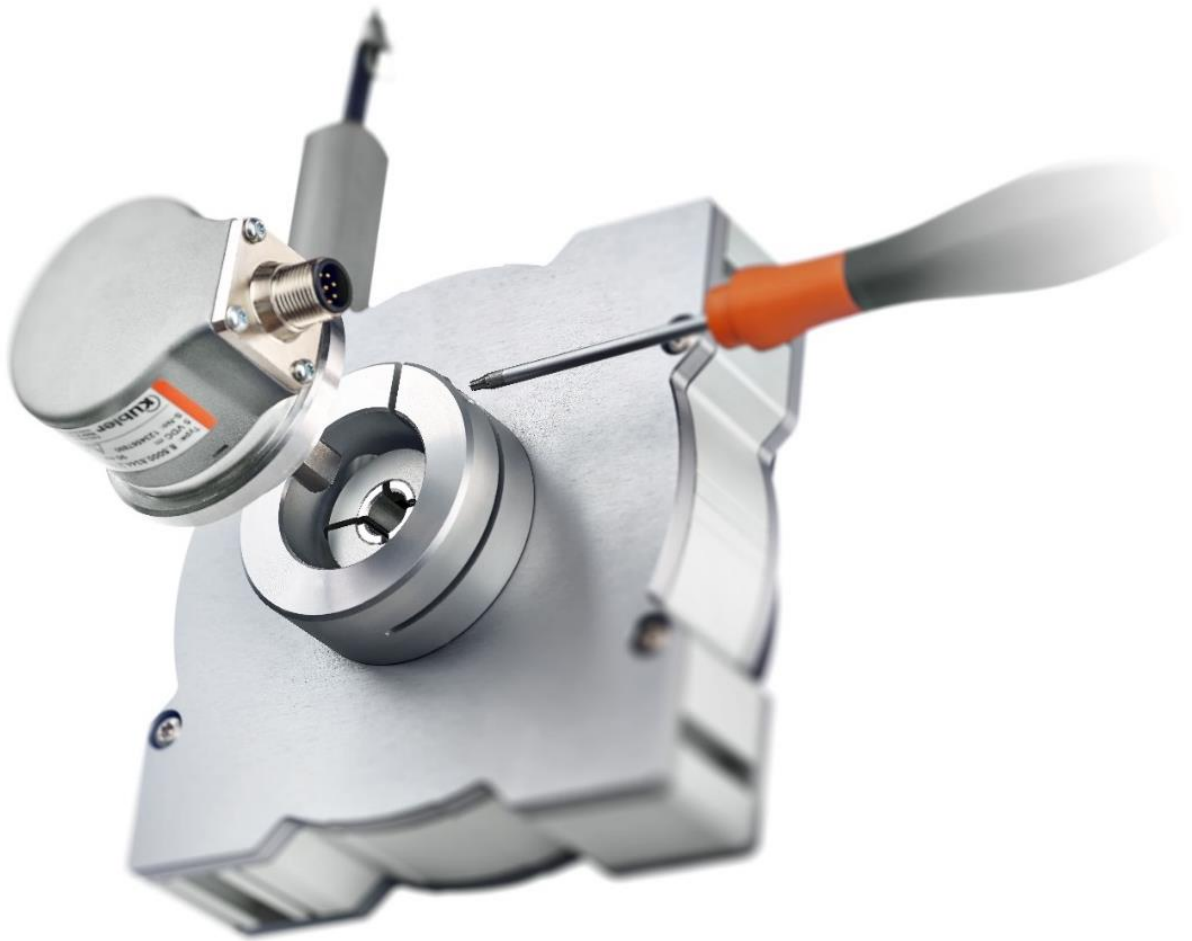


Manual

Draw-wire

A50, B80, C120, D135



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Symbols / Caution- and Security notes

