

Data Sheet


OXYFERM FDA

The OXYFERM FDA is an electrochemical oxygen sensor suited for applications with high demands for hygiene, e.g. in pharmaceutical industry, in biotechnology and in foods and beverages production. When using OXYLYTE USD electrolyte, even upside-down insertion is possible. The sensor is equipped with a FDA approved membrane for usage in hygienic processes.

Application Fields:

Biotechnology, foods and beverages, chemical industry, pharmaceutical industry,

Specifications:

Serial Number:	Yes
Certificate:	Yes
Measuring Method:	Measurement of the electrical current affected by the partial pressure of oxygen
Range:	10 ppb ... 40 ppm of dissolved oxygen
Current in air at 25 °C:	40 ... 80 nA
Residual current in nitrogen:	< 0.1% (relative to current in air)
Response time $t_{98\%}$:	Max. 60 s at 25 °C, from air to nitrogen
Oxygen consumption:	Ca. 20 ng/h in air at 25 °C
Required flow:	≥ 0.03 m/s
Drift at room temperature under constant conditions:	< 1% per week
Max. CO ₂ partial pressure:	0.01 bar
Temperature sensor:	NTC 22 kOhm
Temperature response:	3.1%/K
Storage temperature:	-10 ... 60 °C
Working temperature:	0 ... 130 °C
Pressure range:	0 ... 4 bar
Pressure compensation:	Not required
Electrode system:	Silver platinum combination
Membrane:	OPTIFLOW FDA
Shaft diameter:	12 mm
Mounting:	PG 13.5 thread
Electrical connector:	Standard 4 pole T 82/D4
Wetted materials:	Stainless steel 1.4435, EPDM and silicone with FDA approval
Surface quality of steel:	0.4 μ m
Electrolyte:	OXYLYTE, alkaline
Polarization voltage:	-670 ± 50 mV
Stabilisation time:	< 2 hours
Steam sterilizable:	Yes
Autoclavable:	Yes
CIP:	Yes
ATEX approval:	Yes, CE 0035  II 1/2 G Ex ia IIC T4/T5/T6



Ordering Information:

Part Number	Description	a-length
237450	OXYFERM FDA 120	120 mm
237455	OXYFERM FDA 160	160 mm
237452	OXYFERM FDA 225	215 mm
237453	OXYFERM FDA 325	325 mm
237454	OXYFERM FDA 425	425 mm

Accessories:

Part Number	Description
237118	OXYLYTE Electrolyte for OXYFERM, 50 ml
237136	OXYLYTE USD Electrolyte, 50 ml
237123	OXYFERM Membrane Kit
237126	Membrane Kit CIP
237140	Membrane Kit FDA
237370	Polarization Module T (for OXYFERM/FDA/XL)
237137	OXYFERM Connector Cap for Autoclavation
237306	Replaceable Cathode OXYFERM (for sensors with P/N > 5000)

Dimensional drawing:

