

# VisiFerm mA 160 H4

Specification Sheet (Part/REF # 10070760-1221)



Less frequent calibration and longer lifetime. 2 wire 4-20mA / HART for GMP production environments. Explosive rated environments.

## Product Specifications

<b>Sensor Family</b>	VisiFerm mA
<b>a-length</b>	160 mm
<b>Electrical Connector</b>	M12
<b>Measurement Principle</b>	Oxygen dependent luminescence quenching, temperature compensation
<b>Measuring Range</b>	4 ppb to 25 ppm (DO) 0 to 62.85 %-vol or 0 to 300 %-sat
<b>Accuracy at 25 °C</b>	1 ± 0.05 %-vol; 21 ± 0.2 %-vol; 50 ± 0.5 %-vol
<b>Drift at Room Temperature</b>	< 1 % per week
<b>Sensor Cap</b>	ODO Cap H4
<b>Electrolyte</b>	None
<b>Oxygen Consumption</b>	None
<b>Temperature Sensor</b>	NTC 22 kOhm
<b>Configurable Values</b>	DO: mbar; %-sat; %-vol; µg/l; mg/l; ppb/ppm (gas); ppb/ppm (dissolved oxygen); Temperature: °C
<b>Diameter</b>	12 mm
<b>Process Connection</b>	PG13,5
<b>Wetted Parts</b>	Stainless Steel 1.4435 PTFE (Polytetrafluoroethylene) EPDM (Ethylene propylene elastomer) See compliance details in Material Specification document
<b>Surface Quality of Steel</b>	Ra < 0.4 µm (N5)
<b>4 to 20 mA Current Range</b>	3.5 to 22 mA
<b>Analog Interface 1</b>	Two wire sink 4 to 20 mA for DO, programmable
<b>4 to 20 mA Accuracy</b>	< 0.3 % current value + 0.05 mA
<b>Transmitting Power</b>	Max. 4 dBm
<b>Digital Interface</b>	Bluetooth 5 HART Version 7.0
<b>Operating Voltage</b>	18 to 30 VDC
<b>Serial Number</b>	Yes
<b>Response Time</b>	t98% < 60 s at 25 °C
<b>Certificate</b>	Yes, with measured current in air
<b>ATEX Approval</b>	II 1 G Ex ia IIC T3/T4/T5/T6 Ga; II 1 D Ex ia IIIC T135°C Da
<b>IECEX Approval</b>	II 1 G Ex ia IIC T3/T4/T5/T6 Ga; II 1 D Ex ia IIIC T135°C Da
<b>Autoclavable</b>	Yes

<b>CIP</b>	Yes
<b>Steam Sterilizable</b>	Yes, max. Temperature 140 °C
<b>Operating Temperature Range</b>	-20 to 140 °C; the sensor provides no DO reading above 85 °C
<b>Pressure Range bar g</b>	-1 to 12 bar
<b>Protection Rating</b>	IP 68
<b>Required Flow</b>	None

Specifications are subject to change without notice

**Spec. Version E**

<https://www.hamiltoncompany.com/process-analytics/sensors/10070760-1221>