

The dissolved oxygen sensor MF 39 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 Maintenance, Mounting and Fast Air Calibration

The special sealing concept of the sensor, the rugged membrane and the extended operation secures maintenance free operation of the sensor over several months period. 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 MF 39 is equipped with a multipin watertight plug-head connection system and a PG 16 threaded sensor body for easy maintenance, mounting and process integration.

Incorporated Temperature Sensor

The sensor MF 39 incorporates as standard a Pt 1000 temperature sensor for automatic temperature compensation and temperature measurement in connection with the monitoring instrumentation. The possibility for a four-wire connection of the temperature sensor prevents deviations due to longer cable connections.

Dimensions: mm

Specifications

Material PVC, stainless steel, silicon

Dimensions Ø 18 mm; immersion length 120 mm

Measuring Ranges 0 ... 60 mg/l (15 °C); 0 ... 200 % air-saturation

Resolution < 0,1 mg/l

 $\begin{tabular}{lll} \textbf{Response Time} & t_{90} < 180 \text{ s at } 25 \text{ °C} \\ \hline \textbf{Flow Dependency} & < 5 \% \text{ at } 25 \text{ °C} \\ \hline \textbf{Operating Temperature} & -5 \dots 50 \text{ °C} \\ \end{tabular}$

Pressure max. 3 bar (43.5 psi)

Temperature Sensor incorporated Pt 1000 for automatic temperature compensation and temperature meas-

urement, 0 ... 50 °C;

Electrical Connections multipin SixPlug plug head connection system; protection rating IP 67

(accompanying connection cable K 39 max. 20 m, cable jacket PUR orange)

cable wiring K 39: screen: anode white: cathode

grey/brown: Pt 1000 green/pink: Pt 1000

Process Connection PG 16 threaded sensor body for installation in immersion and flow-through housings;

installation vertically or laterally up to 30° from vertical

Sensortechnik Meinsberg GmbH

Quality System certified to DIN EN ISO 9001 Fabrikstraße 69

D-04720 Ziegra-Knobelsdorf/GERMANY

Internet: www.meinsberg.de Tel. +49 34327 623-0 Fax +49 34327 623-79

