



Special Documentation

Ceracore USC30

Mounting instructions



Capacitive, ceramic pressure sensor

Designated use

Pressure sensor for use in the pressure measurement of liquid and gaseous media.

Target audience

This document should support during the installation of the Ceracore USC30. It deals with the mechanical installation.

Basic safety instructions

Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfill the following requirements:

- Before beginning work, the specialist staff must have read and understood the instructions in the mounting instructions and supplementary documentation as well as in the certificates (depending on the application)
- Following instructions and basic conditions

The operating personnel must fulfill the following requirements:

- Following the instructions in these mounting instructions
-

Workplace safety

For work on and with the device:



NOTICE

Danger of damaging the device

Static sensitive devices.

- ▶ Handle only at static safe work stations!
-

Operational safety

- Operate the device in proper technical condition and fail-safe condition only.
- The operator is responsible for interference-free operation of the device.

Conversions to the device

Unauthorized modifications to the device are not permitted and can lead to unforeseeable dangers

- If, despite this, modifications are required, consult with Endress+Hauser.

Installation

Safety notes

**NOTICE****General information**


Static sensitive devices.

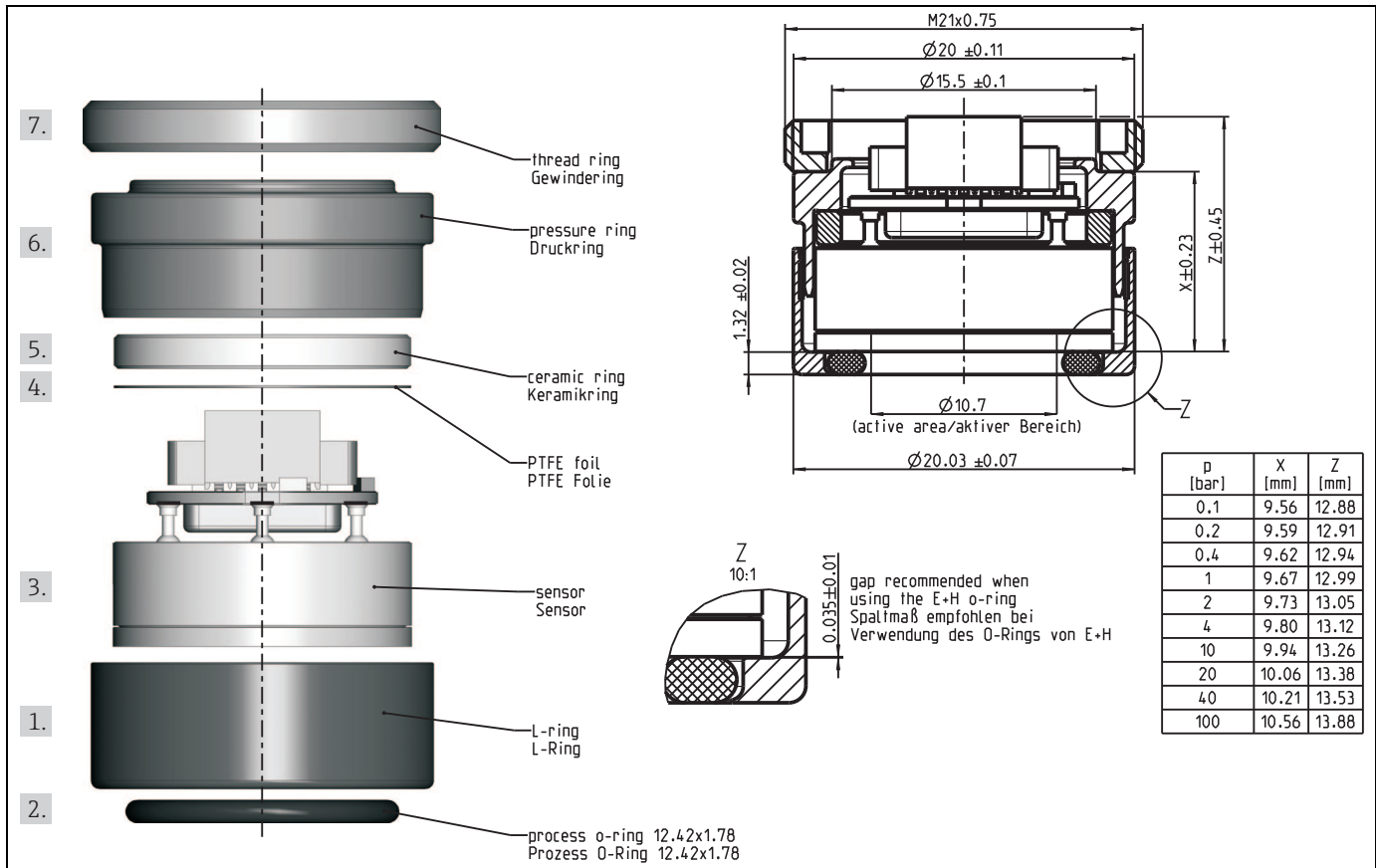
- ▶ Handle only at static safe work stations!



Before assembly, make sure that the new seal and all sealing surfaces are as clean as possible. The sealing surfaces must not be damaged.

Installation procedure

1. Insert the L-ring into the housing.
2. Insert the process O-ring.
Important:
 - Make sure that the O-ring is positioned as centric as possible in the L-ring in order to avoid damage during further assembly or operation!
 - Observe the surface quality of the sealing surface in the housing, recommended Ra0.8.
3. Insert sensor.
4. Place the PTFE foil (on the sensor).
5. Place the ceramic ring (on the PTFE foil).
6. Insert pressure ring.
 - The components (sensor, PTFE foil and ceramic ring) are thus aligned/centered.
7. Screw in thread ring.
 - Screw in the thread ring with a torque wrench (2 Nm for an O-ring with 70 Shore) to achieve a defined position of the sensor (sensor rests on L-ring).
 - Important: Keep the torsion on the O-ring as low as possible.
8. Adjusting the deformation of the O-ring.
 - Adjust the pre-pressing suitable for your application. This depends on the O-ring compound used (material and Shore hardness), the process pressure and the operating temperature.
 - Recommendations for pre-pressing can be found in guidelines from manufacturer for installation of O-rings or, if using the Endress+Hauser O-ring, see drawing →  4.
9. Ageing, zero point and span adjustment.
 - It is recommended to age the devices and perform a zero point and span adjustment after described installation of the sensor into the housing.



USC30_Installation_Components

Components for mounting of the USC30

Contact addresses

Internet: www.sensors-components.endress.com
 E-mail: sensors-components.pcm@endress.com