



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Technical Information

Flowfit COA250

Flow assembly for oxygen sensors

Assembly for unsupported installation in pipes or wall mounting



Application

The flow assembly COA250 has been specially designed to hold oxygen sensors with a diameter of 40mm (1.57 inch). It can be used wherever normal sensor immersion is either impossible or undesirable.

Main areas of application are:

- Wastewater treatment
- Drinking water
- Monitoring of surface waters
- Analysis stations
- Process applications

Your benefits

- Simple wall installation or unsupported installation in pipes
- Automatic self-venting due to bottom inlet/top outlet design
- Quick oxygen sensor response is assured by minimized inside volume
- Construction is insensitive to clogging
- Oxygen sensor can be easily removed for calibration in air
- Allows connection of a spray head for sensor membrane cleaning during operation

Function and system design

Measuring system

A complete measuring system comprises:

- Flowfit COA250
- Oxygen sensor, e.g. COS31, COS41, COS61 or COS51D
- Measuring cable, e.g. CYK10
- Transmitter, e.g. Liquiline M CM42

Optional:

- Junction box for cable extension, e.g. RM junction box

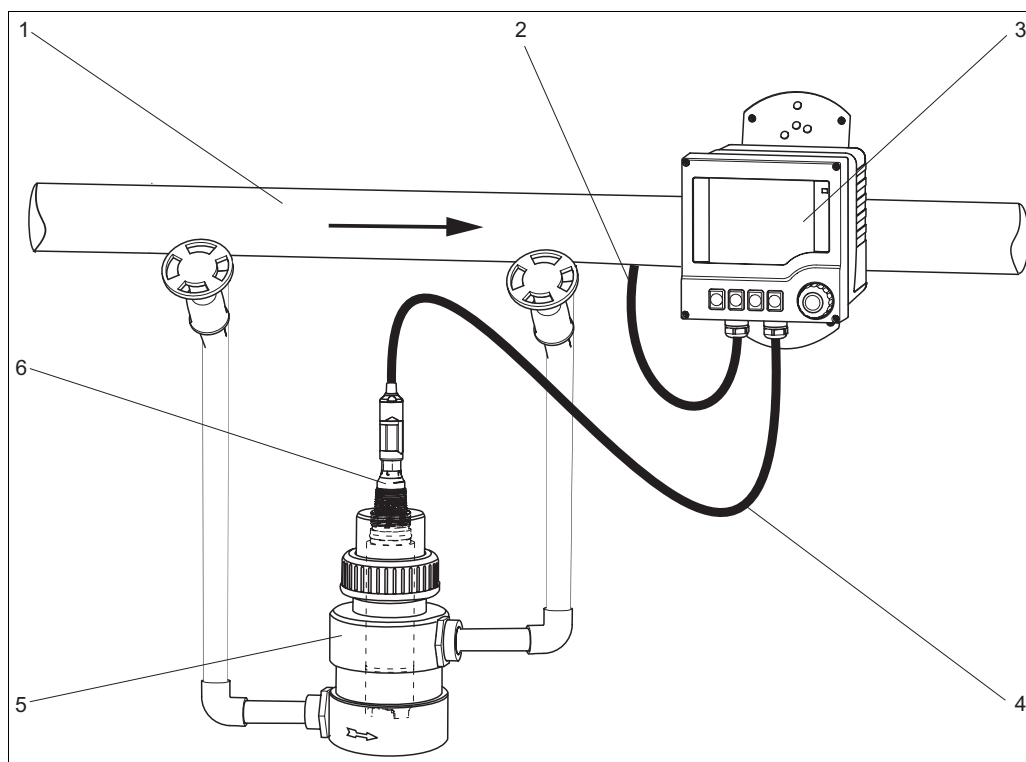


Fig. 1: Measuring system

- 1 Process line with bypass and valves
- 2 Supply line of the transmitter
- 3 Transmitter Liquiline M CM42
- 4 Measuring cable CYK10
- 5 Flowfit COA250
- 6 Oxygen sensor COS51D

Installation

Installation instructions

To get a flow through the bypass, pressure p_1 has to be higher than pressure p_2 . Therefore, you have to install an aperture in the main conduit (→  2).

