

ELSEWEDY
ELECTRIC



ELSEWEDY SEDCO
PETROLEUM SERVICES
SOLUTIONS



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Integrated Energy Solutions



Since our beginnings as a manufacturer of electrical components in Egypt 80 years ago, Elsewedy Electric has evolved into a global provider of energy, digital and infrastructure solutions, generating revenues of approximately 3 Billion USD annually. We operate in five key business sectors: Wire & Cable, Electrical Products, Engineering & Construction, Smart Infrastructure, and Infrastructure Investments. At the heart of our approach is an all-in-one integrated Engineering, Procurement & Construction (EPC) service which enables us to deliver even the most complex projects on time and within budget.

We are pioneers of energy management and efficiency. As part of our commitment to sustainability we have

established green energy and smart metering projects across Africa, the Middle East and Eastern Europe. A vital part of our mission is ensuring that the communities where we operate develop and flourish.

Our growth has been based on sound financials and a commitment to hiring talented individuals. As well as empowering businesses and communities, we have been a major contributor to the Egyptian, African and Middle Eastern economies.

Whichever stage you are at with your project we can help you through to completion and beyond.

A leader in integrated energy solutions



Integrated Energy Solutions

- Wire & Cable
- Electrical Products
- Engineering & Construction
- Smart Infrastructure
- Infrastructure Investments

Wire & Cable Business Line

- 12** Factories Worldwide
- 350^{k+} Tons** Annual Total Capacity
- UP TO 500KV** According to International Standards

We are a global wire and cable manufacturer with more than 40 years of experience in the industry. We pride ourselves for our superior product quality and numerous certifications. Our manufacturing capacity is close to 350k+ Tons annual total capacity located in several countries. We offer a wide range of power & special cables as well as cable accessories that are currently used in more than 100 countries worldwide.

Global Presence



About Elsewedy SEDCO



Elsewedy SEDCO is a subsidiary of Elsewedy Electric working as an integrated system for Electrical Bulk Material for the Oil & Gas Sector. The company is involved in providing oil & gas petrochemical, LNG, Nuclear power station, Hazard's Project with their special requirement for electrical material with comprehensive range of products and solutions to suit any application involving cables, cable accessories, cable fitting, Earthing & lightning systems, Explosion Proof, MV & LV switchgear. Elsewedy SEDCO is in technology partnership with a number of leading equipment manufacturers such as Cortem, CMP, INDELEC, ABB and Bimed. The company is certified by ISO 9001 & 14001 & 45001, holding

a team of highly skilled and motivated people with a broad base of experience, focused on providing cost effective, innovative and reliable solutions, engineered and supported locally. Elsewedy SEDCO has been successfully operating with Elsewedy Electric offices in the Middle East and Africa. Elsewedy SEDCO is committed to its market and intends to become the leading integrated system provider of special electrical material for all projects Oil & Gas Sectors.



Cable Accessories

- Standard Copper Lugs
- Cable Connectors
- 30 A Deadbreak Elbow (T Shape)
- Modular Terminators up to 36 kv
- Transmission Cable Terminations
- The Power Cable Joint
- Premolded joint up to 72.5 kv

Cable Accessories

Standard Copper Lugs

General Features

Seamless, one piece with high conductivity pure aluminum or pure copper 99.9% E.T.P tinned plated surface. Bimetallic lugs used for connection of aluminum cables to copper busbars, copper bushings.. etc.

•Types

- 1-STCL: Tubular Copper Lug according to DIN46235.
- 2-SSCL: Standard Copper Lug according to DIN13600.
- 3-STAL: Tubular Aluminum Lug according to DIN EN755-5
- 4-SBFL: Bi-Metallic Friction Lugs.
- 5-SBIL: Bi-Metallic Insert Lugs.



Cable Connectors

General Features

Seamless, one piece with high conductivity pure aluminum or pure copper 99.9% E.T.P tinned plated surface.

•Types

- 1-STCC : Tubular Copper Connectors according to DIN46267 part 1.
- 2-SSCC: Tubular Copper Connectors according to DIN13600.
- 3-STAC : Tubular Aluminum Connectors according to DIN EN755-7.



30 A Deadbreak Elbow (T Shape)

Application

The T-body is designed to provide fully-shielded, dead-front submersible cable connections to high-voltage apparatus. It can be used through 36 kV with conductor range up to 630 mm² for aluminum and copper conductors.

Features

The product mates with bushing interface with conforms to CENELEC EN 50181.



Cable Accessories

Modular Terminators up to 36 kv

Application

The Modular Terminators series are suitable for use with indoor and outdoor terminations on single-core and three-core solid dielectric cables confirming to the requirements of IEEE standard 48, IEC 60502-4 and CENELEC HD 629.1.

Typical uses for the Modular Terminators would be on riser poles either at the substation or on the distribution lines. The Modular Terminators can also be used on the switchgear and transformers.

Description

The Modular Terminators series are designed for use on extruded dielectric cables, and can be applied directly on cables with extruded semi-conductive shield. The Modular Terminators series are designed for aluminum or copper conductors with a diameter range over the insulation of 12.6 mm (0.495") to 50.2mm (1.975"). The Modular Terminators kit comes complete with the appropriate components to connect, ground and seal the termination.



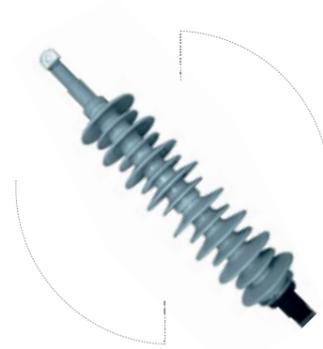
Transmission Cable Terminations

Application

The 69 TCT Terminator provides a termination for cable systems rated up to 69kV class. It conforms to IEC60840. This terminator is designed for solid dielectric cables with insulation diameters from 36.8mm to 62.2mm. Various lugs are available for the conductor connection, whereas durable elastomer construction eliminates glaze damage failures associated with porcelain.

Design Features

Molded EPDM elastomer housing is durable under severe environmental conditions. It does not require a surface oil/grease to maintain non-tracking properties. Shed design employs unequal diameters to interrupt the drip path from shed to shed. Housing is designed to slide over cable insulation to provide required creep path and water seal. Molded stress relief is computer designed to assure proper stress relief for the terminated cable.



Cable Accessories

The Power Cable Joints

Application

The Power Cable Joints are highly reliable, factory-molded and tested cable joints for 15kV, 25kV and 35(36) kV class distribution systems. When assembled, they provide permanent, fully shielded, fully submersible cable joints for direct burial or vault applications of solid dielectric single-core and three-core cables.

The Power Cable Joints are designed to meet or exceed the IEC 60502-4 standard as well as the rigid IEEE 404 standard. The Power cable joints offer the benefits of an optimum design for electrical stress control, they are factory molded for consistent high quality and are factory tested before field installation to insure maximum reliability. They are easy to install without special tools and they are easy to specify for various cable types.



Premolded joint up to 72.5 kv

Application

The Transmission Cable Joints are designed for use on solid dielectric cables with insulation diameters from 45mm to 77mm. When assembled, They provide permanent, fully-shielded, fully-submersible cable joints for direct burial or vault applications. A Transmission Cable joint is available for any application, with ambient temperature -40C up to 65C.

Features

All Transmission Cable Joints are factory molded and factory tested, providing maximum reliability. Factory molding ensures a level of insulation and shielding system integrity not achievable with field-fabricated insulation systems. The Transmission Cable Joints can be utilized in combination with various options for conductor connectors shielding and environmental sealing depending on the characteristics of the cable and the installations. All Transmission Cable Joints are designed with optimized stress control and heat transfer capabilities. You do not have to rely on the expertise of a field installer to fabricate a reliable joint. Premolded housing void-free joint housing consists of cured EPDM insulation bonded under pressure to cured molded semiconductive elements.



Explosion Proof Electrical Equipment

Explosion proof equipment

Introduction

Product Range

- LIGHTING FIXTURE
- OBSTRUCTION AND SIGNALLING LIGHTING FIXTURE
- JUNCTION BOXE
- PLUGS AND SOCKET
- CONTROL AND COMMAND EQUIPMENT

LED LIGHTING FIXTURE EVL SERIES

EVL series has been developed with the aim of redefining the concepts of compactness, versatility and ease of installation thanks to high intensity and efficiency LED plates.

EVL series consists of four lighting fixture sizes as it represents the LED alternative for all those areas where it was normal to use lighting fixtures with discharge lamps of low and medium power greater than 400W.

- Low Copper Content Aluminum Alloy Body.
- Available from 30W up to 220W Flood Light and High Bay.
- Stainless steel adjustable Bracket.
- "Ex e" Internal terminal junction box which allows the entry with a 'Ex e' cable gland (not barrier).
- The STANDARD of the aluminum alloy passed the tests for hot/humid cycles and salt mist tests.



Group II, Category 2GD
Ex de IIC T... Gb
Ex tb IIC T... °C Db
IP66
Zone 1-2-21-22

LED LIGHTING FIXTURE AND FLOODLIGHTS EWL SERIES

EWL series Floodlights and High bay lighting fixtures are designed according to the LED technical requirements in order to make the most of this new technology. EWL combines a light and compact design with high performance in terms of reliability, safety, efficiency and energy savings, ensuring unalterable brightness and light quality.

- Low Copper Content Aluminum Alloy Body.
- Models available in 40W , 55W , 110W , 177W and 188W.
- Alternative LED for 400W HPS and 700W MH.
- Stainless steel adjustable Bracket.
- "Ex e" Internal terminal junction box which allows the connection with an 'Ex e' cable gland (not barrier).



Group II, Category 2GD
Ex de op is IIIC T... Gb
Ex tb IIIC T... °C Db
IP66
Zone 1-2-21-22

LED LIGHTING FIXTURE AND FLOODLIGHTS SLED SERIES

SLED series floodlights with LED technology combine lightweight, compact design and high performance in terms of reliability, safety, efficiency and energy saving. SLED are characterized by LEDs with optics "square shaped beam" that permits a light distribution and a perfectly uniform lighting in every direction. The finned body of the floodlight acts as a heat sink for the LED plate, allowing the installation of greater light output without incurring the deterioration of the LEDs.

- Low Copper Content Aluminum Alloy Body.
- Models available from 122W up to 500W.
- Galvanized steel adjustable bracket.
- "Ex e" Internal terminal junction box for fast connection.



Group II, Category 2GD
Ex de mb IIB+H2 T5/T6 Gb
Ex tb IIIC T100°C T85°C Db
IP66
Zone 1-2-21-22

Explosion Proof Electrical Equipment

LED LIGHTING FIXTURES

EXEL-L SERIES

EXEL-L series increased safety lighting fixtures for LED strips are suitable to be installed in hazardous areas. EXEL-L equipped with LED strips sealed in a transparent resin. The through wiring double ended makes installation on field easier and faster. The transparent cover is clipped into place on both sides of the fixture body ensuring excellent protection against dust and water.

- Black Shock and UV resistant Fiberglass Reinforced Body.
- Four models available in normal operation for Lamps 17W up to 56W.
- Emergency versions with Ni-Cd battery with electronic inverter for up to 4 hours.
- Internal "Ex de" safety switch.
- "Ex e" Internal terminal junction box 4mm².



