

# Operating Instructions

## Dipfit CYA10

Immersion assembly for wastewater, surface water  
and industrial applications





# Table of contents









<b>1</b>	<b>About this document</b> .....	<b>4</b>
1.1	Safety information .....	4
1.2	Symbols used .....	4
<b>2</b>	<b>Basic safety instructions</b> .....	<b>5</b>
2.1	Requirements for the personnel .....	5
2.2	Intended use .....	5
2.3	Workplace safety .....	5
2.4	Operational safety .....	5
2.5	Electromagnetic compatibility .....	6
2.6	Product safety .....	6
<b>3</b>	<b>Product description</b> .....	<b>6</b>
<b>4</b>	<b>Incoming acceptance and product identification</b> .....	<b>8</b>
4.1	Incoming acceptance .....	8
4.2	Product identification .....	8
4.3	Scope of delivery .....	9
<b>5</b>	<b>Installation</b> .....	<b>9</b>
5.1	Installation requirements .....	9
5.2	Installing the assembly .....	16
5.3	Post-installation check .....	23
<b>6</b>	<b>Maintenance</b> .....	<b>24</b>
6.1	Maintenance tasks .....	25
<b>7</b>	<b>Repair</b> .....	<b>26</b>
7.1	Spare parts .....	26
7.2	Return .....	26
7.3	Disposal .....	26
<b>8</b>	<b>Accessories</b> .....	<b>27</b>
8.1	Device-specific accessories .....	27
8.2	Sensors .....	28
<b>9</b>	<b>Technical data</b> .....	<b>29</b>
9.1	Environment .....	29
9.2	Process .....	29
9.3	Mechanical construction .....	30
<b>Index</b> .....	<b>32</b>	

# 1 About this document



## 1.1 Safety information

Structure of information	Meaning
<p><b>⚠ DANGER</b></p> <p><b>Causes (/consequences)</b> If necessary, Consequences of non-compliance (if applicable)</p> <ul style="list-style-type: none"> <li>▶ Corrective action</li> </ul>	<p>This symbol alerts you to a dangerous situation. Failure to avoid the dangerous situation <b>will</b> result in a fatal or serious injury.</p>
<p><b>⚠ WARNING</b></p> <p><b>Causes (/consequences)</b> If necessary, Consequences of non-compliance (if applicable)</p> <ul style="list-style-type: none"> <li>▶ Corrective action</li> </ul>	<p>This symbol alerts you to a dangerous situation. Failure to avoid the dangerous situation <b>can</b> result in a fatal or serious injury.</p>
<p><b>⚠ CAUTION</b></p> <p><b>Causes (/consequences)</b> If necessary, Consequences of non-compliance (if applicable)</p> <ul style="list-style-type: none"> <li>▶ Corrective action</li> </ul>	<p>This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or more serious injuries.</p>
<p><b>NOTICE</b></p> <p><b>Cause/situation</b> If necessary, Consequences of non-compliance (if applicable)</p> <ul style="list-style-type: none"> <li>▶ Action/note</li> </ul>	<p>This symbol alerts you to situations which may result in damage to property.</p>

## 1.2 Symbols used

-  Additional information, tips
-  Permitted
-  Recommended
-  Not permitted or not recommended
-  Reference to device documentation
-  Reference to page
-  Reference to graphic
-  Result of an individual step

### 1.2.1 Symbols on the device

-  Reference to device documentation
-  Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to the manufacturer for disposal under the applicable conditions.

## 2 Basic safety instructions

### 2.1 Requirements for the personnel

- 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 carry out the specified activities.
- The electrical connection may be performed only by an electrical technician.
- The technical personnel must have read and understood these Operating Instructions and must follow the instructions contained therein.
- Faults at the measuring point may only be rectified by authorized and specially trained personnel.



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

### 2.2 Intended use

The CYA10 assembly is designed for Memosens sensors in unpressurized operation in open basins, flumes and tanks, and is also available for closed, pressure-bearing vessels as a version with a G1 1/4" male thread, EN flange or ASME flange.

The assembly is designed exclusively for use in liquid media at low or no flow rates.

Any use other than that intended puts the safety of people and the measuring system at risk. Therefore, any other use is not permitted.

The manufacturer is not liable for harm caused by improper or unintended use.

### 2.3 Workplace safety

The operator is responsible for ensuring compliance with the following safety regulations:

- Installation guidelines
- Local standards and regulations

### 2.4 Operational safety

**Before commissioning the entire measuring point:**

1. Verify that all connections are correct.
2. Ensure that electrical cables and hose connections are undamaged.

**Procedure for damaged products:**

1. Do not operate damaged products, and protect them against unintentional operation.
2. Label damaged products as defective.

**During operation:**

- ▶ If errors cannot be rectified, take products out of service and protect them against unintentional operation.

## 2.5 Electromagnetic compatibility

### Electromagnetic compatibility

- The product has been tested for electromagnetic compatibility in accordance with the applicable international standards for industrial applications.
- The electromagnetic compatibility indicated applies only to a product that has been connected in accordance with these Operating Instructions.

## 2.6 Product safety

### 2.6.1 State-of-the-art technology

The product is designed to meet state-of-the-art safety requirements, has been tested, and left the factory in a condition in which it is safe to operate. The relevant regulations and international standards have been observed.

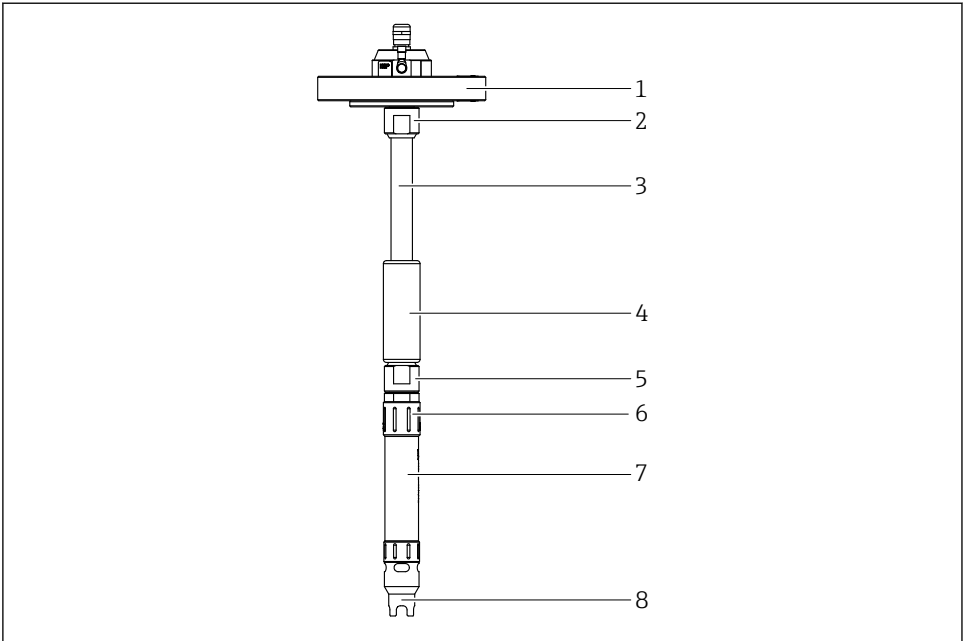
## 3 Product description

The assembly is designed for use in the water/wastewater/environmental sector:


- Tank or vessel, closed or open
- Open channels/flumes
- Water (rivers, lakes, sea)

The assembly can be ordered in 2 versions:

- Immersion assembly (pipe version)
- Immersion assembly (hose version)



A0060668

 1 *Product description of the individual parts using the hose version*

- 1 *Process connection (example)*
- 2 *Hose gland to process connection*
- 3 *Cable routing (hose version)*
- 4 *Immersion weight (optional)*
- 5 *Hose gland*
- 6 *Plug cap*
- 7 *Sensor holder*
- 8 *Protective cap and cable mounting tool*

### NOTICE

**Assemblies with flexible cable routing tend to bend slightly and float when submerged to greater depths.**

- ▶ Use optional immersion weight.

