

Installation Instructions

Memosens CUS71E

Spare and wear parts for E+H technicians



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1 Spare parts kits

Order code	Designation	Page
XPC0032-AA61	Opening tool	→  6
XPC0032-AA21+**	Sensor head with wiper	→  6 →  8
XPC0032-AA22+**	Sensor head w/o wiper	→  6 →  8
XPC0032-AA41+**	Seals and screws	→  8 →  9 →  10

2 Intended use

- The parts in the kits must only be used as maintenance parts for the CUS71E ultrasonic interface sensor. Any other use is not permitted!
- Use only original parts from Endress+Hauser.
- In the Device Viewer, check if the spare part is suitable for the device in question.

3 Personnel authorized to carry out modifications

- Installation, commissioning, operation and maintenance of the measuring system may be carried out only by specially trained technical personnel.
- The technical personnel must be authorized by the plant operator to perform the stated tasks.
- The electrical connection may only be established by an electrical technician.
- The technical personnel must have read and understood these Installation Instructions and must follow the instructions they contain.
- Measuring point faults may be repaired only by authorized and specially trained personnel.
- In the case of Ex-certified devices, the technical staff must also be trained in explosion protection.

 Repairs not described in the Operating Instructions provided must only be carried out directly at the manufacturer's site or by the service organization.

4 Safety instructions

WARNING

Danger of death from electric shock!

- ▶ Perform work on the device with the utmost caution, especially when the device remains fully or partially powered on during maintenance tasks.
- ▶ The device does not have a power switch. If necessary, use the circuit breaker on the plant side.
- ▶ Follow the instructions in the relevant chapters of this manual, as the procedure for electrical safety depends on the service kits used.
- ▶ All work must be carried out according to applicable safety standards.
- ▶ Follow the instructions in the Operating Instructions for the device.

CAUTION

Risk to health due to contact with the process medium!

- ▶ Pay attention to the warnings in the safety data sheets.
- ▶ Wear protective gloves, protective goggles and protective clothing, particularly when working with reagents, chemicals or process solutions.
- ▶ In case of contact with eyes or skin, rinse the affected area with plenty of water and then seek medical advice. Show the relevant safety data sheet to the physician.

CAUTION

Risk of infection when working with wastewater!

- ▶ Wear protective gloves, protective goggles and protective clothing.
- ▶ Observe applicable workplace safety regulations.
- ▶ In case of eye contact, rinse the affected area with plenty of water and then seek medical advice.

NOTICE

Irreversible damage to the sensor body due to the use of unsuitable cleaning agents!

- ▶ The sensor body must not be cleaned with oxidizing acids. Oxidizing acids lead to corrosion (formation of rust), which stops the sensor from working properly and reduces its service life.
- ▶ Only use the cleaning agents and disinfectants approved for the sensor body in accordance with the manufacturer's specifications.

NOTICE**Material damage due to solvents!**

- ▶ Do not use any halogen-containing organic solvents or acetone. These solvents could destroy plastic parts of the device.
- ▶ The Operating Instructions for the device must be observed before using solvents.

**Potential impact on the process**

Before decommissioning an active device, the potential impact on the overall process must be taken into account! This applies in particular when using the switching contacts, the analog signal outputs or the communication interface of the associated measuring instrument to control process variables. Coordinate service tasks with the operator!



Contact Endress+Hauser Service if you have questions: www.addresses.endress.com

5 Scope of delivery

The scope of delivery is stored in the Spare Parts Finder (SFT) as a components sheet. The QR code below enables access to the scope of delivery including an overview of devices with the item numbers of the maintenance parts. The order code, product root or serial number of the device must be entered for this purpose.



