

OxyGuard EX Oxygen Probe

Probe for both Dissolved and Gaseous Oxygen in EX classified areas



The OxyGuard probe is a membrane covered galvanic cell that generates an electrical signal proportional to the oxygen pressure it senses, no matter which medium it is placed in.

The probe can measure very small oxygen concentrations in inert or explosive gases as well as the oxygen content of ambient air and the purity of oxygen gas.

The EX version is covered by a stainless steel sheath so that the total non-conductive area is small enough for it to be used in EX classified areas. The probe itself is a "simple apparatus" and as such does not need any approval before it can be used in such areas. An approved barrier or isolation amplifier is used to connect the probe in the EX area to the transmitter that is used in the safe area.

The probe also includes an NTC temperature sensor to enable accurate % volume measurements under changing temperatures.

This probe has exceptionally long calibration and maintenance intervals.

Technical Information

Specifications

Dimensions:	Diameter = 59 mm, length = 59 mm. Cable length = 7 m (standard).
Weight:	0,5 kg with 7m cable.
Principle (oxygen):	Galvanic cell, self polarizing, self temperature-compensating.
Principle, temperature:	Precision NTC.
Range and Output:	2.5 to 5 millivolts per ppm (mg/l). Output impedance approx. 1 kilohm.
Flow Requirements, water:	Minimum flow dependent on DO and temperature, typically 1 cm/sec.
Operating Conditions:	0 to 40°C. 0-2 bar. Higher pressure also available.
Standard Accessories:	As standard spare set of membranes and O-rings, 50 ml electrolyte and a cathode cleaning pad are shipped with each probe.

Ordering Information

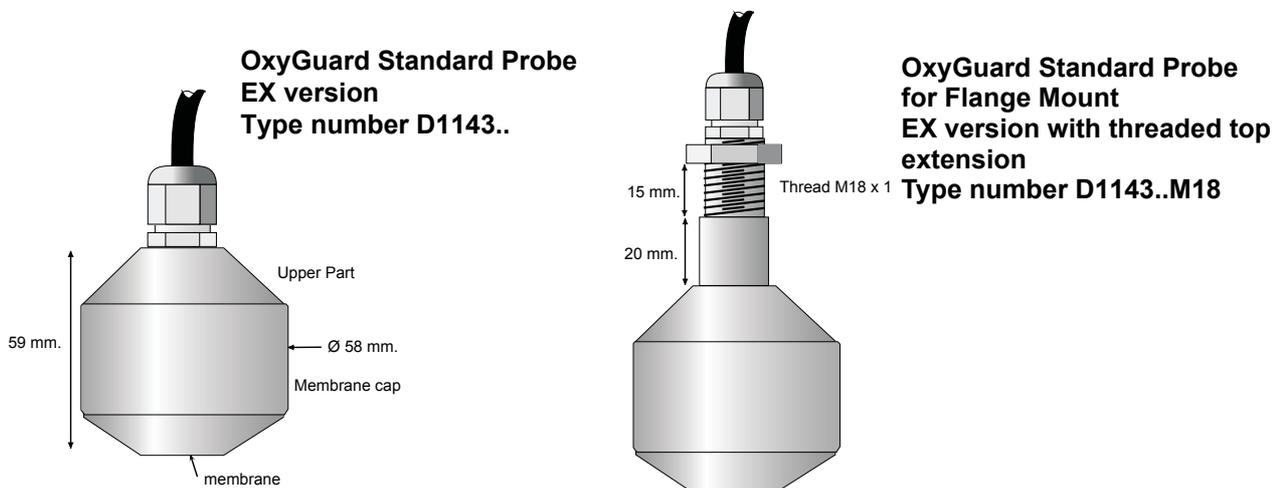
Standard EX Probes for dissolved and gaseous oxygen:

D1123M	For mg/l (ppm) dissolved oxygen (DO) measurements.
D1123SV	For % saturation DO and % volume measurements in gas (to 25% oxygen).
D1123V	For 0-100% oxygen gas by volume.
D1143C	For use with OxyGuard Atlantic transmitter; mg/l, % saturation, % volume and temperature.

Special Type 4 EX Version Probe for Bio-Gas where H₂S is present:

D1144OIL	For % volume measurements in gas.
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The EX version probe can be ordered with an M18 threaded part at the top for mounting as shown in the picture overleaf - add "M18" to the above ordering numbers.



Spares:

D10E31L	1 litre type 3 electrolyte.
D10E41L	1 litre type 4 electrolyte.
D10MM	Set of membranes with small O-rings for mg/l (ppm) ("M" probes).
D10MSV	Set of membranes with small O-rings for % sat and volume ("SV" and "V" probes).
D10MOIL	Set of oil-proof membranes and small O-rings for % measurements on bio-gas.
D10JBX1	Waterproof junction box for use when extending cable.