

# MF39VP

Dissolved Oxygen Sensor



The dissolved oxygen sensor MF39VP is an innovative enhanced version of the Meinsberg dissolved oxygen sensors and features very low maintenance, robust mechanical construction, extremely foul-resistant and rugged multi-layer membrane, extended operation and minimal flow requirement.

### *High Operating Reliability*

The special design of the electrode system and the pressure compensation concept guarantee the highest degree of operating reliability also for applications with a minimum flow rate of the measured medium. The replaceable membrane head is equipped with an optimally designed multi-layer membrane using a very durable and dirt repelling material. The sensor is specifically designed to prevent signal disturbances due to rising small air bubbles in aeration tanks for control of the oxygenation in biological purification stages of municipal wastewater treatment plants or heavily polluted industrial wastewater.

### *Easy Mounting, Maintenance and Air Calibration*

The special sealing concept of the sensor and the rugged membrane secure measurements over several months without maintenance. The membrane head is completely changeable and the packing unit of the electrolyte volume is efficient for one sensor head. Due to the zero-current-free technology of the electrode system, a simple one-point calibration in the ambient air is all that is required for calibration. The MF39VP is equipped with a multipin watertight plug-head connection system and a PG 16 threaded sensor body for easy maintenance, mounting and process integration.

<b>Sensor shaft</b>	PVC, stainless steel (optional titanium), silicon, Ø 18 mm
<b>Immersion length</b>	120 mm
<b>Temperature range</b>	-5...45 °C
<b>Measuring range</b>	0...20 mg/l; 0...200 % air saturation (further measuring ranges on request)
<b>Resolution</b>	0.1 mg/l
<b>Response time</b>	$t_{90} < 70$ s at 25 °C
<b>Flow dependency</b>	< 5 % at 25 °C
<b>Flow rate</b>	> 9 cm/s
<b>Pressure</b>	pressure of medium < 3 bar (it depends on mounting conditions)
<b>Minimal immersion depth</b>	30 mm
<b>Temperature probe</b>	Pt1000 for automatic temperature compensation and temperature measurement
<b>Electrical connection</b>	▪ Variopin plug head
<b>Process connection</b>	▪ thread PG 16 at sensor shaft for direct mounting in housings ▪ installation vertically or laterally up to 30° from vertical

- Accompanying plug head cable connections:
  - KVP/3: coaxial cable, length 3 m with Variopin socket, without meter plug

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