## 4 Incoming acceptance and product identification

### 4.1 Incoming acceptance

On receipt of the delivery:

1. Check the packaging for damage.
  - ↳ Report all damage immediately to the manufacturer.  
Do not install damaged components.
2. Check the scope of delivery using the delivery note.
3. Compare the data on the nameplate with the order specifications on the delivery note.
4. Check the technical documentation and all other necessary documents, e.g. certificates, to ensure they are complete.



If one of the conditions is not satisfied, contact the manufacturer.

### 4.2 Product identification

#### 4.2.1 Nameplate

The nameplate provides you with the following information on your device:

- Manufacturer identification
- Order code
- Extended order code
- Serial number
- Ambient and process conditions
- Safety information and warnings

▶ Compare the information on the nameplate with the order.

#### 4.2.2 Identifying the product

##### Product page

[www.endress.com/cya10](http://www.endress.com/cya10)

##### Interpreting the order code

The order code and serial number of your product can be found in the following locations:

- On the nameplate
- In the delivery papers

##### Obtaining information on the product

1. Go to [www.endress.com](http://www.endress.com).
2. Page search (magnifying glass symbol): Enter valid serial number.
3. Search (magnifying glass).
  - ↳ The product structure is displayed in a popup window.

#### 4. Click the product overview.

- ↳ A new window opens. Here you will find information pertaining to your device, including the product documentation.

#### 4.2.3 Manufacturer address

Endress+Hauser Conducta GmbH+Co. KG  
Dieselstraße 24  
70839 Gerlingen  
Germany

### 4.3 Scope of delivery

The scope of delivery comprises:

- Assembly
  - Process connection in the version ordered
  - Cable routing in the version ordered
  - Operating Instructions
- ▶ If you have any queries:  
Please contact your supplier or local sales center.

## 5 Installation

### 5.1 Installation requirements

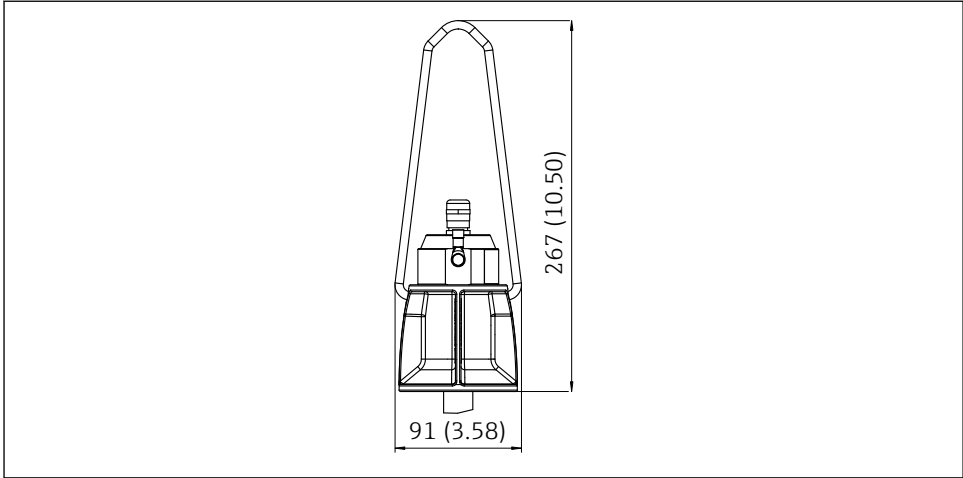
#### 5.1.1 Installation instructions

- Select the mounting location so that a sufficient distance to fixed installations is ensured. No damage to the installed sensor may occur even when the medium is moving.
- For fixed installation, select the retaining point so that the proper operation and maintenance of the assembly is guaranteed.

For use in hazardous areas:

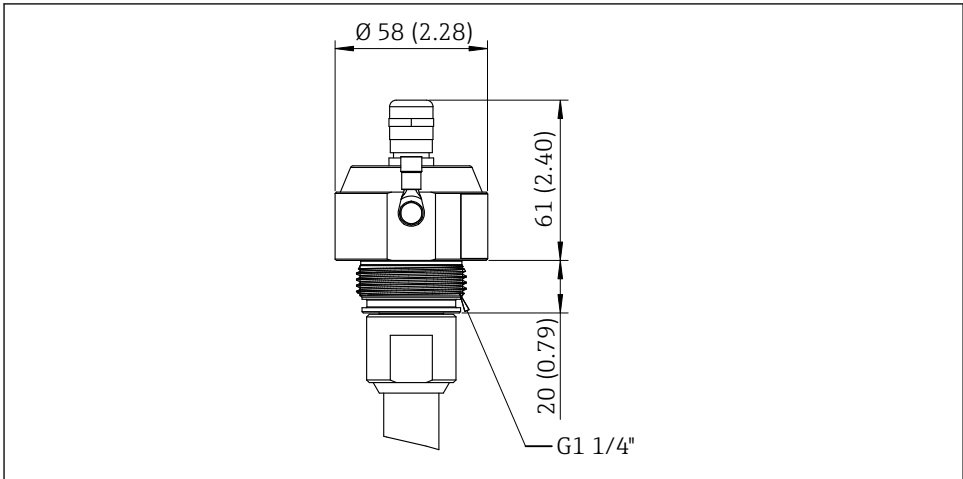
- The assembly has a grounding contact.
- If the assembly is secured using a chain and retaining bracket, a separate conductor for potential matching must be routed alongside the measuring cable.