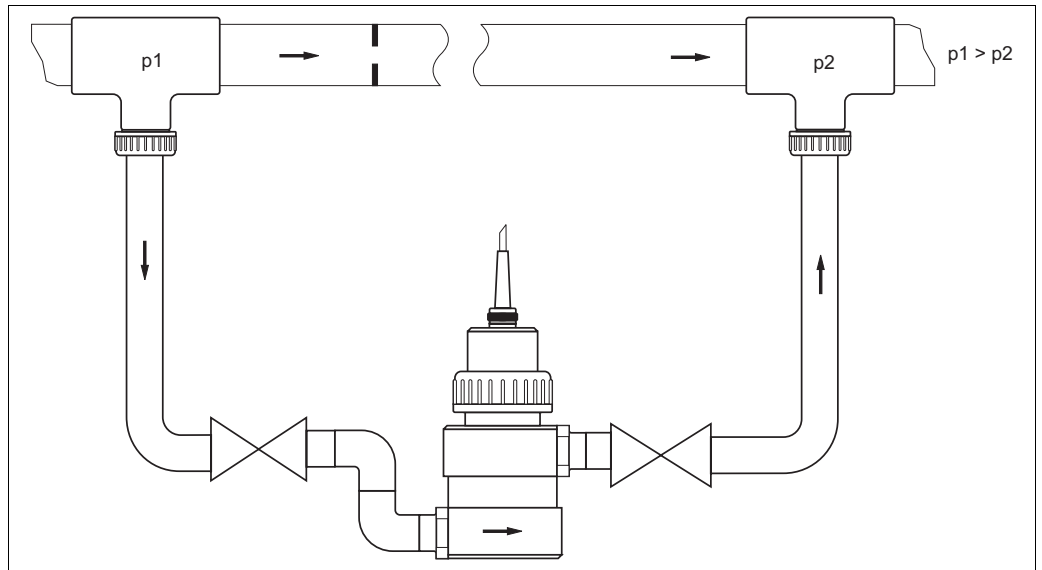


Fig. 2: Installation example with bypass and aperture in the main conduit

In case of an open outlet installation, no pressure increasing procedure is needed (→  3).

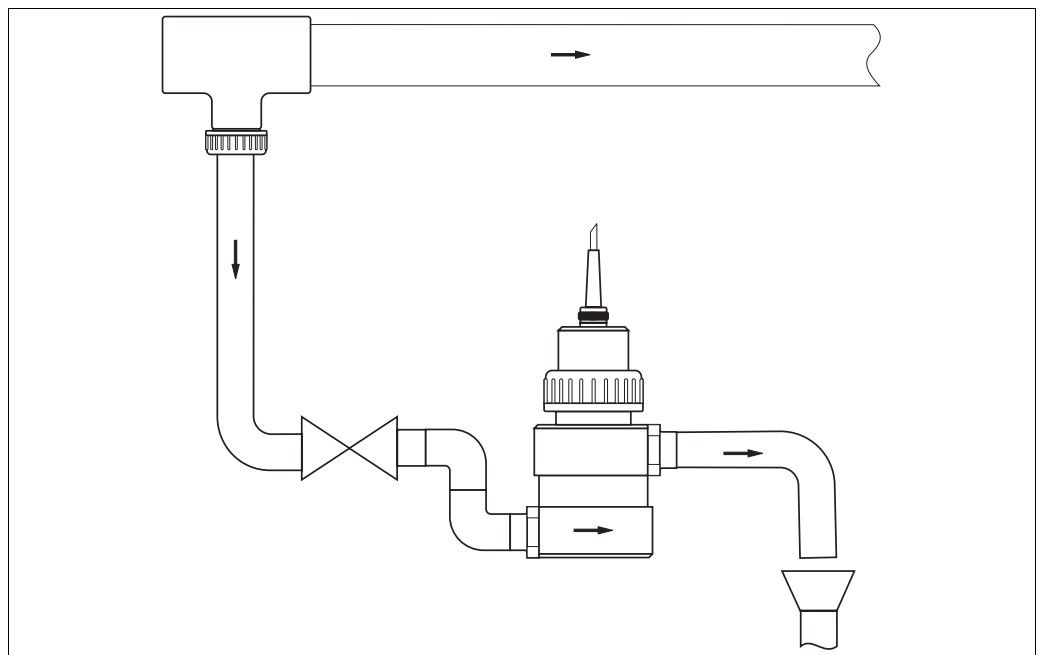


Fig. 3: Installation example with open outlet

Environment

Ambient temperature range 0 ... 50 °C (32 ... 120 °F)

