/mm^2) for terminals and cables		6,6			5			5			4			3		
Min.-max. rated voltage (V)		275 - 630														

Ex e IIC rated enclosures		*CROSS-SECTIONAL AREA AND MAXIMUM NUMBER OF TERMINALS*					
Enclosure type	**Size**	**16**			**25**		
		Tab 1	Tab 2	Tab 3	Tab 1	Tab 2	Tab 3
S.1 - SB	14-24	-	-	-	-	-	-
S.1 - SB	16-26-36	-	-	-	-	-	-
S.1	29-39-59-69	6	6	6	4	4	4
SB	49-59-69	7	6	6	5	4	4
Maximum current (A)	at 40°C	40			65		
	at 65°C at 150°C	29			47		
Maximum current density (A/mm^2) for terminals and cables		3			3		
Min.-max. rated voltage (V)		275 - 630					



Enclosure code SFL-26.1 with 3 x RP-4 terminals and 1 x TR-2 earth terminal





NOTES:
Tab 1 for operating voltage U ≤ 400
Tab 2 for operating voltage U ≤ 500
Tab 3 for operating voltage U ≤ 630

Minimum distances for **Ex e IIC** rated enclosures with terminals

	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.	x	x
Tab 1	S.1 - SB	14-24	6	20	40	40
	S.1 - SB	16-26-36			58.5	50
	S.1	29-39-59-69			100	85
	SB	49-59-69				

	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.	x	x
Tab 2	S.1 - SB	14-24	8	25	40	40
	S.1 - SB	16-26-36			58.5	50
	S.1	29-39-59-69			100	85
	SB	49-59-69				

	Enclosure type	Size	Minimum surface distance		S.1	SB
			a min.	b+b min.	x	x
Tab 3	S.1 - SB	14-24	10	32	40	40
	S.1 - SB	16-26-36			58.5	50
	S.1	29-39-59-69			100	85
	SB	49-59-69				

TERMINAL MANUFACTURER	TERMINAL CODE	ENCLOSURE TYPE				CONDUCTOR CROSS-SECTIONAL AREA sq mm
		SB - S.1 14 - 24	SB - S.1 16 - 26 - 36	S.1 29 - 39 59 - 69	SB 49 - 59 - 69	
		MAXIMUM NUMBER OF TERMINALS				
CABUR	EDM 2			12	10	2.5
	EDM 4			10	8	4
	EDM 6			8	6	6
	EDM 10			7	5	10
	EDM 16			5	4	16
	EDM 25			4	3	25
	EDM 35			3	3	35
	CBD 2			12	15	2.5
	CBD 4			10	12	4
	CBD 6			8	10	6
	CBD 10			7	8	10
	CBD 16			6	7	16
	CBD 25			4	5	25
	CBD 35			3	4	35
	CBD 70			3	4	70
	SV 2			12	10	2.5
	SV 4			10	8	4
	SV 6			8	7	6
	SV 10			6	5	10
	RP 4		6	14	14	4
WEIDMULLER	WDU 1.5/R 3.5/E		10	22	22	1.5
	WDU 2.5N/E		5	14	16	2.5
	WDU 2.5			14	16	2.5
	WDU 4			12	14	4
	WDU 6			9	10	6
	WDU 10			7	8	10
	WDU 16			6	7	16
	WDU 35			4	5	35
	SAK 2.5			12	9	2.5
	SAK 4			12	9	4
	SAK 6			8	7	6
	SAK 10			7	5	10
	SAK 16			5	4	16
	SAK 35			4	3	35
	AKZ 1.5		8	14	14	1.5
	AKZ 2.5		8	14	14	2.5
	AKZ 4		6	14	14	4
	BK 2 (2 poles)	1	2	4	3	4
	BK 3 (3 poles)	1	1	2	2	4
	BK 4 (4 poles)		1	2	2	4
	BK 6 (6 poles)			1	1	4
	BK 12 (12 poles)					4

ELFiT®

ELectrical FITtings for Hazardous Areas

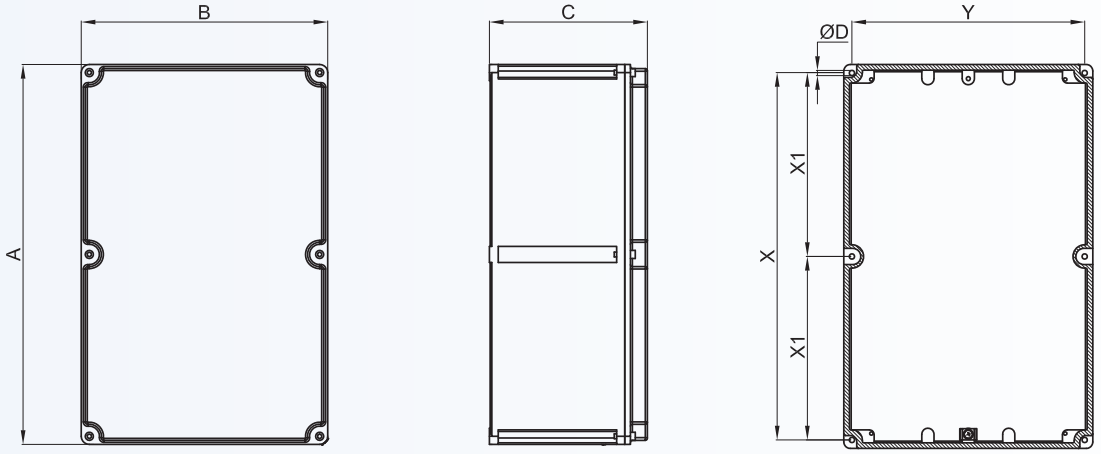
Weather proof series

CS... CSG... series junction boxes are made from aluminium alloy and given an electrostatically applied epoxy coating containing stainless steel particles that is then baked at 200°C. This treatment ensures good UV as well as thermal stability, providing mechanical impact resistance and excellent resistance when exposed either to salt mist or to marine and other damp environments. CS and CSG series junction boxes are usually installed in industrial plants and they are mainly used as junction boxes and/or for routing cables to control rooms for analogue or digital signals and for control, monitoring and signalling associated with equipment such as motors, pumps...etc., or for giving physical readings such as flow rate, level, temperature, pressure, etc.... The thickness of its walls (7mm) means the CSG series is suitable for direct connection with pipes and fittings featuring tapered threads. Upon customer's request threaded hubs or bushings, complete with cable glands, plugs and other accessories, can be made.

Standard construction:	Low copper content aluminium alloy. Stainless steel screws and bolts. Silicone gasket. Internal/external earth screws. Fixing lugs. RAL 7035 polyester coating.
Protection degree:	IP 66
Mechanical strenght:	IK10
Standards:	IEC 60529

ALUMINIUM ENCLOSURES SELECTION CHART

Code	Outside dimensions			Fixing				Weight
	A	B	C	X	Y	X1	ØD	Kg
CS090907	90	90	73	74	74	-	6,5	0,40
CS111108	110	110	83	94	94	-	6,5	0,50
CSG111108	110	110	83	94	94	-	6,5	0,75
CS171108	170	110	83	154	94	-	6,5	0,80
CSG171108	170	110	83	154	94	-	6,5	1,55
CS141410	147	147	100	131	131	-	6,5	0,80
CSG141410	147	147	100	131	131	-	6,5	1,40
CS202012	200	200	120	180	180	-	6,5	1,70
CS301410	305	147	110	285	127	-	6,5	2,00
CSG301410	305	147	96	285	127	-	6,5	2,70
CS302310	305	230	110	285	210	-	6,5	2,80
CSG302310	305	230	100	285	210	-	6,5	3,40
CS302318	305	230	190	285	210	-	6,5	3,50
CSG302318	305	230	180	285	210	-	6,5	5,30
CS473018	475	305	195	450	285	225	6,5	6,50
CSG473018	475	305	195	450	285	225	6,5	8,90
CSG623018	625	305	195	605	285	302,5	6,5	11,3
CSG606018	600	600	205	580	580	290	6,5	27,0



ED.2019

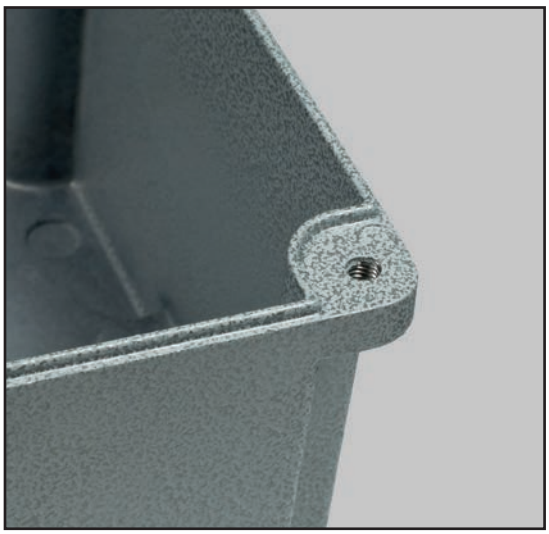
vendite@elfit.com info@elfit.com
www.elfit.com

ACCESSORIES UPON REQUEST					
ILLUSTRATION	**DESCRIPTION**	**MODEL**	**SIZE A**	**SIZE B**	**CODE**
	Internal mounting plates Thickness 25/10 Aluminium Galvanized steel (B...-229AC) Stainless steel (B...-229IN)	CS090907	82	48	**B09-229**
		CSG090907	73	48	**B09-229P**
		CS111108	100	68	**B11-229**
		CSG111108	92	68	**B11-229P**
		CS141410	137	105	**B14-229**
		CSG141410	129	105	**B14-229P**
		CS171108	159	67	**B17-229**
		CS202012	186	146	**B20-229**
		CS/CSG301410	285	97	**B31-229**
		CS/CSG302310 CS/CSG302318	285	180	**B32-229**
		CS/CSG473018	453	254	**B43-229**
		CS/CSG623018	603	249	**B63-229**
		CSG606018	532	532	**B60-229**

ILLUSTRATION	DESCRIPTION	MODEL	CHARACTERISTICS	CODE
	Breather and drain valve	Thread diameter ISO 7-R 3/8"	Material: stainless steel	**ECD-210S**
	Hinges (2 per enclosure)	Low lid enclosures	Material: stainless steel	**B-0105**
		High lid enclosures		**B-0106**
	Hinges (2 per enclosure)	SAG606018	Material: stainless steel	**K-0351**

CS and CSG series enclosures

Models from CS...series (lightweight series)
Thinner walls
The body can only accommodate through holes with no threading



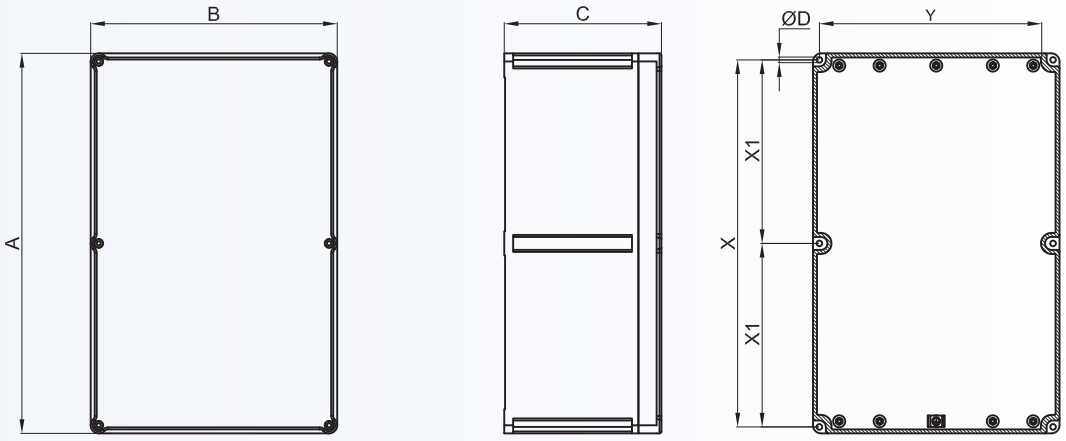
Models from CSG...series (heavy-duty series)
Extra-thick walls
The body can also accommodate threaded holes

CS/P series junction boxes are made from fibreglass-reinforced polyester. Because they are highly resistant to contamination from fuel oils and mechanical shock, in addition to being lightweight and practical, they can be installed in all industrial plants. The enclosures have special holes made in the base for easy wall mounting.
The lid features a silicone gasket that is resistant to low and high temperatures and comes complete with AISI 304 stainless steel screws, which are arranged around the outside of the lid to ensure a tight seal with the IP66 rating. CS/P series enclosures are mainly used as junction boxes for routing cables for analogue or digital signals and/or for control and monitoring associated with equipment such as motors, fans, pumps and/or for giving physical readings such as flow rate, level, pressure, temperature, current, etc..

