P6492

Holder for Eddy-current sensors

Assembly and Installation Manual

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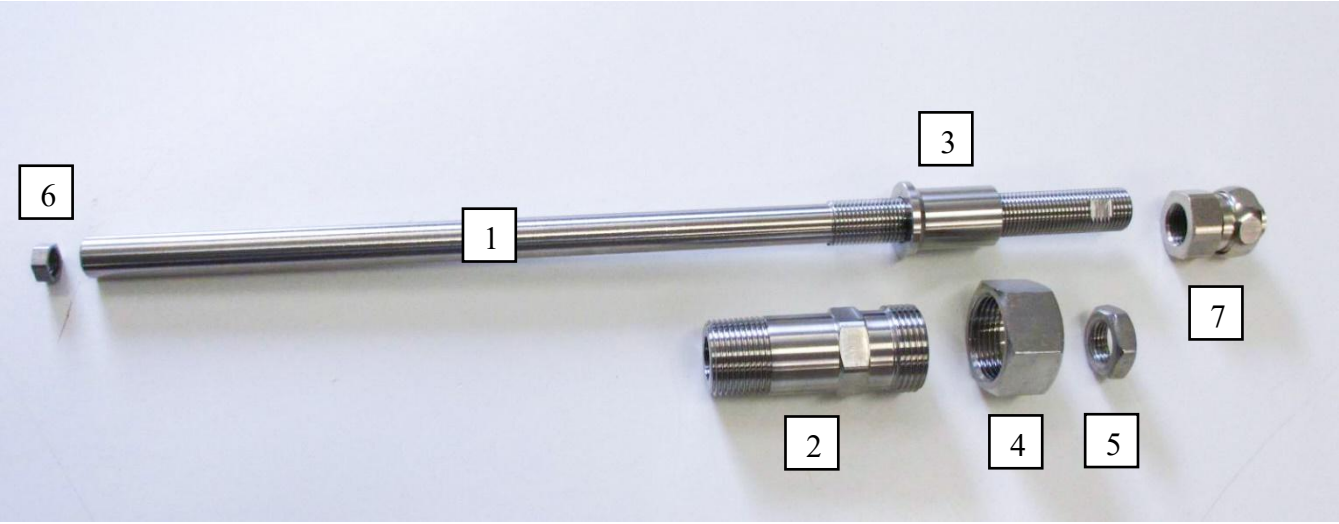
1. Introduction

The P6492 holder is designed for fixing of Eddy-current (proximity) sensors Emerson EZ1080 and previous model PR6423/000-xxx (thread M10x1, body length 25mm).

1.1. Holder consists of following parts:

1. Spindle, diameter 14mm, thread M16x1,5, length to request
2. Bushing (available with mounting thread 3/4 NPT-14 and M24x1,5)
3. Guide sleeve
4. Lock nut M30/S36
5. Fixing nut for spindle M16x1,5/S24
6. Fixing nut for sensor M10x1,5/S12, outer diameter 14mm
7. Sleeve M16x1,5 for protection tube MPT13



1.2. Required tools and material

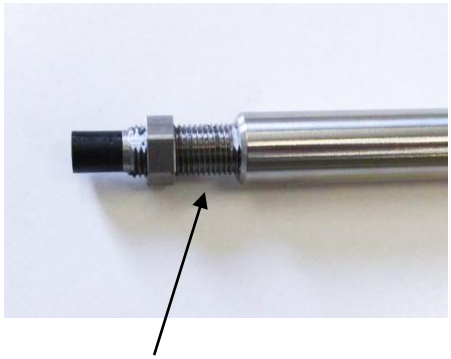
- Depth indicator
- Spanners: S12, S13, S24, S27, S36
- Oil proof sealing compound
- Sealing Teflon tape (for version with 3/4NPT-14 thread)
- Digital multimeter

