Installation Instructions Inspection Ports

Prowirl 200



Inspection Ports

Prowirl 200

Table of contents

1	Overview of spare parts sets	4
2	Designated use	. 5
3	Personnel authorized to carry out repairs	5
4	Safety instructions	6
5	Symbols used	7
6	Tools list	. 7
7	Replacing the inspection port cover, the gaskets and the bolts of the inspection ports	8

1 Overview of spare parts sets

The Installation Instructions apply to the following spare parts set:

Order code	Contents of spare parts kit
71223000	1 × kit inspection ports (2 × inspection centering sleeves, 8 × bolts, 2 × gaskets, 2 × inspection port covers)



- The order number of the spare parts set (on the product label on the package) can differ from the production number (on the label directly on the spare part)!
 - You can find the order number of the relevant spare parts set by entering the production number of the spare part in the spare parts search tool.
 - We recommend that you keep the Installation Instructions and packaging together at all times.

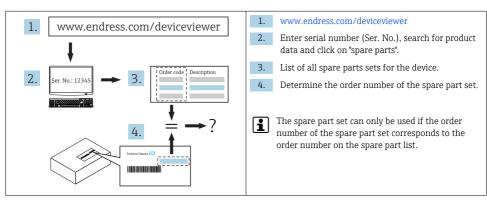
2 Designated use

The spare part set and the Installation Instruction are used to replace a faulty unit with a functioning unit of the same type. Use genuine parts from Endress+Hauser only.

Only original spare part sets, intended by Endress+Hauser for the measuring device, must be used.

The verification has to be done via W@M Device Viewer; this procedure is explained below.

For some devices there is an overview of spare part sets inside the device. If the spare part set is listed there, the verification is not required.



3 Personnel authorized to carry out repairs

Authorization to carry out repairs depends on the measuring device's approval type. The table below shows the authorized group of people in each case.



Whoever carries out the repairs has full responsibility to ensure that work is carried out safely and to the required quality standard. He/she must also guarantee the safety of the device following repair.

Measuring device approval	Authorized repair personnel 1)
Without approval	1, 2, 3
With approval (e.g. IECEx)	1, 2, 3

^{1) 1 =} Qualified specialist on customer side, 2 = Service technician authorized by Endress+Hauser,

^{3 =} Endress+Hauser (return measuring device to manufacturer)

4 Safety instructions

- Check whether the spare part matches the identification label on the measuring device, as explained on the first page.
- The spare parts set and Installation Instructions are used to replace a faulty unit with a functioning unit of the same type.
 - Use genuine parts from Endress+Hauser only.
- Comply with national regulations governing mounting, electrical installation, commissioning, maintenance and repair procedures.
- Requirements with regard to specialized technical staff for the mounting, electrical installation, commissioning, maintenance and repair of the measuring devices:
 - trained in instrument safety.
 - familiar with the individual operation conditions of the devices.
 - for Ex-certified measuring devices: also trained in explosion protection.
- The measuring device is energized. Danger: Risk of electric shock! Open the measuring device in a de-energized state only.
- In the case of Ex-certified measuring devices: Only open in a de-energized state (once a delay of 10 minutes has elapsed after switching off the power supply) or in environments which do not have a potentially explosive atmosphere.
- In the case of measuring devices in safety-related applications in accordance with IEC 61508 or IEC 61511: After repair recommission in accordance with Operating Instructions. Document the repair procedure.
- Before removing the device: set the process in a safe condition and purge the pipe of dangerous materials.
- Hot surfaces! Risk of injury! Before commencing work, allow the system and measuring device to cool down to a touchable temperature.
- In the case of measuring devices in custody transfer, the custody transfer status no longer applies once the lead seal has been removed.
- Follow the Operating Instructions for the device.
- Risk of damaging electronic components! Ensure you have a working environment protected from electrostatic discharge.
- After removing the electronics cover, there is a risk of electric shock as shock protection is removed!
 - Switch off the measuring device before removing internal covers.
- Modifications to the measuring device are not permitted.
- Only open housing for a brief period. Avoid the penetration of foreign bodies, moisture or contaminants.
- Replace defective seal/gaskets with genuine parts from Endress+Hauser only.
- If threads are damaged or defective, the measuring device must be repaired.
- Threads (e.g. of the cover for the electronics and connection compartments) must be lubricated. Use an acid-free, non-hardening grease if an abrasion resistant dry lubricant is non-existent.

- If spacing is reduced or the dielectric strength of the measuring device cannot be guaranteed during repair work, perform a test on completion of the work (e.g. high-voltage test in accordance with the manufacturer's instructions).
- Service connector:
 - Do not connect in potentially explosive atmospheres.
 - Only connect to Endress+Hauser service devices.
- Observe the instructions for transporting and returning the device outlined in the Operating Instructions.
- If you have any questions, contact your Endress+Hauser service organization.

5 Symbols used

5.1 Symbols for certain types of information

Symbol	Meaning
\checkmark	Permitted Procedures, processes or actions that are permitted.
X	Forbidden Procedures, processes or actions that are forbidden.
i	Tip Indicates additional information.
Î	Reference to documentation
1., 2., 3	Series of steps

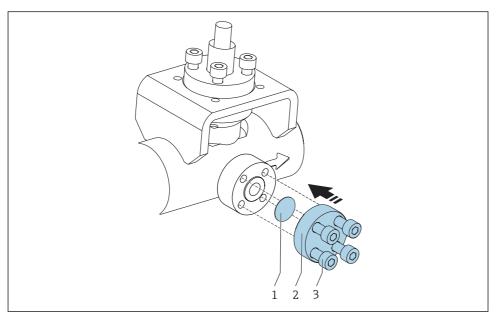
6 Tools list



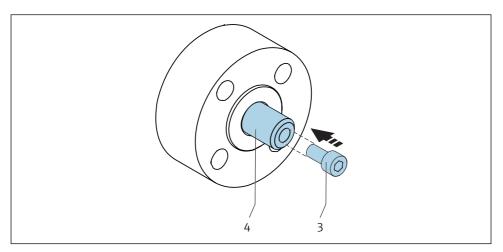


7 Replacing the inspection port cover, the gaskets and the bolts of the inspection ports

The gasket's surface must be free from damages such as scratches and marks.



1 = gasket, 2 = inspection port cover, 3 = bolts



4 = inspection centering sleeve (the bolts (3) can be used to remove the centering sleeve (4) after use)

7.1 Recommended torques

SI units

Temperature °C	Pos. 3 in the graphic above Steps; tighten in a diagonally opposite sequence		
	1.	2.	
	Torqu	es Nm	
-200	10.0	15	
-50	10.0	15	
-40	10.0	15	
+20	10.0	15	
+100	8.5	12.7	
+200	7.9	11.9	
+260	7.98	11.9	
+300	7.96	11.6	
+400	7.0	10.4	

Apply one drop of grease to each screw. The grease used must be suited to the application temperature range. The high-temperature paste HTP (50048898) is recommended.

US units

Temperature °F	Pos. 3 in the graphic above Steps; tighten in a diagonally opposite sequence		
	1.	2.	
	Torques lbf ft		
-328	7.4	11	
-58	7.4	11	
-40	7.4	11	
+68	7.4	11	
+212	6.3	9.4	
+392	5.8	8.8	
+500	5.7	8.6	
+572	5.6	8.4	
+752	5.2	7.7	

Apply one drop of grease to each screw. The grease used must be suited to the application temperature range. The high-temperature paste HTP (50048898) is recommended.





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