

Technical Information

Dipfit CYA10

Immersion assembly for wastewater, surface water and industrial applications



Field of application

Dipfit CYA10 is an immersion assembly with a maximum immersion depth of 10 meters (32 ft) for:

- Monitoring surface water in groundwater wells, rivers and for brackish water and seawater
- Municipal and industrial wastewater treatment
- Industrial utility processes

Dipfit CYA10 is compatible with all digital 12 mm Memosens sensors without liquid KCl reference and the following parameters:

- pH/ORP
- Conductivity
- Oxygen

Your benefits

- Easy installation in well shafts, rivers and boilers thanks to a wide range of installation options (fixed with a flange connection or in combination with Flexdip CYH112)
- Time-saving maintenance of the measuring point due to the design with a flexible hose and easy accessibility of the sensor used, even when the assembly is used at great immersion depth
- Simple implementation of measuring points with PG13.5 sensors ("12 mm"), as the assembly is designed to be space-saving and can therefore also be installed in channels, boilers, sewage pipes or manholes
- Exceptional flexibility in the application thanks to the option of installing and operating the measuring points in sewage drains and covered clarifiers and in hazardous areas

Function and system design

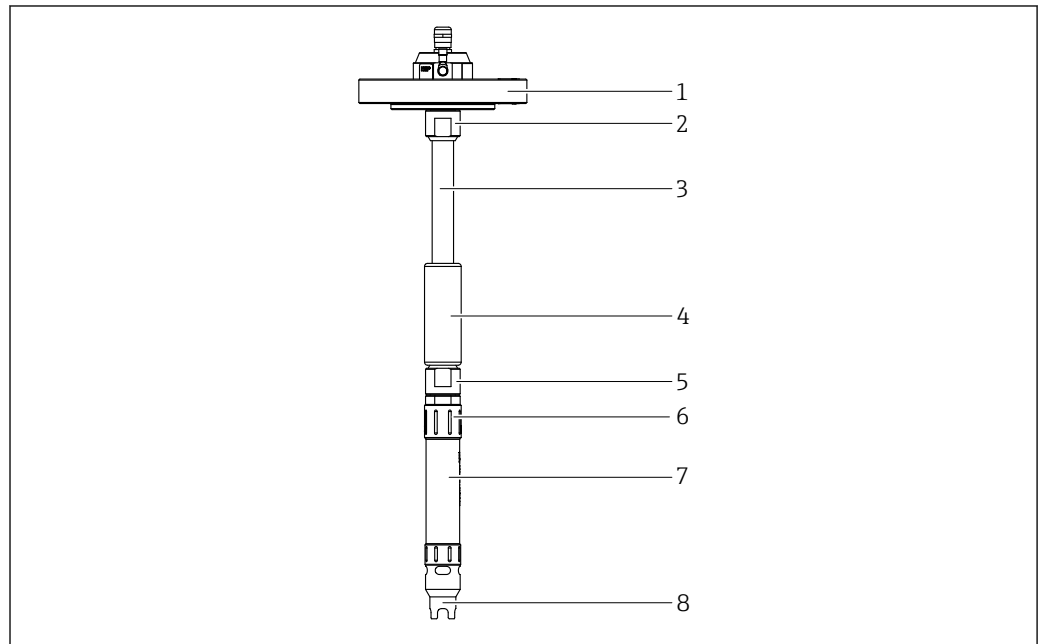
Product design

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

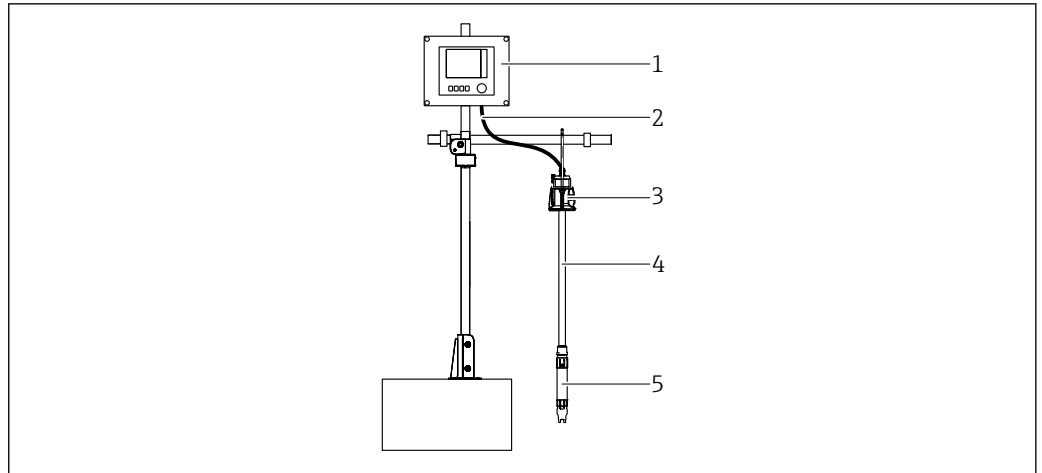
Assemblies with flexible cable routing tend to bend slightly and float when submerged to greater depths.

- ▶ Use optional immersion weight.

Measuring system

A complete measuring system consists of:

- CYA10 assembly
- Memosens data cable CYK10
- Cable hose
- Process connection, e.g. chain holder
- Transmitter, e.g. Liquiline CM44
- Sensor, e.g. CPS11E



A0056528

2 Example of a measuring system with CYA10

- 1 Transmitter
- 2 Memosens data cable
- 3 Process connection
- 4 Cable hose
- 5 CYA10 assembly

Environment

Ambient temperature range 0 to 60 °C (32 to 140 °F)

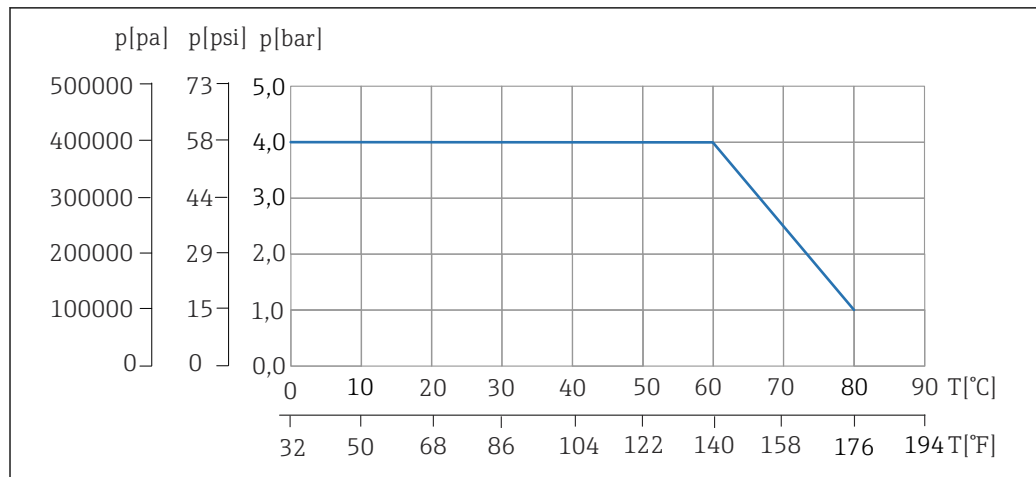
Storage temperature range -15 to +60 °C (5 to +140 °F)