Standard construction:	GRP (glass reinforced polyester resin) in RAL 9017 black coating. Stainless steel screws and bolts. Silicone gasket. Fixing lugs.
Protection degree:	IP 66
Mechanical strenght:	IK10
Standards:	IEC 60529

POLYESTER ENCLOSURES SELECTION CHART

Code	Outside dimension			Fixing				Weight
	A	B	C	X	Y	X1	ØD	Kg
CS090907/P	90	90	73	74	74	-	6,5	0,30
CS111108/P	110	110	83	94	94	-	6,5	0,40
CS171108/P	170	110	83	154	94	-	6,5	0,80
CS141410/P	147	147	100	131	131	-	6,5	1,00
CS301410/P	305	147	110	285	127	-	6,5	1,90
CS302310/P	305	230	110	285	210	-	6,5	2,50
CS302318/P	305	230	190	285	210	-	6,5	3,10
CS473018/P	470	305	195	450	285	225	6,5	4,70
CS623018/P	620	305	185	560	285	260-300	8	6,30



ED.2019

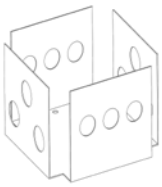
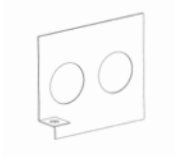
vendite@elfit.com info@elfit.com
www.elfit.com

ACCESSORIES UPON REQUEST

ILLUSTRATION	DESCRIPTION	MODEL	SIZE A	SIZE B	CODE
	Internal mounting plates Thickness 2.5mm Aluminium Galvanized steel (B...-229AC) Stainless steel (B...-229IN)	CS090907/P	82	48	**B09-229**
		CS111108/P	100	68	**B11-229**
		CS141410/P	137	105	**B14-229**
		CS171108/P	159	67	**B17-229**
		CS301410/P	285	97	**B31-229**
		CS302310/P CS302318/P	285	180	**B32-229**
		CS473018/P	453	254	**B43-229**
		CS623018/P	603	249	**B63-229**

ILLUSTRATION	DESCRIPTION	MODEL	CHARACTERISTICS	CODE
	Breather and drain valve	Thread diameter ISO 7-R 3/8″	Material: stainless steel	**ECD-210S**
	Hinges (2 per enclosure)	Low lid enclosures	Material: stainless steel	**B-0105**
		High lid enclosures		**B-0106**
	Through earth connection	M8	Material: stainless steel	**K-0307/1**
		M6		**K-0307/2**
	Brass continuity plates for earthing	For models and codes see the following scheme		**B-...**

CONTINUITY PLATES

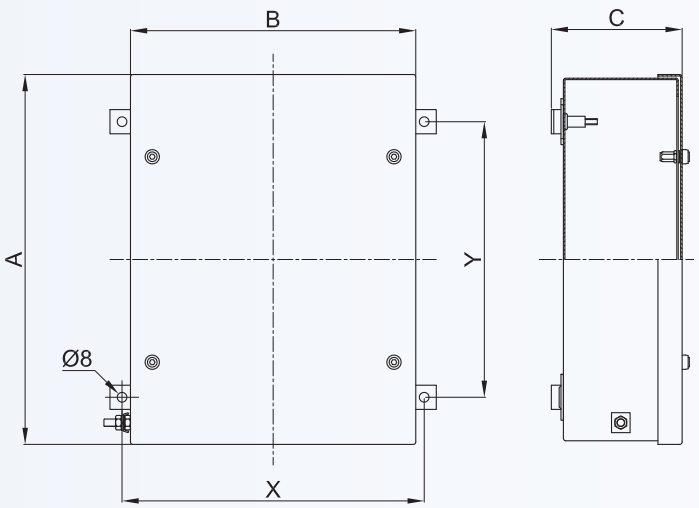
	Continuity plate for all four enclosure sides	Continuity plate for single enclosure side	
			
Enclosure	Plate code	Plate code	
		Long side	Short side
SA090907/P	B-388	B-455	
SA111108/P	B-389	B-456	
SA141410/P	B-390	B-457	
SA171108/P	B-391	B-458	B-456
SA301410/P	B-392	B-459	B-457
SA302310/P	B-393	B-459	B-460
SA302318/P	B-394	B-461	B-462
SA473018/P	B-395	(2x) B-462	B-461
SA623018/P	-	(2x) B-463	B-463

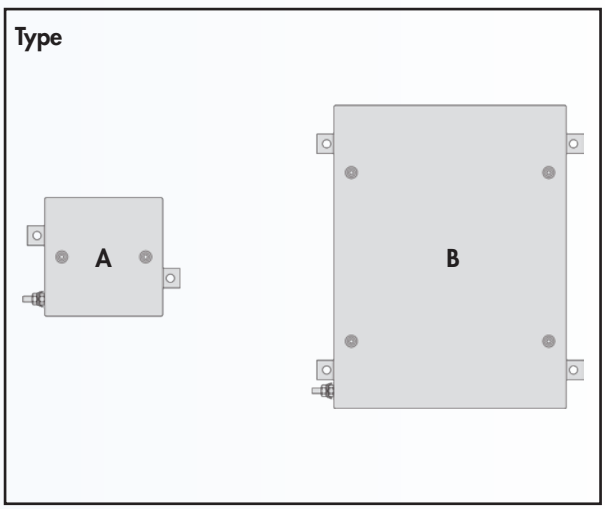
Economic junction boxes, are used as pulling or junction boxes in areas where there is no danger of explosion, but it is required a specific protection to prevent the entry of solids and liquids. They are stainless steel made and can be installed in chemical and off-shore plants and where is a strong external agents'aggression. Upon specific request they can be supplied with terminal blocks and copper rods for earth connections. Upon customer request threaded hubs or bushings, complete with cable glands, plugs and other accessories both on the enclosure's side and on specific removable flanges, can be made.

Standard construction:	Stainless steel AISI 316L Stainless steel bolts and screws Silicone gasket Fixing lugs
Degree of protection:	IP 66
Mechanical strenght:	IK10
Standards:	IEC 60529

STAINLESS STEEL ENCLOSURES SELECTION CHART

Code	Outside dimensions			Fixing			Weight
	A	B	C	X	Y	ØD	Kg
CTBEW121208	120	120	90	135	42	A	
CTBEW151208	150	120	90	135	73	A	
CTBEW151509	150	150	100	165	73	A	
CTBEW191509	190	150	100	165	113	A	
CTBEW191910	190	190	100	165	73	A	
CTBEW221513	229	152	140	205	113	A	
CTBEW262610	258	258	110	273	181	B	
CTBEW262616	258	258	170	273	181	B	
CTBEW262620	258	258	210	273	181	B	
CTBEW301410	306	146	110	160	228	B	
CTBEW302310	306	236	110	250	228	B	
CTBEW303010	306	306	110	320	228	B	
CTBEW303016	306	306	170	320	228	B	
CTBEW303020	306	306	210	320	228	B	
CTBEW381612	380	160	130	175	303	B	
CTBEW382610	380	260	110	275	303	B	
CTBEW382616	380	260	170	275	303	B	
CTBEW382620	380	260	210	275	303	B	
CTBEW402513	400	250	140	265	323	B	





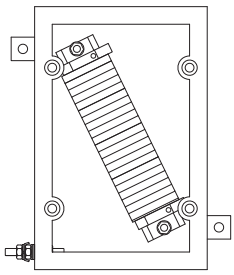
CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

ACCESSORIES UPON REQUEST

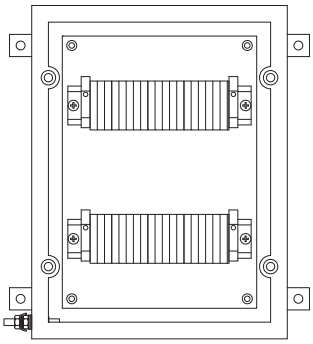
ILLUSTRATION	DESCRIPTION	MODEL	SIZE A	SIZE B	CODE
	Internal mounting plates Stainless steel	CTBEW121208	60	60	**B12-484**
		CTBEW151509	90	90	**B15-484**
		CTBEW191910	130	130	**B19-484**
		CTBEW221513	170	90	**B22-484**
		CTBEW262610 CTBEW262616 CTBEW262620	200	200	**B26-484**
		CTBEW301410	245	85	**B303-484**
		CTBEW302310	145	175	**B302-484**
		CTBEW303010 CTBEW303016 CTBEW303020	245	245	**B30-484**
		CTBEW382610 CTBEW382616 CTBEW382620	320	200	**B38-484**

ILLUSTRATION	DESCRIPTION	MODEL	CHARACTERISTICS	CODE
	Breather and drain valve	Thread diameter ISO 7-R 3/8"	Material: stainless steel	**ECD-210S**

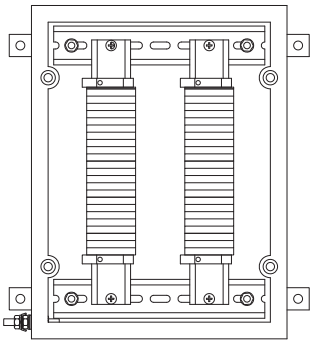
INSTALLATION EXAMPLE OF INSIDE TERMINAL BLOCKS



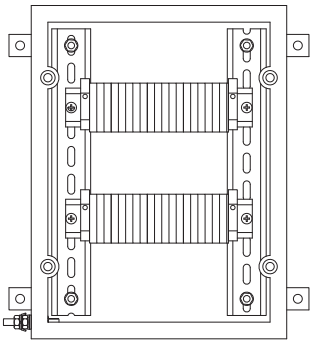
Diagonally and directly installed on internal inserts for greater amount of terminal blocks on small enclosures



Horizontally or vertically, installed on mounting plate in order to minimize oscillations of terminal block in case of external vibrations



Vertically installed on DIN guides for greater cheapness



Horizontally installed on DIN guides for greater cheapness

TEV series cable glands are suitable for use in industrial plant for the direct insertion of non-armoured cables into watertight equipment or junction box.