Group II, Category 2GD
Ex de mb op is IIC T6/T5 Gb
Ex tb op is IIIC T...°C Db
IP 66
Zone 1-2-21-22

LED LIGHTING FIXTURES

LifEx SERIES

LIFEX lighting fixtures are the first LED native linear fixtures, featuring an innovative design created in response to customer requirements. They have an innovative bracket mechanism, with no fixed interaxis spacing limitations, which makes them easy to install or retro-fit and means the lighting fixture can be rotated to -30°/0°/+30°. The use of high-power LED strip lights provides a lumen output from 1,000 lm to 15,500 lm, making the range highly efficient and long lasting in terms of its electronics and light engineering.

- Low Copper Content Aluminum Alloy Body.
- Available in two different configurations for different applications, designated as the LifEx-ME and LifEx-MN.
- LifEx series lighting fixture with Kit for additional protection cage complete with support brackets and screws in stainless steel.
- Models available in normal operation for lamps 15W up to 120W for LifEx-ME and up to 90 W for LifEx-MN.
- Emergency versions with Ni-Mh battery with electronic inverter for up to 3 hours.



Group II, Category 2GD
LifEx-ME: Ex de mb IIC T..
Gb - Ex tb IIIC T..°C Db
LifEx-MN: Ex ec IIC T..Gc
Ex tb IIIC T..°C Db
IP66
LifEx-ME: Zone 1-2-21-22
LifEx-MN: Zone 2-21-22

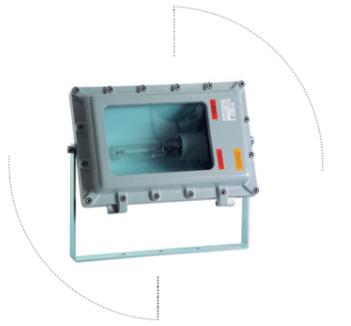
Explosion Proof Electrical Equipment

HORIZONTAL RECTANGULAR FLOODLIGHTS

SLEE SERIES

SLEE series floodlights are suitable for installation in environments where hydrogen (H₂) is present. SLEE are certified with a high degree of mechanical protection (IP67) and provide a symmetrical and concentrated distribution of the luminous flux.

- Low Copper Content Aluminum Alloy Body.
- Available for lamps 250W and 400W.
- Galvanized steel adjustable bracket.
- "Ex e" Internal junction box which allows the entry to the lighting fixture through a cable gland with an "Ex" O-ring (non barrier).



Group II, Category 2GD
Ex de IIB + H2 T2/T3/T4
Ex tD A21
IP66/67
Zone 1-2-21-22

RECTANGULAR FLOODLIGHTS

TIGER SERIES

TIGER series floodlights are ideal for lighting large areas, especially fitted with an asymmetrical reflector, TIGER provides a concentrated beam of light exactly where it is required. The high degree of protection IP66 combined with an optimum efficiency at low (-50° C) and high (+60° C) temperatures, makes TIGER floodlights suitable for the use in extreme environment conditions.

- Die-Cast Aluminum Alloy Body.
- Available for lamps from 150W up to 400W.
- Galvanized steel adjustable bracket.
- Anti-corrosion aluminum clips and stainless steel hinge.



Group II, Category 3GD
Ex nR IIC T2/T3
Ex tc IIIC T145°C /
T210°C Dc
IP66
Zone 2-22

LIGHTING FIXTURES FOR FLUORESCENT TUBES

EXEL SERIES

EXEL series fluorescent lighting fixtures have great mechanical strength and can be installed in hazardous areas. EXEL is highly reliable, thanks to the EOL Protected system which allows the fluorescent tube to exhaust and shut down safely and securely.

- Black Shock and UV Resistant Fiberglass Reinforced Body.
- Models available in normal operation for Lamps 18W up to 2x36W.
- Emergency versions with Ni-Cd battery with electronic inverter for up to 3 hours.
- Internal "Ex de" safety switch.
- Dual channel electronic ballast.
- "Ex e" Internal terminal junction box 4mm².



Group II, Category 2GD
Ex de IIC T4 Gb
Ex de mb IIC T4 Gb
Ex tb IIIC T70°C, T80°C Db
IP66
Zone 1-2-21-22

Explosion Proof Electrical Equipment

LED OBSTRUCTION LIGHTING FIXTURES XLFE-MIB, XLFE-MIA SERIES

XLFE-MIB and XLFE-MIA series obstruction lighting fixtures are suitable to be installed on towers or high buildings as obstacle signaling devices.

- Low Copper Content Aluminum Alloy Body.
- 2000 candles for medium intensity XLFE-MIB.
- 20,000 candles in daytime operation and 2,000 candles in nighttime operation for medium intensity XLFE-MIA.
- XLFE-MIB is available in 30W and XLFE-MIA available in 60W.
- XLFE-MIB (red) and XLFE-MIA (white) comply with the ICAO Annex 14 standard.



Group II, Category 2GD
XLFE-MIA: Ex de op is IIC T4 Gb-Ex tb op is IIIC T110°C Db
XLFE-MIB: Ex de op is IIC T4 Gb-Ex tb op is IIIC T110°C Db
IP66
Zone 1-2-21-22

EMERGENCY SIGNALLING LIGHTING FIXTURES FOR FLUORESCENT TUBES AND LED STRIPS EVF-18X, LFED, LFEE SERIES

EVF-18X, LFED and LFEE series lighting fixtures are designed for lighting and identifying emergency exits or escape routes in the event of danger. LFED and LFEE switch on automatically if there is a power failure, and lasts between 3 and 5 hours for LFED and up to 6 hours for LFEE depending on the capacity of the chosen batteries.

- LFED/EVF-18X:- Low Copper Content Aluminum Alloy Body.
- LFEE: Stainless Steel AISI 316L Body.
- Tempered glass window printed with a pictogram and a resin LED strip light for LFED and LFEE.
- or UV-resistant poly carbonate window printed with a pictogram and LED strip light for LFEE.
- EVF-18X, LFED and LFEE are available for normal and emergency operation.
- EVF-18EX series is equipped with an electronic ballast for 8W fluorescent lamps.



Group II, Category 2GD
EVF-18X: Ex d IIC T5 Gb Ex tD A21
LFED: Ex d op is IIB+H2 T6 Gb Ex tb op is IIIC T72°C Db
LFEE: Ex de mb op is IIC T... Gb Ex tb op is IIIC T...°C Db
IP66
Zone 1-2-21-22

Explosion Proof Electrical Equipment

OBSTRUCTION LIGHTING FIXTURES XLI , XLF SERIES

XLI and XLF 1-2 series obstruction lighting fixtures are ideal for installation on towers, bridges and high buildings. Their small size, light weight, ease of installation and robustness helps XLF and XLI series maintain a low depreciation rate over time especially in salty environments.

- Low Copper Content Aluminum Alloy Body.
- Possibility of double lighting fixture wired and sealed to the junction box.
- Different colors available.
- XLI series is suitable for lamps up to 100W.
- XLF 1-2 series is suitable for lamps up to 16 Joule.



Group II, Category 2GD
XLF: Ex d IIC T5 Gb Ex tb IIIC Db
XLI: Ex d IIC T... Gb Ex tb IIIC T...°C Db
IP66
Zone 1-2-21-22

JUNCTION BOXES EJB-..., EJB...W SERIES

EJB-... series junction boxes are used either as junction boxes with/without terminals or for installation of electrical equipment such as circuit breakers, signals, remote control switches and transformers.

EJB...W series instrument housing boxes, with one or two circular windows, are suitable for containing analogical and digital measuring instruments.

- Low Copper Content Aluminum Alloy Body.
- Stainless steel hinges mounted as standard on the long side with predisposition of mounting on the short side.
- EJB Body and Cover can be drilled and threaded according to customers' specification.



Group II, Category 2GD/2(1)GD
Ex d IIB+H2 Gb - Ex tb IIIC Db
Ex d IIB+H2 T... Gb - Ex tb IIIC T...°C Db
Ex d [ja Ga] IIB+H2 T... Gb - Ex tb IIIC T...°C Db
IP66/67
Zone 1-2-21-22

JUNCTION BOXES CCA...E SERIES

CCA...E series junction boxes are used either as junction boxes with/without terminals or for installation of electrical equipment such as fuses, relays, disconnectors, remote control switches, transformers, ballast.

CCA...EH series instrument housings, supplied with a round viewing window, are suitable for containing analogue and digital measuring instruments such as ammeters and voltmeters.

- Low Copper Content Aluminum Alloy Body.
- Cast Aluminum feet for mounting.
- CCA...E can be drilled and threaded according to customers' specification.



Group II, Category 2GD
Ex d IIC Gb - Ex tb IIIC Db
Ex d IIC T6/T5 - Ex tb IIIC T85°C, T100°C Db
Ex d [ja Ga] IIC T... Gb - Ex tb [ja Da] IIIC T...°C Db
IP66
Zone 1-2-21-22

Explosion Proof Electrical Equipment

JUNCTION BOXES EJBX SERIES

EJBX SERIES series junction boxes in stainless steel have mechanical and anti-corrosion features superior than boxes in aluminum alloy, making them suitable for chemically aggressive and extreme environments as marine one. EJBX are used either as junction boxes with/without terminals or for installation of electrical equipment.

- AISI 316L Stainless Steel Body.
- Stainless Steel hinges and Stainless Steel hand with mounting brackets included.
- EJBX can be drilled and threaded according to customers' specification.



Group I/II, Category M2/2GD/2(1) GD
 Ex d IIB+H2 Gb - Ex tb IIIC Db
 Ex d IIB+H2 T... Gb - Ex tb IIIC T...°C Db
 Ex d [ia Ga] IIB+H2 T... Gb - Ex tb IIIC T...°C Db
 Ex d I Mb
 Ex d [ia Ma] I Mb
 P66/67
 Zone 1-2-21-22

JUNCTION BOXES SA, SA/P SERIES

SA, SA/P series junction boxes are suitable for electrical installations as increased safety boxes or intrinsically safety boxes.

SA, SA/P can be supplied with multipolar or modular terminal strips and they can be equipped with pilot lights, push buttons and measuring instruments to assemble control and signaling panels.

- SA: Low Copper Content Aluminum Alloy Body.
- SA/P: Black Shock and UV Resistant Fiberglass Reinforced Body.
- SA is available in lightweight and heavy-duty series.
- SA/P can be included with brass continuity plate for earthing.
- SA,SA/P can be drilled according to customers' specification.



Group II, Category 2GD
 Ex e IIC T... Gb - Ex tb IIIC T75°C/ T110°C Db
 Ex e ia IIC T... Gb -
 Ex ia IIIC T75°C/T110°C Db
 Ex e ia IIC T... Gb -
 Ex tb ia IIIC T75°C/T110°C Db
 Ex de IIC T6/T5 Gb - Ex tb IIIC T85°C/T100°C Db
 IP66
 Zone 1-2-21-22

Explosion Proof Electrical Equipment

JUNCTION BOXES CTB... SERIES

CTB...CSTB series junction boxes in stainless steel are suitable for electrical installations as increased safety or intrinsically safety boxes.