Process

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

Process pressure range 0 to 4 bar (0 to 58 psi) relative

Pressure/temperature ratings



A0056350

3 Pressure/temperature rating

T Temperature

p Pressure

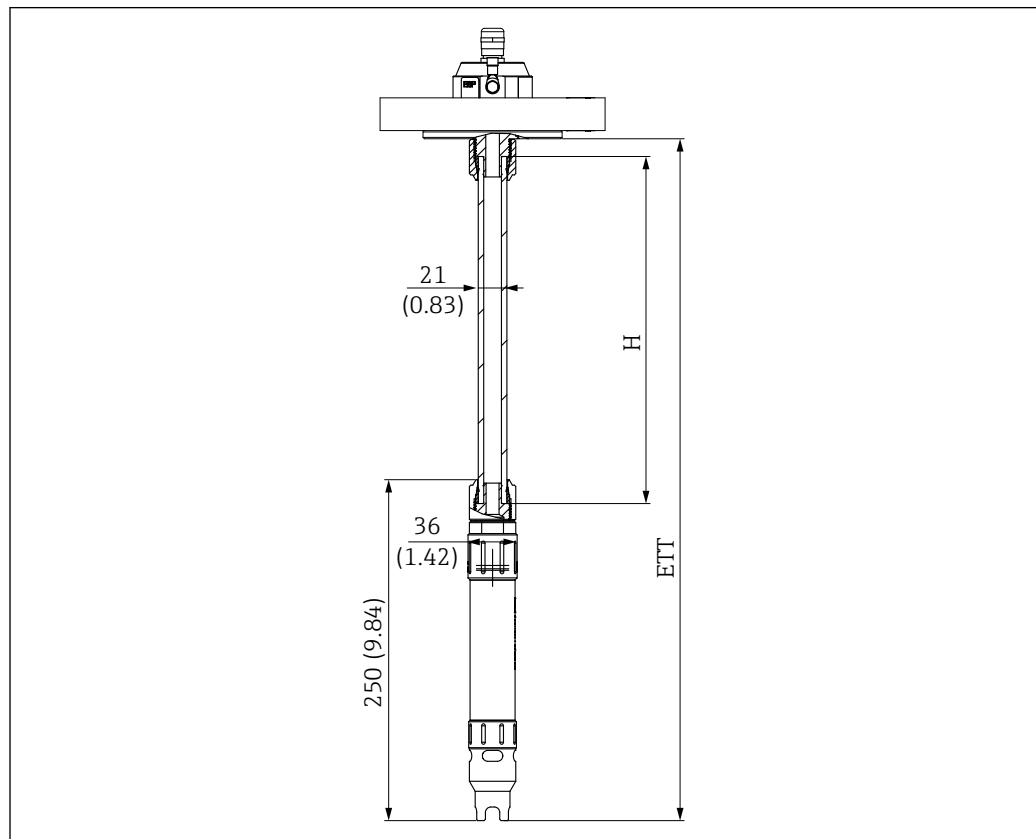
Mechanical construction

Design and dimensions

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.