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<https://sft-p.cdn.endress.com/>

6 Replacing components

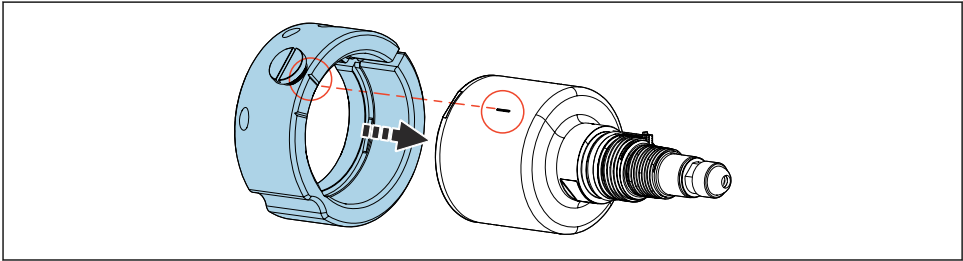
6.1 Replacing the sensor head



The tasks described below relate to the following spare parts kits:

- XPC0032-AA61
- XPC0032-AA21+**
- XPC0032-AA22+**

1. Disconnect the sensor from the power supply.
2. Clean the sensor.
3. Fit the opening tool to the sensor head. Make sure that the marks of the opening tool and the sensor head are aligned with each other (see red mark).

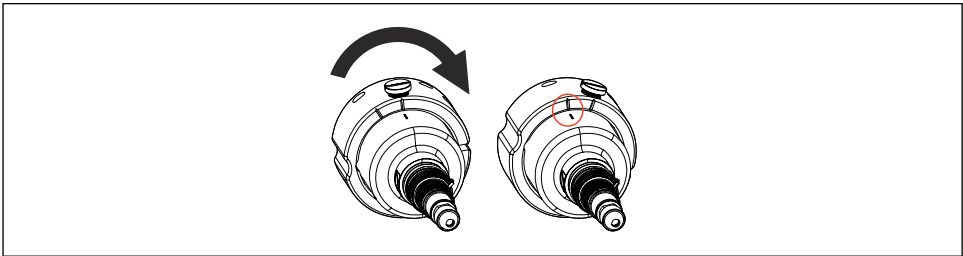


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1 Fitting the opening tool

4. Turn the opening tool in the direction of the arrow → 2, 6 to open the sensor head.



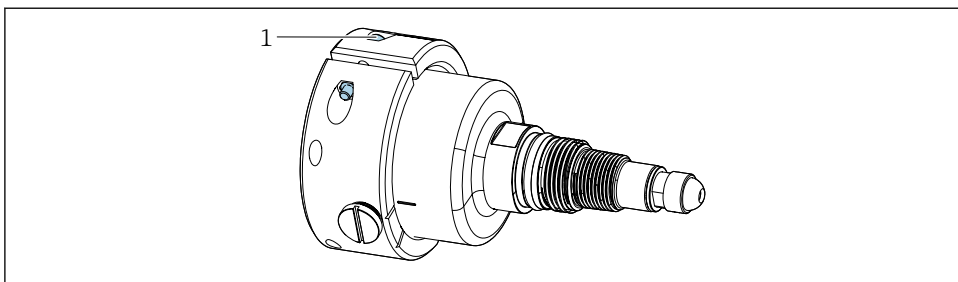
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2 Opening the sensor head



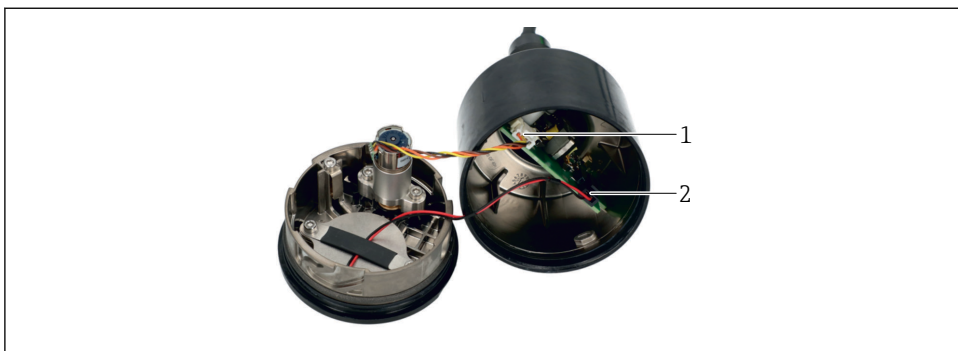
If the sensor head cannot be turned off the sensor, the clamping force of the opening tool can be readjusted using the screw (1).