### 5.1.2 Dimensions of process connections



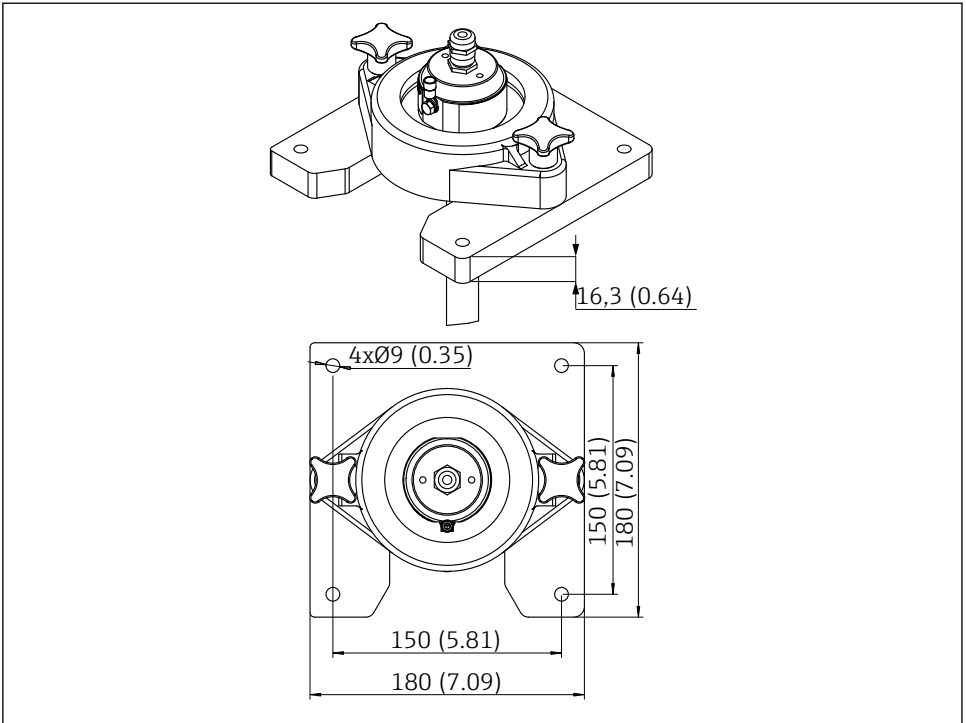
A0056507

2 Dimensions, chain holder process connection. Unit of measurement mm (in)



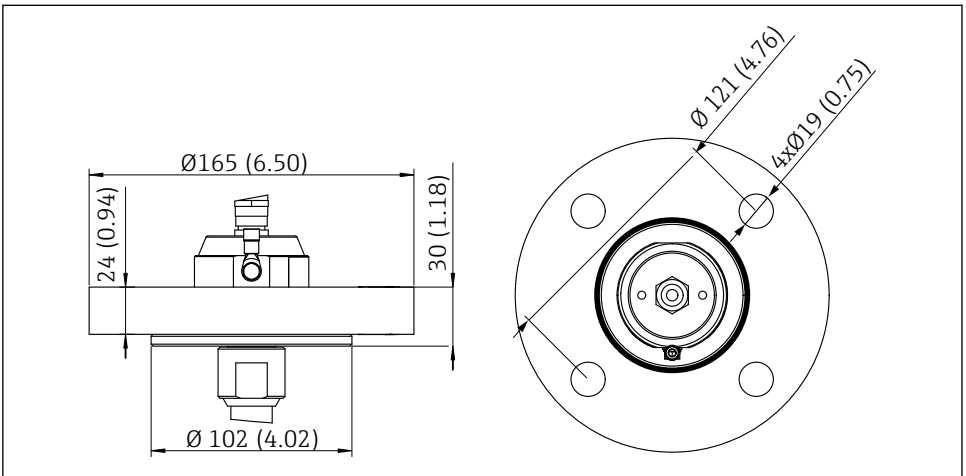
A0056508

3 Dimensions, G1 1/4" process connection, male thread. Unit of measurement mm (in)



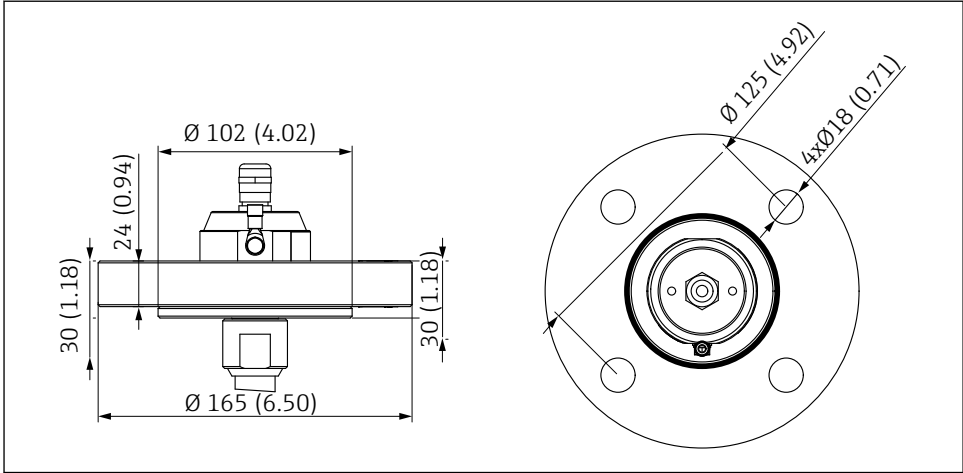
A0056509

4 Dimensions, oval flange process connection. Unit of measurement mm (in)



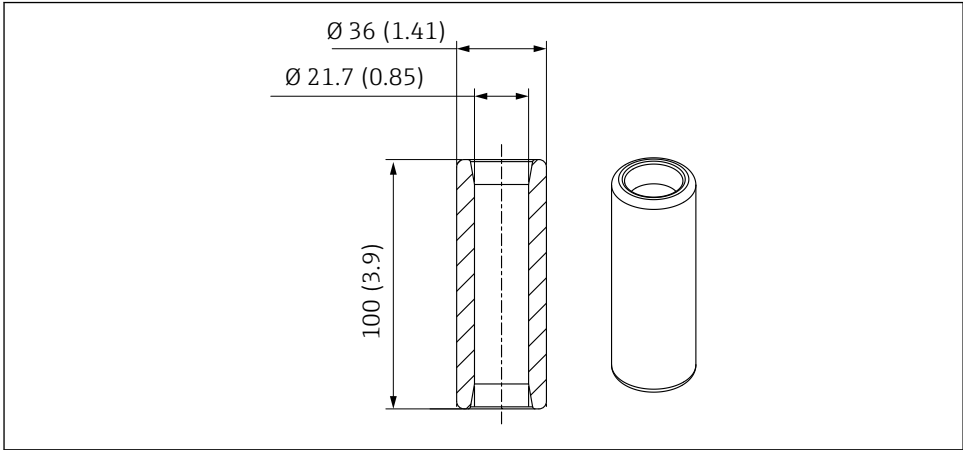
A0056510

5 Dimensions, ASME B16.5 2-inch process connection



A0060663

6 Dimensions, EN1092 DN50 process connection



A0060675

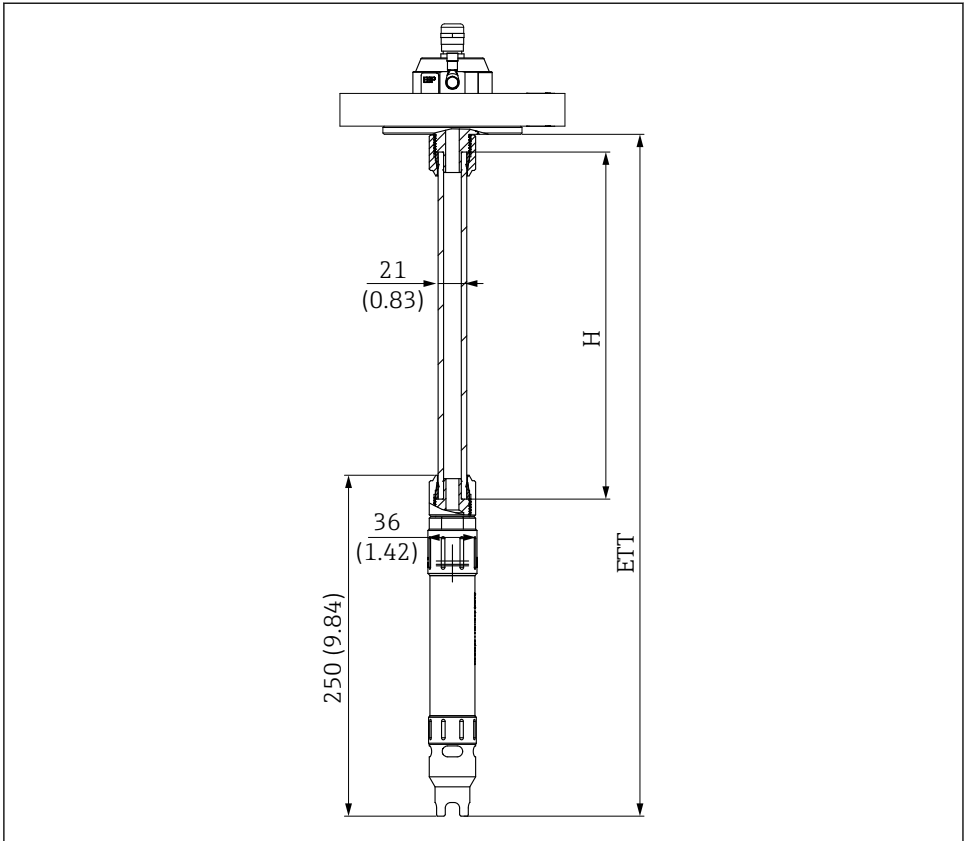
7 Dimensions, immersion weight (optional). Unit of measurement mm (in)

### 5.1.3 Dimensions and immersion depths

#### Immersion depths, hose version

The immersion depth ETT is determined by the selected hose length H + 245.5 mm.

Example: Hose length H shortened to 500 mm has an immersion depth ETT of 745.5 mm (500 mm + 245.5 mm = 745.5 mm). The hose length can be shortened using a suitable tool.

