

Assembly for pH/Redox Measurement *OPA 250*

Flow assembly for pH or redox electrodes



Areas of application

The assemblies of the OPA 250 family allow mounting of pH or redox electrodes, or of temperature sensors. They are designed for installation in pipelines »bypass« or »online«.

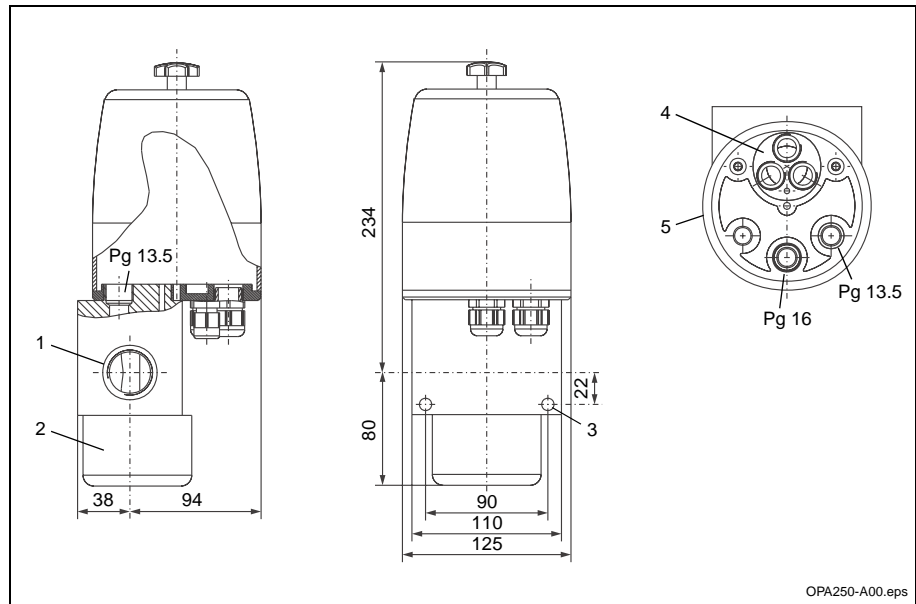
Inlet and outlet of the fluid lie on one axis. Due to especially designed internal fluid deviation and siphon, the electrodes are kept wet even when the flow is interrupted.

Benefits at a glance

- Mounting places for max. three sensors Pg 13.5 (pH, redox, temperature)
- A threaded sealing cap ensures easy access to the electrodes in the flow compartment and allows calibration and cleaning without sensor removal
- The sensor connection compartment is protected by a removable cover
- Potential matching pin built in as standard (material: stainless steel SS 316Ti)
- The electrolyte reservoir OPY 7 can be retrofitted.

Mounting and dimensions

- OPA 250-A0 with three electrode mounting places, material PP, with connection thread G 1
- 1 Connection thread G 1, nominal flow diameter DN 20
 - 2 Cap (measuring chamber) for calibration and cleaning, unscrewable
 - 3 Two mounting holes, \varnothing 9 mm
 - 4 Three electrode mounting places
 - 5 Electrode mounting plate (drawn without cover and seal)



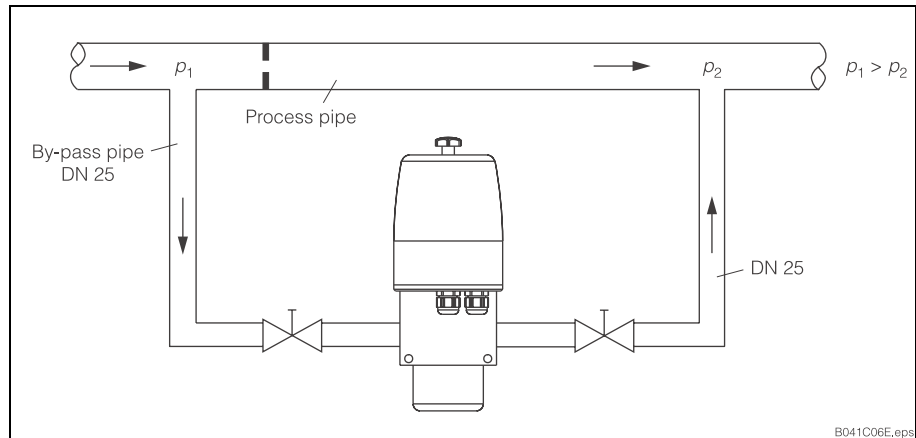
Mounting type

The flow assembly should be installed in horizontal pipes at locations where the pipe cannot run dry. Installation in the by-pass is preferable to installation in the process pipe as the by-pass pipe can be blocked off without process interruption.

