



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

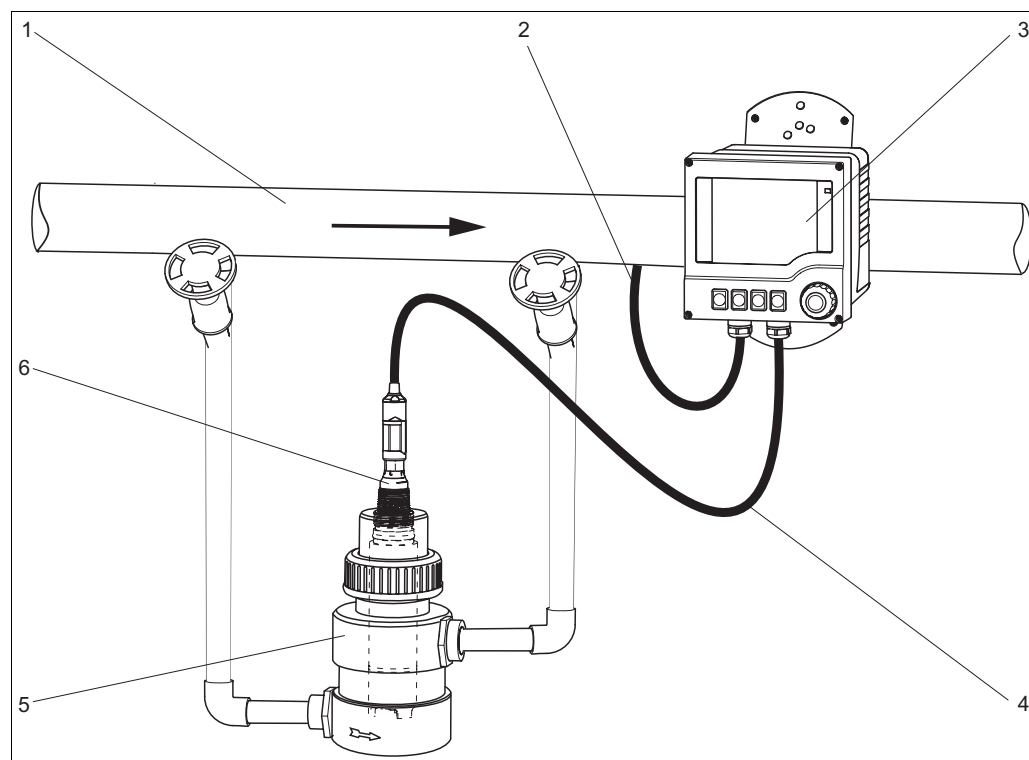



Fig. 1: Measuring system

- 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).