CTB...CSTB can be supplied with multipolar or modular terminal strips and they can be equipped with pilot lights, push buttons and measuring instruments.

- AISI 316L Stainless Steel Body.
- Stainless Steel hinges (included on CTB series, not included on CSTB series).
- Can be supplied with removable gland plates and padlocking system (Upon request).
- CTB...CSTB can be drilled and threaded according to customers' specification.



Group II, Category 2GD
 Ex e IIC T... Gb - Ex tb IIIC T75°C/ T110°C Db
 Ex e ia IIC T...Gb - Ex ia IIIC T75°C/ T110°C Db
 Ex e ia IIC T... Gb -Ex tb IIIC T85°C/ T100°C Db
 Ex de IIC T6/T5 Gb - Ex tb IIIC T85°C/ T100°C Db
 IP 66
 Zone 1-2-21-22

PLUGS AND SOCKETS PY, SPY SERIES

PY series sockets are equipped with an interlocked disconnecting switch, and are suitable for every explosive atmosphere. PY are joined up to SPY plugs and the electric circuit is connected only after the SPY series plug has been correctly inserted into its seat, and ensures it can only be removed once the electrical circuit has been disconnected.

- Low Copper Content Aluminum Alloy Body.
- Current rating from 16A up to 32A.
- The range include 2P+E, 3P+E and 3P+N+E.



Group II, Category 2GD
 Ex d IIC T6 Gb; Ex tb IIIC T76°C Db
 IP65
 Zone 1-2-21-22

Explosion Proof Electrical Equipment

PLUGS AND SOCKETS FSQC, FP SERIES

FSQC series sockets are equipped with an interlocked disconnecting switch, are suitable for every explosive atmosphere. Equipment energizing is achieved by inserting the FP plug, FSQC are therefore suitable for single phase or three phase loads.

- Low Copper Content Aluminum Alloy Body.
- Current rating from 10A up to 63A.
- The range includes 2P+E and 3P+E.



Group II, Category 2GD
Ex d IIC T6 Gb Ex tb IIIC T85°C
Db
IP 65
Zone 1-2-21-22

PLUGS AND SOCKETS EPC, EPRC, AP SERIES

EPC, EPRC series sockets are suitable for the powering of welding equipment, compressors, generators and large mobile equipment in general. EPC, EPRC are equipped with an automatic circuit breaker with both thermal and magnetic protection for electrical loads and a default trip current threshold.

- Low Copper Content Aluminum Alloy Body.
- Current rating from 63A up to 125A.
- The range includes 2P+E, 3P+E and 3P+N+E.



Group II, Category 2GD
Ex d IIC T6 Gb Ex tb IIIC T85°C
Db
IP 66
Zone 1-2-21-22

CONTROL STATIONS A, I, P SERIES

P and I series control stations are suitable for housing electrical command and signal devices. They can be installed both on board the machine or remotely, and are used in the chemical, petrochemical and pharmaceutical industries.

- A series is in Aluminum Alloy, I series is in Stainless Steel while P series is in Glass Reinforced Resin.
- A, I, P series are supplied with cable gland. Wide range of models and accessories available.
- Stainless Steel screws.



Group II, Category 2GD
Ex de IIC T6, T5 Gb
Ex tb IIIC T85°C Db
IP66
Zone 1-2-21-22

Explosion Proof Electrical Equipment

ROTARY SWITCHES ROUND INSTRUMENT HOUSINGS CSC, EFSCO, EMHA-9, CSC-H SERIES

CSC and EFSCO series Switches and change-over switches are rotary type models with a front control handle.

- Low Copper Content Aluminum Alloy Body.
- CSC switches have a range of 16A whereas EFSCO series have ranges up to 63A.
- CSC and EFSCO are also available in Stainless Steel (special request).

EMHA-9 and CSC-H series instrument housings are normally used to contain analogical instruments such as ammeters and voltmeters.

- CSC-H series instrument housings may be supplied with a single or a double unit.
- EMHA is also available in stainless steel and cast iron (upon request).
- Stainless Steel screws and wall fastening lugs.



Group II, Category 2GD
CSC: Ex d IIC T...Gb Ex tb IIIC T...°C Db
EFSCO: Ex d IIC T5/T6 Gb Ex tb IIIC T...°C Db
EMHA-9: Ex d IIC T5/T6 Gb Ex tb IIIC T...°C Db
IP 66
Zone 1-2-21-22

ELECTRONIC GROUNDING SYSTEM GRD 4200 SERIES

GRD 4200 series electronic earthing system ensures grounding of tankers and tank trucks during the transfer of flammable liquids, preventing the formation of electrostatic charges.

During the entire loading and unloading phase, the device checks that the equipotentiality of the earthing system is maintained.

- Low Copper Content Aluminum Alloy Body.
- Bipolar Pliers casting with aluminum handles in neoprene.
- Yellow cable of Length 8m is Suitable for extremely high mechanical stresses.
- Selector, red "stop" indicator light and green "go" indicator light on the cover.



Group II, Category 2GD
Ex d [ia Ga] ia IIB T6 Gb
Ex tb [ia Da] ia IIIC T85°C Db
IP66
Zone 1-2-21-22



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

Introduction

Product Range

- Hazardous, Unarmored Cable Gland
- Hazardous, Armored Cable Gland
- Industrial, Unarmored Cable Gland
- Industrial, Armored Cable Gland
- Cable Gland Accessories

Industrial, Hazardous Area Cable Glands And Accessories (CMP)

A2F Unarmored Cable Gland

A2F Globally Approved, Single Seal.
Explosive Atmosphere Cable Gland.
For all types of Unarmoured & Braided Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66, IP67 & IP68.

- Brass, Nickel Plated Brass, Stainless Steel, Aluminum
- Displacement type flameproof seal.
 - Deluge protected.
 - °60-C to °130+C.
 - Globally marked, IECEx, ATEX & CSA.



E1FW SWA Cable Gland

E1FW Globally Approved, Double Seal.
Explosive Atmosphere Cable Gland.
For all types of Steel & Aluminum Wire.
Armoured Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66.

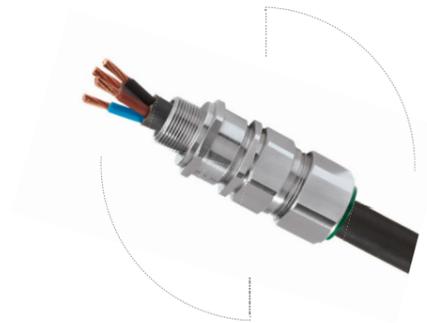
- Brass, Nickel Plated Brass, Aluminum
- Direct & remote installation.
 - Displacement type flameproof inner seal.
 - Controlled outer 'load retention' seal.
 - Unique OSTG prevents overtightening.
 - -60°C to +130°C.
 - Superior EMC performance.



E1FX STA Cable Gland

E1FX Internationally Approved, Double Seal.
Explosive Atmosphere Cable Gland.
For Braided & Steel Tape Armoured Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66.

- Brass, Nickel Plated Brass, Aluminum
- Direct & remote installation.
 - Displacement type flameproof inner seal.
 - Controlled outer 'load retention' seal.
 - Unique OSTG prevents overtightening.
 - -60°C to +130°C.
 - Superior EMC performance.



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

E2FW Lead Sheathed SWA cable gland

E2FW Globally Approved, Double Seal.
Explosive Atmosphere Cable Gland.
For Lead Sheathed Steel & Aluminum Wire.
Armoured Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66.

- Brass, Nickel Plated Brass, Aluminum
- Metal-to-metal armour clamping.
 - Direct & remote installation.
 - Displacement type flameproof inner seal.
 - Controlled outer 'load retention' seal.
 - -60°C to +130°C.
 - Superior EMC performance.



E2FX Lead Sheathed STA cable gland

E2FX Internationally Approved, Double Seal
Explosive Atmosphere Cable Gland
For Lead Sheathed Braided & Steel Tape Armoured Cables
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb
IP66

- Brass, Nickel Plated Brass, Aluminum
- Metal-to-metal armour clamping
 - Direct & remote installation
 - Displacement type flameproof inner seal
 - Controlled outer 'load retention' seal
 - -60°C to +130°C
 - Superior EMC performance



TE1FU Universal cable gland

TE1FU Globally Approved, Double Seal.
Explosive Atmosphere Cable Gland.
For all types of Armoured Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66, IP67 & IP68.

- Stainless Steel
- Reduces installation times, cost & risk.
 - Direct & remote installation.
 - Integral protected deluge seal.
 - Controlled outer 'load retention' seal.
 - -60°C to +130°C.
 - Superior EMC performance.



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

PX2K Barrier Cable Gland

PX2K Globally Approved, Double Seal
Explosive Atmosphere Barrier Cable Gland
For all types of Armoured Cables.
II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb.
IP66, IP67 & IP68.

- Brass, Nickel Plated Brass, Stainless Steel, Aluminum
- Metal-to-metal armour clamping.
 - Direct & remote installation.
 - Compound barrier type flameproof seal.
 - Controlled outer 'load retention' seal.
 - Integral protected deluge seal.
 - - 60°C to +85°C.



A2 Unarmoured Cable Gland

A2 Industrial Cable Gland, Single Seal
For all types of Unarmoured & Braided Cables.
IP66, IP67 & IP68.

- Brass, Nickel Plated Brass, Stainless Steel, Aluminum
- High quality durable materials.
 - Robust, heavy duty design.
 - Displacement type seal.
 - Deluge protected.
 - -60°C to +130°C.



CW SWA Cable Gland

CW Industrial Cable Gland, Single Seal
For all types of Steel & Aluminum Wire.
Armoured Cables.
IP66.

- Brass, Nickel Plated Brass, Stainless Steel, Aluminum
- Robust, heavy duty design.
 - Metal-to-metal armour clamping.
 - Direct & remote installation.
 - -60°C to +130°C.
 - Deluge protection option.



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

CX STA Cable Gland

CX Industrial Cable Gland, Single Seal
For Braid, Pliable Wire & Steel Tape.
Armoured Cables.
IP66.

- Brass, Nickel Plated Brass, Stainless Steel, Aluminum
- Robust, heavy duty design.
 - Metal-to-metal armour clamping.
 - Direct & remote installation.
 - -60°C to +130°C.
 - Deluge protection option.
 - EMC tested.



E1W SWA Cable Gland

E1W Industrial Cable Gland, Double Seal
For all types of Steel & Aluminum Wire.
Armoured Cables.
IP66.

- Brass, Nickel Plated Brass, Aluminum
- Metal-to-metal armour clamping.
 - Direct & remote installation.
 - Secure against self-loosening.
 - Deluge protection option.
 - -60°C to +130°C.
 - EMC tested.



E1X STA Cable Gland

E1X Industrial Cable Gland, Double Seal
For Braid & Steel Tape.
Armoured Cables.
IP66.

- Brass, Nickel Plated Brass, Aluminum.
- Metal-to-metal armour clamping.
 - Direct & remote installation.
 - Secure against self-loosening.
 - Deluge protection option.
 - -60°C to +130°C.
 - EMC tested.



