Installation Instructions

Kit CKI50

Cable replacement
1  About this document

1.1  Warnings

<table>
<thead>
<tr>
<th>Structure of information</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DANGER</strong></td>
<td>This symbol alerts you to a dangerous situation. Failure to avoid the dangerous situation <strong>will</strong> result in a fatal or serious injury.</td>
</tr>
<tr>
<td>Causes /consequences</td>
<td>Failure to avoid the dangerous situation <strong>will</strong> result in a fatal or serious injury.</td>
</tr>
<tr>
<td>Corrective action</td>
<td></td>
</tr>
</tbody>
</table>

| **WARNING**              | This symbol alerts you to a dangerous situation. Failure to avoid the dangerous situation **can** result in a fatal or serious injury. |
| Causes /consequences     | Failure to avoid the dangerous situation **can** result in a fatal or serious injury. |
| Corrective action        |         |

| **CAUTION**              | This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or more serious injuries. |
| Causes /consequences     | Failure to avoid this situation can result in minor or more serious injuries. |
| Corrective action        |         |

| **NOTICE**               | This symbol alerts you to situations which may result in damage to property. |
| Cause/situation          |         |

1.2  Symbols used

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>🚨</td>
<td>Additional information, tips</td>
</tr>
<tr>
<td>🟢</td>
<td>Permitted or recommended</td>
</tr>
<tr>
<td>🔴</td>
<td>Not permitted or not recommended</td>
</tr>
<tr>
<td>🔗</td>
<td>Reference to device documentation</td>
</tr>
<tr>
<td>🔗</td>
<td>Reference to page</td>
</tr>
<tr>
<td>📸</td>
<td>Reference to graphic</td>
</tr>
<tr>
<td>➡️</td>
<td>Result of a step</td>
</tr>
</tbody>
</table>
2 Identification

2.1 Scope of delivery
Kit CKI50 cable replacement

2.2 Tools list

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 mm, 1.5 Nm</td>
<td></td>
</tr>
<tr>
<td>22 mm, 10 Nm</td>
<td></td>
</tr>
</tbody>
</table>

- O-ring picker, plastic
- 71462057 Kit CKI50 disassembly tool, lid
- If sensor is removed from the process:
  - 71462060 Kit CKI50 sensor stand
- If measuring head remains in the process:
  - 8 mm, 10 Nm

2.3 Additional documentation
Detailed information on the device can be found in the Operating Instructions and in the other documentation available via:
- www.endress.com/device-viewer
- Smartphone/tablet: Endress+Hauser Operations App

3 Removing the device from the process

Method 1:
1. Disconnect the cable from the transmitter.
2. Remove the device, along with the cable, from the process.

It is possible to leave the measuring head in the process for maintenance tasks. Only select method 2 if the process cannot be stopped. The optical components can become contaminated.

Method 2:
Required tools:
Wrench, 8 mm across flats

1. Disconnect the cable from the transmitter.
2. Untighten the 6 hexagonal-headed bolts on the measuring head.
3. Remove the electronics unit from the measuring head.
4. Cover the opening on the measuring head with the plug to prevent dust from entering.

Additional maintenance work can now be carried out at a safe place.

Preferably perform method 1. Method 1 presents the lowest risk of contaminating the optical components.
4 Maintenance position of process spectrometer

1. Put the process spectrometer into the maintenance position.

1 Measuring head
2 Holder
3 Recess in holder

Position the assembled holder with the recess at the top.
2. Place the device into the recess.

3. Ensure the device is securely seated.

5 Removing the lid

Required tools:
- Allen key 3 mm (0.12 in)
- Allen key 6 mm (0.24 in)
- Disassembly tool for the lid (kit order number: 71462057)

1. Remove the screw cover from all the screws on the lid.
2. Loosen the screws uniformly with an Allen key 3 mm (0.12 in).

3. Position the disassembly tool for the lid on the device.
Use an Allen key to tighten 2 screws in the top part of the disassembly tool 6 mm (0.24 in) so that the screws still project by 20 mm (0.8 in).

5. Tighten the screws until the housing is pushed up.

6. Remove the housing of the process spectrometer.

7. With one hand, push the underside of the lid from the inside to the outside.

8. Remove the lid from the housing.

6 Cable replacement

1. Open the screw with a 3 mm Allen key.

2. Remove the socket holder.

3. Remove the spacer.
4. Loosen the coupling on the top of the lid using a 22 mm wrench.

Hold the nut in place with the wrench and turn the lid.
5. Remove the old cable assembly.
6. Feed the new cable assembly through the bore hole in the lid.
7. Tighten the cable gland with a tightening torque of 10 Nm.
8. Fit the socket into the socket holder.
   Make sure it is properly aligned over the groove.
9. Fit the spacer into the socket holder.
   Make sure it is properly aligned over the groove.
10. Press the socket holder onto the groove on the bore holes of the lid.
11. Mount the socket holder with an Allen key and a tightening torque of 1.5 Nm on the lid.
12. Position the spacing tool between the upper and lower cap nut.
13. Tighten the upper cap nut using the spacing tool.
The clamp of the cable gland must rest properly on the cable and may not be compressed.

- Using tweezers or a slender screwdriver, push the clamp into the cable gland to the end stop. The black stopper is then pressed in and the cable gland is sealed again with the stainless steel cap.

7 Introducing the device into the process

Preparatory steps

1. Replace the surface seals of the screws.
2. Remove the old O-rings on the lid and base with the O-ring picker.
3. Grease the two new O-rings.
4. Fit a new O-ring on the lid.
5. Fit the second greased O-ring on the pipe. The pipe serves as a mounting aid.
6. Mount the pipe.

Ensure that the O-ring does not become jammed.

7. Position the O-ring in the groove provided.
Closing the lid

Required tools:
- Allen key 3 mm (0.12 in)
- O-ring picker made of plastic

1. Turn the fitting screws briefly in the wrong direction.
   ➔ The fitting screws snap into the thread.

2. Tighten the screws uniformly and in diagonally opposite sequence with an Allen key 3 mm (0.12 in) and a torque of 1.5 Nm (1.1 lbf ft).

3. Fit the screw covers back on.

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