Standard construction:	Nickel-plated brass Sealing ring in silicone material Compression ring in plastic material ISO 7/1, NPT and isometric threads
Degree of protection:	IP66/67
Standards:	IEC 60529 / IEC 529

Accessories upon request							
Locknut *	ISO thread	Nichel-plated brass	Galvanized steel	Stainless steel	Nichel-plated brass earthing rings *	Code	Adaptors and reducers **RE...** series
	M75x1,5	**DL7IB**	**DL7IG**	**DL7IS**		**A7317IB**	
	M90x1,5	**DL8IB**	**DL8IG**	**DL8IS**		**A8318IB**	
	M100x1,5	**DL10IB**	**DL10IG**	**DL10IS**		**A10310IB**	

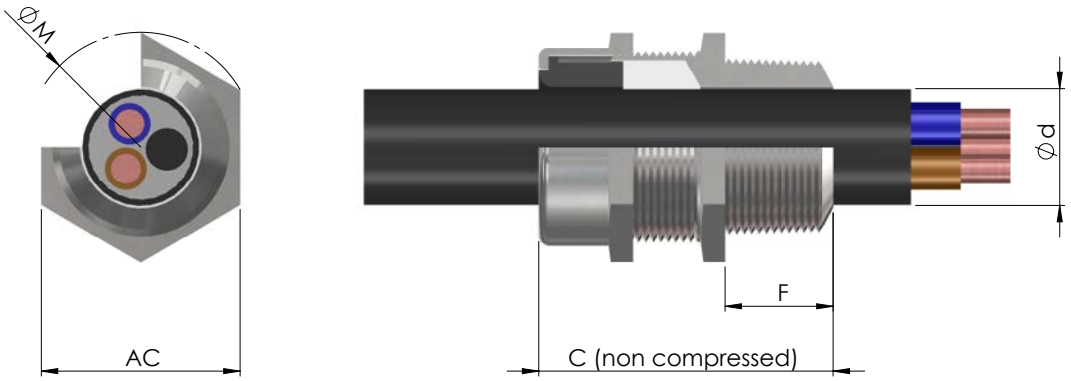
* For different threads contact the sales office.

Note

Shrouds for cable glands upon request.
Idented washer in stainless steel upon request.

CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION CHART

Code Nichel-plated brass	Thread	Dimensions in mm				Range	Weight
		AC	ØM	F	C	Ød min-max Below armour	Kg
TEV01B	3/8" ISO7/1	24	28	15	44	5 - 10	0,062
TEVL1B	1/2" ISO7/1	24	28	18	47	5 - 10	0,071
TEV1B	1/2" ISO7/1	24	28	18	47	7 - 12	0,070
TEV2B	3/4" ISO7/1	32	37	18	48,5	12 - 18	0,104
TEV3B	1" ISO7/1	40	47	22	59,5	18 - 24	0,172
TEV4B	1 ¼" ISO7/1	48	56	22	60	24 - 30	0,252
TEV5B	1 ½" ISO7/1	53	62	24	64	30 - 35	0,316
TEV6B	2" ISO7/1	63	73	24	64	35 - 45	0,424
TEV01NB	3/8" NPT	24	28	16	45	5 - 10	0,062
TEVL1NB	1/2" NPT	24	28	20	49	5 - 10	0,071
TEV1NB	1/2" NPT	24	28	20	49	7 - 12	0,070
TEV2NB	3/4" NPT	32	37	20	50,5	12 - 18	0,104
TEV3NB	1" NPT	40	47	26	63,5	18 - 24	0,172
TEV4NB	1 ¼" NPT	48	56	26	64	24 - 30	0,252
TEV5NB	1 ½" NPT	53	62	26	66	30 - 35	0,316
TEV6NB	2" NPT	63	73	27	67	35 - 45	0,424
TEV01IB	M16x1,5	24	28	16	45	5 - 10	0,062
TEVL1IB	M20x1,5	24	28	16	45	5 - 10	0,071
TEV1IB	M20x1,5	24	28	16	45	7 - 12	0,070
TEV2IB	M25x1,5	32	37	16	46,5	12 - 18	0,104
TEV3IB	M32x1,5	40	47	16	53,5	18 - 24	0,172
TEV4IB	M40x1,5	48	56	16	54	24 - 30	0,252
TEV5IB	M50x1,5	53	62	16	56	30 - 35	0,316
TEV6IB	M63x1,5	63/65	73	18	58	35 - 45	0,424

Example of order code

TEV	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *For cylindrical threads (ISO metric) it is supplied the silicone O-ring for the IP seal already assembled on cable gland*
- *Available also in stainless steel (sample code TEV1**S**)*
- *Available also in galvanized steel (sample code TEV1**G**)*

TEV series watertight cable glands for non-armoured cables from 2 ½" to 4"

TEV series cable glands are suitable for use in industrial plant for the direct insertion of non-armoured cables into watertight equipment or junction box.

Standard construction:	Nickel-plated brass Sealing ring in silicone material Compression ring in plastic material ISO 7/1, NPT and isometric threads
Degree of protection:	IP66/67
Standards:	IEC 60529 / IEC 529

ACCESSORIES UPON REQUEST

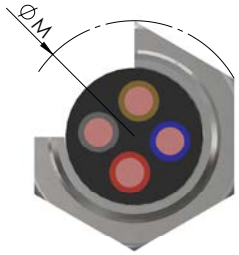
Locknuts	ISO thread	Nichel-plated brass	Galvanized steel	Stainless steel	Shrouds in black PVC	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

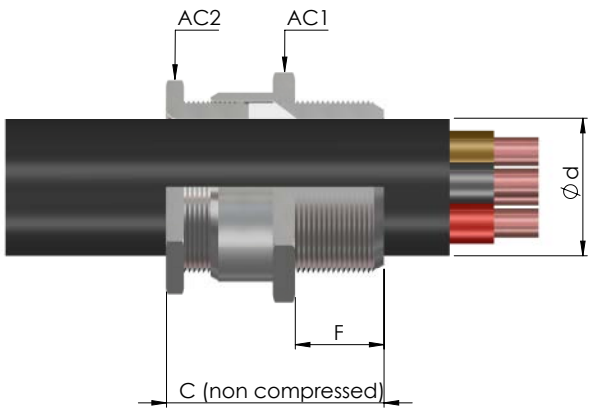
Earthing rings in nichel-plated brass *	For ISO threads	Nichel-plated brass	Stainless steel	Stainless steel idented washers *	Code	**RE...** series adaprtors and reducers
	M16x1,5	**A0131IB**	**A0131IS**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threading contact our sales office.

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com





CABLE GLANDS SELECTION TABLE

Code Nichel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	Ød min-max Under armour	Kg
TEV7B	2 ½" ISO7/1	84	73	90	30	100	46 - 55	1,492
TEVS7B	2 ½" ISO7/1	90	84	100	30	100	55 - 62	1,452
TEV8B	3" ISO7/1	100	94	106	30	100	62 - 70	1,944
TEVS8B	3" ISO7/1	105	98	110	30	100	70 - 78	1,791
TEV9B	3 ½" ISO7/1	115	105	120	30	101	76 - 84	2,356
TEVS9B	3 ½" ISO7/1	120	112	125	30	101	84 - 92	2,302
TEV10B	4" ISO7/1	115	105	120	30	101,5	76 - 84	3,010
TEVS10B	4" ISO7/1	120	112	125	30	101,5	84 - 92	2,457
TEV7NB	2 ½" NPT	84	73	90	30	110	46 - 55	1,492
TEVS7NB	2 ½" NPT	90	84	100	30	110	55 - 62	1,452
TEV8NB	3" NPT	100	94	106	30	112	62 - 70	1,944
TEVS8NB	3" NPT	105	98	110	30	112	70 - 78	1,791
TEV9NB	3 ½" NPT	115	105	120	30	114	76 - 84	2,356
TEVS9NB	3 ½" NPT	120	112	125	30	114	84 - 92	2,302
TEV10NB	4" NPT	115	105	120	30	115,5	76 - 84	3,010
TEVS10NB	4" NPT	120	112	125	30	115,5	84 - 92	2,457
TEV7IB	M75x1,5	84	73	90	30	88	46 - 55	1,492
TEVS7IB	M75x1,5	90	84	100	30	88	55 - 62	1,452
TEV8IB	M90x1,5	100	94	106	30	88	62 - 70	1,944
TEVS8IB	M90x1,5	105	98	110	30	88	70 - 78	1,791
TEV10IB	M100x1,5	115	105	120	30	89,5	76 - 84	3,010
TEVS10IB	M100x1,5	120	112	125	30	89,5	84 - 92	2,457

Example of order code

TEV	7	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *For cylindrical threads (ISO metric) it is supplied the silicone O-ring for the IP seal already assembled on cable gland*
- *Available also in stainless steel (sample code TEV1**S**)*

TEVL series cable glands are suitable for use in industrial plant for the direct insertion of non-armoured cables into watertight equipment or junction box. This series can accommodate smaller cable diameters than the standard required for each measure. In this way, the use of reductions is avoid.

Standard construction:	Nickel-plated brass Sealing ring in silicone material Compression ring in plastic material ISO 7/1, NPT and isometric threads
Degree of protection:	IP66/67
Standards:	IEC 60529 / IEC 529

ACCESSORIES UPON REQUEST

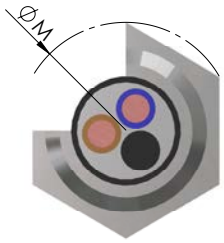
Locknuts	Thread ISO	Nichel-plated brass	Galvanized steel	Stainless steel	Shrouds in black PVC	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

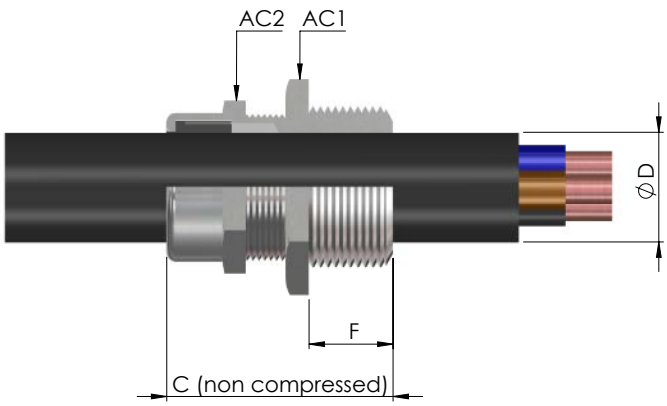
Earthing rings in nichel-plated brass *	For ISO threads	Nichel-plated brass	Stainless steel	Stainless steel idented washers	Code	RE... series adaprtors and red**ucers**
	M16x1,5	**A0131IB**	**A0131IS**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threading contact our sales office.

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com





CABLE GLANDS SELECTION CHART

Code Nichel-plated brass	Thread	Dimensions in mm					Range	Weight
		AC1	AC2	ØM	F	C	Ød min-max Below armour	Kg
TEVL1B	1/2" ISO7/1	24	24	28	18	47	5 - 10	0,079
TEVL2B	3/4" ISO7/1	32	24	37	18	47	7 - 12	0,116
TEVL3B	1" ISO7/1	40	32	47	22	52,5	12 - 18	0,184
TEVL4B	1 ¼" ISO7/1	48	40	56	22	59,5	18 - 24	0,310
TEVL5B	1 ½" ISO7/1	53	48	62	24	62	24 - 30	0,387
TEVL6B	2" ISO7/1	63	53	73	24	64	30 - 35	0,420
TEVL1NB	1/2" NPT	24	24	28	20	48	5 - 10	0,079
TEVL2NB	3/4" NPT	32	24	37	20	49	7 - 12	0,116
TEVL3NB	1" NPT	40	32	47	26	56,5	12 - 18	0,184
TEVL4NB	1 ¼" NPT	48	40	56	26	63,5	18 - 24	0,310
TEVL5NB	1 ½" NPT	53	48	62	26	64	24 - 30	0,387
TEVL6NB	2" NPT	63	53	73	27	67	30 - 35	0,420
TEVL1IB	M20x1,5	24	24	28	16	45	5 - 10	0,079
TEVL2IB	M25x1,5	32	24	37	16	45	7 - 12	0,116
TEVL3IB	M32x1,5	40	32	47	16	46,5	12 - 18	0,184
TEVL4IB	M40x1,5	48	40	56	16	53,5	18 - 24	0,310
TEVL5IB	M50x1,5	53	48	62	16	54	24 - 30	0,387
TEVL6IB	M63x1,5	63/65	53	73	18	58	30 - 35	0,420

Example of order code

TEVL	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *For cylindrical threads (ISO metric) it is supplied the silicone O-ring for the IP seal already assembled on cable gland*
- *Available also in stainless steel (sample code REVL1**S**)*
- *Available also in galvanized steel (sample code REVL1**G**)*

TEVD series cable glands are suitable for use in industrial plant for the direct insertion of armoured cables into watertight equipment or junction box.