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3 Readjusting the opening tool

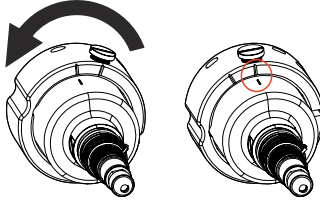
5. Carefully disconnect the **wiper arm motor** connector (1) (only for the version with a wiper arm) and the **piezo** connector (2) after opening the sensor. To avoid damaging the components, make sure that you pull on the connectors and **not** on the cables.



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4 Disconnecting the connector

6. Remove the old sensor head from the opening tool.
7. Place the new sensor head in the opening tool.
8. Carefully plug the existing connectors (**piezo** and **wiper arm motor**) back into the board.
9. Fit the sensor head to the sensor (pay attention to the marks).
10. Secure the sensor head by turning the opening tool in the direction of the arrow
→ 5, 8.



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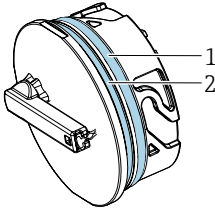
 5 *Securing the sensor head*

6.2 Replacing the seals on the sensor head

 The tasks described below relate to the following spare parts kits:

- XPC0032-AA21+**
- XPC0032-AA22+**
- XPC0032-AA41+**

1. Disconnect the sensor from the power supply.
2. Clean the sensor.
3. Remove the sensor head →  6.
4. Remove the EMC contacting ring (1) and the sealing ring (2).



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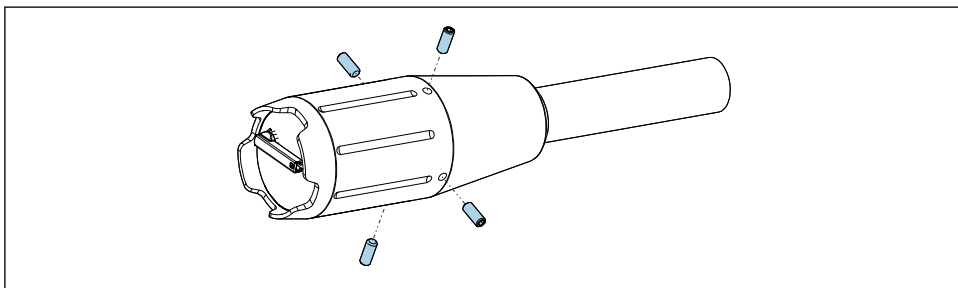
 6 *Seals on the sensor head*

5. Grease the new EMC contacting ring and the new sealing ring with the grease provided and insert them.
6. Install the sensor head →  6.

6.3 Replacing the seal on the sensor protection

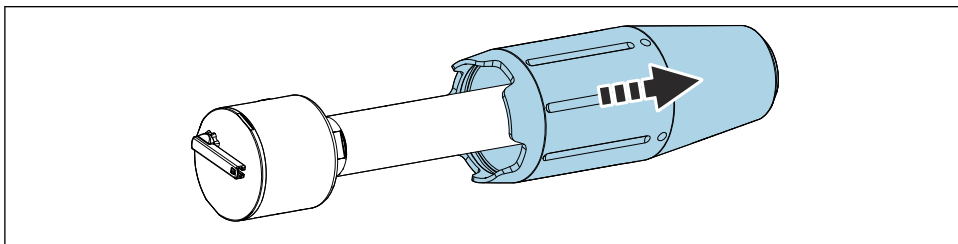
i The tasks described below relate to the following spare parts kits:
XPC0032-AA41+**

1. Disconnect the sensor from the power supply.
2. Clean the sensor, including the sensor protection and assembly.
3. Slightly loosen the four threaded pins on the sensor protection, **but do not unscrew them completely.**



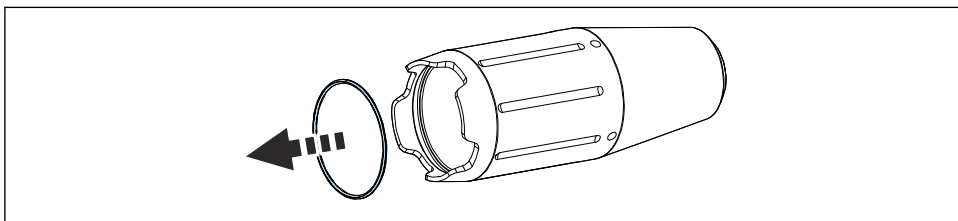
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4. Unscrew the sensor from the assembly.
5. Remove the sensor protection from the sensor.