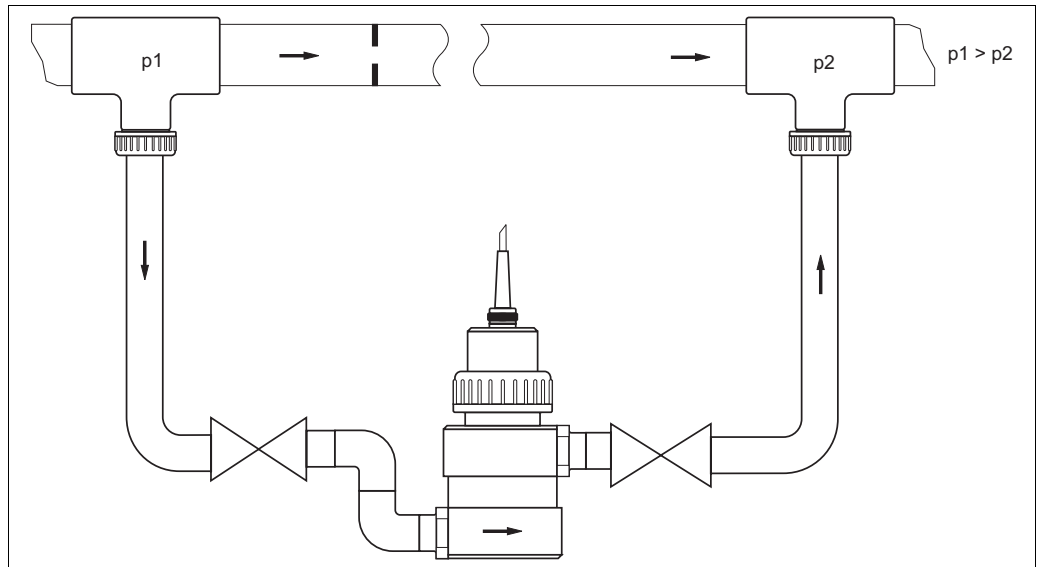


Fig. 2: Installation example with bypass and aperture in the main conduit

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

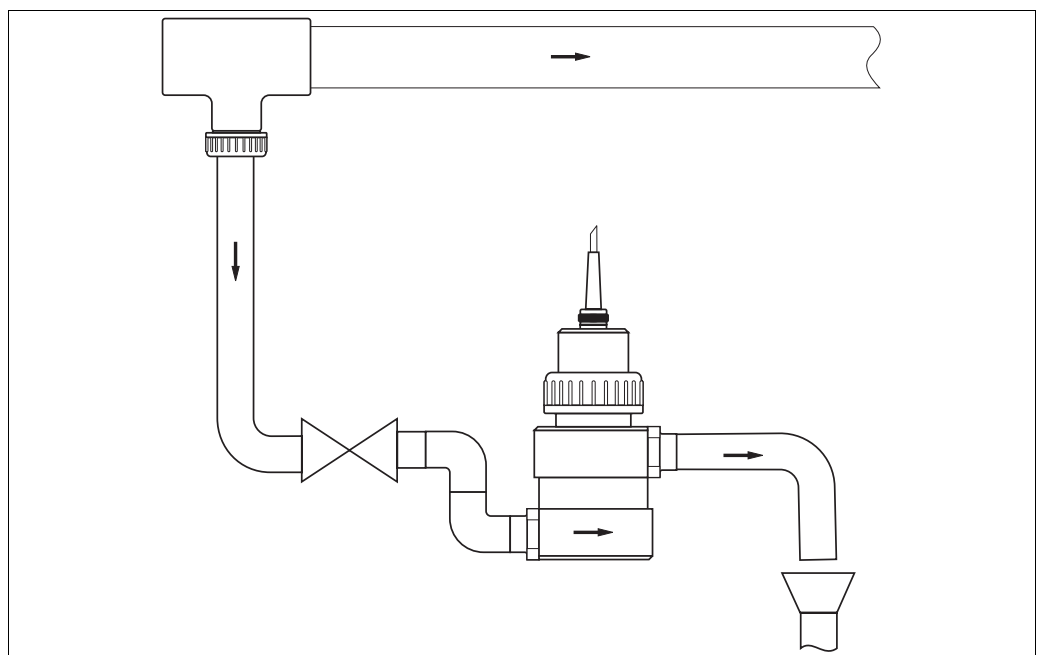


Fig. 3: Installation example with open outlet

## 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

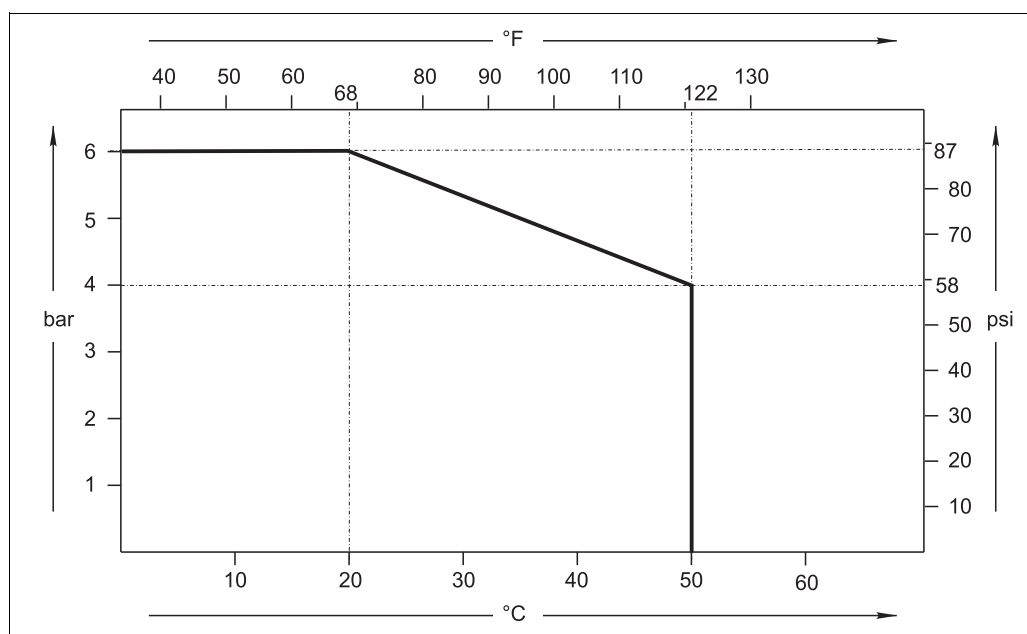


Fig. 4: Temperature-Pressure diagram

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## Mechanical construction