Standard construction:	Nickel-plated brass Sealing ring in silicone material Compression ring in plastic material ISO 7/1, NPT and isometric threads
Degree of protection:	IP66/67
Standards:	IEC 60529 / IEC 529

EMC TESTED

ACCESSORIES UPON REQUEST

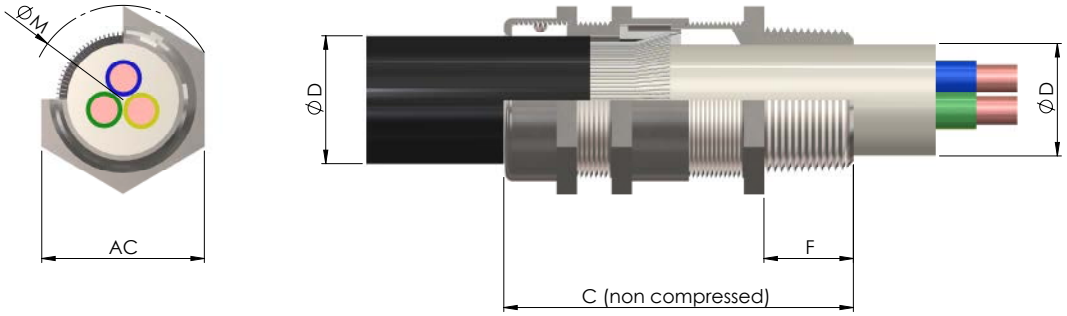
Locknuts	Thread ISO	Nichel-plated brass	Galvanized steel	Stainless steel	Shrouds in black PVC	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Earthing rings in nichel-plated brass *	For ISO threads	Nichel-plated brass	Stainless steel	Stainless steel idented washers	Code	RE... series adaprtors and red**ucers**
	M16x1,5	**A0131IB**	**A0131IS**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threading contact our sales office.

CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION CHART

Code Nichel-plated brass	Thread	Dimensions in mm				Range		Thickness armour standard	Thickness armour on request	Weight
		AC	ØM	F	C	Ød min-max Below armour	ØD min-max External sheat of cable			Kg
TEVD01B	3/8" ISO7/1	24	28	15	69	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
TEVDL1B	1/2" ISO7/1	24	28	18	72	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
TEVD1B	1/2" ISO7/1	24	28	18	72	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
TEVD2B	3/4" ISO7/1	32	37	18	73,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
TEVD3B	1" ISO7/1	40	47	22	86,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
TEVD4B	1 ¼" ISO7/1	48	56	22	89	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
TEVD5B	1 ½" ISO7/1	53	62	24	94	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
TEVD6B	2" ISO7/1	63	73	24	94	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632
TEVD01NB	3/8" NPT	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
TEVDL1NB	1/2" NPT	24	28	20	74	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
TEVD1NB	1/2" NPT	24	28	20	74	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
TEVD2NB	3/4" NPT	32	37	20	75,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
TEVD3NB	1" NPT	40	47	26	90,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
TEVD4NB	1 ¼" NPT	48	56	26	93	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
TEVD5NB	1 ½" NPT	53	62	26	96	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
TEVD6NB	2" NPT	63	73	27	97	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632
TEVD01IB	M16x1,5	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
TEVDL1IB	M20x1,5	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,100
TEVD1IB	M20x1,5	24	28	16	70	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,110
TEVD2IB	M25x1,5	32	37	16	71,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,166
TEVD3IB	M32x1,5	40	47	16	80,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,264
TEVD4IB	M40x1,5	48	56	16	83	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,406
TEVD5IB	M50x1,5	53	62	16	86	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,484
TEVD6IB	M63x1,5	63/65	73	18	88	35 - 45	43 - 53	0.2 - 1.4	1.4 - 2.5	0,632

Example of order code

TEVD	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *For cylindrical threads (ISO metric) it is supplied the silicone O-ring for the IP seal already assembled on cable gland*
- *Available also in stainless steel (sample code TEVD1**S**)*
- *Available also in galvanized steel (sample code TEVD1**G**)*
- *On request, inside compression ring for thickness armour*

TEVDL series cable glands are suitable for use in industrial plant for the direct insertion of non-armoured cables into watertight equipment or junction box. This series can accommodate smaller cable diameters than the standard required for each measure. In this way, the use of reductions is avoid.

Standard construction:	Nickel-plated brass Sealing ring in silicone material Compression ring in plastic material ISO 7/1, NPT and isometric threads
Degree of protection:	IP66/67
Standards:	IEC 60529 / IEC 529

EMC TESTED

ACCESSORIES UPON REQUEST

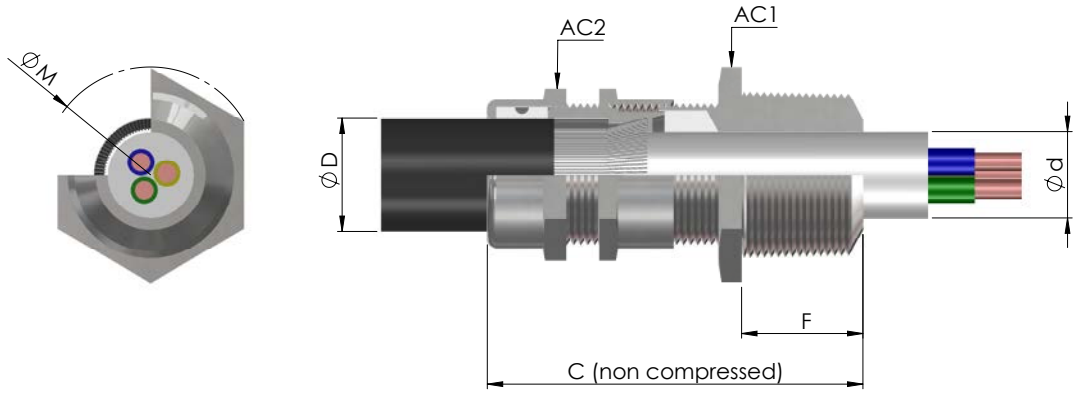
Locknuts	ISO thread	Nichel-plated brass	Galvanized steel	Stainless steel	Shrouds in black PVC	Code
	M16x1,5	**DL01IB**	**DL01IG**	**DL01IS**		**PGA1F**
	M20x1,5	**DL1IB**	**DL1IG**	**DL1IS**		**PGA1F**
	M25x1,5	**DL2IB**	**DL2IG**	**DL2IS**		**PGA2R**
	M32x1,5	**DL3IB**	**DL3IG**	**DL3IS**		**PGA3**
	M40x1,5	**DL4IB**	**DL4IG**	**DL4IS**		**PGA4**
	M50x1,5	**DL5IB**	**DL5IG**	**DL5IS**		**PGA5**
	M63x1,5	**DL6IB**	**DL6IG**	**DL6IS**		**PGA6R**

Earthing rings in nichel-plated brass *	For ISO threads	Nichel-plated brass	Stainless steel	Stainless steel idented washers	Code	RE... series adaprtors and **reducers**
	M16x1,5	**A0131IB**	**A0131IS**		**RDI01IS/A4**	
	M20x1,5	**A1311IB**	**A1311IS**		**RDI1IS/A4**	
	M25x1,5	**A2312IB**	**A2312IS**		**RDI2IS/A4**	
	M32x1,5	**A3313IB**	**A3313IS**		**RDI3IS/A4**	
	M40x1,5	**A4314IB**	**A4314IS**		**RDI4IS/A4**	
	M50x1,5	**A5315IB**	**A5315IS**		**RDI5IS/A4**	
	M63x1,5	**A6316IB**	**A6316IS**		**RDI6IS/A4**	

* For different threading contact our sales office.

CORTEM GROUP®

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com



CABLE GLANDS SELECTION CHART

Code Nichel-plated brass	Thread	Dimensions in mm					Range		Thickness armour standard	Thickness armour on request on request	Weight Kg
		AC1	AC2	ØM	F	C	Ød min-max Below armour	ØD min-max External sheat of cable			
TEVDL1B	1/2" ISO7/1	24	24	28	18	72	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
TEVDL2B	3/4" ISO7/1	32	24	37	18	72	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
TEVDL3B	1" ISO7/1	40	32	47	22	77,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
TEVDL4B	1 ¼" ISO7/1	48	40	56	22	86,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
TEVDL5B	1 ½" ISO7/1	53	48	62	24	91	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
TEVDL6B	2" ISO7/1	63	53	73	24	94	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632
TEVDL1NB	1/2" NPT	24	24	28	20	74	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
TEVDL2NB	3/4" NPT	32	24	37	20	74	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
TEVDL3NB	1" NPT	40	32	47	26	81,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
TEVDL4NB	1 ¼" NPT	48	40	56	26	90,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
TEVDL5NB	1 ½" NPT	53	48	62	26	93	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
TEVDL6NB	2" NPT	63	53	73	27	97	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632
TEVDL1IB	M20x1,5	24	24	28	16	70	5 - 10	8 - 15	0.2 - 0.8	0.8 - 1.2	0,110
TEVDL2IB	M25x1,5	32	24	37	16	70	7 - 12	11 - 16	0.2 - 0.7	0.7 - 1.2	0,166
TEVDL3IB	M32x1,5	40	32	47	16	71,5	12 - 18	16 - 24	0.2 - 0.8	0.8 - 1.6	0,264
TEVDL4IB	M40x1,5	48	40	56	16	80,5	18 - 24	24 - 31	0.2 - 0.9	0.9 - 1.6	0,406
TEVDL5IB	M50x1,5	53	48	62	16	83	24 - 30	31 - 37	0.2 - 1.2	1.2 - 2.0	0,484
TEVDL6IB	M63x1,5	63/65	73	73	18	88	30 - 35	37 - 43	0.2 - 1.3	1.3 - 2.5	0,632

Example of order code

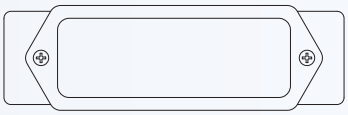
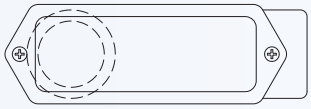
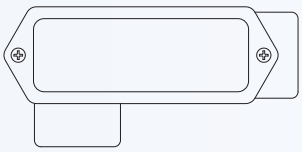
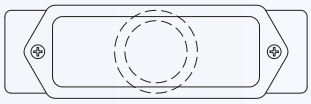
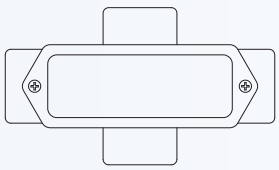
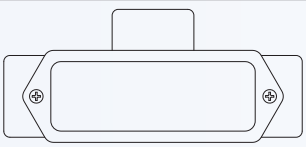
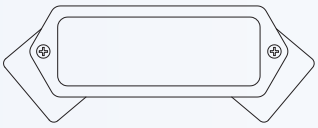
TEVDL	6	I	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *For cylindrical threads (ISO metric) it is supplied the silicone O-ring for the IP seal already assembled on cable gland*
- *Available also in stainless steel (sample code TEVDL1**S**)*
- *Available also in galvanized steel (sample code TEVDL1**G**)*
- *Inside gasket for cables with increased armour*

Condulet are used as pulling or junction boxes in areas where is no danger of explosion, but it is required a specific protection to prevent the entry of solids and liquids. They are aluminium made and can be installed in chemical and off-shore plants and where is a strong external agents aggression.

