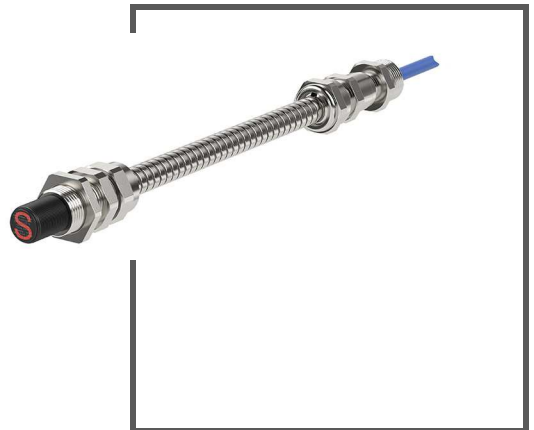


QUICK START GUIDE

Mounting Instructions for the Cable Protection System



CE

With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

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1 System Overview

The purpose of the cable protection system is to provide mechanical protection for sensor wiring in harsh environments and to protect such wiring against liquids.



Figure 1.1

The cable protection system consists of the following components:

- Sensor adapter (1)
- Flexible conduit (2)
- Cable gland (3)

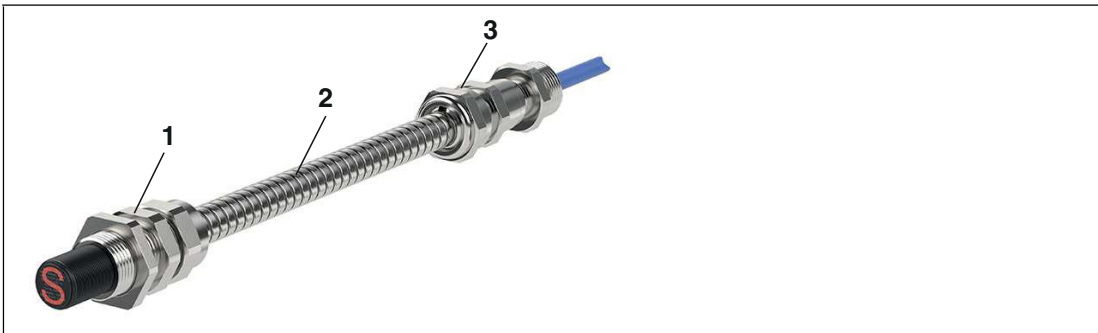


Figure 1.2

The sensor adapter (1) and cable gland (3) are available in a variety of diameters to suit your application.

The flexible conduit (2) is available in various diameters and lengths, either as a flexible metal conduit or as a flexible coated conduit.

You can use the combination of seals (the outer seal and the inner seal) within the cable gland to adapt the sealing function of the cable gland to a variety of sensor cable diameters.

2 Sawing the Flexible Conduit to the Required Length

You can use various tools to cut the flexible conduit to the required length.



Warning!

Risk of injury when sawing/cutting

When using these tools, always observe the necessary measures for accident prevention, otherwise severe cutting injuries may occur.

Sawing Using a Bandsaw

The most convenient way to cut the flexible conduit to size is with a bandsaw.



Tip

We recommend securing the cutting surface with duct tape prior to sawing. This will improve the saw cut.

You can saw flexible uncoated metal conduits at a high band speed.

You can saw flexible coated conduits at a medium band speed.

Sawing Using a Metal Hacksaw

Using a metal hacksaw is the simplest way to cut the flexible conduit if you do not have access to a bandsaw.



Tip

We recommend securing the cutting surface with duct tape prior to sawing. This will improve the saw cut.

3 Mounting the Components

3.1 Mounting Sequence

You must observe the following mounting sequence to prevent the flexible conduit and the sensor cable from becoming twisted:

- Mount the sensor adapter with the sensor and flexible conduit
- Mount the cable gland on the flexible conduit
- Mount the cable gland on the switch box or switch cabinet
- Mount the sensor adapter with the built-in sensor on the fixture provided