	<p>This symbol, in combination with the signal word „Danger“ represents a direct imminent threat to life and health.</p> <p>Ignoring these instructions will result in serious injury to health, including life-threatening injuries.</p>
	<p>This symbol in connection with the signal word "warning" means a potentially imminent danger to the life and health of persons.</p> <p>Ignoring these instructions can result in serious injury to health, including life-threatening injuries.</p>
	<p>This symbol in connection with the signal word "Caution" means a potentially dangerous situation.</p> <p>Ignoring these instructions can result in minor injuries or damage to property.</p>
	<p>Tips and recommendations as well as information for an efficient and trouble-free operation.</p>
	<p>A safety note indicates any specific or potential hazards. This serves to prevent accidents. Read and follow safety instructions carefully.</p>

1. **First Steps**

The Kübler Group, Fritz Kübler GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our draw-wire sensors. Please read this manual carefully before initial operation!

1.1 **Unboxing check**

Carefully lift the device out of the box by grabbing the housing. Do not pull the rope. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness.

If necessary consult the transportation company, or contact the Kübler Group, Fritz Kübler GmbH directly for further assistance.

2. Option interchangeable installation – Draw-wire B80, C120

The option interchangeable installation allows a fast and easy encoder assembly by the customer.



Figure 1

A detailed description of the mounting procedure is shown in the following pictures.

NOTICE

All incremental and absolute encoders are suitable that have a clamping flange with 36 mm diameter, a shaft diameter of 10 mm and a shaft length between 10 - 20 mm.