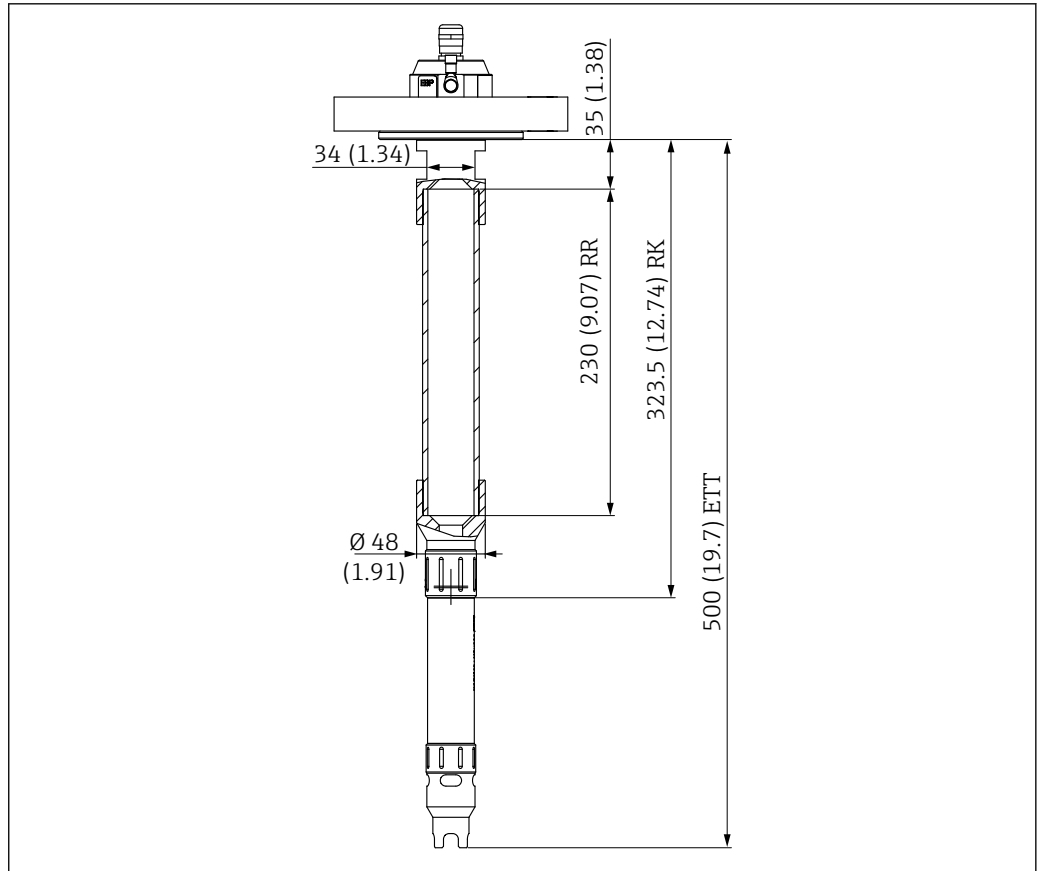


A0056350

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

Immersion depths, pipe version

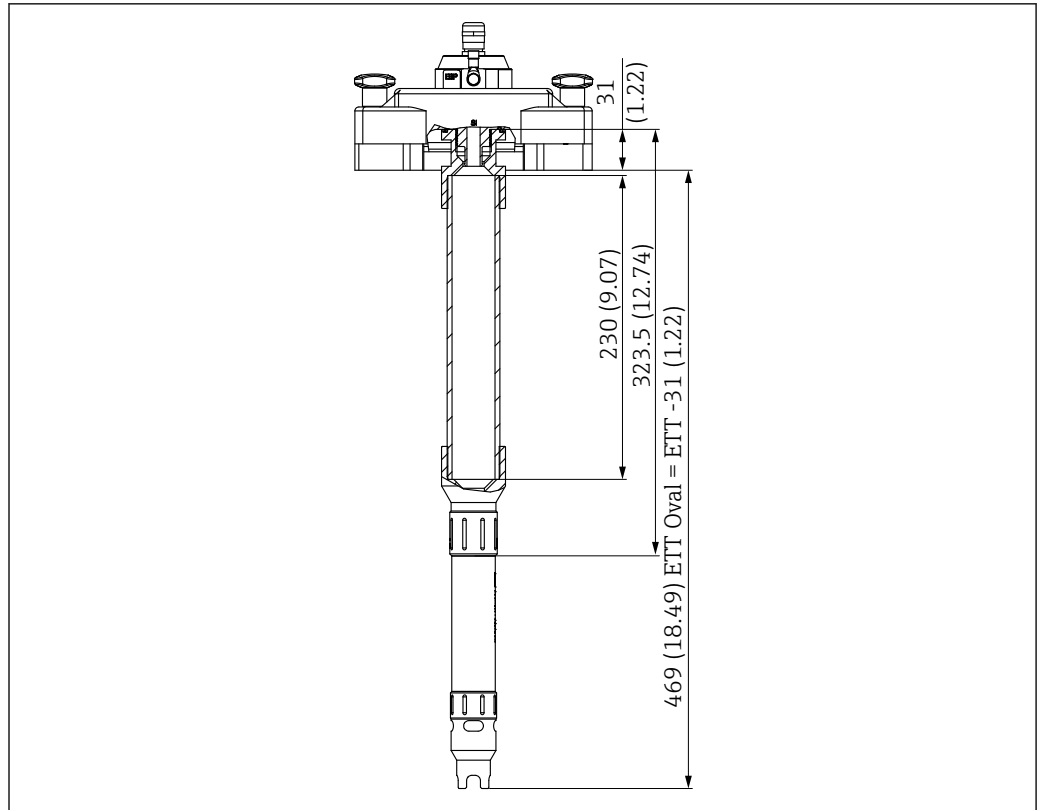
The immersion depth ETT is determined by the selected pipe length RR + 269.5 mm.