Standard construction:	Body and cover in aluminium alloy Galvanized steel bolts and screws Elastomer gasket
Degree of protection	IP 65
Standards:	IEC 60529
On request:	Other threads Coating Stainless steel screws

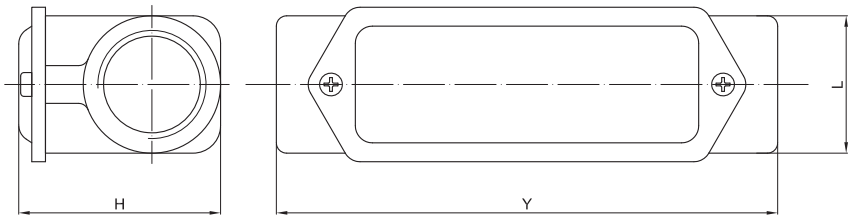
Box type	Code	Description
	**C**	Enclosure with two coaxial hubs
	**LB**	Enclosure with two hubs arranged at 90° (One hub arranged on the bottom of the enclosure)
	**LL**	Enclosure with two hubs arranged at 90° (One hub arranged on the bottom left side)
	**LR**	Enclosure with two hubs arranged at 90° (One hub arranged on the right side)
	**TB**	Enclosure with three hubs, two coaxial and one at 90° arranged on the middle of the enclosure's bottom
	**X**	Enclosure with four cross hubs
	**T**	Enclosure with three hubs, two coaxial and one at 90° arranged on the side
	**LU**	Enclosure with two 45° hubs with respect to the axis

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

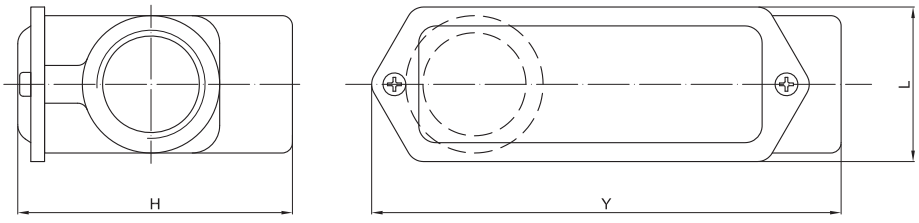
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
C17	1/2" ISO228/1	118	51	42	0,168
C27	3/4" ISO228/1	123	40	48	0,151
C37	1" ISO228/1	146	45	57	0,234
C47	1 ¼" ISO228/1	171	62	71	0,417
C57	1 ½" ISO228/1	171	62	71	0,372
C67	2" ISO228/1	204	76	83	0,514
C77	2 ½" ISO228/1	315	108	125	1,779
C87	3" ISO228/1	315	108	125	1,779
C107	4" ISO228/1	314	133	148	2,606
C171I	M20x1,5	118	51	42	0,157
C272I	M25x1,5	118	51	42	0,146
C373I	M32x1,5	146	45	57	0,234
C474I	M40x1,5	171	62	71	0,417
C675I	M50x1,5	204	76	83	0,514
C676I	M63x1,5	204	76	83	0,514



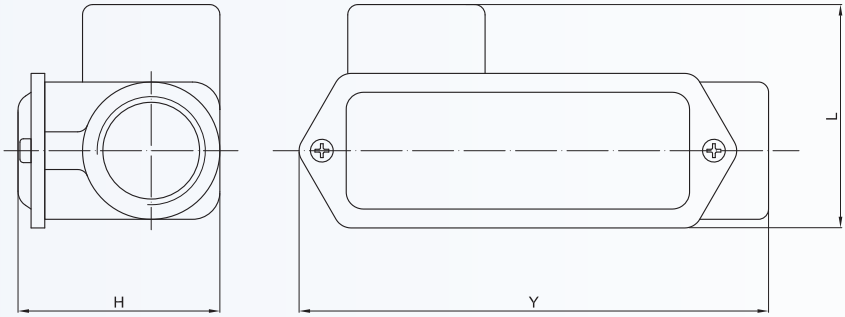
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
LB17	1/2" ISO228/1	117	40	65	0,172
LB27	3/4" ISO228/1	117	40	65	0,159
LB37	1" ISO228/1	137	45	78	0,236
LB47	1 ¼" ISO228/1	163	62	89	0,427
LB57	1 ½" ISO228/1	163	62	89	0,387
LB67	2" ISO228/1	190	76	108	0,541
LB77	2 ½" ISO228/1	238	107	150	2,121
LB87	3" ISO228/1	238	107	150	1,785
LB107	4" ISO228/1	300	133	185	2,658



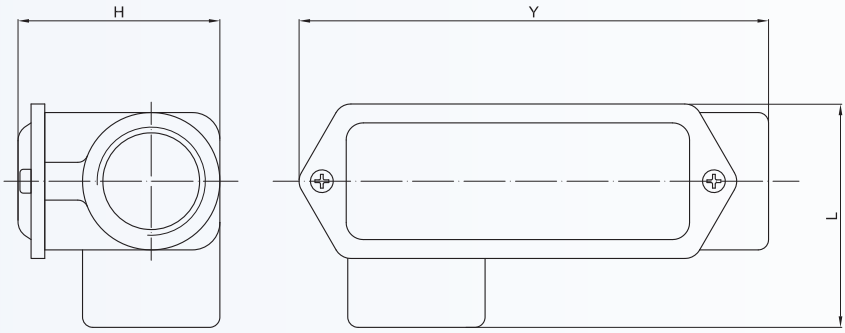
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
LL17	1/2" ISO228/1	117	51	48	0,171
LL27	3/4" ISO228/1	117	51	48	0,150
LL37	1" ISO228/1	137	61	57	0,238
LL47	1 ¼" ISO228/1	163	76	71	0,414
LL57	1 ½" ISO228/1	163	76	71	0,381
LL67	2" ISO228/1	190	94	83	0,522
LL77	2 ½" ISO228/1	238	138	122	2,084
LL87	3" ISO228/1	238	138	122	1,748
LL107	4" ISO228/1	300	162	148	2,666



PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
LR17	1/2" ISO228/1	117	51	48	0,171
LR27	3/4" ISO228/1	117	51	48	0,150
LR37	1" ISO228/1	137	61	57	0,238
LR47	1 ¼" ISO228/1	163	76	71	0,414
LR57	1 ½" ISO228/1	163	76	71	0,381
LR67	2" ISO228/1	190	94	83	0,522
LR77	2 ½" ISO228/1	238	138	122	2,084
LR87	3" ISO228/1	238	138	122	1,748
LR107	4" ISO228/1	300	162	148	2,666

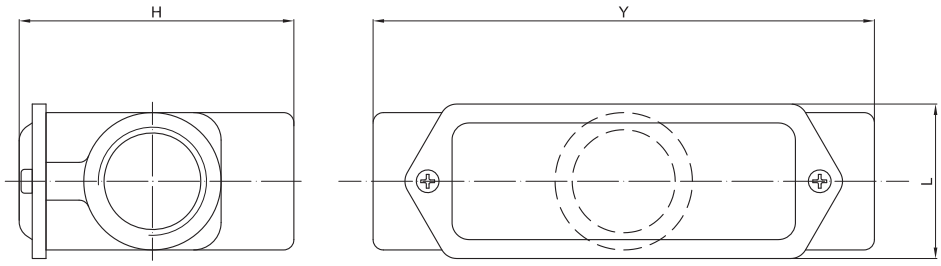


ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

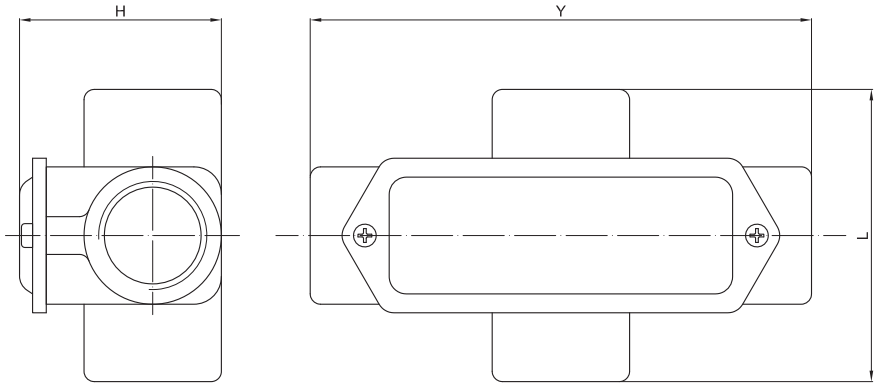
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
TB17	1/2" ISO228/1	123	40	65	0,193
TB27	3/4" ISO228/1	123	40	65	0,168
TB37	1" ISO228/1	146	45	78	0,254
TB47	1 ¼" ISO228/1	171	62	89	0,488
TB57	1 ½" ISO228/1	171	62	89	0,416
TB67	2" ISO228/1	204	76	108	0,607
TB77	2 ½" ISO228/1	315	108	163	2,492
TB87	3" ISO228/1	315	108	163	1,996
TB107	4" ISO228/1	314	133	185	2,747



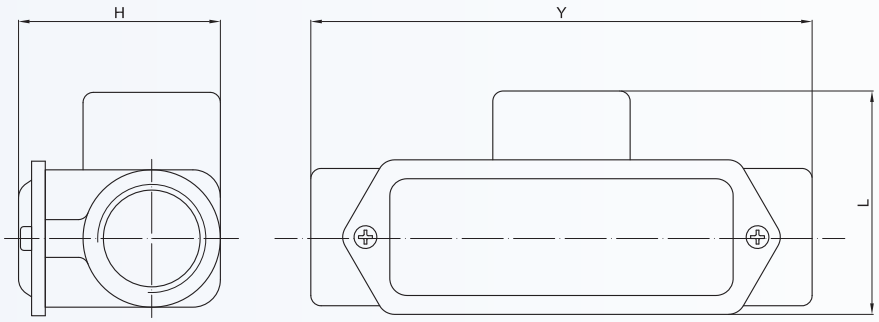
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
X17	1/2" ISO228/1	123	68	48	0,217
X27	3/4" ISO228/1	123	68	48	0,187
X37	1" ISO228/1	146	81	57	0,289
X47	1 ¼" ISO228/1	171	96	71	0,532
X57	1 ½" ISO228/1	171	96	71	0,428
X67	2" ISO228/1	204	118	83	0,623
X77	2 ½" ISO228/1	315	183	125	2,394
X87	3" ISO228/1	315	183	125	2,105
X107	4" ISO228/1	315	196	148	2,881
X171I	M20x1,5	118	83	42	0,206
X272I	M25x1,5	118	83	42	0,195
X373I	M32x1,5	146	81	57	0,289
X474I	M40x1,5	171	96	71	0,532
X675I	M50x1,5	204	118	83	0,623
X676I	M63x1,5	204	118	83	0,623