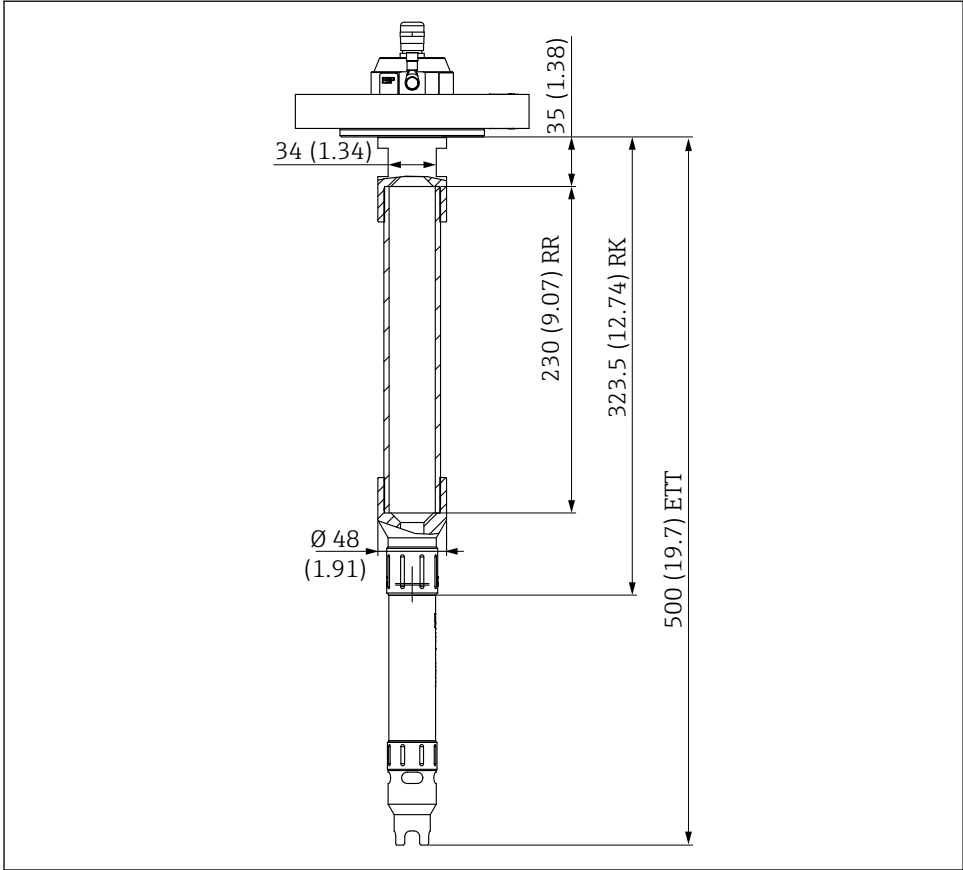


A0060665

8 Dimensions and immersion depth of hose version. Unit of measurement mm (in)

### Immersion depths, pipe version

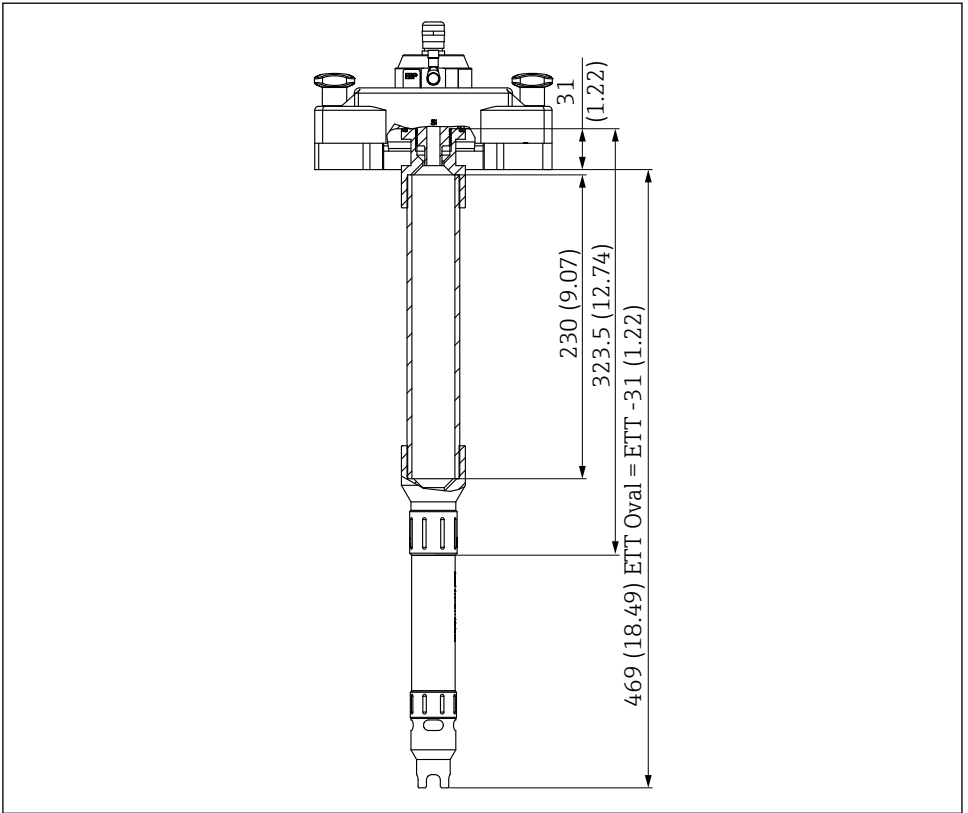
The immersion depth ETT is determined by the selected pipe length RR + 269.5 mm.



A0060666

9 Dimensions and immersion depth of the pipe version. Unit of measurement mm (in)

Raw pipe length RR (ETT-269.5 = RR)	Immersion depth ETT EN1092 DN50 version and 2" flange, Class 150, ASME B16.5	Immersion depth oval flange (ETT-31 mm)
230.5 mm (9.07 in)	500 mm (19.69 in)	469 mm (18.46 in)
730.5 mm (28.76 in)	1000 mm (39.37 in)	969 mm (38.149 in)
1230.5 mm (48.44 in)	1500 mm (59.60 in)	1469 mm (57.83 in)
1730.5 mm (68.13 in)	2000 mm (78.74 in)	1.969 mm (77.51 in)



A0060667

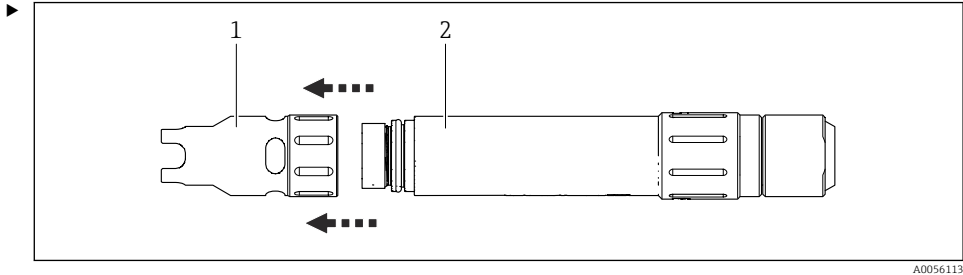
10 Example of dimensions and immersion depth, oval flange. Unit of measurement mm (in)

## 5.2 Installing the assembly

### 5.2.1 Installing or removing the protective cap

The assembly is fitted with a protective cap which also serves as a cable mounting tool.

#### Remove the protective cap



A0056113


Unscrew the protective cap (1) at the lower end of the sensor holder (2).

#### Installing the protective cap

1. Press the protective cap (1) at the lower end of the sensor holder (2) straight onto the thread.
2. Screw the protective cap (1) over the thread and hand-tighten to 1.5 Nm approximately. Make sure that the protective cap (1) is positioned straight on the thread.