A0060666

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

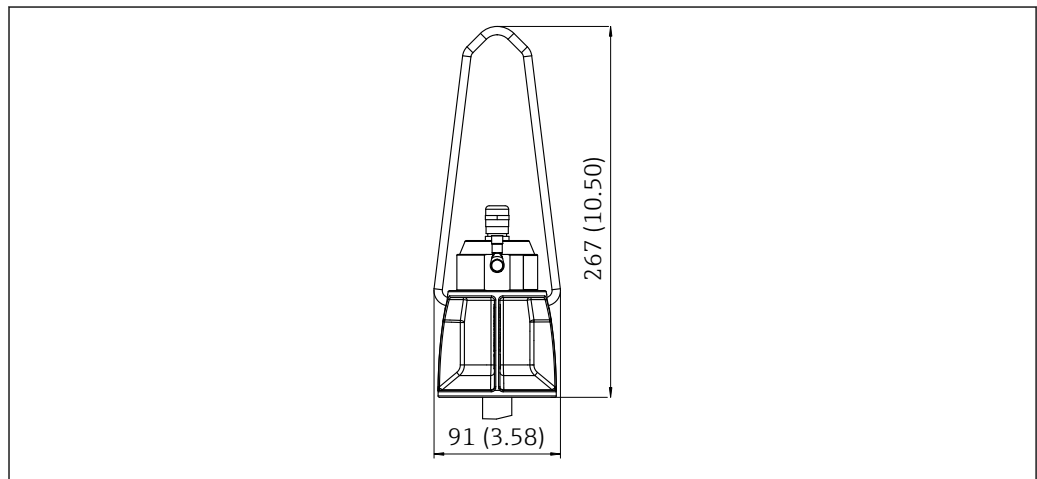
Raw pipe length RR (ETT-269.5 = RR)	Immersion depth ETT EN1092 DN50 version and 2" flange, Class 150, ASME B16.5	Immersion depth oval flange (ETT-31 mm)
230.5 mm (9.07 in)	500 mm (19.69 in)	469 mm (18.46 in)
730.5 mm (28.76 in)	1 000 mm (39.37 in)	969 mm (38.149 in)
1 230.5 mm (48.44 in)	1 500 mm (59.60 in)	1 469 mm (57.83 in)
1 730.5 mm (68.13 in)	2 000 mm (78.74 in)	1 969 mm (77.51 in)



A0060667

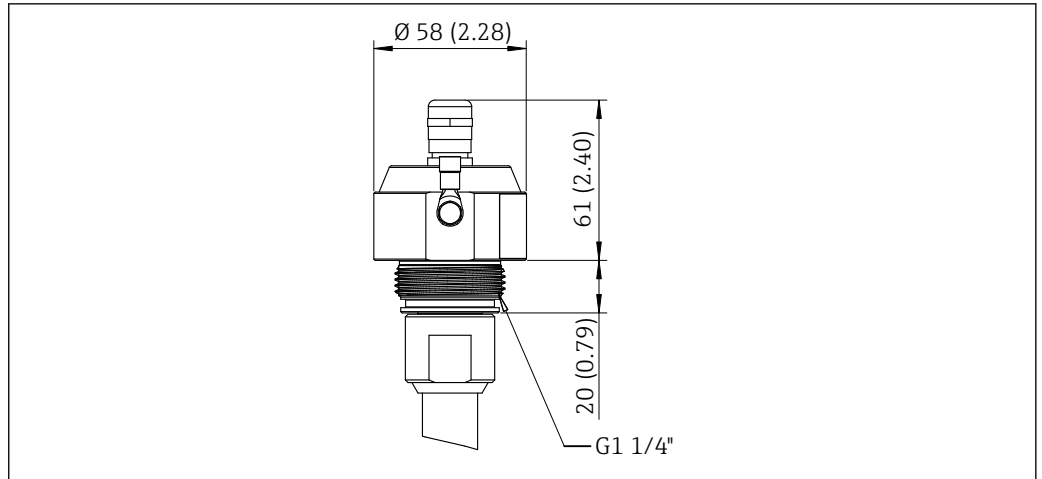
6 Example of dimensions and immersion depth, oval flange. Unit of measurement mm (in)