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

737 Adaptors & Reducers

737 Adaptors & Reducers, Globally Approved, Explosive Atmosphere Cable / Conduit Accessory

II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb
IP66, IP67 & IP68

Brass, Nickel Plated Brass, Stainless Steel, Nylon, Aluminum

- Used for thread conversion
- Wide range of thread types & sizes
- General purpose / industrial version available
- Equipment interface 'O' ring seal available
- -60°C to +200°C (metallic versions)



757&767 Stopper Plug

757&767 Stopper Plug, Globally Approved, Explosive Atmosphere Cable / Conduit Accessory

II 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb
IP66, IP67 & IP68

Brass, Nickel Plated Brass, Stainless Steel, Nylon, Aluminum

- Provides means of blanking unused cable entries
- Temporary or permanent
- General purpose / industrial version available
- Equipment interface 'O' ring seal available
- -60°C to 200°C (metallic versions)



LOCKNUTS

Brass, Stainless Steel, Aluminum, Zinc Plated Mild Steel

Locknuts are recommended for securing cable glands and accessories to a gland plate or into equipment. Available in metric and NPT threads. Metric locknuts offered in a choice of standard duty and heavy duty options up to M32.



Industrial, Hazardous Area Cable Glands And Accessories (CMP)

EARTH TAGS

Nickel plated Brass, Stainless Steel, Aluminum

Earth Tags are installed between the Cable Gland and equipment, provide an earth bond connection, Earth tags have been independently short circuit tested to verify their suitability under specified service conditions.



SERRATED WASHERS

Stainless steel

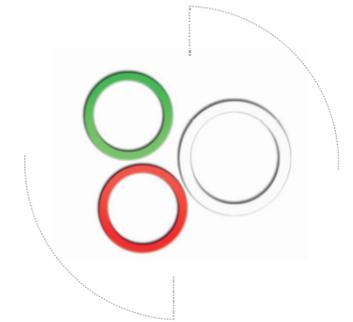
'Shake-proof' Serrated Washers are fitted internally to the equipment before a locknut and act as an anti-vibration device to prevent the cable gland or accessory from inadvertently loosening in service.



ENTRY THREAD SEALING WASHERS

Nylon

Sealing Washers used to maintain the ingress protection rating between the equipment and the cable gland, Available in Metric thread with white nylon and red fibre and NPT thread with green nylon.



SHROUDS

PVC,LSF

Shrouds minimize the risk of dirt or foreign substances gathering on the cable gland and the cable to cable gland interface. Shrouds are available in a variety of colors.



Industrial, Hazardous Area Cable Glands And Accessories (Bimed)

Industrial, Hazardous Area Cable Glands And Accessories (Bimed)

Introduction

Product Range

- Standard Cable Glands with Thread, Brass
- Armoured Cable Glands
- Corrosion Proof Cable Gland for SWA and AWA Cables
- EMC Cable Glands, Brass
- Orion SWA Cable Gland
- E-Octans Unarmoured Cable Gland
- E-Hydrus Unarmoured Cable Gland

Standard Cable Glands with Thread, Brass

Brass cable glands with lamellar clamping

- For standard industrial applications in harsh environments.
- Easy assembly.
- High quality strain relief and sealing, reliable performance for standard industrial applications.
- Up-to-date international approvals.



Armoured Cable Glands

Cable glands for armoured cables

- Specially designed cable glands for armoured cables. Large temperature range applications.
- Easy assembly: install cable gland - prepare steel wires - insert cable - tighten cap.
- High quality strain relief and sealing, reliable performance for standard industrial applications.



Corrosion Proof Cable Gland for SWA and AWA Cables

Cable Gland with Hybrid Structure (Brass and Polyamide)

- No need for a shroud against the corrosive environment.
- Inspectionability of armor clamping.
- Halogen-free materials.
- Armour earth continuity thanks to metal armor ring and body.
- High-quality strain relief and reliable sealing performance for standard industrial applications.



Industrial, Hazardous Area Cable Glands And Accessories (Bimed)

EMC Cable Glands, Brass

- Specially designed EMC protective cable glands.
- Long-lasting contact by high definition contact spring.
- Moving spring contact offers reduced risk of sheath damage.
- Easy assembly: install cable gland - prepare cable sheath - insert cable - tighten cap.
- High quality strain relief and sealing, reliable performance for EMC applications.
- Up-to-date international approvals.



Orion SWA Cable Gland

Orion and orion lead sheathed explosive atmospheres cable gland

- **Seal Material:** CR (Chloroprene Rubber), Silicone
For Steel & Aluminum Wire Armoured Cables.
- Ex II 2GD Ex db IIC Gb / Ex eb IIC Gb / Ex tb IIIC Db.
- IP68 - 5 Bar, 30 min.
- IP66.
- Brass, Brass Nickel Plated, Stainless Steel, Aluminium.
- **Standard:** -40°C / +100°C (Chloroprene Rubber) -60°C / +130°C (Silicone).
- **LT Type:** -40°C / +80°C (Chloroprene Rubber) -60°C / +80°C (Silicone).



Industrial, Hazardous Area Cable Glands And Accessories (Bimed)

E-Octans Unarmoured Cable Gland

E-Octans explosive atmospheres cable gland

- **Seal Material:** CR (Chloroprene Rubber), Silicone
For Unarmoured Cables.
- Ex II 2GD.
- Ex d IIC Gb / Ex e IIC Gb / Ex tb IIIC Db.
- IP68 - 5 Bar, 30 min.
- IP66.
- Brass, Brass Nickel Plated, Stainless Steel, Aluminium.
- **Ex d/tb:** -40°C / +80°C (Chloroprene Rubber) -60°C / +80°C (Silicone).
- **Ex e/tb:** -40°C / +80°C (Chloroprene Rubber) -60°C / +140°C (Silicone).



E-Hydrus Unarmoured Cable Gland

E-Hydrus explosive atmospheres cable gland

- **Seal Material:** CR (Chloroprene Rubber), Silicone.
- **Ferrule:** Steel Zinc Plated, Brass Nickel Plated
For Unarmoured Cables.
- Ex II 2GD.
- Ex d IIC Gb / Ex e IIC Gb / Ex tb IIIC Db.
- IP68 - 5 Bar, 30 min.
- IP66.
- Brass, Brass Nickel Plated, Stainless Steel.
- **Ex d/tb:** -40°C / +80°C (Chloroprene Rubber) -60°C / +80°C (Silicone).



Earthing System

- Earthing Conductors
- Earth Rods
- Earth Rods Clamps
- Earth Bars
- Earthing Accessories
- SWD WELDING
- Lightning System
- Conductor Accessories

Earthing System

Earthing Conductors

Bare Tape

Part No.	Conductor material	Thickness	Width
BCT	Copper	1.5-7mm	12.5-70mm
BCTT	Tinned Copper	1.5-6mm	12.5-50mm
BCTG	Galvanized Steel	2.5-7mm	12.5-50mm

- Other sizes available upon request.



Bare Solid Conductor

Part No.	Conductor material	Diameter (A)	Cross sectional area	Weight per metre
BCC-8	Copper	8mm	50mm ²	0.44kg
BCA-8	Aluminum	8mm	50mm ²	0.12kg

- Other sizes available upon request.



Bare Stranded Conductor

Part No.	Conductor material	Cross sectional area
BSCC	Copper	6-400mm ²
BSCT	Tinned Copper	6-400mm ²

- Other sizes available upon request.



Earthing Conductors

Galvanized Steel Solid Conductor

Part No.	Conductor material	Diameter (A)	Cross sectional area	Weight per metre
BCG	Galvanized Steel	8mm	50mm ²	0.3kg

- Other sizes available upon request.



Galvanized Steel Stranded Conductor

Part No.	Conductor material	Cross sectional area
BSCG	Galvanized Steel	108mm ²

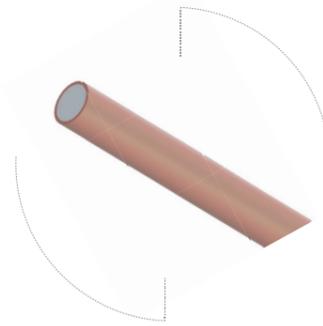
- Other sizes available upon request.



Copper clad steel Solid Conductor

Part No.	Conductor material	Diameter (A)	Cross sectional area
BCB	Steel Copper Coated	8mm	50

- Other sizes available upon request.



Copper clad steel Stranded Conductor

Part No.	Conductor material	Cross sectional area
BSCB	Steel Copper Coated	10-150mm ²

- Other sizes available upon request.



Earth Rods

Threaded Copper Bond Earth Rod

Elsewedy Sedco Copper Bond Earth Rods have high tensile strength, high corrosion resistance is low in cost so this type of rods is considered the most popular earth rods in the market. Thanks to the bonding 99.95% pure high conductivity copper and low carbon steel core. This combination makes the rod ideal for great depths for achieving the low resistance.

Part No.	Rod length	Nominal diameter	Shank	Weight
TRB-125	1200mm	5/8"	14.2mm	1.53kg
TRB-155	1500mm	5/8"	14.2mm	1.88kg
TRB-245	2400mm	5/8"	14.2mm	3.00kg
TRB-305	3000mm	5/8"	14.2mm	3.79kg
TRB-123	1200mm	3/4"	17.2mm	2.19kg
TRB-153	1500mm	3/4"	17.2mm	2.73kg
TRB-243	2400mm	3/4"	17.2mm	4.35kg
TRB-303	3000mm	3/4"	17.2mm	5.44kg

Available Standard Copper bonding thickness:

- Higher than 100 microns.
- Higher than 150 microns.
- Higher than 250 microns.

Driving head

Driving heads are used for driving the earth rods. They protect the top of the earth rod when driving with hammer.

Material: Black Steel.

Part No.	Nominal diameter
ST-58	5/8"
ST-34	3/4"

Threaded Coupling

Couplings are used for joining earth rods together.

Material: Heavy Duty Copper.

Part No.	Nominal diameter
CB-58	5/8"
CB-34	3/4"



Earth Rods

Solid Copper Earth Rod

Elsedwy Sedco Solid Copper Earth Rods provide long life span and very high resistance to corrosion. Thanks to the high quality copper material. They are suitable for use where soil condition is high in salt and corrosive.

Part No.	Rod length	Diameter	Weight
TRC-125	1200mm	15 mm	1.88 kg
TRC-155	1500mm	15 mm	2.35 kg
TRC-305	3000mm	15 mm	4.70 kg
TRC-122	1200mm	20 mm	3.34 kg
TRC-152	1500mm	20 mm	4.18 kg
TRC-302	3000mm	20 mm	8.36 kg



Driving Heads

Driving Heads are used for driving the earth rods. They protect the top of the earth rod when driving with hammer.

Material: Black Steel.

Part No.	Nominal diameter
ST-15	15 mm
ST-20	20 mm

Coupling Dowels

Couplings are used for joining earth rods together.

Material: Copper.

Part No.	Nominal diameter
CC-15	15 mm
CC-20	20 mm



Earth Rods

Galvanized Steel Earth Rod

Elsedwy Sedco Galvanized Steel Earth Rods provide long life span and very high resistance to corrosion. Thanks to galvanized steel material with minimum average zinc coating, high corrosion resistance and high tensile strength. Galvanized Steel earth rods are suitable for systems of structures such as distribution boards on construction sites.