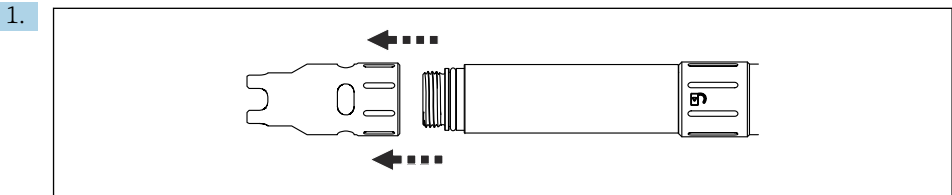
### 5.2.2 Installing the sensor cable

A hose or pipe serves as the cable guiding. The hose or pipe acts as a connection and for strain relief between the sensor holder and process connection.

 The assembly is designed for the CYK10 digital measuring cable with open ferrules.

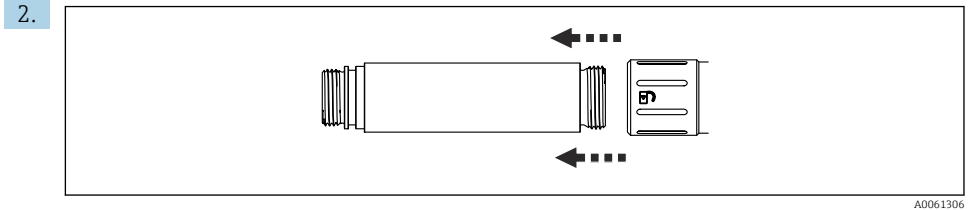
#### Removing the protective cap and sensor holder

The protective cap also serves as a cable mounting tool. The protective cap is used to unscrew the crown screw in the plug cap in order to fit the sensor cable.



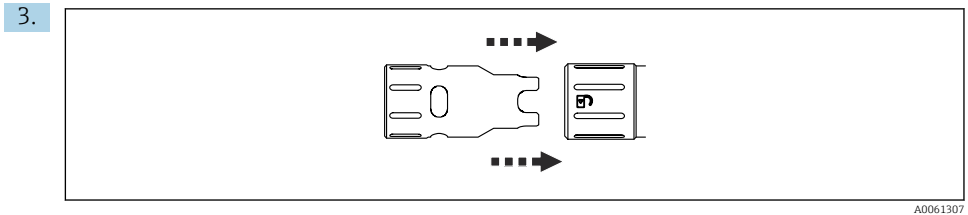
A0061305

Unscrew the protective cap from the sensor holder.

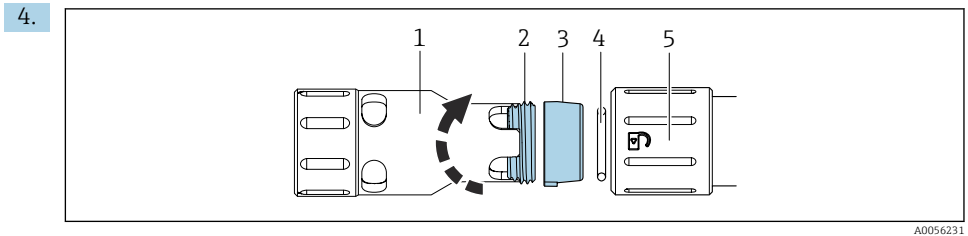


Unscrew the sensor holder.

- ↳ Inside the plug cap, there is a crown screw with a fixing ring and an O-ring, which secure the sensor cable in the plug cap and provide a seal. D



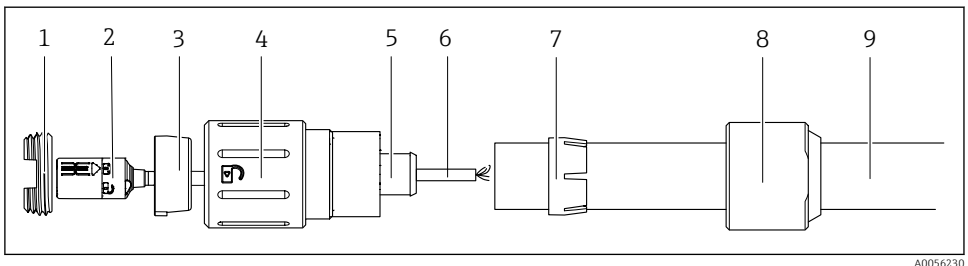
Turn the protective cap over and guide the prongs into the plug cap.



Use the protective cap (1) to unscrew the crown screw (2) in the plug cap (5) and remove the fixing ring (3). The O-ring (4) remains in the plug cap (5).

### 5.2.3 Mounting hose

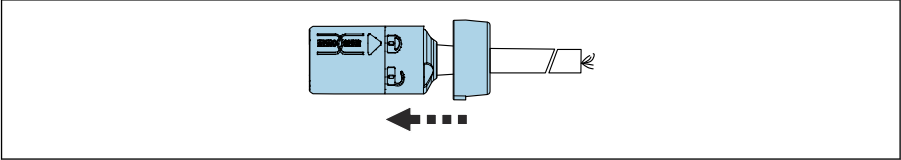
#### Preparing and threading in the sensor cable



**Prerequisite:**

- The protective cap and the sensor holder are removed.
- The crown screw (1) and the fixing ring (3) have been removed from the plug cap (4) for the sensor cable.
- The O-ring must be inserted into the plug cap.
- The hose gland (8), clamping ring (7) and (optional) immersion weight are pushed onto the hose.

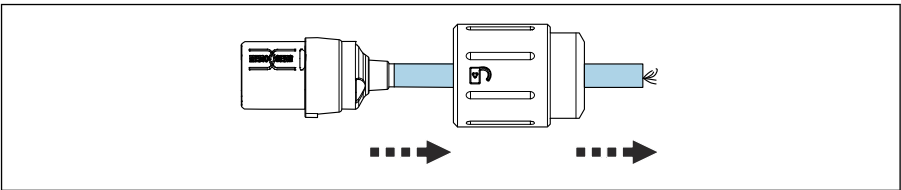
1.



A0060669

Guide the sensor cable (6) with the Memosens coupling (2) through the fixing ring (3) and slide it over the lock symbols. Make sure that the lug of the fixing ring is properly aligned with the guide groove in the plug cap.

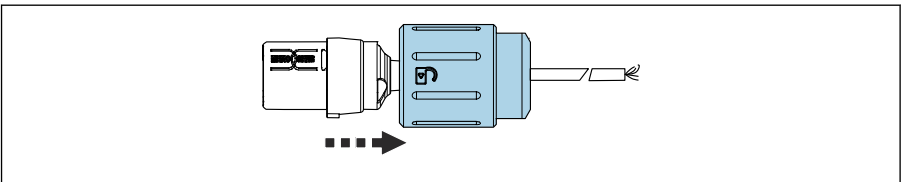
2.



A0060670

Guide the sensor cable (6) through the plug cap (4) up to the nozzle (5).

3.

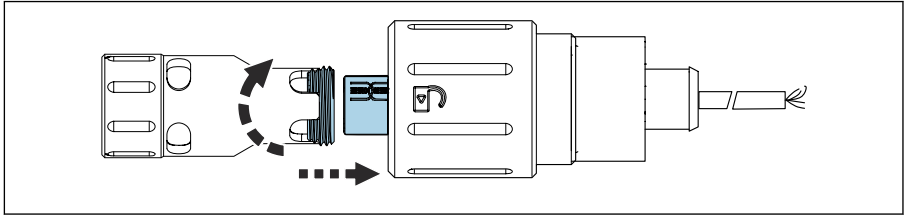


A0060674

Align the fixing ring (3) on the Memosens coupling (2) with the groove in the plug cap (4) and slide it into the plug cap. The Memosens coupling (2) remains in the fixing ring (3).

4. Check if the plug of the coupling can be moved easily.

5.