Dimensions of process connections



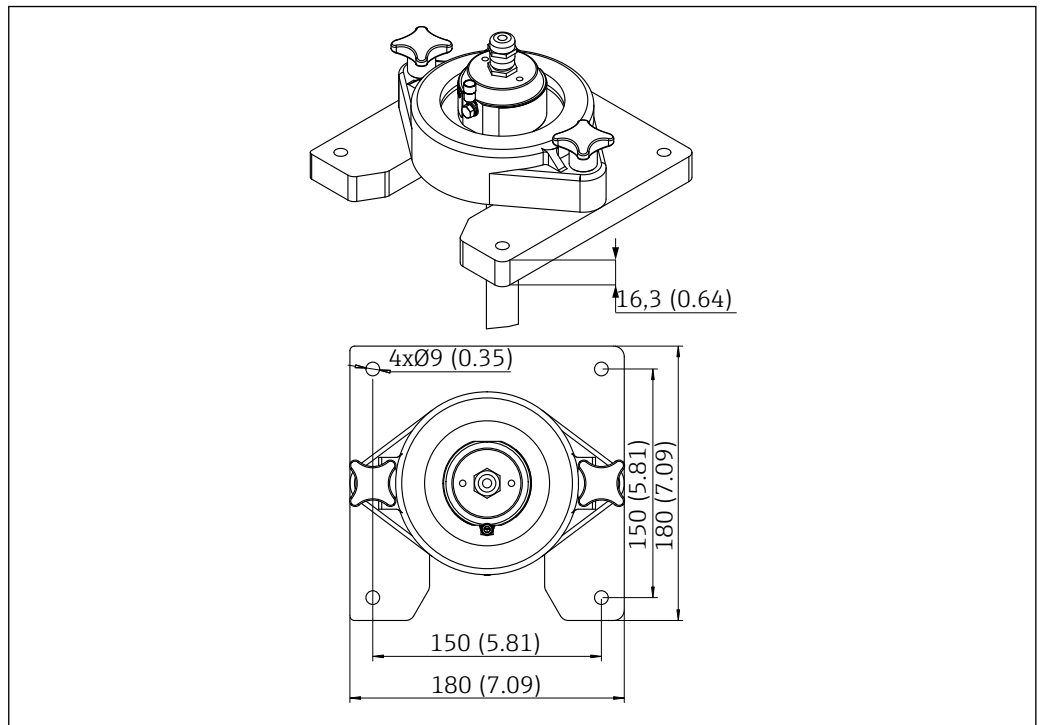
A0056507

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



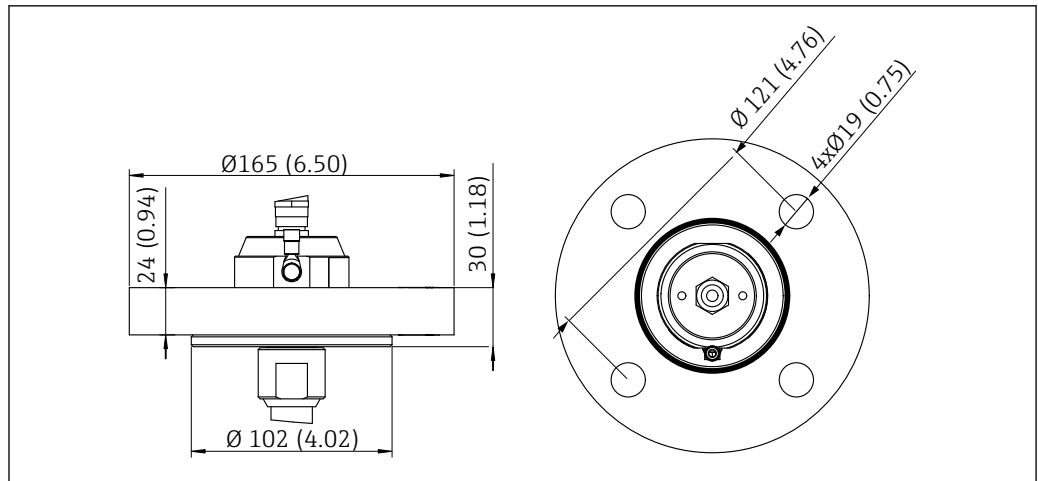
A0056508

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



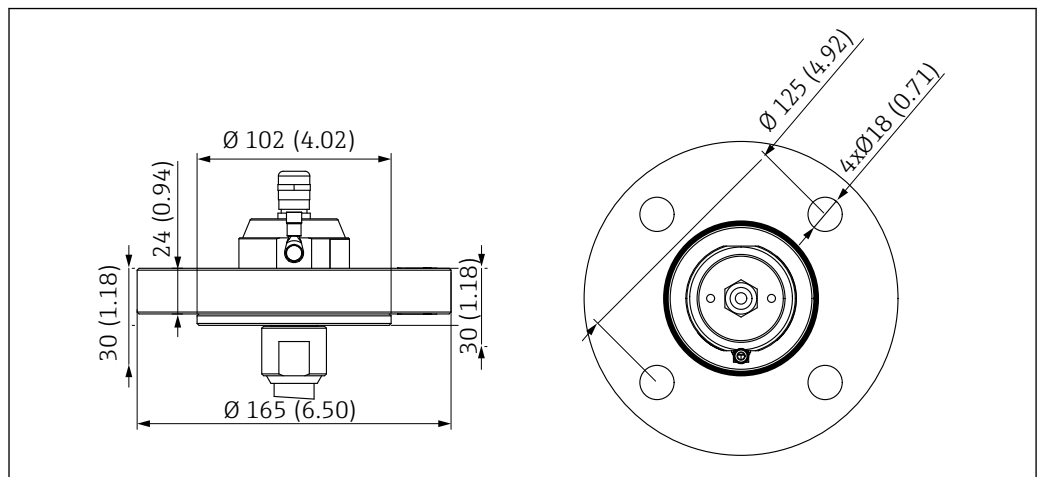
A0056509