Storage temperature 0 ... 50 °C (32 ... 120 °F)

Process

Process temperature range 0 to 50 °C (32 to 120 °F), non-freezing

Process pressure max. 6 bar (87 psi) at 20 °C (68 °F) and 4 bar (58 psi) at 50 °C (122 °F)

Temperature-Pressure diagram

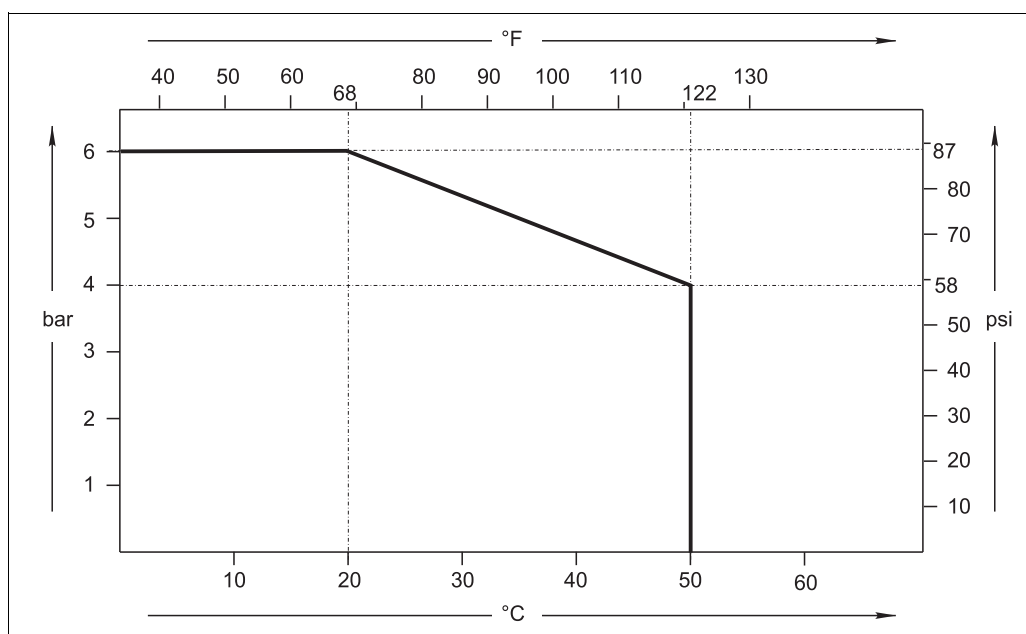


Fig. 4: Temperature-Pressure diagram

Mechanical construction

Design, dimensions

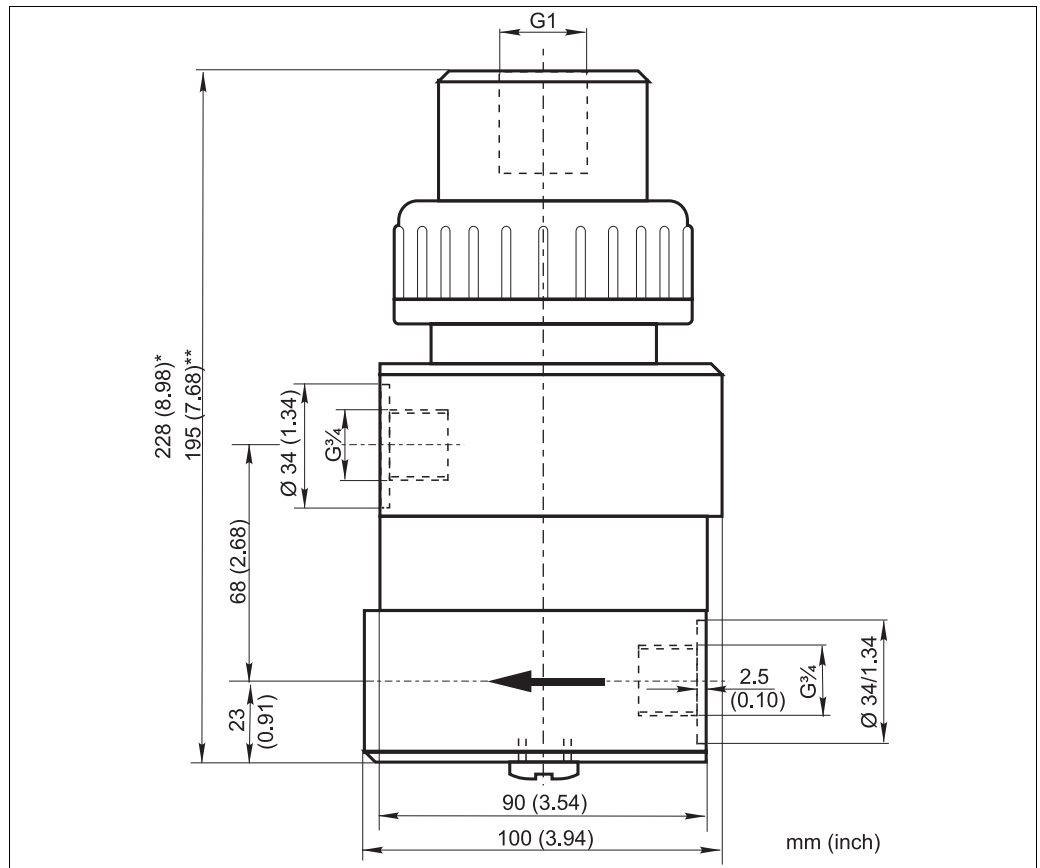


Fig. 5: Dimensions

* with long sensor sleeve (COA250-B)

** with short sensor sleeve (COA250-A)

Weight 0.5 to 0.8 kg (1.1 to 1.8 lbs), depending on process connection

Materials EPDM (sealings)
PVC

Process connection G³/₄ (for usual fittings)

Suitable sensors Amperometric and optical sensors with Ø40 mm (1.57 inch) and G1 thread

Installation lengths

- COA250-A: 110 to 150 mm (4.3 to 5.9 inch), e.g. COS 3 / 3HD / 4 / 4HD / 41 / 51D
- COA250-B: 140 to 190 mm (5.5 to 7.5 inch), e.g. COS 31 / 61

Ordering information

Product structure

	Version	
	A	Short sensor sleeve for COS41 / 51D / 3 / 3HD / 3S / 4 / 4HD
	B	Long sensor sleeve for COS31 / 61
COA250-		complete order code

Scope of delivery

The scope of delivery comprises:

- Flowfit assembly (ordered version)
- Operating Instructions (English)

Accessories



Note!

In the following sections, you find the accessories available at the time of issue of this documentation. For information on accessories that are not listed here, please contact your responsible service.

Accessories kits

Long sensor sleeve