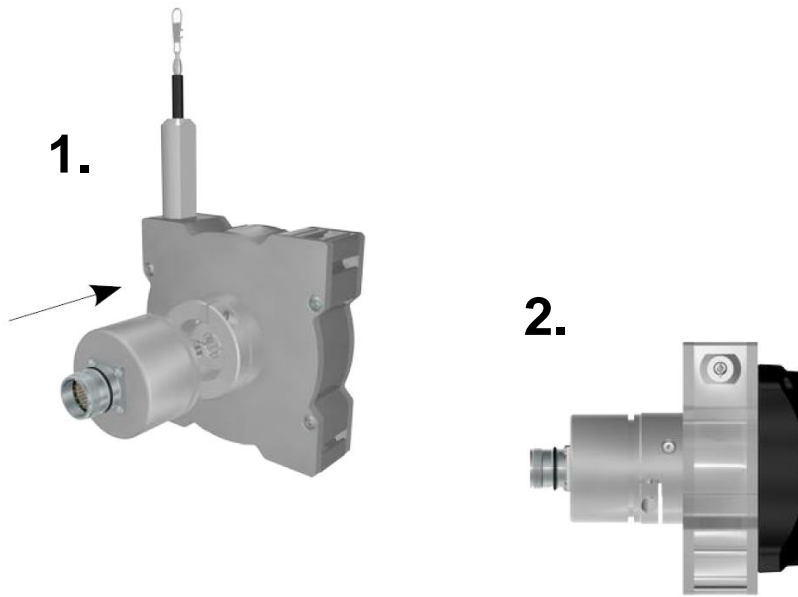


Figure 2

1. Start by inserting the encoder into the clamping flange.
2. The encoder is now connected to the clamping flange.

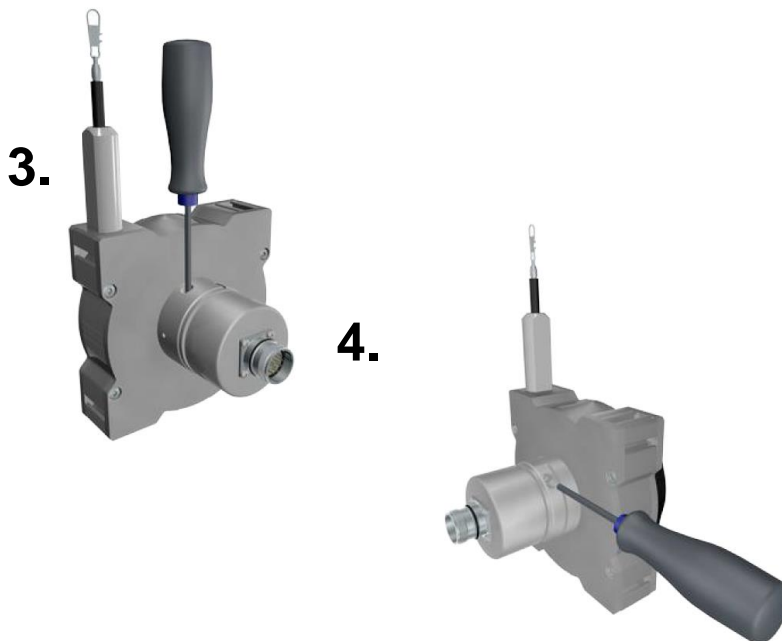


Figure 3

3. By tightening the inner radial screw (approx. 2 Nm) with a hexagon screwdriver, size 2.5 the encoder shaft will be clamped to the sensor mechanics and is secured from twisting.
4. By tightening the outer radial screw (approx. 2 Nm) with a hexagon screwdriver, size 2.5 the encoder housing will be clamped to the sensor housing and is secured from twisting. The system is now ready to be mounted at the designated place.

3. Encoder assembly for D135 (measuring range ≥ 10 m)

The D135 with measurement ranges ≥ 10 m is available in interchangeable installation.

NOTICE

All incremental and absolute encoders are suitable that have a clamping flange with 36 mm diameter, a shaft diameter of 10 mm and a shaft length between 10 - 20 mm.