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



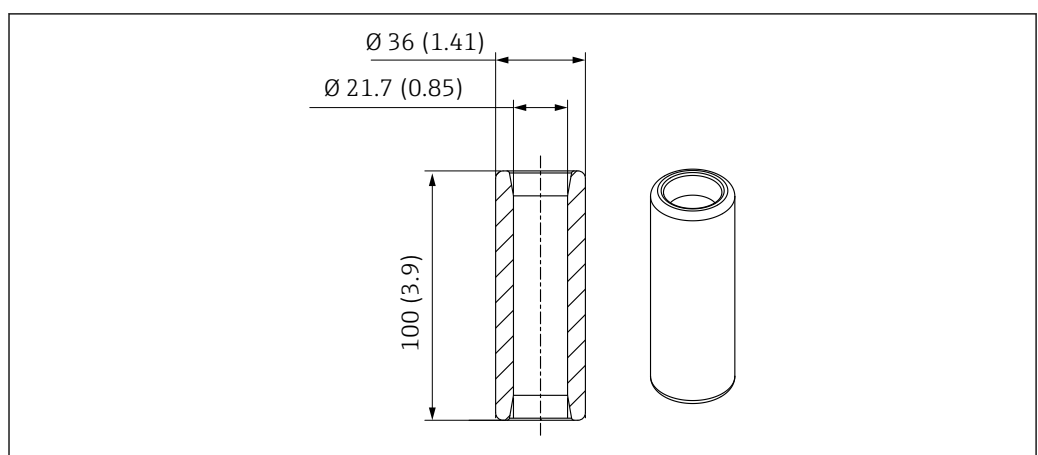
A0056510

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



A0060663

11 Dimensions, EN1092 DN50 process connection



A0060675

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

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)

