



# OxyFerm FDA Arc 425

Specification Sheet (Part/REF # 243104)

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

## Product Specifications

<b>Sensor Family</b>	OxyFerm FDA
<b>Parameter</b>	DO (Electrochemical)
<b>Sensor Output</b>	Arc: Modbus, 4 to 20 mA
<b>a-length</b>	425 mm
<b>Electrical Connector</b>	VP8
<b>Measurement Principle</b>	Electrochemical reduction of oxygen
<b>Measuring Range</b>	10 ppb to 40 ppm (DO) or 0.2 to 1000 mbar (pO <sub>2</sub> )
<b>Accuracy at 25 °C</b>	± 2 %
<b>Drift at Room Temperature</b>	< 1 % per week
<b>Sensor Cap</b>	Delivered with Optiflow FDA
<b>Electrolyte</b>	Oxylyte
<b>Oxygen Consumption</b>	Ca. 20 ng/h in air at 25 °C
<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, °F, K
<b>Diameter</b>	12 mm
<b>Process Connection</b>	PG13,5
<b>Surface Quality of Steel</b>	Ra < 0.4 µm (N5)
<b>Electrode system</b>	Silver platinum combination
<b>Analog Interface 1</b>	4 to 20 mA for DO, programmable
<b>Analog Interface 2</b>	4 to 20 mA for Temp., programmable
<b>Analog Interface 1 and 2</b>	Galvanically not isolated; pulse width modulation 3.5 kHz
<b>Baud Rate</b>	4800, 9600, 19200, 38400, 57600, 115200 Bd
<b>Polarization Voltage and Time</b>	-670 ± 50 mV, ≥ 2 hours
<b>Operating Voltage</b>	7 to 30 VDC max. 150 mW
<b>Serial Number</b>	Yes
<b>Response Time</b>	t <sub>98%</sub> < 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
<b>CIP</b>	Yes
<b>Steam Sterilizable</b>	Yes
<b>Operating Temperature Range</b>	Analog interface: 0 to 110 °C; Digital interface: 0 to 130 °C
<b>Pressure Range bar g</b>	0 to 4 bar

**Max. CO<sub>2</sub> Partial Pressure** 0.01 bar

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**Required Flow**  $\geq 0.03$  m/s

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**Automatic Polarization** Yes, max. 2 hours stabilisation time

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Specifications are subject to change without notice

**Spec. Version C**

<https://www.hamiltoncompany.com/process-analytics/sensors/243104>