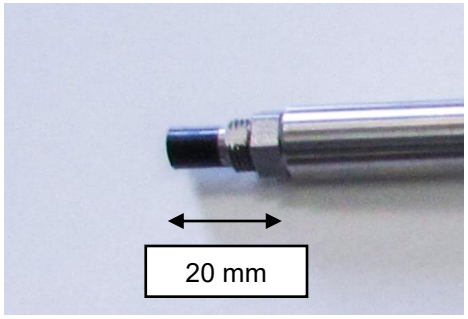
1.3. Prior the assembly and installation

Make sure the correct size of the mounting thread in the machine and the diameter of a drilled hole prior the installation. The minimum of diameter is 16mm all the way to the surface of the shaft.

2. Installation of the sensor

- Pull the cable of the sensor through the spindle



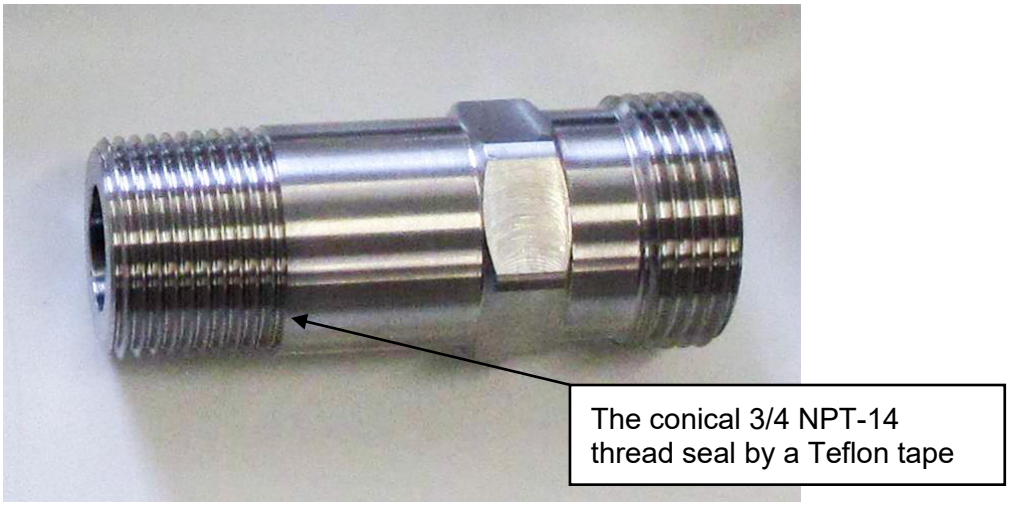


- Apply a suitable sealing compound to the thread (silicone, sealing Loctite etc.) and screw the sensor in the spindle gently.
- Fix the sensor approximately 20 mm above the end of spindle.
- Apply the M10x1 nut (6) and tighten it with the S12 spanner, max. torque 15Nm (1.5 kpm).

3. Installation of the bushing

The mounting bushing is available with two types of thread, therefore there are two ways of sealing applied:

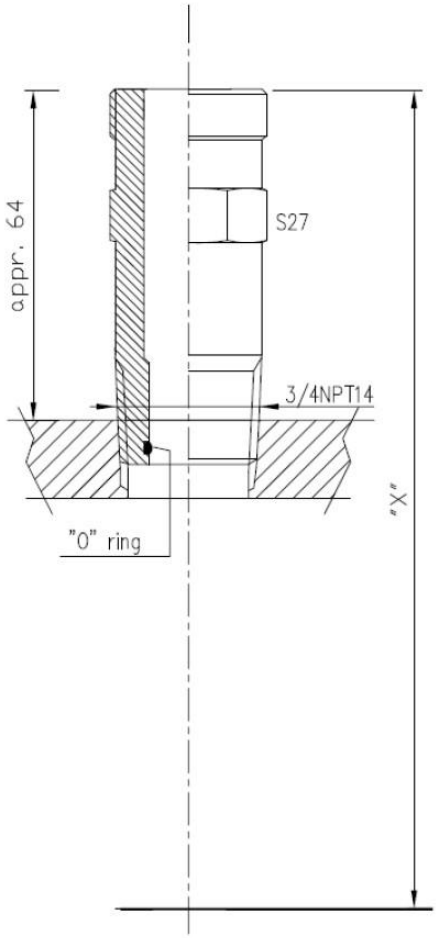
1) The 3/4 NPT-14 tapered thread is sealed by winding the Teflon tape into a thread (in the style of a “water pipe”).
2) The metric thread is sealed with the same type of compound as the sensor.



