

Flow Cell for O₂ Measurement *FlowFit W COA 250*

Holder for unsupported installation in pipes or wall mounting



Application

The flow cell COA 250 has been developed specifically to hold the membrane-covered oxygen sensor COS 31 / COS 41. This holder is used wherever normal sensor immersion is either impossible or undesirable. In the case of pipes with large diameters or directly in measuring water lines of smaller diameters, the holder should be installed in a bypass arrangement.

Areas of application

- Waste water processing
- Drinking water
- Monitoring of service waters
- Analysis stations

Benefits at a glance

- Simple wall installation or unsupported installation in pipes
- Can be connected to pipes or hoses
- The inlet and outlet can be connected at the same level by fitting two standard 90-degree elbows
- Automatic self-venting due to bottom inlet/top outlet design
- Fast oxygen sensor response is assured by inside volume dimensions
- 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

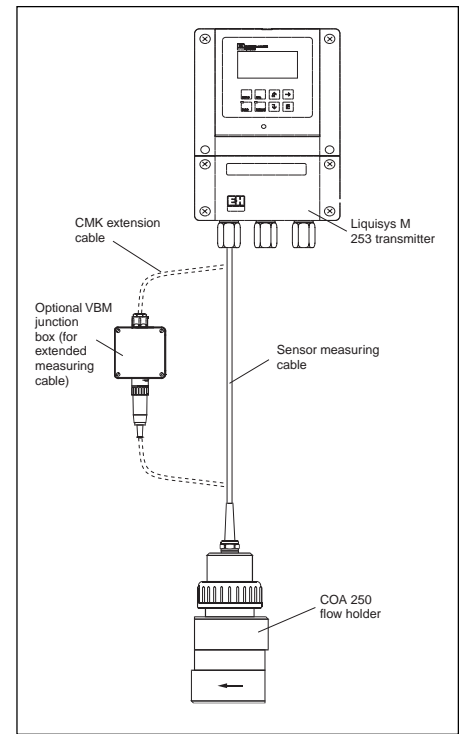
Measuring system

A complete measuring system consists of:

- FlowFit W COA 250 sensor holder
- Oxygen sensor COS 31 or COS 41 (sold separately)
- Measuring transmitter COM 223/253 (sold separately)

An optional VS junction box is available for connection of an extension cable.

In order to ensure reliability even in the event of a fault, the measuring water is introduced from below the holder and flows out the top. Automatic venting makes manual venting during commissioning unnecessary even if the measuring water pipe is empty. The measuring water channels are large enough to prevent clogging by small particles contained in the water.



Typical oxygen measuring system using COA 250 flow sensor holder

Installation

The COA 250 is suitable for installation in pipes or hoses.

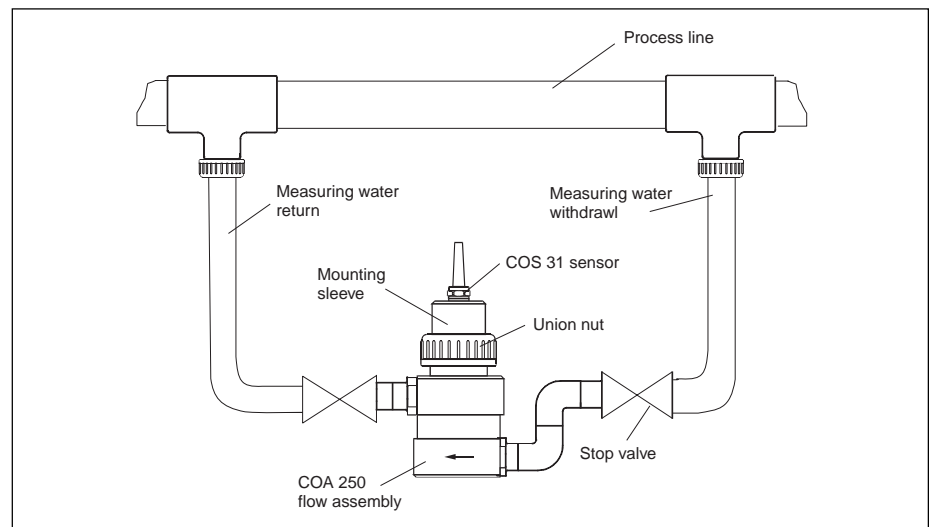
For hose installation, a pipe clamp (COY 250, part no. 50065132) is available for wall or plate mounting.