Easy-Clamp mechanism

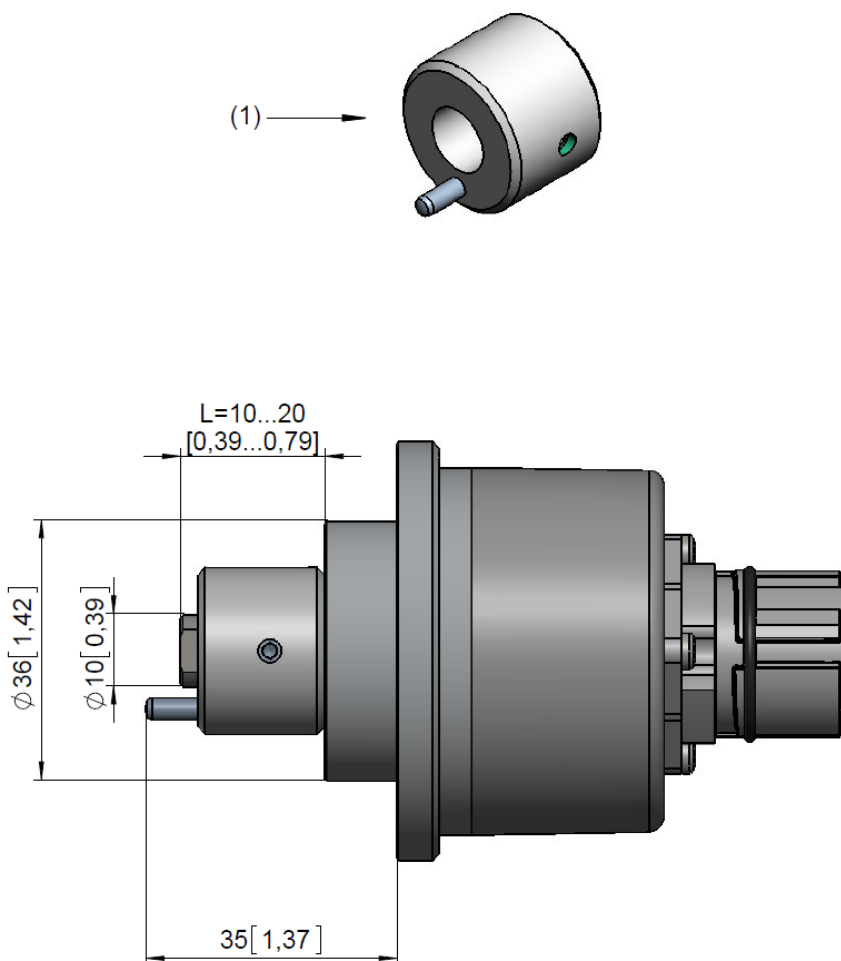


Figure 4

1. Start by sliding the included coupling (1) onto the shaft of the encoder and fix the set screw (1.0 Nm) with a hexagon screwdriver, size 2. Please pay attention that the dimension between contact surface of the encoder and the end of the cylinder bolt is 35 mm.

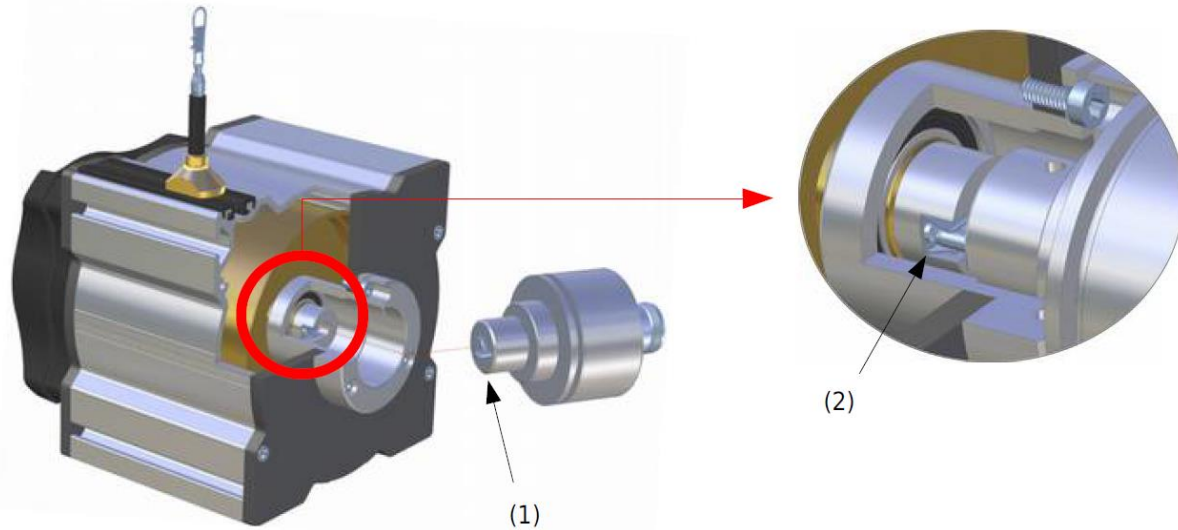


Figure 5

2. The next step is to mount the encoder into the easy-clamp-flange. The cylinder bolt (1) of the coupling must slip into the spring (2).

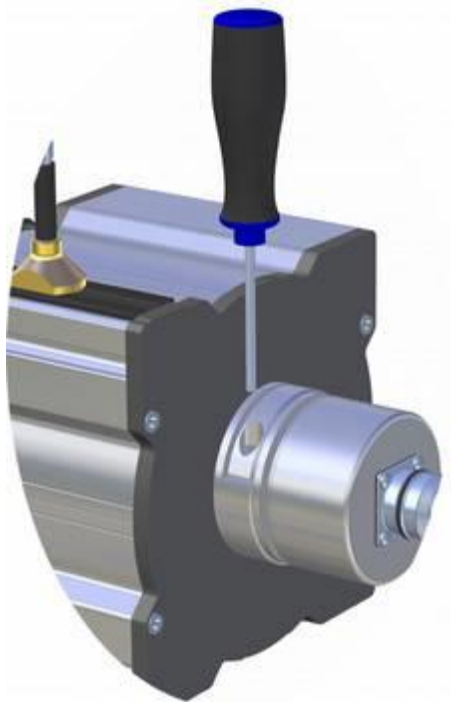


Figure 6

3. By tightening the radial screw (1.5 Nm) the encoder will be clamped and secured from twisting. Use a hexagon screwdriver, size 3.
The system is now ready to be mounted at the designated place.