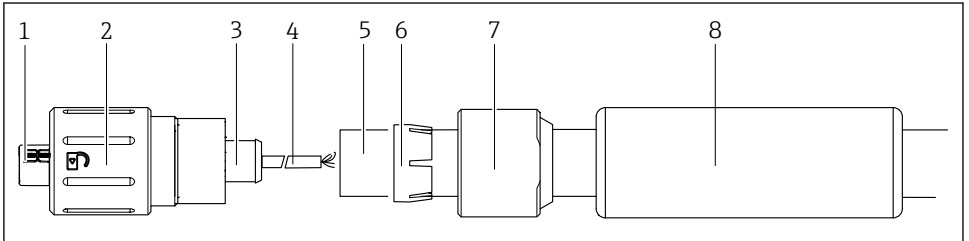


A0060673

Secure the Memosens coupling (2) with the crown screw (1) in the plug cap (4). Use the protective cap of the assembly for this purpose.

↳ It must be possible to move the connector of the Memosens coupling (2) easily.

### Installing the sensor cable in the hose



A0060672

1. Shorten the hose to the required length. Use a suitable hose cutting tool to do this.
2. Release the hose gland (7) and clamping ring (6) from the plug cap and slide it over the hose.
3. Guide the sensor cable (4) through the hose—from which a clamping ring (6), the hose gland (7), and the weight (8) are suspended—all the way to the end of the hose.
4. Now push the hose (5) onto the nozzle (3).
5. Use the clamping ring (6) to secure the hose (5) by pushing the clamping ring (6) as far as the nozzle (3).
6. Slide the hose gland (7) over the clamping ring (6) and screw it onto the plug cap (2).

#### 5.2.4 Installing the immersion weight (optional accessory)

##### Threading the immersion weight onto the hose

We recommend you use the immersion weight for applications with a greater immersion depth or (lighter) flow.

##### ▶ **NOTICE**

**The sensor holder, cable and sensor can be damaged.**

- ▶ Do not drop the immersion weight onto the sensor holder.

Thread the immersion weight carefully over the hose to the sensor holder.

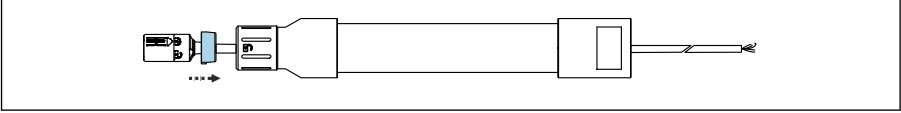
## 5.2.5 Pipe mounting

### Installing the sensor cable in the pipe

#### Prerequisite:

- The protective cap and the sensor holder are removed.
- The crown screw and the fixing ring in the plug cap are removed.
- The O-ring must be inserted into the plug cap.

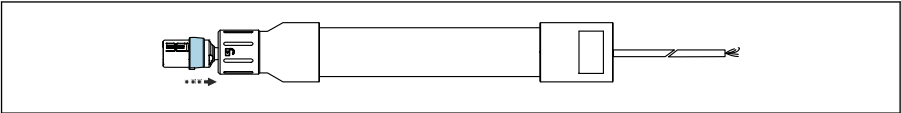
1.



A0061789

Guide the sensor cable through the fixing ring and the pipe to the end.

2.

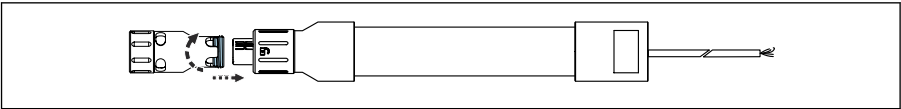


A0061790

Slide the fixing ring onto the Memosens coupling (2) until it passes the lock symbols. Make sure that the lug of the fixing ring is properly aligned with the guide groove in the plug cap.

3. Align the fixing ring on the Memosens coupling with the groove in the plug cap and slide it into the plug cap. The Memosens coupling remains in the fixing ring.

4.



A0061791

Secure the Memosens coupling with the crown screw in the plug cap. Use the protective cap of the assembly for this purpose.

- ↳ It must be possible to move the connector of the Memosens coupling easily.

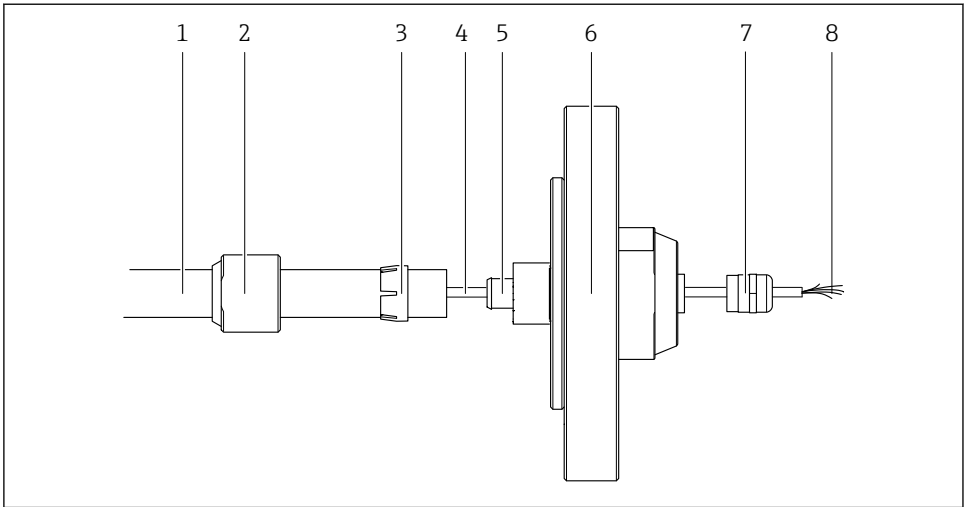
## 5.2.6 Installing the assembly on a process connection

### Mounting hose

Depending on the conditions, the assembly can be introduced into the process with different process connections.

#### Prerequisite:

- The sensor cable is mounted in the plug cap of the assembly.
- The hose/pipe for the sensor cable is not yet mounted on the process connection.



A0056229

#### 11 Installation using a sample process connection

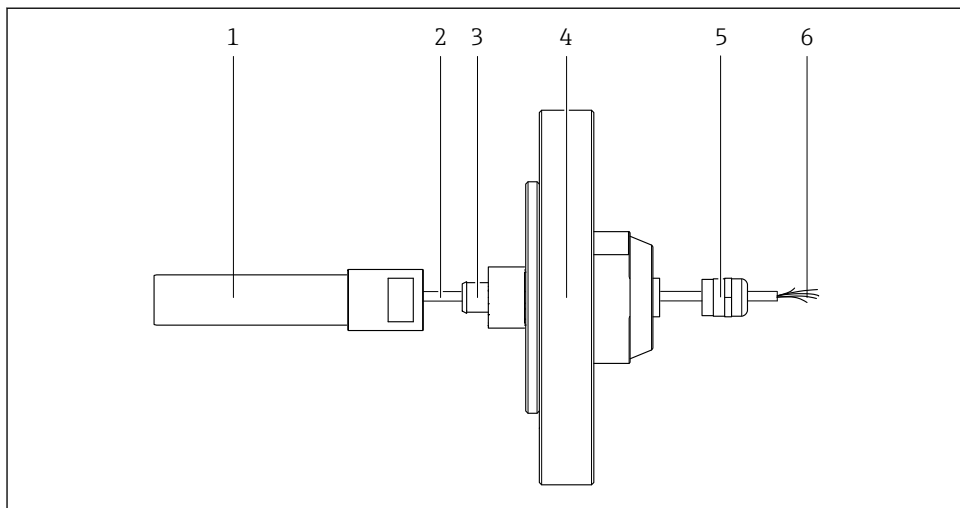
1. Remove the coupling nut (7) of the cable gland with the sealing ring on the process connection (6) as the sensor cable cannot otherwise be fed through.
2. Guide the hose (1) or the pipe (1) for the sensor cable through the hose gland (2) and the clamping ring (3).
3. Guide the sensor cable (4) through the hose (1) or the pipe (1).
4. Thread the sensor cable (4) through the nozzle (5), the entire process connection (6), and the coupling nut (7) along with the cable gland sealing ring. Make sure that the cable cores (8) do not bend.
5. Now push the hose (1) or the pipe (1) onto the nozzle (5) of the process connection (6) as far as it will go.
6. Use the clamping ring (3) to secure the hose (1) or the pipe (1) by pushing the clamping ring as far as the nozzle (5).
7. Slide the hose gland (2) over the clamping ring (5) and screw it onto the process connection (6) as far as it will go.
8. Insert the cable gland sealing ring and tighten the cable gland coupling nut so that it is no longer possible to move the cable loosely.