Once the proper sealing applied screw the bushing in the drilled hole and tighten it with the S27 spanner.

4. Pre-assembly of spindle with installed sensor

- Measure the distance between the surface of shaft and the top surface of the bushing „X“ (depth of the hole).
- Set the guide sleeve (3) on the spindle to have the distance between the sensor tip and the bottom part of guide sleeve about 2-3 mm smaller than the measured depth „X“.
- Once the spindle is inserted into the bushing, the distance between sensor tip and shaft is approximately 2-3 mm.
- Coat the spindle slightly with oil and gently insert it into the bushing. Be careful not to damage the O-ring or the sensor itself.
- Apply and tighten the M30 lock nut with the S36 spanner.



5. Precise adjustment of the sensor

- Connect the EZ1080 sensor cable to the converter EZ1000 (or PR6423 to CON0x1) and set the correct distance by rotating the spindle (spanner S13) according to the voltage at the output of the converter (usually -10V) measured by digital multimeter.
- Once the distance is set, secure the spindle with the M16x1,5 nut (5) (spanner S24).

6. Installation of the MPT13 protection hose

For fixing of protection hose use the M16x1,5 sleeve (7) instead of standard bushings (USP, Combi) delivered with MPT13 set. For installation details of MPT13 protection hose please refer a dedicated guide.

7. Removing of the holder

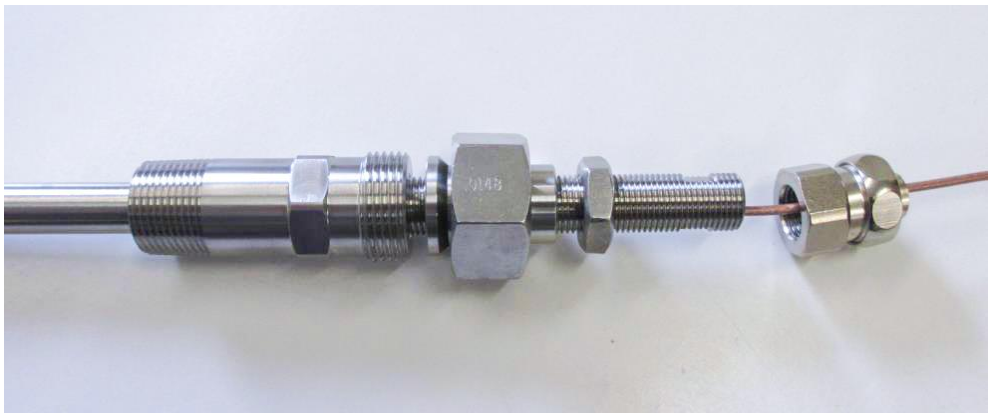
- Disconnect MPT protection hose from the holder.
- Release the M30 lock nut (4).
- Hold the bushing (2) by the S24 spanner to prevent it from being released.
- Carefully pull the spindle out. Do not loosen the M16 nut.

If the position of sensor is not changed, re-adjustment of sensor is not required during the spindle re-assembly.

8. Replacement of the sensor

- Measure the position of an existing sensor in the spindle and mount the new sensor in the same position.
- In this case, however, it is necessary to check the position of the sensor by measuring the voltage on the converter and adjustment of the sensor as described above if necessary.

Summary and detail of the holder assembly



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