### Design, dimensions

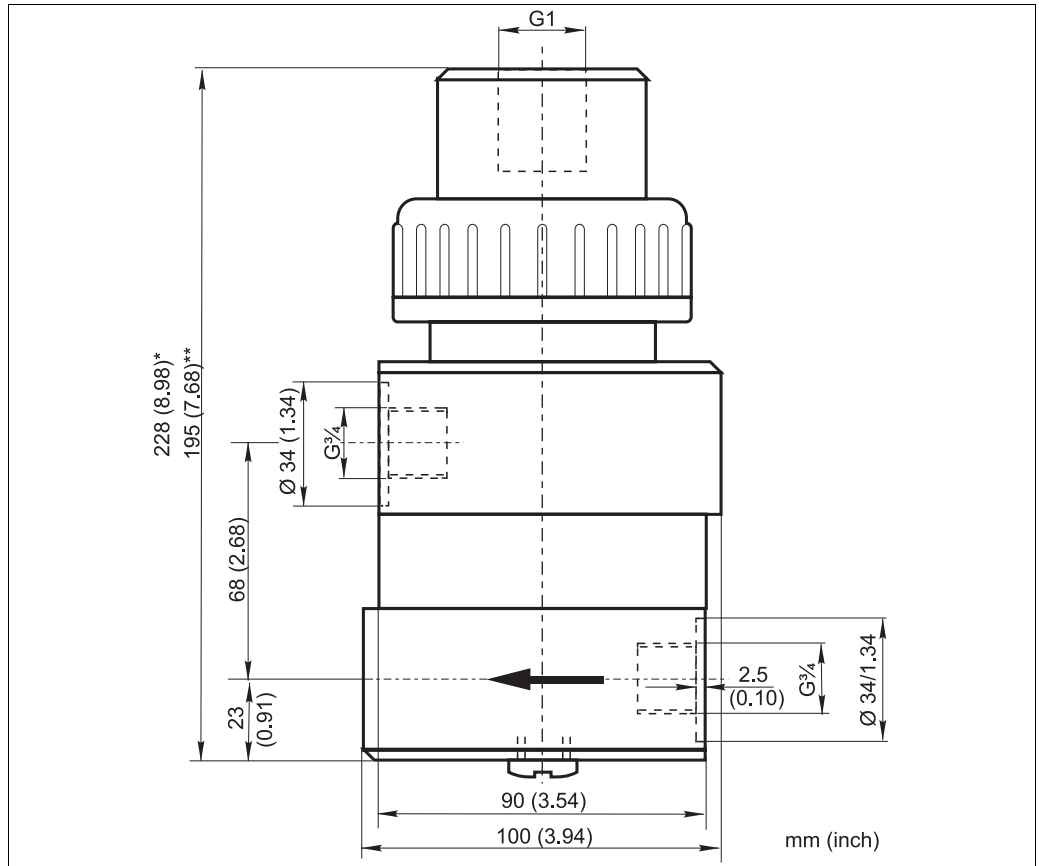


Fig. 5: Dimensions

\* with long sensor sleeve (COA250-B)

\*\* with short sensor sleeve (COA250-A)

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

**Materials** EPDM (sealings)  
PVC

**Process connection** G $\frac{3}{4}$  (for usual fittings)

**Suitable sensors** Amperometric and optical sensors with  $\varnothing 40$  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)



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