### Pipe mounting

Depending on the conditions, the assembly can be introduced into the process with different process connections.

#### Prerequisite:

- The sensor cable is mounted in the plug cap.
- The pipe for the sensor cable is not yet mounted on the process connection.



A0061308

#### 12 Installation using a sample process connection

1. Remove the coupling nut (5) of the cable gland with the sealing ring on the process connection (4) as the sensor cable cannot be fed through otherwise.
2. Guide the sensor cable (2) through the pipe (1).
3. Thread the sensor cable (2) through the nozzle (3), the entire process connection (5), and the coupling nut (5) along with the cable gland sealing ring. Make sure that the cable cores (6) do not bend.
4. Now push the pipe (1) onto the nozzle (3) of the process connection (4) as far as it will go. Make sure that the cable is not twisted.
5. Insert the cable gland sealing ring and tighten the cable gland coupling nut (5) so that it is no longer possible to move the cable (2 and 6) loosely.

### 5.2.7 Installing the sensor

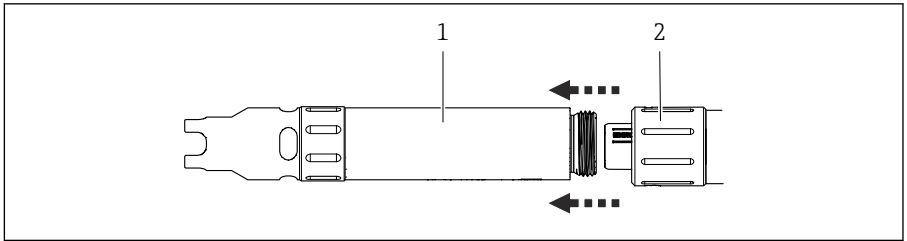
#### Connecting the sensor

 Sensors with a separate KCl supply are not supported.

**Prerequisite:**

The sensor cable is mounted in the plug cap with the Memosens coupling.

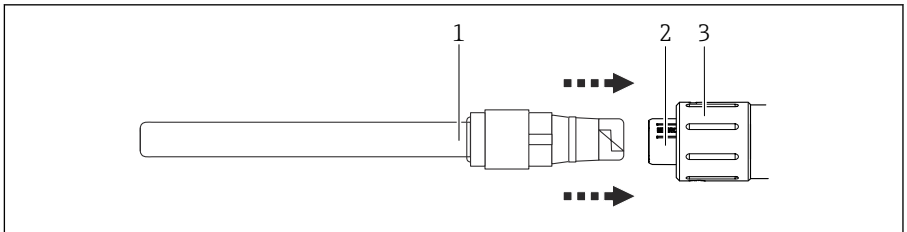
1.



A0056111

If not already done: Unscrew the sensor holder (1) from the plug cap (2) to expose the Memosens coupling. Hold the plug cap (2) securely to ensure that the Memosens cable does not move with it.

2.



A0056112

Connect the Memosens head of the sensor (1) to the plug cap (3) using plug & play. A padlock symbol is provided on the plug cap (3) for this purpose showing the direction for unlocking.

3. Guide the sensor holder over the sensor (1).

4. Screw the sensor holder into the plug cap (3).

**Installing the protective cap and sensor holder**

1. Screw the sensor holder onto the plug cap.

2. Press the protective cap at the lower end of the sensor holder straight onto the thread.

3. Screw the protective cap onto the thread by hand to approximately 1.5 Nm. Make sure that the protective cap is positioned straight on the thread.

**5.3 Post-installation check**

1. Check that the assembly is undamaged.

2. After mounting, check all the connections to ensure they are secure and leak-tight.

3. Check all hoses for damage.

4. Check that the hose is positioned securely by pulling on the process connection and sensor holder.

## 6 Maintenance

### WARNING

#### **Rough or slippery surfaces.**

Risk of injury from tripping or falling.

- ▶ Wind up the hose so that it is not kinked or tangled.
- ▶ Wear protective gloves, protective goggles and protective clothing.
- ▶ Secure the assembly against falling.
- ▶ Collect dripping liquids in a suitable container.

### WARNING

#### **Risk of toxic vapors when cleaning the assembly.**

Toxic effects!

- ▶ Wear a face mask, protective gloves, protective goggles and protective clothing.

### WARNING

#### **Flying parts.**

Risk of injury!

- ▶ Slowly insert and retract the assembly in or out of the process.
- ▶ Wear protective gloves, protective goggles and protective clothing.

### WARNING

#### **Materials or environments with high or low temperatures.**

Risk of injury!

- ▶ Wear protective gloves, protective goggles and protective clothing.

### WARNING

#### **Toxic components in lubricants.**

Contact with skin-irritating lubricants can cause irritation, redness or allergies.

- ▶ Use the grease provided in the service kit only.

### WARNING

#### **Electrostatic charge in industrial environments.**

Risk of injury!

- ▶ Implement ESD safety measures with conductive protective clothing.
- ▶ Do not wipe off the assembly with a dry cloth.
- ▶ Carry out an ignition source assessment.

### WARNING

#### **Risk of injury from high pressure, high temperature or chemical hazards if process medium escapes.**

- ▶ Check the connections to ensure they are sealed tightly.
- ▶ Do not carry out any work (maintenance, disassembly, sensor removal) unless the process is depressurized and secured.

**⚠ WARNING****Risk of injury if medium escapes**

- ▶ Before each maintenance task, ensure that the process pipe is empty and rinsed.
- ▶ The assembly may contain residual medium; rinse thoroughly before commencing work.

**⚠ WARNING****Wastewater**

There is a risk of infection when working with wastewater!

- ▶ Wear protective gloves, protective goggles and protective clothing.

## 6.1 Maintenance tasks

### 6.1.1 Checking the seals

- ▶ Check the seals on the sensor, quick fastener and assembly at regular intervals.

## 7 Repair

The repair and conversion concept provides for the following:

- The product has a modular design
- Spare parts are grouped into kits which include the associated kit instructions
- Only use original spare parts from the manufacturer
- Repairs are carried out by the manufacturer's Service Department or by trained users
- Certified devices can only be converted to other certified device versions by the manufacturer's Service Department or at the factory
- Observe applicable standards, national regulations, Ex documentation (XA) and certificates

1. Carry out the repair according to the kit instructions.
2. Document the repair and conversion and enter, or have entered, in the Life Cycle Management tool (W@M).

### 7.1 Spare parts

Spare parts currently available for the device can be found at: [www.endress.com/onlinetools](http://www.endress.com/onlinetools)

- ▶ Quote the serial number of the device when ordering spare parts.

### 7.2 Return

The product must be returned if repairs or a factory calibration are required, or if the wrong product was ordered or delivered. As an ISO-certified company and also due to legal regulations, Endress+Hauser is obliged to follow certain procedures when handling any returned products that have been in contact with medium.

[www.endress.com/support/return-material](http://www.endress.com/support/return-material)

### 7.3 Disposal

- ▶ Observe the local regulations.

## 8 Accessories

The following are the most important accessories available at the time this documentation was issued.

Listed accessories are technically compatible with the product in the instructions.

1. Application-specific restrictions of the product combination are possible.  
Ensure conformity of the measuring point to the application. This is the responsibility of the operator of the measuring point.
2. Pay attention to the information in the instructions for all products, particularly the technical data.
3. For accessories not listed here, please contact your Service or Sales Center.