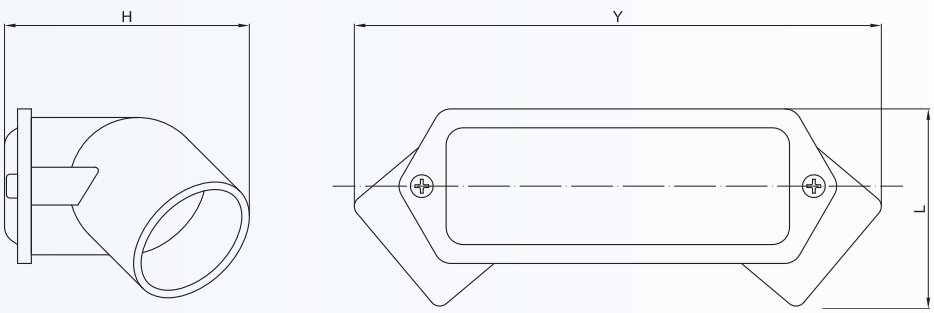
PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
T17	1/2" ISO228/1	123	53	48	0,191
T27	3/4" ISO228/1	123	53	48	0,170
T37	1" ISO228/1	146	63	57	0,264
T47	1 ¼" ISO228/1	171	78	71	0,473
T57	1 ½" ISO228/1	171	78	71	0,410
T67	2" ISO228/1	204	96	83	0,560
T77	2 ½" ISO228/1	315	148	125	2,457
T87	3" ISO228/1	315	148	125	1,948
T107	4" ISO228/1	315	166	148	2,725
T171I	M20x1,5	118	67	42	0,161
T272I	M25x1,5	118	67	42	0,150
T373I	M32x1,5	146	63	57	0,264
T474I	M40x1,5	171	78	71	0,473
T675I	M50x1,5	204	96	83	0,560
T676I	M63x1,5	204	96	83	0,560



PULLING BOXES SELECTION CHART

Box type	Thread	Dimensions in mm			Weight
		Y	L	H	Kg
LU17	1/2" ISO228/1	130	64	44	0,185
LU27	3/4" ISO228/1	130	64	44	0,167
LU37	1" ISO228/1	148	73	50	0,217
LU47	1 ¼" ISO228/1	182	103	71	0,523
LU57	1 ½" ISO228/1	182	103	71	0,456
LU67	2" ISO228/1	211	118	83	0,639
LU77	2 ½" ISO228/1	310	156	115	2,498
LU87	3" ISO228/1	310	156	115	1,961



ED.2019

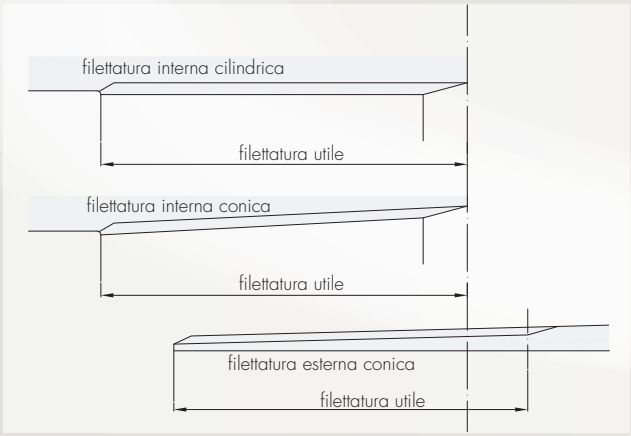
vendite@elfit.com info@elfit.com
www.elfit.com

TABELLA DI CORRELAZIONE FILETTATURE

Grandezza imbocco	Diametro filettatura imbocco "M" e "F"					
		Equivalenti coniche	Equivalenti cilindriche			
	GAS UNI ISO 7/1	NPT ANSI ASME B1.20.1	GAS UNI ISO 228/1	NPSM	PG DIN 4030	ISO METRICA
1/4"	1/4"	1/4"	1/4"	1/4"	PG9	M12x1,5
Codice	**02**	**02N**	**02C**	**02NC**	**2P**	**02I**
3/8"	3/8"	3/8"	3/8"	3/8"	PG11	M16x1,5
Codice	**01**	**01N**	**01C**	**01NC**	**3P**	**01I**
1/2"	1/2"	1/2"	1/2"	1/2"	PG13,5	M20x1,5
Codice	**1**	**1N**	**1C**	**1NC**	**4P**	**1I**
3/4"	3/4"	3/4"	3/4"	3/4"	PG16	M25x1,5
Codice	**2**	**2N**	**2C**	**2NC**	**5P**	**2I**
1"	1"	1"	1"	1"	PG21	M32x1,5
Codice	**3**	**3N**	**3C**	**3NC**	**6P**	**3I**
1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	PG29	M40x1,5
Codice	**4**	**4N**	**4C**	**4NC**	**7P**	**4I**
1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	PG36	M50x1,5
Codice	**5**	**5N**	**5C**	**5NC**	**8P**	**5I**
2"	2"	2"	2"	2"	PG42	M63x1,5
Codice	**6**	**6N**	**6C**	**6NC**	**9P**	**6I**
2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	PG48	M75x1,5
Codice	**7**	**7N**	**7C**	**7NC**	**10P**	**7I**
3"	3"	3"	3"	3"	-	M90x1,5
Codice	**8**	**8N**	**8C**	**8NC**	**-**	**8I**
4"	4"	4"	4"	4"	-	M100x1,5
Codice	**10**	**10N**	**10C**	**10NC**	**-**	**10I**

DIMENSIONI FILETTATURE (in mm)

Filettatura GAS UNI ISO 7/1											
Dimensione	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Passo	1,337	1,337	1,814	1,814	2,309	2,309	2,309	2,309	2,309	2,309	2,309
Ø esterno	13,157	16,662	20,955	26,441	33,249	41,910	47,803	59,614	75,184	87,884	113,030



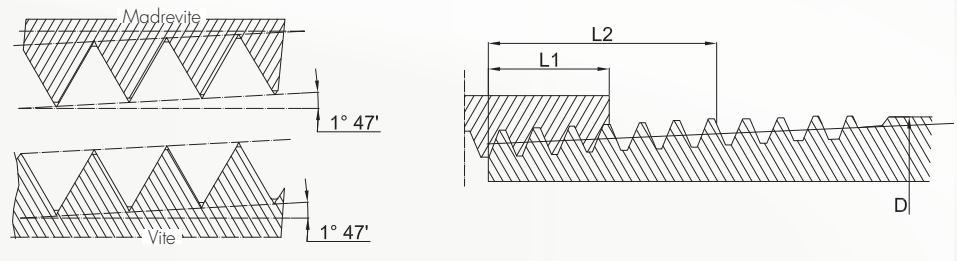
Esempio di designazione secondo UNI ISO 7/1
Esempio con filettatura da 1 1/4"

Filettatura interna	Conica	UNI ISO 7/1 - Rc 1 1/4"
	Cilindrica	UNI ISO 7/1 - Rp 1 1/4"
Filettatura esterna	Sempre conica	UNI ISO 7/1 - R 1 1/4"

Legenda:
Rp Filettatura interna cilindrica UNI ISO 7/1
Rc Filettatura interna conica UNI ISO 7/1
R Filettatura esterna (sempre conica) UNI ISO 7/1

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

Filettatura NPT - American standard ANSI B1.20.1											
Dimensione	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Passo	1,411	1,411	1,814	1,814	2,208	2,208	2,208	2,208	3,175	3,175	3,175
Filetti per pollice	18	18	14	14	11,5	11,5	11,5	11,5	8	8	8
Ø esterno D (del tubo)	13,716	17,145	21,336	26,670	33,401	42,164	48,260	60,325	73,025	88,90	114,30
Filettatura utile L2	10,206	10,358	13,556	13,861	17,343	17,953	18,377	19,215	28,892	30,480	33,020
Avvitamento L1	5,786	6,096	8,128	8,611	10,160	10,668	10,668	11,074	17,323	19,456	21,438



Filettatura GAS UNI ISO 228/1											
Dimensione	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Passo	1,34	1,34	1,81	1,81	2,31	2,31	2,31	2,31	2,31	2,31	2,31
Filetti per pollice	19	19	14	14	11	11	11	11	11	11	11
Ø esterno	13,16	16,66	20,96	26,44	33,25	41,91	47,80	59,61	75,18	87,88	113,03

Filettatura NPSM											
Dimensione	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Passo	1,411	1,411	1,814	1,814	2,209	2,209	2,209	2,209	3,175	3,175	3,175
Filetti per pollice	18	18	14	14	11,5	11,5	11,5	11,5	8	8	8
Ø esterno	13,716	17,145	21,336	26,670	33,401	42,164	48,260	60,325	73,025	88,900	114,30

Filettatura PG DIN 4030									
Dimensione	PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48
Passo	1,410	1,410	1,410	1,410	1,588	1,588	1,588	1,588	1,588
Filetti per pollice	18	18	18	18	16	16	16	16	16
Ø esterno	15,2	18,6	20,4	22,5	28,3	37,0	47,0	54,0	59,3

Filettatura ISO METRICA											
Dimensione	M12	M16	M20	M25	M32	M40	M50	M63	M75	M90	M100
Passo	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
Ø esterno	12	16	20	25	32	40	50	63	75	90	100

APPARECCHIATURA ANTIDEFLAGRANTE O STAGNA

Molto spesso le apparecchiature antideflagranti sono confuse con le apparecchiature stagne, anche negli ambienti tecnici. Questo deriva dall'errata convinzione che è possibile evitare un'esplosione cercando di impedire il contatto tra atmosfera esplosiva e fonte dell'innesco elettrico (scintilla, arco o punto caldo).
Questo può essere parzialmente vero se la sostanza pericolosa è una polvere in sospensione nell'aria, ma è una convinzione errata quando l'atmosfera esplosiva è rappresentata da un gas.
Questa convinzione può causare un uso improprio della custodia, ritenuta erroneamente stagna, come l'installazione in condizioni non idonee a garantirne la totale sicurezza.
Per analizzare correttamente il problema, dobbiamo fare un passo indietro e capire quali sono i principi sui quali si basa la protezione elettrica antideflagrante.
I principi sono tre:

- Contenimento
- Segregazione
- Prevenzione

- **Contenimento**
  Il modo di protezione 'Ex d', basato sul principio del contenimento, parte dal presupposto che non è possibile impedire in modo assoluto che un gas penetri in una custodia elettrica.
  Questo è il modo di protezione più antico, ma ancora oggi quello che viene più comunemente utilizzato e, conseguentemente, la maggior parte dei prodotti presenti sul mercato, sono 'Ex d'.
  La maggior parte delle applicazioni per l'impiantistica elettrica tradizionale può essere realizzato con questo modo di protezione.
- **Segregazione**
  Con questo principio si vuole impedire all'atmosfera esplosiva di venire a contatto con la fonte d'innesco.
  I sistemi utilizzati sono diversi: l'immersione dell'apparecchiatura innescante in olio, in sabbia o in resina. Questi sistemi, rispettivamente 'Ex o', 'Ex q', 'Ex m', sono utilizzati principalmente per proteggere componenti elettrici.
- **Prevenzione**
  La protezione è assicurata attraverso il sovradimensionamento delle apparecchiature che previene la creazione di scintille o archi elettrici, anche in condizioni di guasto.
  Questi sistemi ('Ex e', 'Ex i') valgono rispettivamente per sistemi di infilaggio e di giunzione o sono applicabili, nel caso della sicurezza intrinseca, a strumentazione o comunque ad apparecchiature che lavorano a potenze bassissime. Nessuno realizzerebbe mai un quadro elettrico di potenza di una raffineria attraverso un impianto a sicurezza intrinseca.
  Il modo di protezione 'Ex e', ossia la sicurezza aumentata, è utilizzabile da solo solamente per quelle apparecchiature che non possono scintillare come, ad esempio, le cassette di giunzione con morsetti.
  Nel caso in cui il sistema contenga apparecchiature scintillanti, queste dovranno essere protette singolarmente con un altro modo di protezione.