This permits maintenance of the electrodes without interrupting the process. The medium pressure in the pipe must not exceed the maximum permissible pressure of the flow assembly or electrodes.

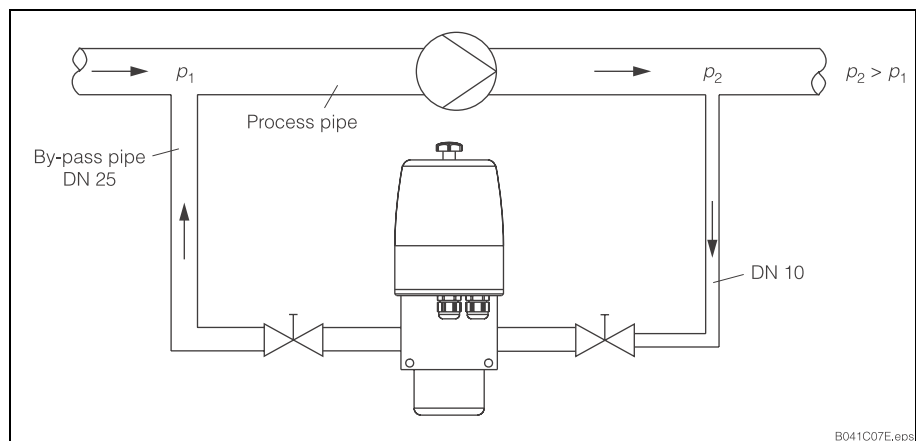
Pipe by-pass

The pressure build-up required to produce flow through the sampling by-pass is produced by a plate orifice in the process pipe.



Pump by-pass

The pressure build-up required to produce flow through the sampling by-pass is produced by a booster pump in the process pipe.



Accessories



Pressure electrolyte reservoir CPY 7 for wall mounting

Electrolyte reservoir OPY 7

It is used to supply unpressurized or pressurized electrodes filled with liquid electrolyte. If a reference electrode is installed, the reservoir can be used as an electrolyte bridge device.

The delivery includes:

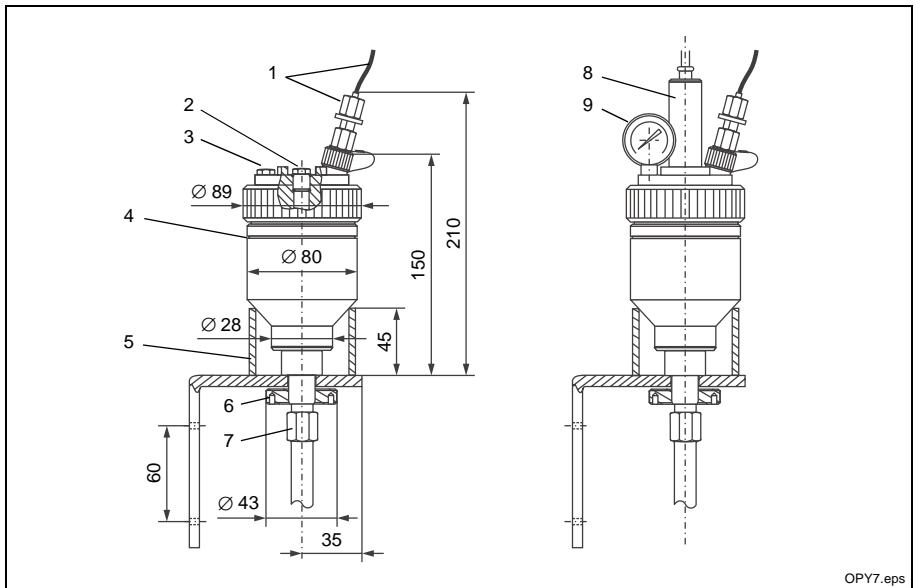
- Distance tube
- Pg 9 gland with connecting hose
- Pressure hose and hose couplings with check valve for pressurized applications
- Wall mounting support (optional)

left:

- Electrolyte reservoir OPY 7 with wall mounting support
- 1 Compressed-air supply with check valve (CPY 7-B only)
 - 2 Dummy plug for reference electrode
 - 3 Dummy plug for manometer (CPY 7-B only)
 - 4 Filling mark
 - 5 Distance tube
 - 6 Fastening nut M 20 for electrolyte reservoir
 - 7 Coupling nut 14 AF

right:

- Electrolyte reservoir OPY 7 with wall mounting support, reference electrode and manometer
- 8 Reference electrode
 - 9 Manometer



OPY7.eps

OPA 250 with electrolyte reservoir OPY 7 as an electrolyte bridge

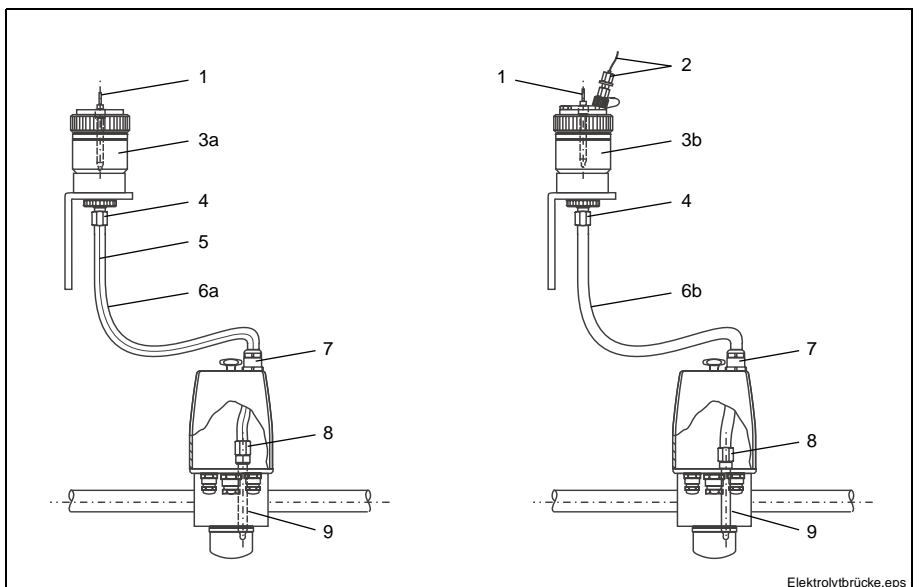
left:

Unpressurized application

right:

Pressurized application

- 1 Reference electrode
- 2 Compressed-air supply w. check valve
- 3a OPY 7-A0
- 3b OPY 7-B0
- 4 Coupling nut for hose connection of the electrolyte reservoir
- 5 Special wick
- 6a Silicon hose
- 6b PE pressure hose
- 7 Pg 9 gland
- 8 Coupling nut for hose connection of the diaphragm tube
- 9 Diaphragm tube



Elektrolytbrücke.eps

Technical data

Medium connection

PP version	screw socket G 1 DN 20
Stainless steel versions	flange DN 25

Materials in contact with medium

OPA 250-A0	PP
OPA 250-A1x	stainless steel SS 316Ti
O-rings	EPDM
Potential matching pin	stainless steel SS 316Ti

Operating pressure and temperature

PP version	6 bar at 20 °C, unpressurized at 90 °C
Stainless steel versions	6 bar at 115 °C

Mechanical data

Cable entry	Pg 16, Pg 13.5, dummy plug for Pg 9
Electrode mounting places	max. 3
Measuring chamber cap for calibration and cleaning	unscrewable

Subject to modifications.

Product structure

pH flow assembly OPA 250				
<p>Design</p> <p>A With 3 electrode mounting places</p>				
<p>Material / connection</p> <p>0 PP, potential matching pin of SS 316Ti / thread G 1</p> <p>10 SS 316Ti / thread G 1</p> <p>11 SS 316Ti / flange DN 25</p>				
<p>OPA 250-</p> <table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>				<p>complete order code</p>