The measuring water connections are G 3/4" thread, internal.

The COA 250 is mounted upright (see figure below). Install stop valves upstream and downstream of the holder, and an additional filter upstream if large dirt particles are in the measuring water.

If the measuring water pressure exceeds the maximum pressure permissible for the temperature range (see table below), a pressure reducing valve must be installed.

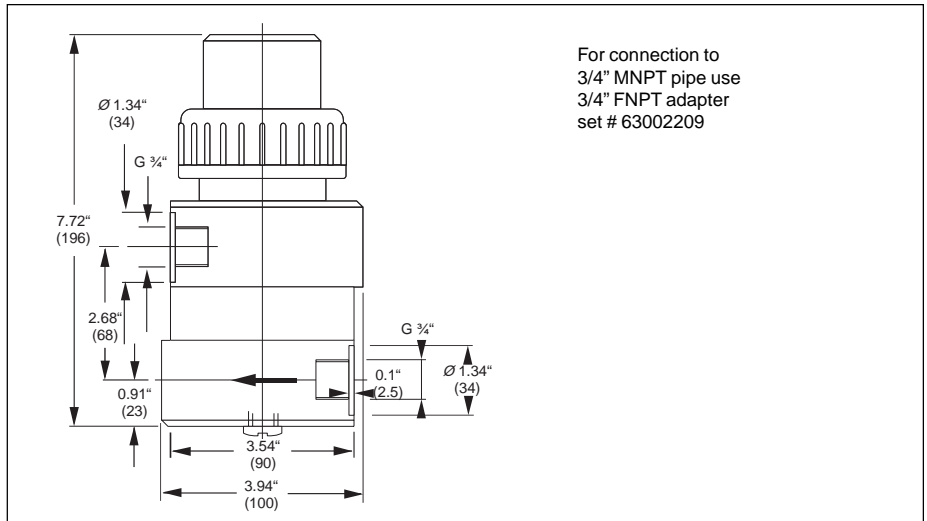
| Temperature | Maximum pressure |
|--------------|------------------|
| 32°F (0°C) | 87 psi (6 bar) |
| 50°F (10°C) | 87 psi (6 bar) |
| 68°F (20°C) | 87 psi (6 bar) |
| 86°F (30°C) | 72 psi (5 bar) |
| 104°F (40°C) | 58 psi (4 bar) |
| 122°F (50°C) | 43 psi (3 bar) |



Typical mounting in a bypass pipe line

Dimensions

Dimensions of flow cell COA 250



Technical Data

| | |
|-------------------------------------|---|
| Materials of flow cell | PVC; O-ring made of EPDM |
| Dimensions | Ø 3.94" x 7.68" (without sensor) 100 x 195 mm (without sensor) |
| Measuring water connection internal | G 3/4" thread |
| Max. permissible water pressure | 87 psi (6 bar) at 68 °F (20 °C) 43 psi (3 bar) at 122 °F (50 °C) |
| Recommended minimum flow | 26 GPH (with sensor COS 31) |
| Recommended maximum flow | 260 GPH |
| Max. operating temperature | 122 °F (50 °C) |
| Equipment mounting positions | 1 oxygen sensor COS 41 and 1 spray head CUR 3 |

How to Order

Flow cell COA 250

1
COA 250 -

1 Version

- A Material PVC, for COS 41
- B Material PVC, for COS 31

Accessories

- COY 250 pipe clamp for plate and wall installation
- CUR 3 spray head for cleaning purposes
- 3/4" FNPT adapter set

Order no.
50065132
CUR 3-1
63002209

Supplementary Documentation

- TI COS 41
- TI Chemoclean CYR 10

TI 284C/24/ae
TI 161C/24/ae

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