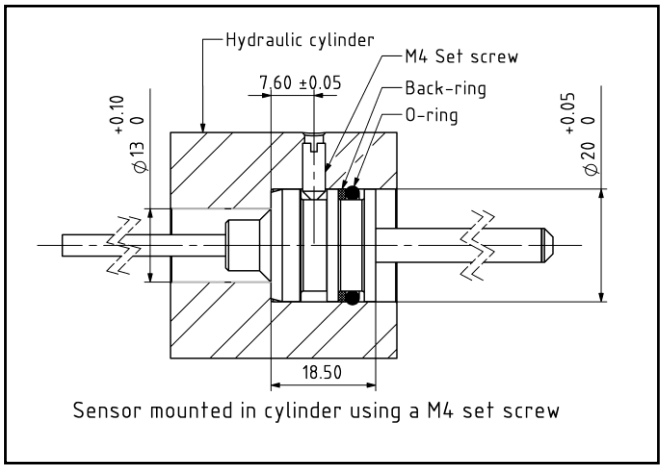
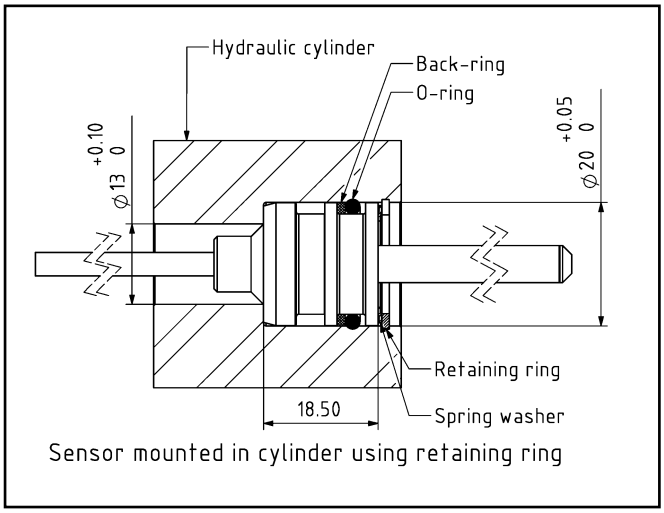
Installation Manual for DISPLACEMENT TRANSDUCER XEHS 6 for use in hydraulic cylinders



Sensor mounted in cylinder using a M4 set screw

Installation of sensor fixed by set screw.

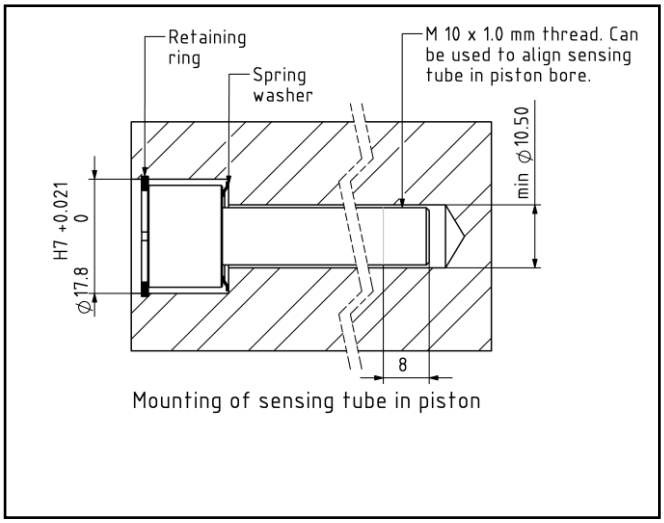
1. Mount suitable O-ring and back ring in adequate material on the sensor.
2. Gently pull the sensor into the bore, **without** pulling directly in the cable.
3. Fix the sensor in position using an M4 set screw.



Sensor mounted in cylinder using retaining ring

Installation of sensor fixed by retaining ring.

1. Mount suitable O-ring and back ring in adequate material on the sensor.
2. Gently pull the sensor into the bore, **without** pulling directly in the cable.
3. Place the spring washer and lock the sensor in position using a retaining ring.



Mounting of sensing tube in piston

Installation of sensing tube in piston.

1. Place a spring washer in the bore where the tube is installed.
2. Install the tube in the piston.
3. Lock the tube using a retaining ring.

Note: The Ø17.8 H7 bore is for guiding the target tube. For ranges above 200 mm it is advisable to align the sensing tube at the bottom of the bore also, using a guide bushing. Use the M10 x 1.0 mm thread at the end of the sensing tube for this purpose. This extra guide bushing is not included.

DESCRIPTION

The XEHS 6 sensor is suitable for measuring position inside pneumatic and hydraulic cylinders. This installation manual is a guideline on how the sensor could be installed in an application.
The XEHS 6 measures the position based on a contactless measuring principle. The sensor part is installed in the cylinder, and the sensing tube is installed in the movable piston.

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H F JENSEN
SENSOR TECHNOLOGY

INSTALLATION

To minimize wear, make sure that coil tube and sensing tube has no contact in any position. Secure the aluminium tube with silicone to avoid unwanted axial movement. For ranges above 200 mm it is adviced to align the sensing tube in both ends of the bore inside the piston.

The sensor part is installed in an Ø20 mm bore and is fixed using for example a set screw or a retainer ring. Care should be taken when choosing the correct material for the O-ring and the back ring, this material should be suitable for long term usage in the application. The O-ring and the back ring is not included, when buying the sensor, neither is the retaining ring, the set screw or the spring washers, since these parts are chosen by the constructor of the final application.

While installing the sensor in the bore care should be taken not to pull the sensor into position using the cable alone. Use instead the M9 x 1 mm thread at the cable outlet end of the sensor.

The signal cable from cylinder to the electronics is shielded and the shield connected to the cylinder. The opposite shield end should be connected to the EMC-reference of the associated electronics.

The sensor is connected to the associated electronics according to the schematic found on the datasheet for the transducer conditioner amplifier, TCAB.

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