4. Mounting the draw-wire

4.1 A50, B80, C120

The sensor is usually installed by using the regular mounting plate.

By disassembling the mounting plate, there are 2 x M4 threads in the sensor housing for alternative installation.

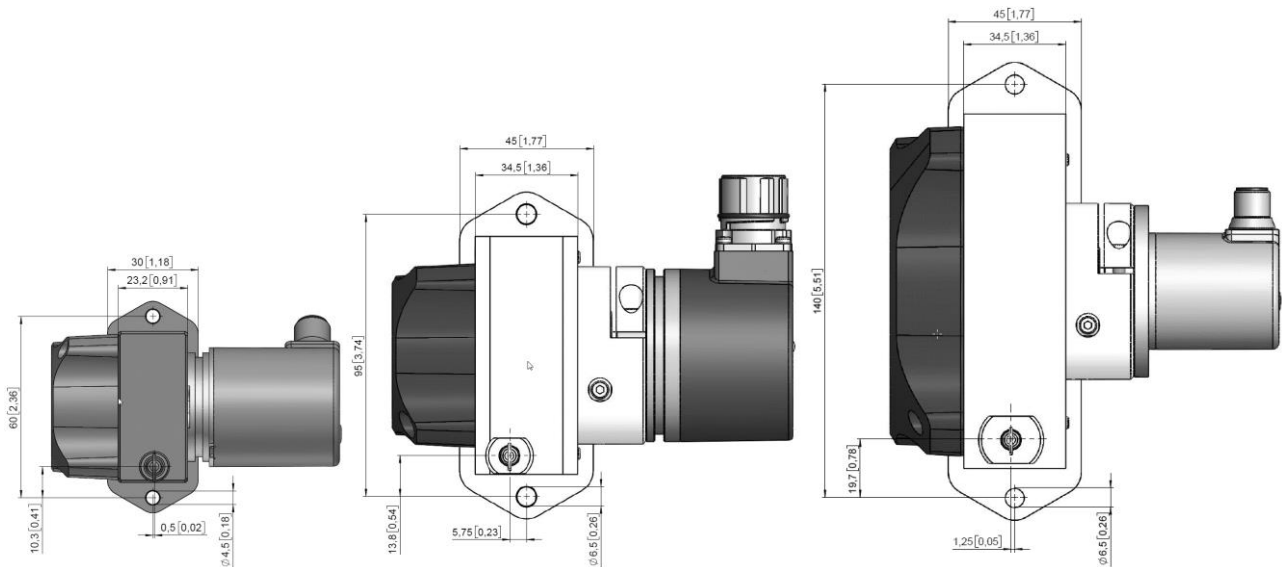


Figure 7

4.2 D135

4.2.1 Using the T-Slot nuts

The included T-slot nuts can be easily inserted into the grooves of the sensor housing. The nuts have a metric thread M6.

Up to a measuring range of 20 m, the delivery includes 2 clamping angles, as from 20 m it includes 4 clamping angles.