Part No.	Rod length	Diameter	Weight
TRG-125	1200mm	5/8 "	1.77 kg
TRG-155	1500mm	5/8 "	2.25 kg
TRG-305	3000mm	5/8 "	4.65 kg
TRG-123	1200mm	3/4"	2.85 kg
TRG-153	1500mm	3/4"	3.69 kg
TRG-303	3000mm	3/4"	7.47 kg



Driving Heads

Driving Heads are used for driving the earth rods. They protect the top of the earth rod when driving with hammer.

Material: Steel.

Part No.	Nominal diameter
ST-58	5/8 "
ST-34	3/4"

Threaded Coupling

Couplings are used for joining earth rods together.

Material:Galvanized Steel.

Part No.	Nominal diameter
CG-58	5/8 "
CG-34	3/4"



Earth Rods

Stainless Steel Earth Rod

Elsewedy Sedco Stainless Steel Earth Rods provide long life span and very high resistance to corrosion. Thanks to stainless steel material with high corrosion resistance and high tensile strength. Stainless Steel earth rods have perfect performance in presence of galvanic corrosion.

Part No.	Rod length	Diameter	Weight
TRS-126	1200mm	16 mm	1.87 kg
TRS-156	1500mm	16 mm	2.34 kg
TRS-306	3000mm	16 mm	4.76 kg
TRS-122	1200mm	20 mm	2.96 kg
TRS-152	1500mm	20 mm	3.80 kg
TRS-302	3000mm	20 mm	7.56 kg

Driving Heads

Driving Heads are used for driving the earth rods. They protect the top of the earth rod when driving with hammer. **Material:** Steel.

Part No.	Nominal diameter
ST-16	16 mm
ST-20	20 mm

Coupling Dowels

Couplings are used for joining earth rods together. **Material:** Stainless Steel.

Part No.	Nominal diameter
CS-16	16 mm
CS-20	20 mm



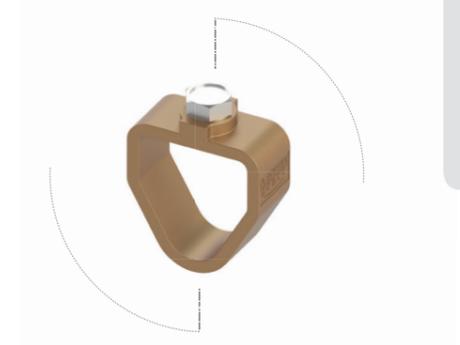
Earth Rods Clamps

Rod to tape clamp Type "RT"

Designed for connection of flat tape conductor to an earth rod. **Material:** Copper alloy.

Part No.	Diameter	Max. conductor
RT-161	5/8"-16mm	25x3mm
RT-162	5/8"-16mm	26x4mm
RT163	5/8"-16mm	51x12mm
RT-201	3/4"-20mm	25x3mm
RT-202	3/4"-20mm	26x4mm
RT-203	3/4"-20mm	51x12mm

- Other sizes available upon request.

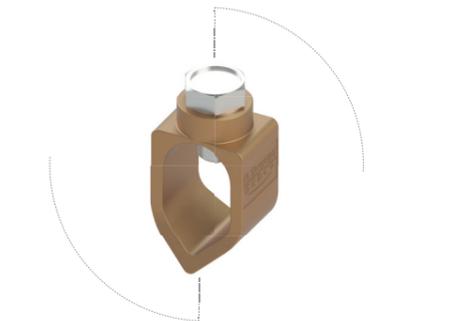


Rod to cable clamp Type "RC"

Designed for connection between solid circular / stranded conductor and earth rod. **Material:** Copper alloy.

Part No.	Diameter	Max. conductor
RC-16	5/8"-16mm	35-95mm
RC-20	3/4"-20mm	95-185mm

- Other sizes available upon request.

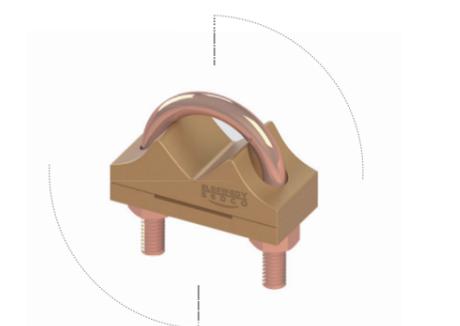


Rod to lug clamp Type "RL"

Designed for connection between flat tape / stranded conductor and earth rod / rebar. 'U' Bolt threaded M10. **Material:** Copper alloy.

Part No.	Diameter
RL-16	5/8"-16mm
RL-20	3/4"-20mm

- Other sizes available upon request.



Earth Rods Clamps

Rod to cable/Rod to lug clamp Type "RCL"

Designed for connection between solid circular / stranded conductor and an earth rod / rebar

Material: Copper alloy.

Part No.	Diameter	Max. conductor
RCL-161	5/8"-16mm	16-95mm
RCL-162	5/8"-16mm	70-185mm
RCL-163	5/8"-16mm	150-300mm
RCL-201	3/4"-20mm	16-70mm
RCL-202	3/4"-20mm	70-150mm
RCL-203	3/4"-20mm	150-300mm

- Other sizes available upon request.



Earth Bars

Earth Bar (BL series)

Elsewedy Sedco Earth Bars is an efficient and convenient way of providing a common earth point, and integral disconnecting links which allows easy isolation for testing purposes.

Earth bars are manufactured from highly conductive copper, with insulators and termination screws. Standard earth bars are available in a variety of lengths and number of holes based on client's requirements. Number of disconnecting links, and their position based on customer's requirements. Whether mild steel or plastic channel base, "Omega Bar" makes earth bars lighter and easier to handle Earth bars are also available in tinned copper material (Upon request).

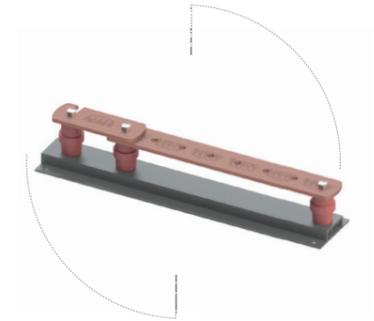
Part No.	length	No. of ways	Width	Thickness
BL-6H	400	6	50	6
BL-8H	500	8	50	6
BL-10H	650	10	50	6
BL-12H	750	12	50	6
BL-6S	400	6	40	5
BL-8S	500	8	40	5
BL-10S	650	10	40	5
BL-12S	750	12	40	5



Earth Bar

Earth Bar With Single Disconnecting Link

Part No.	length	No. of ways	Width	Thickness
BL1-6H	475	6	50	6
BL1-8H	575	8	50	6
BL1-10H	725	10	50	6
BL1-12H	825	12	50	6
BL1-6S	475	6	40	5
BL1-8S	575	8	40	5
BL1-10S	725	10	40	5
BL1-12S	825	12	40	5



Earth Bar With Double Disconnecting Link

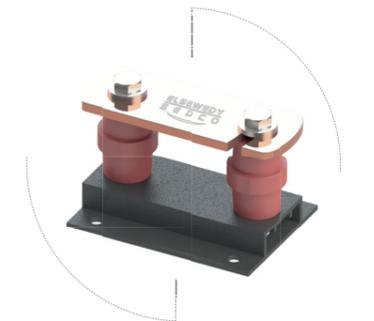
Part No.	length	No. of ways	Width	Thickness
BL2-6H	550	6	50	6
BL2-8H	650	8	50	6
BL2-10H	800	10	50	6
BL2-12H	900	12	50	6
BL2-6S	550	6	40	5
BL2-8S	650	8	40	5
BL2-10S	800	10	40	5
BL2-12S	900	12	40	5



Disconnecting (Test) Link

The disconnecting link is mainly used to provide a temporary break in the connection to earth allowing inspection and testing of an earth rod whilst disconnecting from the lightning protection system. Available in Copper or Tinned Copper Material.

Part No.	Material	Length	Width	Thickness
DL-125	Bare Copper	125	50	6
DL-125T	Tinned Copper	125	50	6



Earthing System

Earthing Accessories

Concrete Inspection Pit

Elsewedy Sedco concrete earth inspection housing suitable for most earthing installations. The housing can have an internal earth bar fitted with holes provided in the base (Upon client request).

Pit size : 30×30×30 cm
Product code : CIP



Lightweight Inspection Pit

Elsewedy Sedco lightweight earth pit is light in weight, which ensures easy handling, very safe while working on load withstand and comes in compatible size. Heavy duty lid with screw and lock is used as security for the earth pit. This pit is featured by high performance polymer material.

Pit size : 30×30×25 cm
Product code : LIP



Bentonite Powder

Elsewedy Sedco bentonite powder is a moisture retaining clay used as an earth electrode back-fill to reduce soil resistivity. The clay is a sodium activated montmorillonite which when mixed with water swells to many times its original dry volume.

Unit Weight : 25Kg
Product code : BEN



Earthing System

Earthing Accessories

Ground Reinforcement Compound

Elsewedy Sedco ground reinforcement compound provides another solution to reduce soil resistivity and high strength. Its formed by mixing the compound with cement and water to be a high performance low resistance compound. It is ideal to use in areas of poor conductivity.

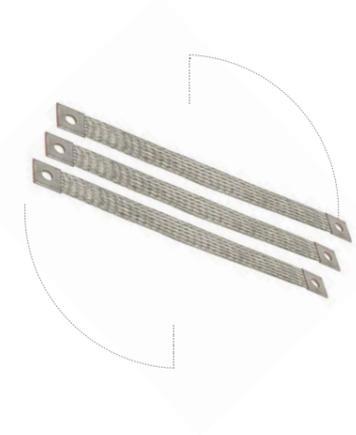
Unit Weight : 11Kg
Product code : GRM



Flexible Copper Braid Jumper

Elsewedy Sedco flexible copper braid jumper provides high conductivity and flexible connection through end lugs with different sizes upon client request.

Part No.	Material	Overall braid dimensions	Length	Cross sectional area
FCB10	Copper Braid	19x2.5	200mm 400mm	16mm ²
FCB25	Copper Braid	25x3	200mm 400mm	25mm ²
FCB50	Copper Braid	30x5	200mm 400mm	50mm ²
FCBT10	Tinned Copper Braid	19x2.5	200mm 400mm	16mm ²
FCBT25	Tinned Copper Braid	25x3	200mm 400mm	25mm ²
FCBT50	Tinned Copper Braid	30x5	200mm 400mm	50mm ²

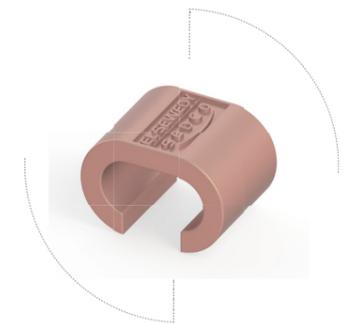


Compression "C" Connector

Elsewedy Sedco compression connectors provide inter connection between two copper solid or stranded conductors from low voltage overhead distribution and grounding lines. These connectors are made of pure electrolytic copper. Also available in tinned copper material (Upon request).