- For later installation of sensor COS31 / 61 into COA250-A assembly
- order no. 51507172

Pipe clamp COY250

- For panel or wall mounting
- order no. 50065132

Sensors

Oxymax W COS31

- Oxygen sensor for drinking water and wastewater measurements, potentiostatic amperometric principle
- Material: stainless steel 1.4571 (AISI 316 Ti)
- Ordering acc. to product structure, see Technical Information (TI285C/07/en)

Oxymax W COS41

- Oxygen sensor for drinking water and wastewater measurements, amperometric principle
- Material: POM
- Ordering acc. to product structure, see Technical Information (TI284C/07/en)

Oxymax W COS51D

- Amperometric sensor for dissolved oxygen, with Memosens technology
- Ordering acc. to product structure, see Technical Information (TI413C/07/en)

Oxymax W COS61

- Optical oxygen sensor for drinking water and wastewater measurements, fluorescence quenching principle
- Material: stainless steel 1.4571 (AISI 316 Ti)
- Ordering acc. to product structure, see Technical Information (TI387C/07/en)

Cleaning systems

Chemoclean CUR3

- Spray head for flow assemblies CUA250 and COA250
- order no. CUR3-1

Chemoclean

- Injector CYR10 and programme sequencer CYR20
- Ordering acc. to product structure, see Technical Information (TI046C/07/en)

Instruments International

Endress+Hauser
Instruments International AG
Kaegenstrasse 2
4153 Reinach
Switzerland

Tel.+41 61 715 81 00
Fax+41 61 715 25 00
www.endress.com
info@ii.endress.com

Endress+Hauser 
People for Process Automation