### 8.1 Device-specific accessories

#### Memosens data cable CYK10

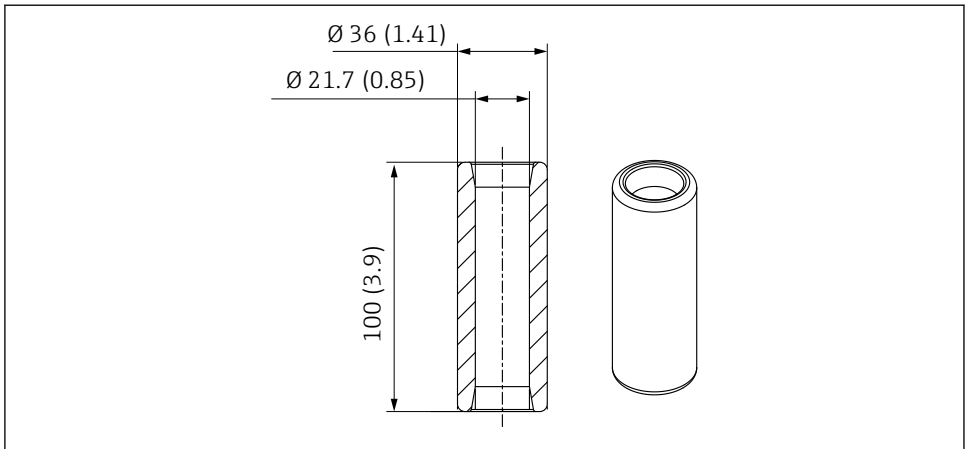
- For digital sensors with Memosens technology
- Product Configurator on the product page: [www.endress.com/cyk10](http://www.endress.com/cyk10)



Technical Information TI00118C

#### Kit CYA10 Immersion weight 316L/1.4404

Order No. 71717056



A0060675

- 13 Dimensions, immersion weight (optional). Unit of measurement mm (in)

## 8.2 Sensors

### 8.2.1 pH sensors

#### **Memosens CPS11E**

- pH sensor for standard applications in process and environmental engineering
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps11e](http://www.endress.com/cps11e)



Technical Information TI01493C

#### **Memosens CPS12E**

- ORP sensor for standard applications in process and environmental engineering
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps12e](http://www.endress.com/cps12e)



Technical Information TI01494C

#### **Memosens CPS16E**

- pH/ORP sensor for standard applications in process technology and environmental engineering
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps16e](http://www.endress.com/cps16e)



Technical Information TI01600C

#### **Memosens CPS31E**

- pH sensor for standard applications in drinking water and swimming pool water
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps31e](http://www.endress.com/cps31e)



Technical Information TI01574C

#### **Ceragel CPS71E**

- pH electrode with reference system including ion trap
- Product Configurator on the product page: [www.endress.com/cps71e](http://www.endress.com/cps71e)

#### **Memosens CPS72E**

- ORP sensor for chemical process applications
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps72e](http://www.endress.com/cps72e)



Technical Information TI01576C

#### **Memosens CPS76E**

- pH/ORP sensor for process technology
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cps76e](http://www.endress.com/cps76e)



Technical Information TI01601C

## 8.2.2 Oxygen sensors

### Memosens COS22E

- Hygienic amperometric oxygen sensor with maximum measurement stability over multiple sterilization cycles
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cos22e](http://www.endress.com/cos22e)



Technical Information TI01619C

### Memosens COS81E

- Hygienic optical oxygen sensor with maximum measurement stability over multiple sterilization cycles
- Digital with Memosens 2.0 technology
- Product Configurator on the product page: [www.endress.com/cos81e](http://www.endress.com/cos81e)



Technical Information TI01558C

## 8.2.3 Conductivity sensors

### Memosens CLS82E

- Four-electrode sensor
- With Memosens technology
- Product Configurator on the product page: [www.endress.com/cls82e](http://www.endress.com/cls82e)



Technical Information TI01529C

# 9 Technical data

## 9.1 Environment

### 9.1.1 Ambient temperature range

0 to 60 °C (32 to 140 °F)

### 9.1.2 Storage temperature range

-15 to +60 °C (5 to +140 °F)

## 9.2 Process

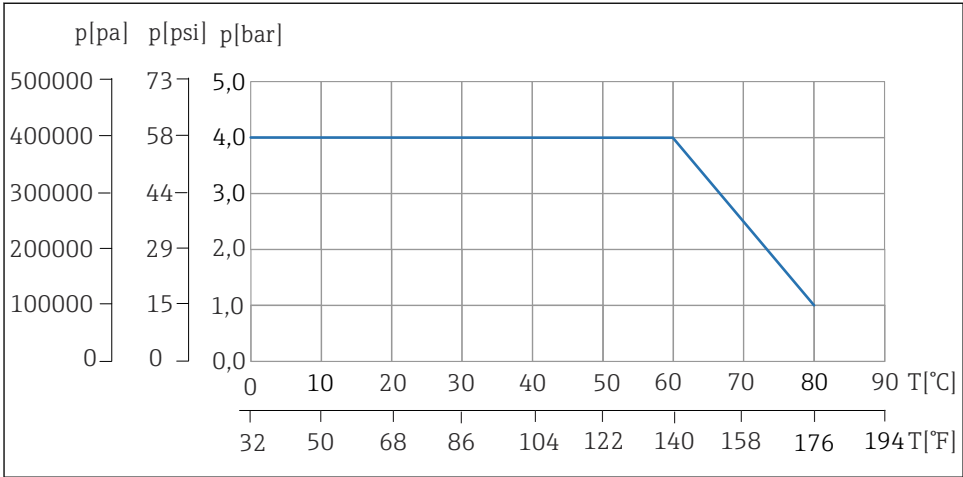
### 9.2.1 Process temperature range

0 to 80 °C (32 to 176 °F), non-freezing

### 9.2.2 Process pressure range

0 to 4 bar (0 to 58 psi) relative

### Pressure/temperature ratings



A0056350

14 Pressure/temperature rating

T Temperature  
p Pressure

## 9.3 Mechanical construction

### 9.3.1 Design, dimensions

→ Section "Installation"

### 9.3.2 Weight

Hose length	Weight
1 m (3.28 ft)	Approx. 1.5 kg (3.3 lb)
3 m (9.84 ft)	Approx. 2.1 kg (4.63 lb)
5 m (16.40 ft)	Approx. 2.8 kg (6.17 lb)
10 m (32.8 ft)	Approx. 4.4 kg (9.7 lb)

Immersion weight (optional): 500 gr (1.1 lbs)

### 9.3.3 Materials

	Non-hazardous area	Hazardous area
Wetted housing parts	PE-UHMW	PE-UHMW ELS*
Cable routing (hose)	EPDM	EPDM ELS*

	<b>Non-hazardous area</b>	<b>Hazardous area</b>
O-rings	EPDM	EPDM
Lap joint flanges	PP	PP
Oval flange parts	PP	PP
Chain holder	PA6/1.4404/A4	PA6/1.4404/A4
Cable gland	1.4305	1.4305
Clamping ring	PP	PP ELS*
Plug fuse	PBT-GF30	PBT-GF30
Immersion weight, wetted (optional)	1.4404	1.4404

\* ELS = Electrically conductive

# Index

## A

Accessories . . . . . 27

## D

Dimensions . . . . . 10

Disposal . . . . . 26

## I

Incoming acceptance . . . . . 8

Installation . . . . . 9

Installation conditions . . . . . 9

Installation procedure . . . . . 16

Installation requirements . . . . . 9

Intended use . . . . . 5

## M

Maintenance . . . . . 24

## N

Nameplate . . . . . 8

## P

Post-mounting check . . . . . 23

Process connection . . . . . 20

Product description . . . . . 6

Product identification . . . . . 8

## R

Repair . . . . . 26

Return . . . . . 26

## S

Safety information . . . . . 4

Safety instructions . . . . . 5

Scope of delivery . . . . . 9

Seals . . . . . 25

Sensor . . . . . 22

Sensor cable . . . . . 16

Symbols . . . . . 4

## T

Technical data . . . . . 29

Temperatures . . . . . 29

## U

Use . . . . . 5









71764244

[www.addresses.endress.com](http://www.addresses.endress.com)

---