Code	Conductor size (Run) mm ²	Conductor size (Tap) mm ²
	50-50	16-50
	50-70	50-70
	95-100	95-100
conductor size (run)- C- conductor size (tap)	120-120	35-120
	150-150	70-150
	120-185	95-185
	240-240	147-240
	150-240	150-240

• Other sizes available upon request.



Earthing Accessories

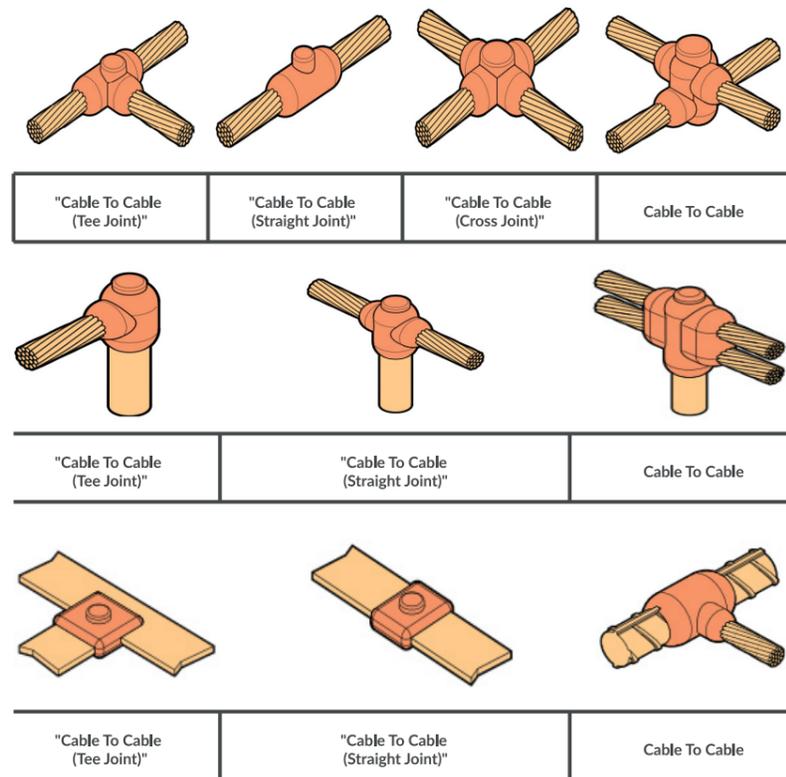
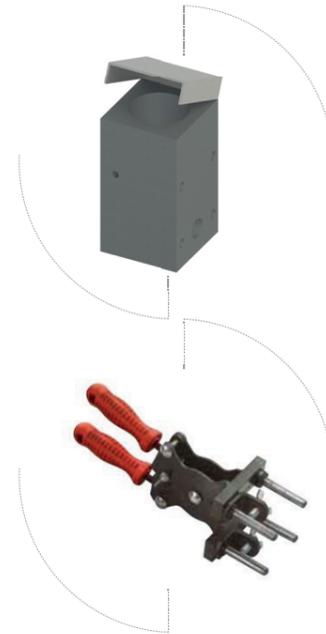
SWD WELDING

Elsewedy Sedco Exothermic Welding is a simple self-contained method of making high quality electrical connections. This system uses the high temperature of reaction of powdered copper oxide and aluminum.

The reaction takes place in a graphite mould, which is machined according to the conductor sizes to be welded. The reaction takes only a few seconds to form the electrical connections, making it completely portable and ideal for field use. An exothermic welding has a lot of advantages in comparison to mechanical or crimping systems.

Related applications include the following:

- Earthing of sub-stations and power plant.
- Cathodic protection.
- Rail connections.
- lightning protection.
- telecommunications.



• Other sizes available upon request.

Lightning System

Air Rod

Elsewedy Sedco air terminal rods are designed to be used with either the standard air terminal base, multipurpose base or the side mounted brackets.

Manufactured from hard drawn copper with rolled threads. Supplied complete with locknut.

Part No.	Rod length	Rod diameter	Thread size
AR-50	500mm	15mm	M16
AR-100	1000mm	15mm	M16
AR-150	1500mm	15mm	M16
AR-200	2000mm	15mm	M16
AR-300	3000mm	15mm	M16



Air Rod Base

Air rod base for tape conductor

Manufactured from copper alloy providing a connection between air rod and tape conductor.

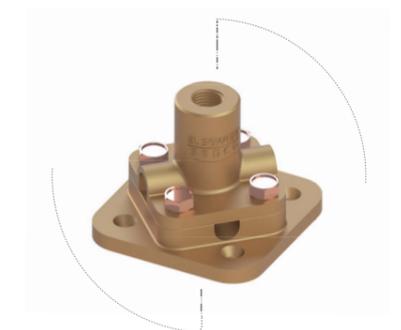
Part No.	Rod diameter	Thread size	Max . conductor width
RBT-25	15mm	M16	25mm



Air rod base for stranded conductor

Manufactured from copper alloy providing a connection between air rod and stranded conductor.

Part No.	Rod diameter	Thread size	Conductor diameter
RBC-50	15mm	M16	50mm
RBC-70	15mm	M16	70mm
RBC-95	15mm	M16	95mm



Conductor Accessories

DC tape clip

Manufactured from copper or aluminum, used for fixing tape conductors to building surfaces.

Part No.	Conductor size
TCD-203	20 x 3 mm
TCD-253	25 x 3 mm
TCD-256	25 x 6 mm
TCD-506	50 x 6 mm



Heavy duty cast cable saddle

Manufactured from copper or aluminum, used for fixing solid circular or stranded conductors on building surfaces.

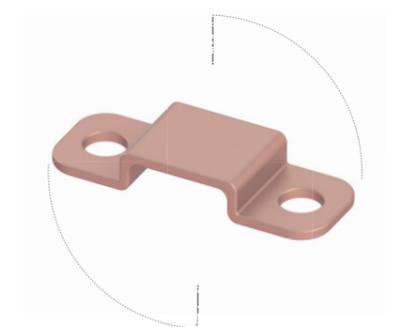
Part No.	Conductor diameter	Type of conductor
TCH-8	8 mm	Solid circular
TCH-10	10 mm	Solid circular
TCH-50	50 mm ²	Stranded
TCH-70	70 mm ²	Stranded
TCH-95	95 mm ²	Stranded



Tape clip

Manufactured from copper or aluminum, used for fixing tape conductors on building surfaces.

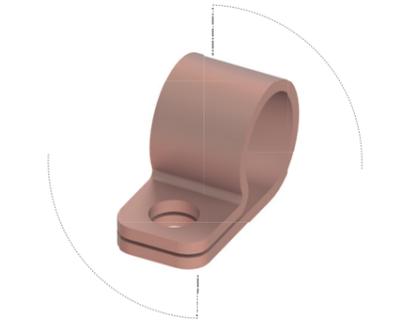
Part No.	Conductor size
TC-203	20 x 3 mm
TC-253	25 x 3 mm



One hole cable clip

Manufactured from copper or aluminum, used for fixing solid circular or stranded conductors to building surfaces.

Part No.	Conductor diameter	Type of conductor
TCN-8	8 mm	Solid circular
TCN-10	10 mm	Solid circular
TCN-50	50 mm ²	Stranded
TCN-70	70 mm ²	Stranded
TCN-95	95 mm ²	Stranded



Lightning system protection

Lightning System

- Prevelectron®3 E.S.E Lightning Conductor
- Remote Testing Module
- Testing Remote Control
- ESE Lightning Protection System Typical Installation



Operating principles in four stages:

1- CHARGING THE IONIZATION SYSTEM AND OptiMax® MODULE

The device is charged via the lower electrodes using the ambient electrical field (several thousand volts/meter when storms are approaching).
This means the PREVECTRON3® is a fully autonomous system requiring no external power

2- ACTIVATING THE NEW OptiMax® TECHNOLOGY

Whilst dynamically assessing the development of the surrounding electrical field, the PREVECTRON3® detects the appearance of downward leaders. This innovative and patented OptiMax® system is then activated to neutralize the space charges, which naturally occur around the lightning conductor.
The PREVECTRON 3® is ready to operate in an optimal environment

3- CONTROLLING THE IONIZATION PROCESS

The ambient electrical field increases rapidly when a discharge is imminent and a downward leader descends from cloud to ground. This triggers the ionization process, using a spark ionization system between the upper electrodes and the central tip.
The PREVECTRON 3® reacts at the precise moment, when the risk of lightning discharge is imminent.

4- EARLY TRIGGERING OF THE UPWARD LEADER

The controlled ionization process and the new OptiMax® technology guarantee the triggering of an upward leader a head of any other protruding point within the area to be protected.
The PREVECTRON 3® MODULE is the preferential point of impact for the lightning discharge and provides the structure with maximum protection.



PROTECTION AREA

THE PROTECTION AREA (RP) OF A PREVECTRON 3® LIGHTNING CONDUCTOR IS CALCULATED ACCORDING TO FRENCH STANDARD NF C 17-102: 2011, THUS:

$$R_p(h) = \sqrt{(2rh - h^2 + \Delta(2r + \Delta))} \text{ if } h \geq 5m.$$

PROTECTION RADIUS

PROTECTION LEVEL I : r=20m

h(M)	2	3	4	5	10
S60	31	47	63	79	79
S50	27	41	55	68	69
S40	23	35	46	58	59
TS25	17	24	34	42	44
TS10	10	15	21	26	28

PROTECTION LEVEL II : r=30m

h(M)	2	3	4	5	10
S60	34	52	68	86	88
S50	30	45	60	76	77
S40	26	39	52	65	67
TS25	19	29	39	49	51
TS10	12	19	25	31	34

PROTECTION LEVEL III : r=45m

h(M)	2	3	4	5	10
S60	39	58	78	97	99
S50	34	52	69	86	88
S40	30	45	60	75	77
TS25	23	34	46	57	61
TS10	15	22	30	38	42

PROTECTION LEVEL IV : r=60m

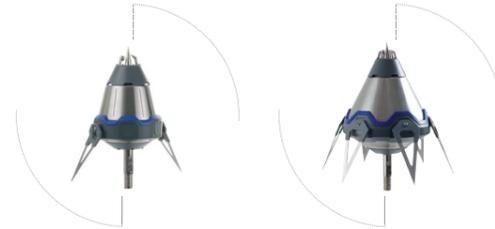
h(M)	2	3	4	5	10
S60	43	64	85	107	109
S50	38	57	76	95	98
S40	33	50	67	84	87
TS25	26	39	52	65	69
TS10	17	26	34	43	49

Lightning system protection

PREVECTRON®3 ESE LIGHTNING CONDUCTOR



- 5 models available (10µs to 60µs).
- Patented OptiMax® Technology.
- Modular design.
- 316 Stainless Steel enclosure.
- Continuous central rod.
- Fully certified : UL, CE, BVQI, Unicamp...
- A five years warranty.



REMOTE TESTING MODULE

- Plug & Play Module, in factory or on site, for all 5 Prevectoron® 3 models.
- Encapsulated glass solar panel with high efficiency even at diffuse irradiance.
- High performance 3200mAh battery.
- Easy maintenance (on-site replacement of the module batteries).
- Designed to reduce wind load.
- Option: Integrated lightning flash counter (Ref. P1585).



