# extro

## SEALS FOR EXTRO® FLEXIBLE PIPES

The seals for EXTRO flexible tubes are intended for connecting tubes to electrical cabinets, metal gutters, distribution boxes or panels for automation and can be used both indoors and outdoors. Good resistance to low temperatures and especially resistance to ultraviolet rays provide the safety of using EXTRO cable seals for photovoltaic installations in parks, on roofs and residential projects. The use of EXTRO cable seals ensures complete protection of the cables, which often remain unprotected even in the most exposed areas. EXTRO seals can be used with the entire range of EXTRO Flex products (D09 to D50) and are also compatible with EXTRO Sub (D40 and D50) double wall tubes for underground networks.

### Examples of seal assembled on the tube:





## Main advantages offered by EXTRO cable seals:

#### 1. Firm assembly with EXTRO Flex tubes

The operating principle of EXTRO cable seals ensures an assembly through interpenetration, which gives the assembly a special and durable stability. The installation of the seal is done manually, without specific tools. The pulling forces that the assembly withstands exceed 750 N.

#### 2. Resistance to UV radiation and low temperatures

The material used for the external components of the seal is a compound based on polyamide (PA), resistant to solar ultraviolet (UV) radiation. This resistance recommends their use in outdoor spaces even with direct exposure to the sun, together with the tubes from the EXTRO Flex range. The products' resistance to low temperatures is ensured up to -40 C.

#### 3. Provides protection against dust and weather

The seals contain a rubber-based sealing element, which is pressed during assembly on the outer profile of the tube, ensuring very good protection and resistance over time, the flexible sealing element being protected by the outer parts. Careful! Protection against dust and water penetration can be negatively affected by a faulty assembly. We recommend following the assembly instructions on the back.

#### 4. Compatibility with double wall tubes EXTRO Sub

EXTRO Sub double wall tubes can be used in a similar way to the EXTRO Flex product range. This compatibility is useful in the case of the installation of branches, where the use of double-walled tubes for underground networks is required by the specifications of the works and where the exit from the ground and the connection to the electrical distribution board must be protected.

#### Norms and standards: EN61386, REACH, RoHS

## Components of the EXTRO<sup>®</sup> seal



- 1. Tightening nut for fixing the tube in the seal
- Fixing ring for interpenetration between the waves of the tube
- 3. Flexible element for sealing
- 4. Seal body
- 5. The nut for fixing the seal in the casing hole

## Correct assembly of the seal

The seal is delivered already assembled, allowing easy penetration of the flexible tube. At the other end, the clamping nut is also assembled. The following steps will lead to an easy and correct assembly:

- 1. The hole where the seal is to be mounted will be prepared to the diameter indicated in the table, using specific punching or drilling tools. Any burrs that remain after stamping or drilling must be removed, because they can affect the tightness and can negatively influence the sealing of the case (cabinet, panel, box, etc.)
- 2. The fixing nut in the metal housing is removed by unscrewing. The seal is inserted from the outside into the hole prepared in the casing wall and fixed with the nut. Firm tightening without the use of keys is sufficient in most cases. If tools are used, the clamping force must not be too high. Danger of damage!
- 3. The end of the flexible tube to be assembled in the seal must be cut perpendicular to the axis of the tube, between the waves or on the ridge (if a sharp blade is used) or only on the ridge (if special tools for cutting corrugated tubes are used). Careful! A diagonal cut, which damages the flanks of the tube waves, can lead to incorrect assembly. Such an assembly cannot guarantee either dust and weather protection, or adequate resistance to pulling the tube out of the seal.
- 4. If the wires have already been pulled through the tube, they are inserted through the seal mounted in the housing. The cut end of the flexible tube is completely inserted into the gland and held with one hand in that position, in contact with the flexible element for sealing.
- 5. The gland nut is tightened with the other hand until a firm grip is obtained. During tightening, gently move the tube to help the retaining ring enter between the waves of the tube. Tightening firmly without the use of tools ensures both adequate holding force and avoiding the danger of damaging the seal during assembly.

# Technical Data

| EXTRO<br>Tube | Art. Nr.  | Description  | Metric<br>Thread | Thread<br>Length |
|---------------|-----------|--|------------------|------------------|
| D09           | 85000009  | Seal corrugated tube D09, UV resistance, Halogen Free, IP65* | M12 x 1,5        | 10 mm            |
| D13           | 85000013  | Seal corrugated tube D13, UV resistance, Halogen Free, IP65* | M12 x 1,5        | 10 mm            |
| D16           | 8\$000016 | Seal corrugated tube D16, UV resistance, Halogen Free, IP65* | M16 x 1,5        | 10 mm            |
| D20           | 8\$000020 | Seal corrugated tube D20, UV resistance, Halogen Free, IP65* | M20 x 1,5        | 10 mm            |
| D25           | 8\$000025 | Seal corrugated tube D25, UV resistance, Halogen Free, IP65* | M25 x 1,5        | 15 mm            |
| D32           | 8\$000032 | Seal corrugated tube D32, UV resistance, Halogen Free, IP65* | M32 x 1,5        | 14 mm            |
| D40           | 85000040  | Seal corrugated tube D40, UV resistance, Halogen Free, IP65* | M40 x 1,5        | 14 mm            |
| D50           | 8\$000050 | Seal corrugated tube D50, UV resistance, Halogen Free, IP65* | M50 x 1,5        | 15 mm            |

#### \*If the assembly instructions are followed

#### Temperature resistance: -40 C – +100 C

Careful! It is recommended to assemble the seal at positive temperatures and humidity above 40-50%. If the seals have been stored in dry places at low temperatures, it is recommended to prepare them for assembly by bringing them to places with humidity and normal temperatures.