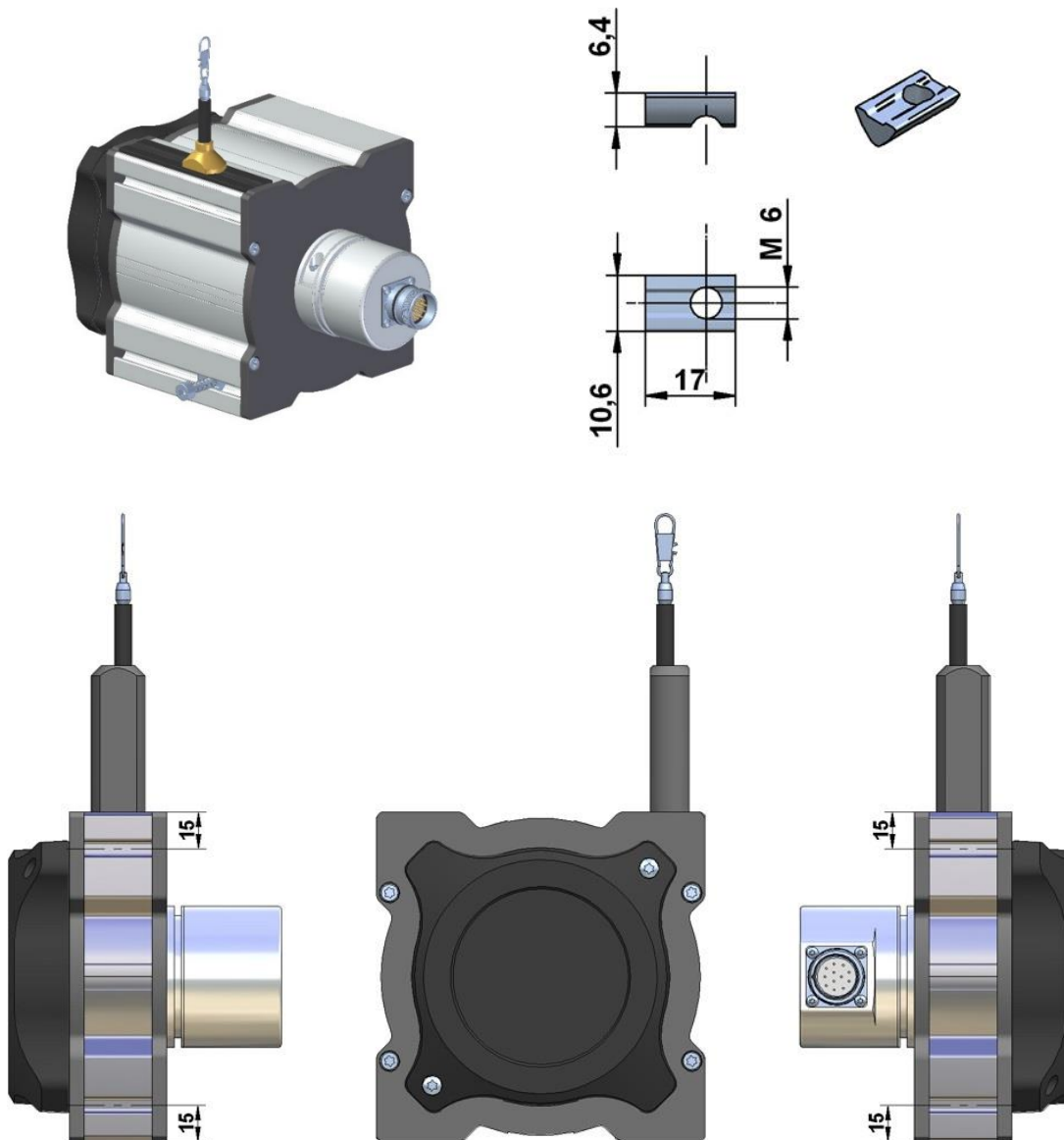


Figure 8

NOTICE

The grooves of the sensor housing, the nuts and brackets are compatible to the aluminum building kit system from *item Industrietechnik GmbH* (www.item.info).

4.2.2 Using the angle clamp brackets

The angle clamp brackets feature a bore for M6 screws to fix it on a plate/ slab or a profile.

Up to a measuring range of 20 m, the delivery includes 2 clamping angles, as from 20 m it includes 4 clamping angles.

