

Optical DO Sensor VisiFerm mA

Oxygen level measurement plays a vital role in many process applications and monitoring systems. Oxygen level detection is comparatively easier to sense and maintain than a gas like nitrogen. Measuring the purity of oxygen is an important in many applications. Our system uses the Optical DO sensor to measure the oxygen in open or a closed atmosphere with various mounting options as per applications. Due to the new optical measurement technology, the user has a choice to select/use a maintenance-free sensor with more flexibility on the automation side.



Note - There should not be any organic solvents in media.
Organic solvents hamper optical DO sensor performance

Specifications	
Sensor Family	VisiFerm mA
a-length	120 mm/160 mm/225 mm/325 mm/425 mm
Electrical Connector	M12
Measurement Principle	Oxygen dependent luminescence quenching
Measuring Range	4 ppb to 25 ppm (DO) 0 to 62.85 %-vol or 0 to 300 %-sat
Accuracy at 25 °C	1 ± 0.05 %-vol; 21 ± 0.2 %-vol; 50 ± 0.5 %-vol
Drift at Room Temperature	< 1 % per week
Electrolyte	None
Oxygen Consumption	None
Temperature Sensor	NTC 22 kOhm
Configurable Values	DO: mbar; %-sat; %-vol; µg/l; mg/l; ppb/ppm (gas); ppb/ppm (dissolved oxygen); Temperature: °C
Diameter	12 mm
Process Connection	PG13,5
Wetted Parts	Stainless Steel 1.4435 EPDM (Ethylene propylene elastomer) VMQ (Silicone elastomer) See compliance details in Material Specification document
Surface Quality of Steel	Ra < 0.4 µm (N5)
4 to 20 mA Current Range	3.5 to 22 mA
Analog Interface	1 Two wire sink 4 to 20 mA for DO, programmable
4 to 20 mA Accuracy	< 0.3 % current value + 0.05 mA
Transmitting Power	Max. 4 dBm
Digital Interface	Bluetooth 5
HART	Version 7.0
Operating Voltage	18 to 30 VDC
Response Time t98%	< 60 s at 25 °C
Certificate	Yes, with measured current in air
ATEX Approval	II 1 G Ex Ia IIC T3/T4/T5/T6 Ga
IECEX Approval	II 1 D Ia IIIC T135 °C Da
Autoclavable	Yes
CIP	Yes
Steam Sterilizable	Yes, max. Temperature 140 °C
Operating Temperature Range	-20 to 140 °C; the sensor provides no DO reading above 85 °C
Pressure Range bar g	-1 to 12 bar
Protection Rating	IP 68
Required Flow	None

Ordering Information		
Part No.	Description	Additional Information
HT10070760-1111	VisiFerm mA 120 H3	Communication : 4-20 mA/bluetooth 5.0/HART 7.0
HT10070760-1121	VisiFerm mA 120 H4	Communication : 4-20 mA/bluetooth 5.0/HART 7.0

Accessories		
Part No.	Description	Additional Information
HT10068400	ODO Cap H3 Kit	Standard Applications
HT10078261	ODO Cap H4 Kit	Special Applications
HT355284	Sensor cable M12 5m	The M12-4 pole, open ended sensor cable is designed to be connected to a data recorder indicator, control unit or PCS (Process Control System) with analog I/Os
HT355285	Sensor cable M12 10m	



Forbes Marshall
Krohne Marshall
Forbes Marshall Arca
Codel International
Forbes Solar
Forbes Vyncke
Forbes Marshall Steam Systems

A-34/35, MIDC H Block
Pimpri, Pune - 411 018. INDIA.
Tel : 91(0)20-27442020, 68131100
Fax : 91(0)20-27442040

Email : pasales@forbesmarshall.com, ccmidc@forbesmarshall.com
www.forbesmarshall.com

CIN No.: U28996PN1985PTC037806

© All rights reserved. Any reproduction or distribution in part or as a whole without written permission of Forbes Marshall Pvt Ltd, its associate companies or its subsidiaries ("FM Group") is prohibited.
Information, designs or specifications in this document are subject to change without notice. Responsibility for suitability, selection, installation, use, operation or maintenance of the product(s) rests solely with the purchaser and/or user. The contents of this document are presented for informational purposes only. FM Group disclaims liabilities or losses that may be incurred as a consequence of the use of this information.