3.2 Mounting the sensor adapter with the sensor and flexible conduit

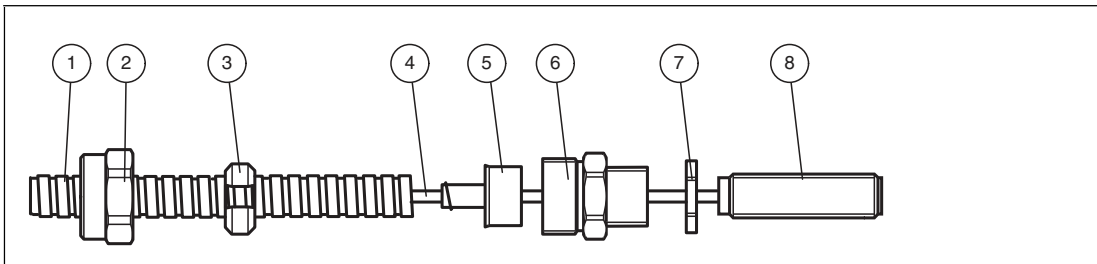


Figure 3.1



1. Slide the lock nut (2) over the flexible conduit (1) with the inner thread facing the end of the flexible conduit.
2. Slide the clamping ring (3) over the flexible conduit (1).
 - With a flexible metal conduit: metal clamping ring
 - With a flexible coated conduit: plastic clamping ring
3. Screw the grounding sleeve (5) into the flexible conduit by hand.
4. Thread the sensor cable (4) through the sensor adapter sleeve (6) and screw the sensor (8) into the sensor sleeve (6) by hand.
5. Thread the sensor cable (4) through the previously prepared flexible conduit (1).
6. Screw the lock nut (2) into the sensor sleeve (6) by hand.
7. Use a wrench to tighten both parts (2, 6) by an additional 1 – 2 turns so that they are pressed firmly together.



Note!

The supplied lock nut (7) will later be used to fit the sensor adapter onto the fixture provided. If the parts are mounted correctly, the metallic connection between the sensor housing (8), sensor sleeve (6), and flexible conduit (1) will create a conductive electrical connection. Installing the sensor adapter in a grounded metal fixture will ensure safe grounding.

3.3 Mounting the Cable Gland on the Flexible Conduit

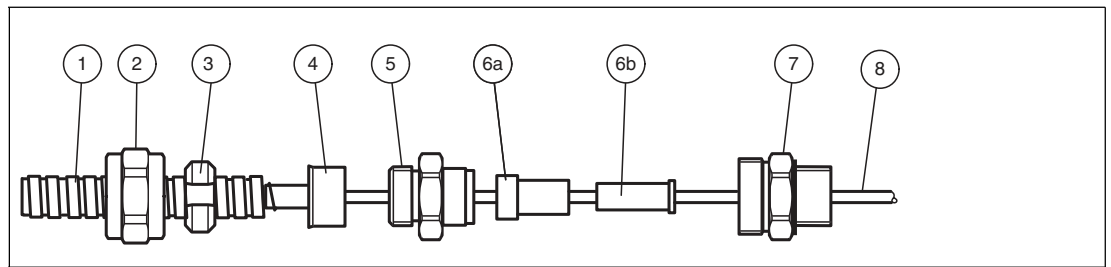


Figure 3.2



1. Slide the lock nut (2) over the flexible conduit (1) with the inner thread facing the end of the flexible conduit.
2. Slide the clamping ring (3) over the flexible conduit.
 - With a flexible metal conduit: metal clamping ring
 - With a flexible coated conduit: plastic clamping ring
3. Screw the grounding sleeve (4) into the flexible conduit by hand.
4. Screw the gland housing (5) into the lock nut (2) by hand.
5. From the combination of seals provided (6a, 6b), select the correct seal or combination of seals and slide it over the sensor cable (8).
 - Outer seal (6a) + inner seal (6b) for thinner cable
 - Outer seal (6a) on its own for thicker cable

↳ The selected seal protects the interior of your switch cabinet/switch box against any contamination caused by liquids.
6. Screw the end segment of the gland (7) into the gland housing (5) by hand.
7. Use a wrench to tighten both parts (5, 7) by an additional 1 – 2 turns so that they are pressed firmly together.
8. Use a wrench to tighten the gland housing (5) and the lock nut (2) so that they are pressed firmly together.



Note!

If the parts are mounted correctly, the metallic connection between the gland parts and the flexible conduit will create a conductive electrical connection. Installing the cable gland in a grounded metal switch cabinet/switch box will ensure safe grounding.

3.4 Installing the Cable Protection System in Your Application



1. Install the cable gland on the designated switch box/switch cabinet.
2. Install the sensor adapter with built-in sensor on the fixture provided. To do this, use the lock nut on the sensor adapter sleeve.

FACTORY AUTOMATION – SENSING YOUR NEEDS



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