



OxyFerm FDA Arc 225

Specification Sheet (Part/REF # 243102)

A combination of the hygienic design of the OxyFerm with the advantages of Arc technology for analog and digital communication.

Product Specifications

Sensor Family	OxyFerm FDA
Parameter	DO (Electrochemical)
Sensor Output	Arc: Modbus, 4 to 20 mA
a-length	215 mm
Electrical Connector	VP8
Measurement Principle	Electrochemical reduction of oxygen
Measuring Range	10 ppb to 40 ppm (DO) or 0.2 to 1000 mbar (pO ₂)
Accuracy at 25 °C	± 2 %
Drift at Room Temperature	< 1 % per week
Sensor Cap	Delivered with Optiflow FDA
Electrolyte	Oxylyte
Oxygen Consumption	Ca. 20 ng/h in air at 25 °C
Temperature Sensor	NTC 22 kOhm
Configurable Values	DO: mbar; %-sat; %-vol; µg/l; mg/l; ppb/ppm (gas); ppb/ppm (dissolved oxygen); Temperature: °C, °F, K
Diameter	12 mm
Process Connection	PG13,5
Wetted Parts	Stainless Steel 1.4435 FKM (Fluorocarbon Elastomer) Silicone - FDA 21 CFR 177.2600 VMQ (Silicone elastomer) See compliance details in Material Specification document
Surface Quality of Steel	Ra < 0.4 µm (N5)
Electrode system	Silver platinum combination
Analog Interface 1	4 to 20 mA for DO, programmable
Analog Interface 2	4 to 20 mA for Temp., programmable
Analog Interface 1 and 2	Galvanically not isolated; pulse width modulation 3.5 kHz
Baud Rate	4800, 9600, 19200, 38400, 57600, 115200 Bd
Polarization Voltage and Time	-670 ± 50 mV, ≥ 2 hours
Operating Voltage	7 to 30 VDC max. 150 mW
Serial Number	Yes
Response Time	t _{98%} < 60 s at 25 °C
Certificate	Yes, with parameter settings and materials used
ATEX Approval	No
IECEX Approval	No
Autoclavable	Yes
CIP	Yes

Steam Sterilizable	Yes
Operating Temperature Range	Analog interface: 0 to 110 °C; Digital interface: 0 to 130 °C
Pressure Range bar g	0 to 4 bar
Max. CO₂ Partial Pressure	0.01 bar
Required Flow	≥ 0.03 m/s
Automatic Polarization	Yes, max. 2 hours stabilisation time

Specifications are subject to change without notice

Spec. Version C

<https://www.hamiltoncompany.com/process-analytics/sensors/243102>