TESTING REMOTE CONTROL

- All information available on a high-quality screen :
 - Lightning conductor condition (with serial number).
 - Remote testing module battery status.
 - Remote control battery status.
 - Number of lightning discharges (option).
- All Prevectoron®3 lightning rods detected on site can be tested simultaneously.
- Detection range > 100m/330 ft.
- Global wireless communication technology.



Ref. P1591

Periodicity Of Inspection

(NF C 17 102 :2011 : TABLE 7 STANDARD)

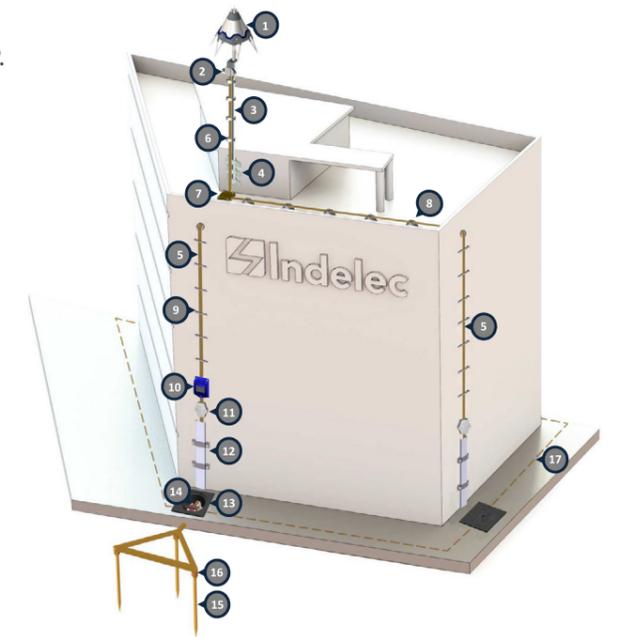
Protection level	Visual inspection (year)	Complete inspection (year)	Critical systems complete Inspection (year)
I and II	1	2	1
III and IV	2	4	1

NOTE : Lightning protection systems utilized in applications involving structures with a risk of explosion should be visually inspected every 6 months.

Lightning system protection

ESE Lightning Protection System Typical In-

- 1 - PREVECTRON® ESE AIR TERMINAL.
- 2 - PREVECTRON® TO CONDUCTOR CLAMP.
- 3 - ELEVATION MAST.
- 4 - MAST BRACKET.
- 5 - DOWN CONDUCTORS.
- 6 - MAST COLLAR.
- 7 - CONDUCTOR CLAMP.
- 8 - ROOF CONDUCTOR HOLDER.
- 9 - DOWN CONDUCTOR FIXING.
- 10 - LIGHTNING FLASH COUNTER.
- 11 - TEST CLAMP.
- 12 - PROTECTION SHEATH.
- 13 - INSPECTION PIT.
- 14 - EARTH CLAMP.
- 15 - EARTH ROD.
- 16 - ROD TO CONDUCTOR CLAMP.
- 17 - BUILDING GENERAL EARTHING.





Cable tray and Grating systems

Introduction

Product Range

- Cable Tray Ladder Type
- Cable Tray Perforated Type
- Cable Tray Trough Type
- Cable Duct
- Aluminium Cable Tray
- Cable Tray Accessories
- Grating System

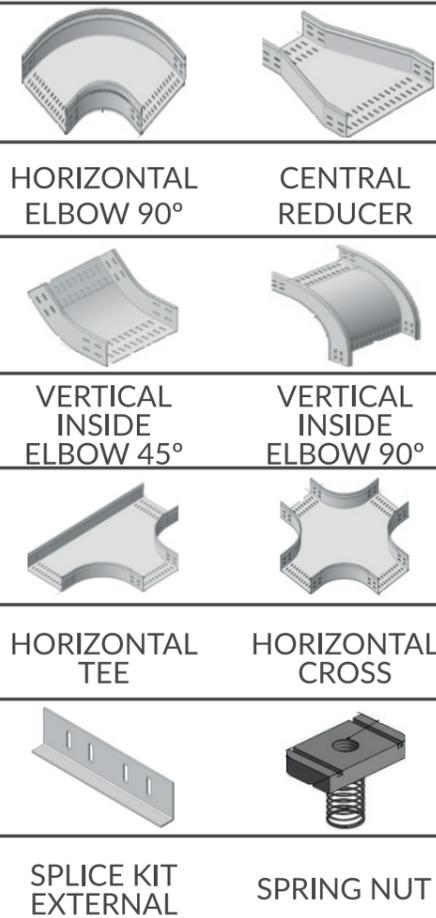
Cable Tray System



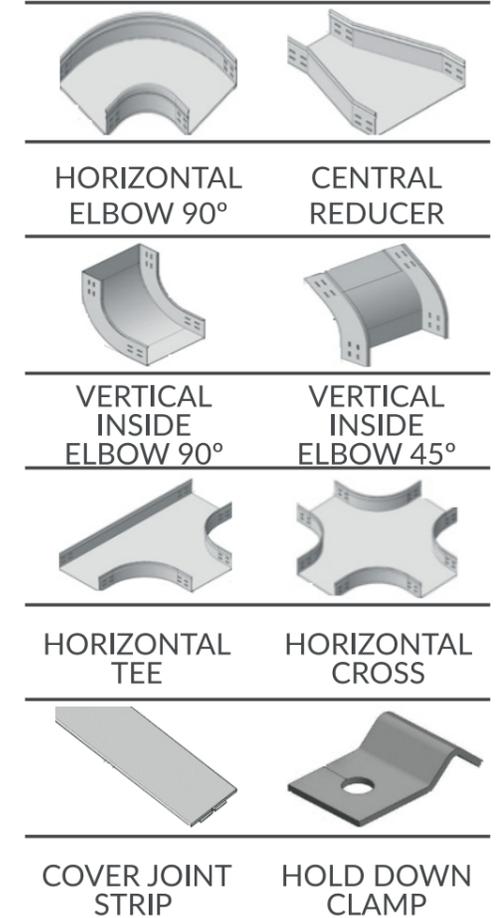
Cable Tray	Cable Tray Perforated	Cable Tray Duct	Cable Tray Ladder	Cable Tray Trough
Type	Perforated	Cable Duct	Cable Ladder	Trough
Material	Pre-Galvanized Steel Hot Dip Galvanized Steel Aluminum Stainless Steel	Pre-Galvanized Steel Hot Dip Galvanized Steel Aluminum Stainless Steel	Pre-Galvanized Steel Hot Dip Galvanized Steel Aluminum Stainless Steel	Pre-Galvanized Steel Hot Dip Galvanized Steel Aluminum Stainless Steel
"Width (mm)"	50 to 600	50 to 600	100 to 1200	100 to 1200
"Height (mm)"	55-75-100-125	55-75-100-125	60-100-150-200	125
"Thickness (mm)"	1-1.25-1.5-2	1-1.25-1.5-2	1.5-2	1.5-2
"Length (mm)"	2000-3000-6000	2000-3000-6000	2000-3000-6000	2000-3000-6000
Standard	"ASTM A123 ISO : 1461 : 2009 NEMA VE -1"			
Cover	 Solid		 Vantilated	
	"Pre-Galvanized Steel Hot Dip Galvanized Steel Aluminum Stainless Steel" "1.25mm , 1.5mm Thickness 2000mm , 3000mm Length"			

Cable Tray Accessories

Cable Tray Perforated



Cable Tray Duct



Cable Tray Accessories

Cable Tray Ladder



HORIZONTAL ELBOW 90° CENTRAL REDUCER



VERTICAL INSIDE ELBOW 45° VERTICAL INSIDE ELBOW 90°



HORIZONTAL TEE HORIZONTAL CROSS



SPLICE KITS (INTERNAL&EXTERNAL)

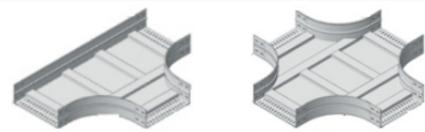
Cable Tray Trough



HORIZONTAL ELBOW 90° CENTRAL REDUCER



VERTICAL INSIDE ELBOW 90° VERTICAL INSIDE ELBOW 45°



HORIZONTAL TEE HORIZONTAL CROSS



PAN HEAD BOLT



COVER CLAMPS

Grating

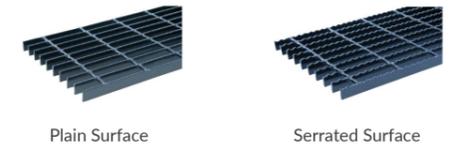
"Bar Grating is forge-welded system. In this process the bearing bars and cross bars are permanently forged together by heat and pressure into a single stranded panel."

Standard Gratings

- Standard gratings are typically available in 6 m x 1 m Panels.
- They can be produced with a variety of Pitch sizes.
- Bars are produced with plain or with serrated edge finish.

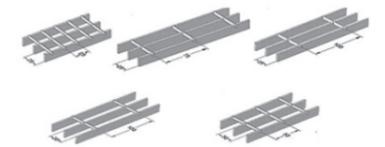
25x25	25x38	25x50	25x75	25x100
30x25	30x38	30x50	30x75	30x100
41x25	41x38	41x50	41x75	41x100

- Load bearing bars of width 20 mm to 70 mm and thickness of 3mm to 8 mm can be used.
- All steel grating are manufactured according to ANSIMBG 531 & ANSI MBG 533 & DIN 24537.
- Panels are hot dipped galvanized to EN 1461 and ASTM123.



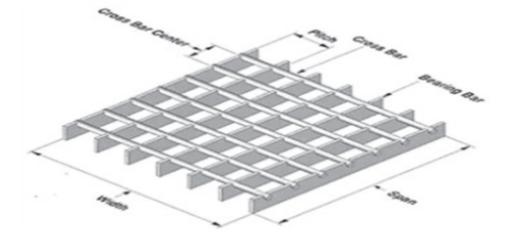
Plain Surface

Serrated Surface



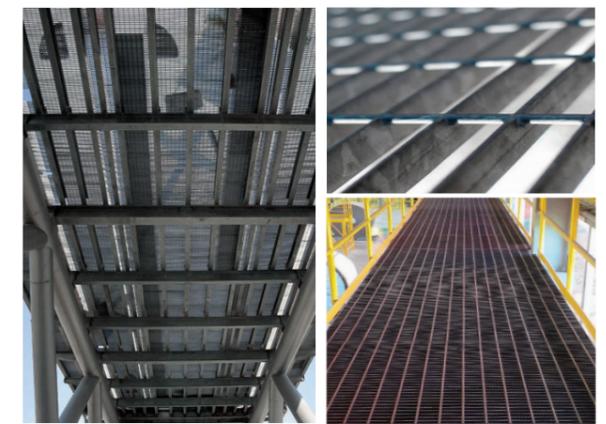
Grating Usages

- Walkways
- Flooring
- Ramps
- Bridge Flooring and Sidewalks
- Concrete Reinforcement
- Machine and Motor Bases
- Machinery Safety Guards
- Machinery Support Trenches
- Mezzanine Floors
- Partitions
- Stairs
- Platforms
- Racks and Shelving
- Window Guards



Grating Benefits & Advantages

- Range of Grating Alternatives: provide safe, durable and multifunctional products for all types of environments.
- Flexibility: Allows ventilation and light pass-through while providing strength alternatives to support light pedestrian traffic to the heaviest vehicular traffic.
- Durability: Lasts longer than any other material alternatives including wood, plastic and competing metal products.
- Ease of installation: Adapts to complex floor configurations and hard-to-fit areas.
- Maintenance-Free: Open areas allow excellent drainage as well as lack of debris build-up.



