MEGGiTT
smart engineering for
extreme environments

IP 172

Interconnection protection mounting kit

FEATURES

- From the Vibro-Meter® product line
- Suitable for all TQ 4xx proximity measuring systems
- Fits coaxial cables from Ø2.6 to Ø3.6 mm using miniature coaxial connectors
- Made from fluorosilicone rubber:
  Resistant to harsh chemicals, fuels and solvents
  Resistant to high and low temperatures
- Good mechanical properties
- Electrically insulating

IP 172 (un-assembled view)

IP 172 (assembled view)

APPLICATIONS

- Protection of the connection between a TQ 4xx proximity probe's integral cable and a EA 40x extension cable
- Low-cost alternative to JB 118 junction box for use in less extreme environments

DESCRIPTION

To ensure proper functioning of proximity transducer systems and minimize installation costs, it is recommended to use dedicated and reliable mounting accessories.

IP 172 interconnection protection is used to provide a basic level of mechanical and electrical protection to the connection between a TQ 4xx transducer's integral cable and a EA 40x extension cable.

An IP 172 interconnection protector is a protective fluorosilicone rubber boot that consists of two parts (male and female). The parts of the interconnection protector are assembled behind the miniature coaxial connectors on the cables to be joined. After the electrical connection is made using the connectors, the two parts of the interconnection protector are push-fit assembled to surround and protect the connection.

DESCRIPTION *(continued)*

The IP 172 interconnection protection mounting kit is a plastic carrying case that contains all of the components required to assemble IP 172 interconnection protectors on the miniature coaxial connectors used in TQ 4xx proximity measuring systems:

- IP 172 interconnection protectors
- IP 172 tool
- Silicone grease
- Instructions.

The tool comes in two parts: one for mating with the male miniature coaxial connector on the TQ 4xx transducer's integral cable, the other for mating with the female miniature coaxial connector on the EA 40x extension cable. When attached to a cable, the tool allows the appropriate IP 172 interconnection protector (male or female) to be assembled on the cable. The silicone grease is used as a lubricant, to protect the interconnection protector from damage as it moves over the tool and miniature coaxial connector, and onto the cable.

IP 172 interconnection protection is available as an ordering option for new TQ 4xx and EA 40x assemblies, but can also be easily and quickly retrofitted to existing TQ 4xx-based proximity measuring system installations using the equipment provided in the IP 172 interconnection protection mounting kit.

NOTE: IP 172 interconnection protectors are used on the connection between TQ 4xx and EA 40x cables using miniature coaxial connectors. They are compatible with the older AMP-type connectors and the newer self-locking miniature coaxial connectors.

IP 172 INTERCONNECTION PROTECTION MOUNTING KIT

IP 172 INTERCONNECTION PROTECTORS

10 x
IP 172 interconnection protectors

8 x
sachets of silicone grease

SPECIFICATIONS

Interconnection protectors

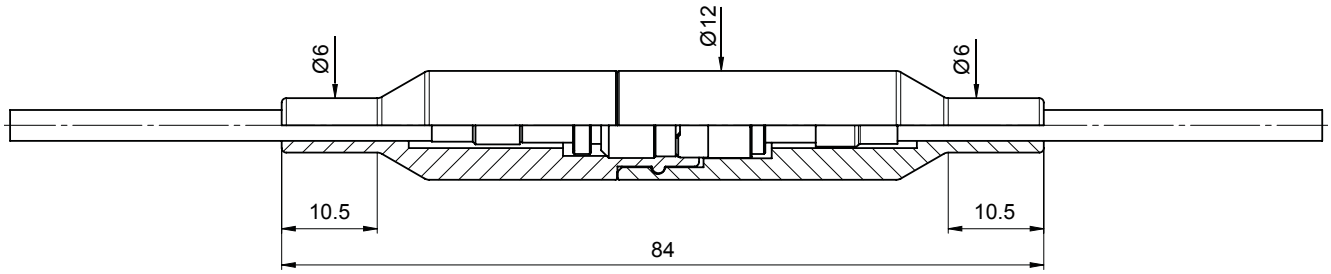
Material	:	Fluorosilicone 60 Sh A. Fluorosilicone is noted for its good mechanical properties and resistance to harsh organic solvents and petroleum based fluids. It also exhibits stability at high and low temperatures. Note: Poor physical characteristics (high friction, limited strength and poor abrasion resistance) make it suitable for static applications only.
Seal	:	IP 172 interconnection protection uses a cylindrical push-fit assembly, where the raised ring of the male interconnection protector fits into the annular groove of the female interconnection protector. Assembly force is required in an axial direction and results in the temporary deformation of the female interconnection protector, with both parts returning to an unstressed state in the assembled position. The friction of the fluorosilicone and the geometry of the annular ring/groove provide a retaining (release) force that must be overcome in order to separate the interconnection protector.
Reuse	:	IP 172 interconnection protectors can be reused (joined and separated) many times
Dimensions	:	See Mechanical drawings on page 4
Colour	:	Black