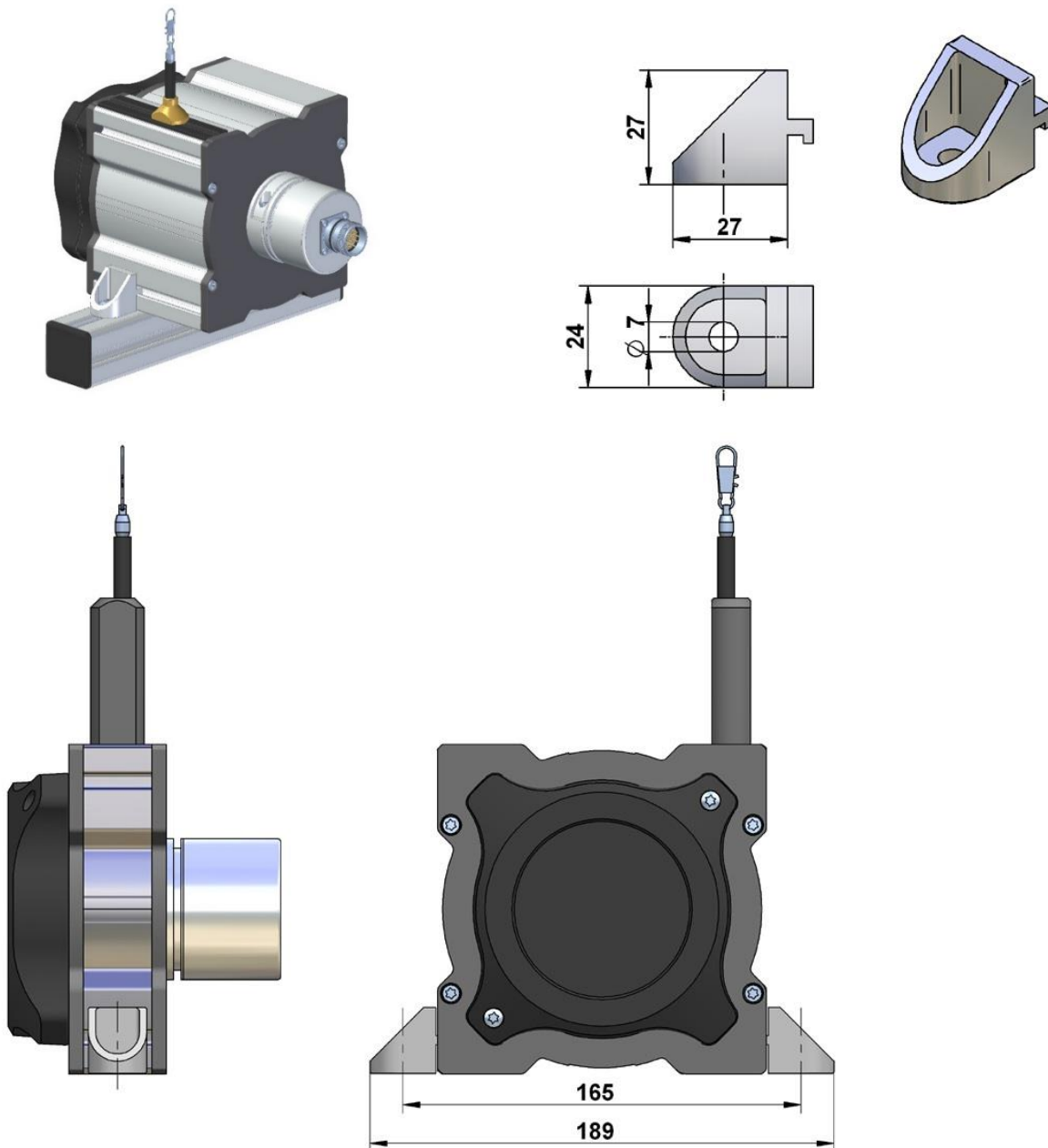


Figure 9

NOTICE

The grooves of the sensor housing, the nuts and brackets are compatible to the aluminum building kit system from *item Industrietechnik GmbH* (www.item.info).

5. Maintenance

The devices are maintenance-free. If however, the rope is soiled due to adverse environmental conditions, it can be cleaned with a cloth drenched in resin-free machine oil.



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