

# VisiFerm DO ECS 160 H2

Specification Sheet (Part/REF # 243666-222)



VisiFerm ECS is an optical sensor for existing polarographic sensor installations. It simulates a traditional nA, electrochemical output making it easy to install with existing bio-controllers and transmitters.

## Product Specifications

<b>Sensor Family</b>	VisiFerm
<b>Parameter</b>	DO (Optical)
<b>Sensor Output</b>	Traditional: nA
<b>a-length</b>	160 mm
<b>Electrical Connector</b>	VP8
<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 H2
<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 (dissolved oxygen); Temperature: °C, °F, K
<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>Analog Interface 1</b>	ECS / 4 to 20 mA
<b>Digital Interface</b>	RS485 Modbus (max. 31 addresses)
<b>Baud Rate</b>	4800, 9600, 19200, 38400, 57600, 115200 Bd
<b>Operating Voltage</b>	7 to 30 VDC max. 1 W
<b>Serial Number</b>	Yes
<b>Response Time</b>	t98% < 60 s at 25 °C
<b>Certificate</b>	Yes, with parameter settings and materials used
<b>ATEX Approval</b>	No
<b>IECEX Approval</b>	No
<b>Autoclavable</b>	Yes, max. Temperature 130 °C

<b>CIP</b>	Yes
<b>Steam Sterilizable</b>	Yes, max. Temperature 140 °C
<b>Operating Temperature Range</b>	-10 to 140 °C; the sensor provides no DO reading above 85 °C
<b>Pressure Range bar g</b>	-1 to 12 bar
<b>Required Flow</b>	None

Specifications are subject to change without notice

**Spec. Version E**

<https://www.hamiltoncompany.com/process-analytics/sensors/243666-222>