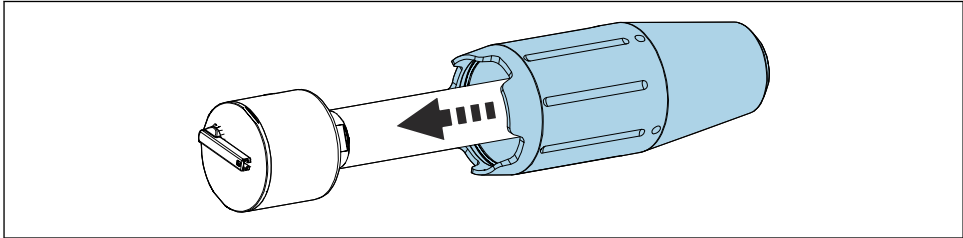
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6. Remove the old seal from the sensor protection.



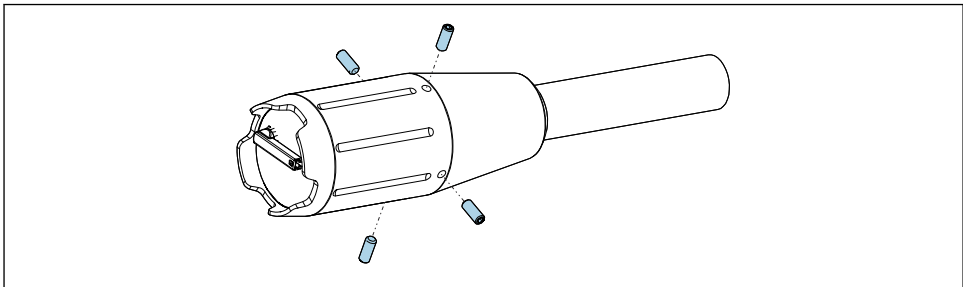
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7. Place the new seal into the groove of the sensor protection.
8. Slide the sensor protection onto the pipe of the assembly.
9. Screw the sensor to the assembly.
10. Slide the sensor protection over the sensor as far as it will go.



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11. Tighten the four threaded pins of the sensor protection.



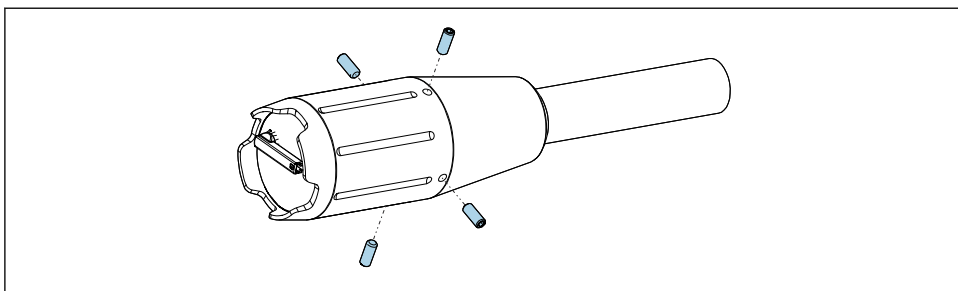
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12. Put the sensor back into operation.

6.4 Replacing the threaded pins on the sensor protection

i The tasks described below relate to the following spare parts kits:
XPC0032-AA41+**

1. Disconnect the sensor from the power supply.
2. Clean the sensor.
3. Unscrew the four threaded pins from the sensor protection.



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4. Screw in four new threaded pins.
5. Put the sensor back into operation.

7 Additional documentation

Detailed information on the devices shown here can be found in the Operating Instructions for each device and in the other documentation, available at:

- Product page: <https://www.endress.com/>
- Spare parts finder: <https://sft-p.cdn.endress.com/>
- Device Viewer: www.endress.com/device-viewer
- Smartphone/tablet: Endress+Hauser Operations app

8 Disposal



If required by the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the product is marked with the depicted symbol in order to minimize the disposal of WEEE as unsorted municipal waste. Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to the manufacturer for disposal under the applicable conditions.



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