LA CLASSIFICAZIONE DELLE AREE DI PERICOLO

L'identificazione e classificazione delle zone di pericolo all'interno di un impianto chimico o petrolchimico devono essere realizzate da personale altamente qualificato il quale determina dove, all'interno dell'impianto, vi sia la presenza di atmosfera esplosiva continua o saltuaria.
I centri di maggior pericolo sono quelli in cui esiste la possibilità di presenza di gas o polveri combustibili durante il funzionamento ordinario o a causa di qualche guasto. È proprio la tipologia di presenza di gas o polvere combustibile all'interno di una specifica zona a determinarne la classificazione.
È tuttavia doveroso sottolineare il fatto che non vi è uniformità nella classificazione delle aree pericolose, per tale ragione qui di seguito vengono riportate le classificazioni in uso in Europa, corrispondenti alle internazionali IEC, e le rispettive classificazioni USA.

CORTEM GROUP®
ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

GAS

	**Zona 0**	Area in cui è presente in permanenza o per lunghi periodi o spesso un'atmosfera esplosiva consistente in una miscela di aria e di sostanze infiammabili sotto forma di gas, vapore o nebbia.	**Zona 1**	Area in cui durante le normali attività è probabile la formazione di un'atmosfera esplosiva consistente in una miscela di aria e di sostanze infiammabili sotto forma di gas, vapori o nebbia.	**Zona 2**	Area in cui durante le normali attività non è probabile la formazione di un'atmosfera esplosiva consistente in una miscela di aria e di sostanze infiammabili sotto forma di gas, vapore o nebbia e, qualora si verifichi, sia unicamente di breve durata.
	**Classe I, Divisione 1**				**Classe I, Divisione 2**	
	> 1.000 h/anno		**10 ÷ 1.000 h/anno**		**Classe 0,1 ÷ 10h/anno**	

Tab.1 Confronto tra la classificazione delle zone pericolose per la presenza di gas secondo le normative internazionali (IEC Zone System) e secondo le normative nord americane

POLVERI

	**Zona 20**	Area in cui è presente in permanenza o per lunghi periodi o spesso un'atmosfera esplosiva sotto forma di nube di polvere combustibile nell'aria.	**Zona 21**	Area in cui occasionalmente durante le normali attività è probabile la formazione di un'atmosfera esplosiva sotto forma di nube di polvere combustibile nell'aria.	**Zona 22**	Area in cui durante le normali attività non è probabile la formazione di un'atmosfera esplosiva sotto forma di nube di polvere combustibile e, qualora si verifichi, sia unicamente di breve durata.
	**Classe II, Divisione 1**				**Classe II, Divisione 2**	
	> 1.000 h/anno		**10 ÷ 1.000 h/anno**		**Classe 0,1 ÷ 10h/anno**	

Tab.2 Confronto tra la classificazione delle zone pericolose per la presenza di polveri secondo le normative internazionali (IEC Zone System) e secondo le normative nord americane

GRUPPI E CATEGORIE, EPL (Equipment Protection Level)

La Direttiva 94/9/CE prevede la seguente suddivisione:

- **Gruppo I:** prodotti il cui utilizzo è previsto nelle miniere e nei loro impianti di superficie dove può essere presente il grisù.
- **Gruppo II:** prodotti il cui utilizzo è previsto per siti in superficie con presenza di atmosfere esplosive.

I prodotti vengono poi suddivisi all'interno dei gruppi nel seguente modo:

Gruppo I

categoria M1: apparecchi che garantiscono un livello di protezione molto alto; essi devono rimanere alimentati in presenza di atmosfera esplosiva.

categoria M2: apparecchi che garantiscono un livello alto di protezione; ad essi deve poter essere interrotta l'alimentazione in presenza di atmosfera esplosiva.

Gruppo II

categoria 1: apparecchi che garantiscono un livello di protezione molto alto; essi sono destinati a luoghi in cui vi è, sempre o per lunghi periodi, presenza di atmosfera esplosiva.

categoria 2: apparecchi che garantiscono un livello di protezione alto; essi sono destinati a luoghi in cui vi è il probabile sviluppo di atmosfera esplosiva.

categoria 3: apparecchi che garantiscono un livello di protezione normale; essi sono destinati a luoghi in cui vi è scarsa probabilità che si sviluppi atmosfera esplosiva.

I numeri delle categorie del gruppo II (1, 2, 3) sono seguiti da una lettera maiuscola:

- G, per i gas;
- D, per le polveri combustibili.

Ad esempio: II 2G.

Sulla base delle definizioni del gruppo II e confrontando queste con quelle date dalla Direttiva 99/92/CE "ATEX 137", si crea un legame biunivoco, evidenziato nella Tabella 3, tra la categoria dell'apparecchiatura e la zona d'installazione.

	1	2	3
G	Zona 0	Zona 1	Zona 2
D	Zona 20	Zona 21	Zona 22

Tab.3 Correlazione tra la categoria dell'apparecchiatura e la zona d'installazione per il Gruppo II

Quello descritto fino ad ora è valido per l'Unione Europea. Al di fuori dell'UE, fino al 2007, le apparecchiature erano marcate con il solo modo di protezione. Pertanto, prendendo spunto dal sistema europeo, è stato creato l'EPL Equipment Protection Level (Tab. 4), sostituendo ai numeri "1", "2" e "3", le lettere "a", "b", "c".

	M1	M2	1G		2G		3G	
				1D		2D		3D
	Ma	Mb	Ga		Gb		Gc	
				Da		Db		Dc

Tab.4 Correlazione tra la categoria dell'apparecchiatura e il livello di protezione

Per quanto riguarda il gruppo III, relativo solo alle polverirecentemente, a livello di norma tecnica, le polveri sono state definite in tre sotto-categorie, similmente a quanto già da anni è stato fatto per i gas.

I sottogruppi sono:

- IIIA: particelle combustibili, ovvero "particelle solide, comprese le fibre, di dimensioni nominali > di 500 µm";
- IIIB: polvere non conduttrice, ovvero "particelle solide finemente suddivise, di dimensioni nominali ≤ di 500 µm, con resistività elettrica > di 103 Ωm";
- IIIC: polvere conduttrice, ovvero "particelle solide finemente suddivise, di dimensioni nominali ≤ di 500 µm, con resistività elettrica ≤ di 103 Ωm".

Come abbiamo descritto in precedenza, molto probabilmente il modo di protezione "Ex d" è il più vecchio modo di protezione e la sua applicabilità a molteplici tipologie di prodotti industriali ha permesso la sua grande diffusione.

Confrontando un'apparecchiatura normale ed una "Ex d", la prima caratteristica che risulta evidente è la robustezza di quest'ultima, dovuta al fatto che deve resistere meccanicamente senza deformarsi plasticamente, alla pressione interna generata dall'esplosione che può avere valori compresi normalmente tra 5 e 12 bar. Si tratta, quindi, di un modo di protezione in cui la protezione è fatta dall'apparecchiatura ed è l'unico basato sul contenimento dell'esplosione (tenuta alla pressione).

I componenti elettrici scintillanti sono racchiusi all'interno della custodia, la quale permette l'ingresso dell'atmosfera esplosiva ma, in caso di contatto tra questa e la sorgente di innesco (arco o scintilla), l'esplosione che ne consegue rimane confinata all'interno della custodia.

Mediante i giunti di laminazione, la fiamma si raffredda e il prodotto della combustione non è in grado di innescare la miscela presente all'esterno (tenuta alla fiamma). Se si sceglie il modo di protezione "Ex d", è necessario tenere in considerazione le seguenti prescrizioni particolari:

- non praticare ulteriori fori alle custodie oltre a quelli ammessi dal certificato;
- se l'ingresso in cavo ha una filettatura parallela, l'accoppiamento deve avere almeno 5 filetti completi in presa;
- se è previsto l'uso di una guarnizione, il numero di filetti in presa deve essere ancora sufficiente dopo l'inserimento della guarnizione;
- se la filettatura è conica, la connessione deve essere serrata a fondo;
- se serve un adattatore, esso deve essere conforme al modo di protezione "Ex d" (IEC 60079-1);
- gli ingressi cavo non utilizzati devono essere chiusi con elementi conformi al modo di protezione "Ex d" (IEC 60079-1).

CORTEM GROUP®

ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

LE CLASSI DI TEMPERATURA

Uno dei parametri di scelta di un'apparecchiatura elettrica che deve essere installata in luoghi con pericolo di esplosione è la Classe di Temperatura.
Molto speso questo parametro viene trascurato o sottovalutato, mentre rappresenta una delle caratteristiche principali della sicurezza dell'apparecchiatura.
Un'apparecchiatura elettrica che viene installata in una zona classificata, ove ci possa essere pericolo di esplosione per la presenza di gas, vapori, nebbie o polveri, deve essere scelta tenendo in considerazione che la sua temperatura massima superficiale non raggiunga mai, anche in condizioni di guasto, la temperatura di accensione della sostanza presente nell'atmosfera pericolosa.

• **Classi di temperatura per Gas**
Esiste un metodo standard di classificazione per definire le classi di temperatura di un determinato gas.
Tale standard, definito da IEC, ma recepito anche da CENELEC è riportato nella norma IEC 60079-4 "Method of test ignition temperature".
Attraverso questo metodo tutti i gas e i vapori infiammabili sono divisi in classi di temperatura. In accordo a tali classi, la temperatura superficiale massima raggiunta dalle apparecchiature sono tali per cui la temperatura di accensione non può mai essere raggiunta.
Nella norma sono definiti in modo dettagliato i valori massimi e i necessari margini di sicurezza per tali temperature.