Hose length	Weight
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)

Materials

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

Certificates and approvals

Current certificates and approvals for the product are available at www.endress.com on the relevant product page:

1. Select the product using the filters and search field.
2. Open the product page.
3. Select **Downloads**.


The following declarations are available for the assembly:

- Complies with the Pressure Equipment Directive (PED)
- Approved for use in the hazardous area (optional)

Ordering information

Product page www.endress.com/cya10

Product Configurator

1. **Configure:** Click this button on the product page.
 2. Select **Extended selection**.
 - ↳ The Configurator opens in a separate window.
 3. Configure the device according to your requirements by selecting the desired option for each feature.
 - ↳ In this way, you receive a valid and complete order code for the device.
 4. **Accept:** Add the configured product to the shopping cart.
-  For many products, you also have the option of downloading CAD or 2D drawings of the selected product version.
5. **CAD:** Open this tab.
 - ↳ The drawing window is displayed. You have a choice between different views. You can download these in selectable formats.
-

Scope of delivery

The scope of delivery comprises:

- Assembly
- Process connection in the version ordered
- Cable routing in the version ordered
- Operating Instructions

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.

Device-specific accessories

Memosens data cable CYK10

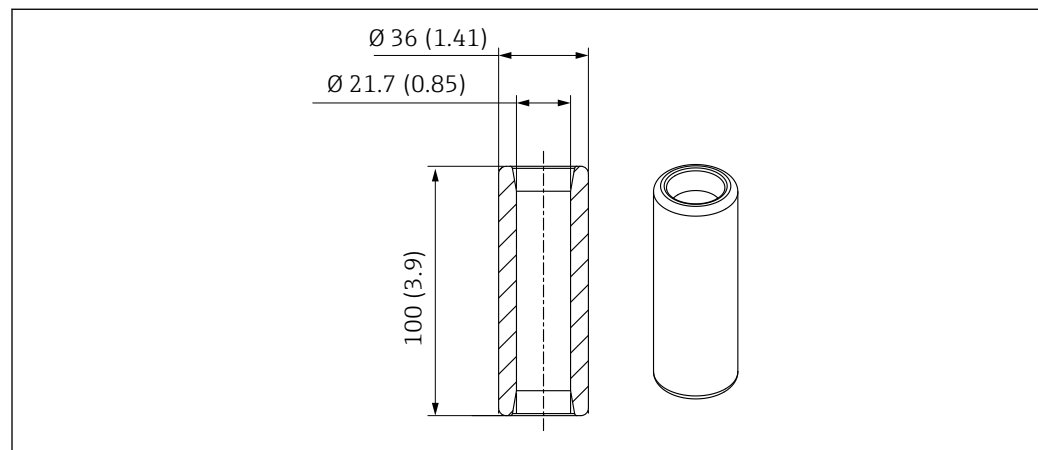
- For digital sensors with Memosens technology
- Product Configurator on the product page: www.endress.com/cyk10



Technical Information TI00118C

Kit CYA10 Immersion weight 316L/1.4404

Order No. 71717056



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

Sensors

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



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



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



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



Technical Information TI01574C

Ceragel CPS71E

- pH electrode with reference system including ion trap
- Product Configurator on the product page: 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



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



Technical Information TI01601C

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



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



Technical Information TI01558C

Conductivity sensors

Memosens CLS82E

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



Technical Information TI01529C



71767514

www.addresses.endress.com