Solar Energy system

Rising to the Challenge: Providing Clean Energy Solutions to Meet Increasing Energy Demand

One technology - MANY APPLICATIONS

Our solar technology utilizes the energy of the sun to generate clean, carbon free electricity and thermal energy. The most commonly used form of solar technology is photovoltaic (PV) solar, which is scalable in size and is adaptable to be used in different applications and situations. Depending on the location, use and size of your energy requirements, our well trained technical team will advise you which system and technology is best suited for your requirements.



Why solar?

- Quiet and reliable.
- Low maintenance.
- Can be architecturally integrated or retrofitted into buildings.
- Zero carbon emissions.
- Scalable.
- Provides energy during peak hours.
- Excellent in remote locations.
- Durable with a 25 year+ lifespan.



Reliable and cost effective solar energy solutions

ELSWEDY SOLAR operates in a diversified Line of Business and product range. We contribute our organization, market, industrial and manufacturing experience to a profound client and environmental offering. Our line of business within the solar industry varies from garden lighting to 100's of MW solar plants (CSP and PV).



Reliable services, highly qualified staff and premium technology delivered on time and within your budget

ELSWEDY SOLAR provides turnkey solar power solutions for utility, commercial and remote solar applications.

Our scope of work includes

- Design.
- Installation.
- Project management.
- Financing.
- Operations.
- Maintenance.
- Turnkey solar solutions.



Solar Energy system

Introduction

Product Range

- PV Solar Panel
- Battery
- Solar Charger Controller
- Solar LED Street lighting system configuration

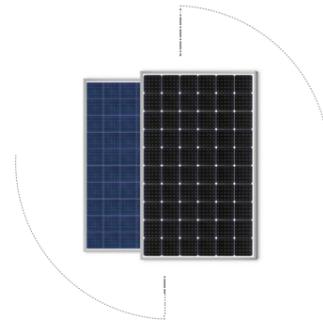
Solar Energy system

Solar Power Energy Components

1. PV Solar Panel

Quality solar cells with high solar energy conversion up to 18.5%. Mono-crystalline or poly-crystalline silicon solar cells are for options. Transparent low-iron tempered glass and anodized aluminum frame to ensure modules working in extreme outdoor environment. Lifespan up to 25 years (90% power output for 10 years, and 80% power output for 25 years)

Warranty: 5 years limited



2. Battery

- GEL and AGM technology pose long cycle life and deliver longest deep discharge efficiency.
- In-ground solution and on-pole solution are available.
- Completely maintenance-free.
- Long service life.
- Environmental & Non-pollution .
- Safety & Reliability.



3. Solar Charger Controller

- Advanced controller provides optimal solar solutions with different function and cost.
- Up to IP67 Water proof protection.
- PWM or MPPT charging model with high charging efficiency.
- Protection for over charge, over discharge, over load and anti-reverse connection.



Solar LED Street lighting system configuration (for reference only)

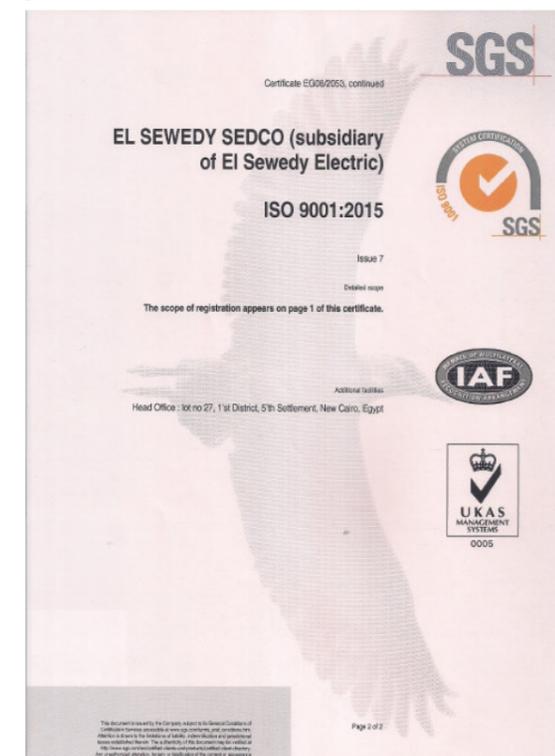
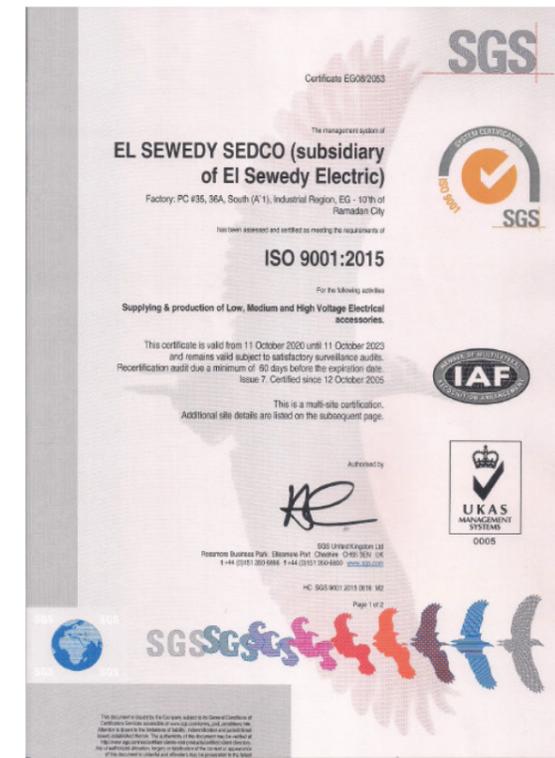
Luminaire power (Watt)	30	35	60	70	90	120
Solar panel (Wp)	1×150	1×150	1×250	1×330	2×250	2×330
Battery (Ah)	150	150	300	400	400	500
Controller (Amp)	10	10	10	10	20	20

The above Solar LED street lighting system configuration is designed based on the below data, for reference only, the system must be customized based on the relative data, please contact your sales engineer for the solutions only for you.

- 12 working hours per night without dimming.
- 3 days backup in case of no sunshine.
- 5 hours per day of peak sunshine.

Certificates

ISO 9001:2015



Certificates

ISO 14001:2015

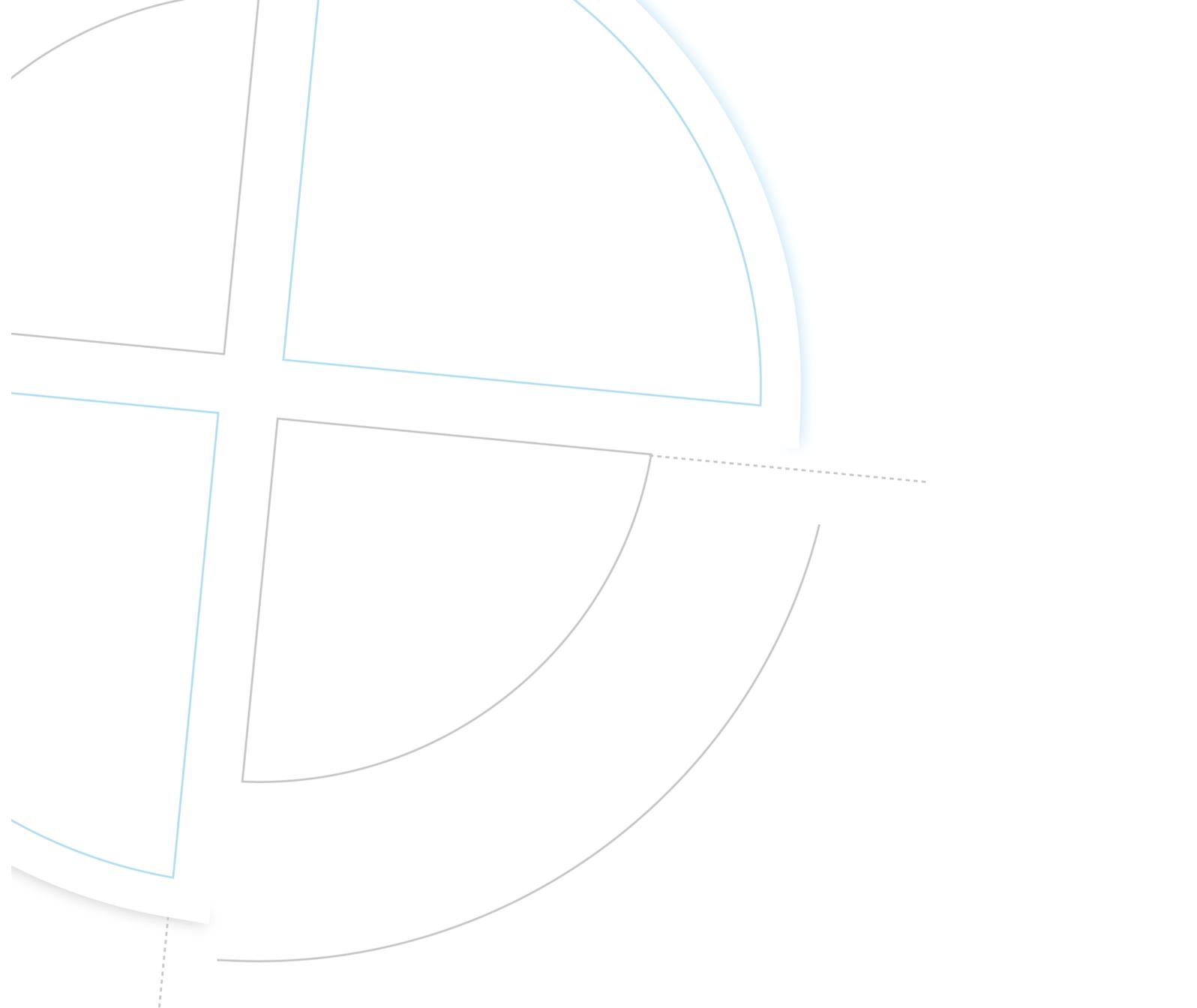


ISO 9001:2015



ISO 45001:2018





ELSEWEDY
ELECTRIC

SEDCO
PETROLEUM SERVICES SOLUTIONS

Plot No. 27, North 90th St., 1st District, 5th Settlement,
New Cairo 11835 - Egypt
Telephone : Tel (+202) 27599750/1 - (+202) 27599700
Fax : (+202) -27599752 - (+202) 27599776
Email : sedco.pet@elsewedy.com
sedco-petroleum@elsewedy.com
www.elsewedyelectric.com

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