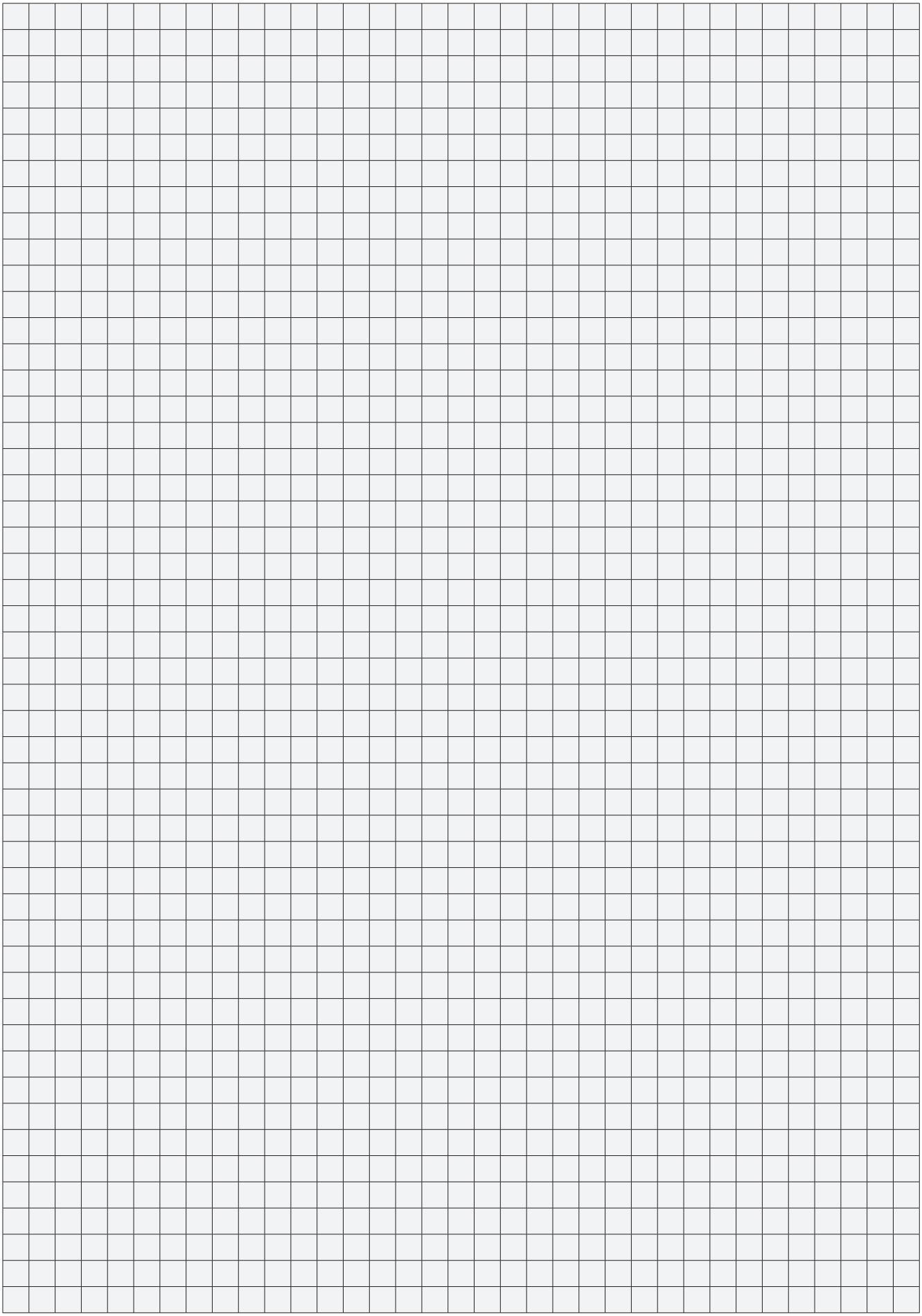
Classe di temperatura	Temperatura di accensione del gruppo di gas	Temperatura massima superficiale dell'apparecchiatura
T1	> 450 °C	400 °C
T2	> 300 ... ≤ 450 °C	300 °C
T3	> 200 ... ≤ 300 °C	200 °C
T4	> 135 ... ≤ 200 °C	135 °C
T5	> 100 ... ≤ 135 °C	100 °C
T6	> 85 ... ≤ 100 °C	85 °C

Tab.5 Le classi di temperatura

ED.2019
vendite@elfit.com info@elfit.com
www.elfit.com

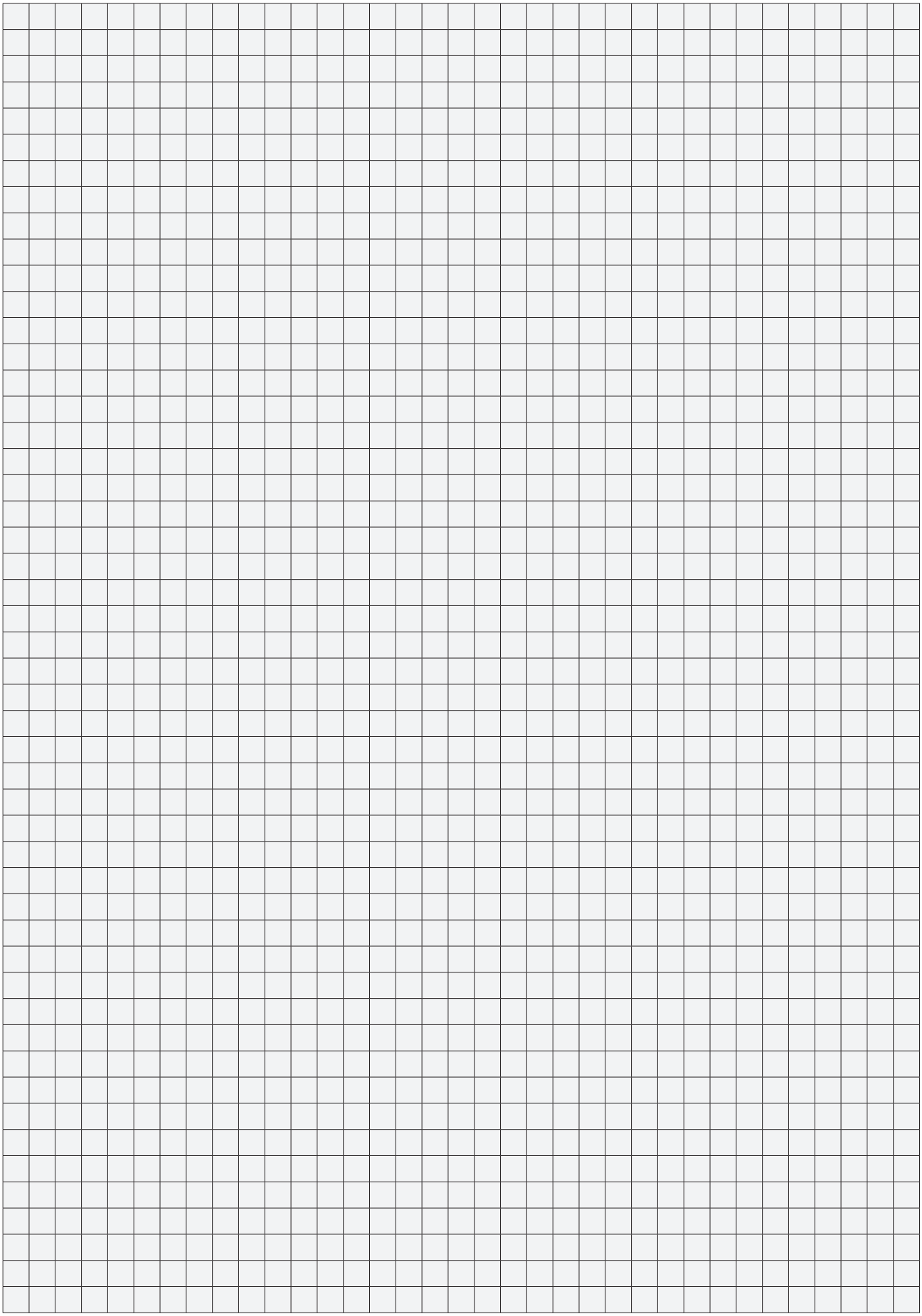
ED.2019

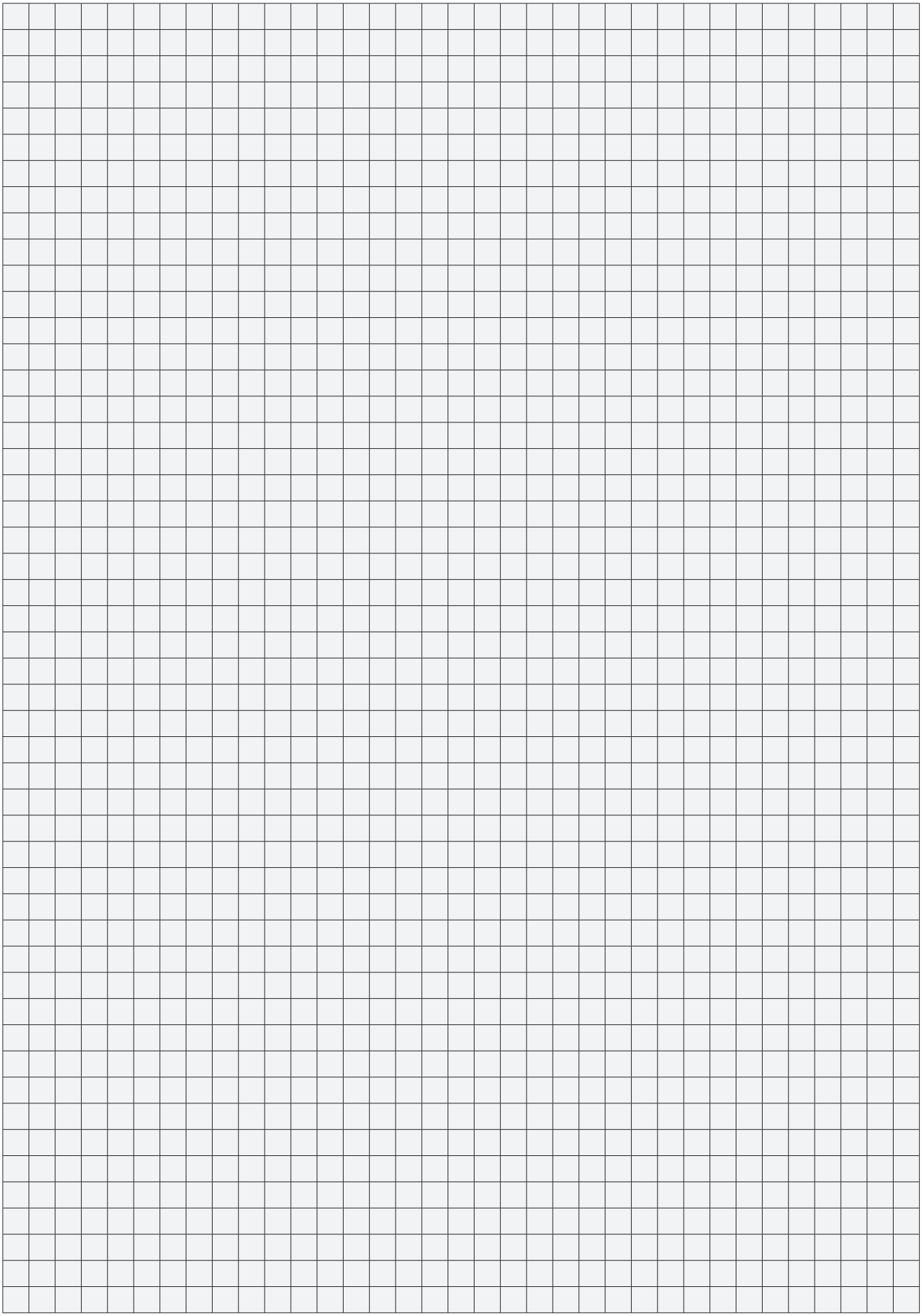
vendite@elfit.com info@elfit.com
www.elfit.com



ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com





ED.2019

vendite@elfit.com info@elfit.com
www.elfit.com

Product modifications and warranty

Cortem Group reserves the right, at its sole discretion, to make any modifications (at any time and without notice) in order to improve the functionality and performance of its products or meet technical and manufacturing requirements. The measurements and drawings of the products and their parts are indicative only and not binding, because they can be modified without notice.

The latest updated information, data and certificates of our products are available on www.cortemgroup.com web site.

All Cortem Group products are covered by warranty for a period of twelve months from the delivery date. For more information, refer to the “General Terms and Conditions of Sale” on www.cortemgroup.com web site.

Copyright

Works and Headquarters

Via Aquileia 12, 34070 Villesse (GO), Italia
tel. +39 0481 964911 r.a.
fax +39 0481 964999
info@elfit.com
vendite@elfit.com
www.elfit.com

CATELFIT09/18 - K300
Print: GRAFICA GORIZIANA

ELectrical FITtings for Hazardous Areas

Member of CORTEM GROUP

To be sure to be safe.