Environmental

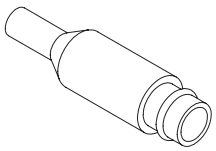
Operating temperature range	:	−40 to +200 °C
Chemical resistance	:	Extremely resistant to chemicals, fuels and solvents. Also resistant to fungus and UV/Ozone.

MECHANICAL DRAWINGS

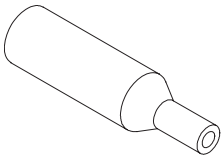
IP 172 interconnection protector



For compatibility with the orientation of IP 172 interconnection protection used by Meggitt Sensing Systems on TQ 4xx transducer and EA 40x extension cable assemblies:



The male IP 172 interconnection protector should be assembled on a TQ 4xx transducer's integral cable.



The female IP 172 interconnection protector should be assembled on an EA 40x extension cable.

Note: all dimensions in mm unless otherwise stated.

ORDERING INFORMATION

To order please specify

Type	Designation	Ordering number
IP 172	Interconnection protection mounting kit	500-172-000-011

The IP 172 interconnection protection mounting kit consists of:
- *10 x IP 172 interconnection protectors (male and female parts)*
- *1 x IP 172 tool (two parts)*
- *8 x sachets of silicone grease (enough for installing over ten IP 172 interconnection protectors)*
- *1 x instruction sheet*
- *1 x plastic carrying case.*

IP 172	Interconnection protectors	500-172-000-111

An order for additional IP 172 interconnection protectors consists of:
- *10 x IP 172 interconnection protectors (male and female parts)*
- *8 x sachets of silicone grease.*

⚠ **Although silicone grease is not regarded as a health or environmental hazard, avoid contact with skin and eyes, and wash your hands after use.**

ADDITIONAL INFORMATION

Refer to the *IP 172 interconnection protection mounting kit* instruction sheet for additional information.

Refer to the *Proximity measuring systems* manual for additional information, including more detailed installation instructions.

Headquartered in the UK, Meggitt PLC is a global engineering group specializing in extreme environment components and smart sub-systems for aerospace, defence and energy markets.

Meggitt Sensing Systems is the operating division of Meggitt specializing in sensing and monitoring systems, which has operated through its antecedents since 1927 under the names of ECET, Endevco, Ferroperm Piezoceramics, Lodge Ignition, Sensorex, Vibro-Meter and Wilcoxon Research. Today, these operations are integrated under one strategic business unit called Meggitt Sensing Systems, headquartered in Switzerland and providing complete systems, using these renowned brands, from a single supply base.

The Meggitt Sensing Systems facility in Fribourg, Switzerland was formerly known as Vibro-Meter SA, but is now Meggitt SA. This site produces a wide range of vibration and dynamic pressure sensors capable of operation in extreme environments, leading-edge microwave sensors, electronics monitoring systems and innovative software for aerospace and land-based turbo-machinery.

In this publication, a dot (.) is used as the decimal separator and thousands are separated by thin spaces. Example: 12345.67890.

Sales offices

Meggitt Sensing Systems has offices in more than 30 countries. For a complete list, please visit our website.

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