

SE 707 Memosens Oxygen Sensor

Reliable measurement of oxygen traces, also under sterile and hygienic conditions; signal-stable and robust, digital, with Memosens technology.

High resolution of low oxygen concentrations, simple and cost-efficient sensor calibration in ambient air. No calibration gases. High signal stability, also in the presence of high CO_2 partial pressures.
FDA-conforming material with extremely smooth polished surface. Simple maintenance due to modular design. Sterilizable, autoclavable, and CIP capable. Also suitable for hazardous locations.

Applications
Beverage filling (e.g. milk, beer), measurement in boiler feed water (detection limit 1 ppb)

Facts
- perfect galvanic isolation thanks to Memosens technology
- precalibration in the lab
- no influence of humidity in the connector
- digital data transfer
- integrated sensor diagnostics
- high level of process safety
- durable materials
- robust design
- easy to clean thanks to extremely smooth surface
- very simple calibration in air without calibration gases
- cost-efficient service due to easy-to-replace membrane module and interior body
- hygienic design
- very high resolution of 1 ppb in the trace range
- low cross-sensitivity to CO2
- operation also in hazardous locations

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Specifications

Range:	pO_2 < 1200 mbar
Detection limit:	1 ppb (3 ppb in liquids containing CO_2)
Accuracy:	1 % + 1 ppb (1 % + 3 ppb in liquids containing CO_2)
Response time at 25 °C (air –> N_2):	98 % full scale < 90 s
Signal in ambient air:	290 ... 500 nA
Residual signal:	in oxygen-free medium: ≤ 0.01 % of signal in ambient air in CO_2: ≤ 0.03 % of signal in ambient air
Flow dependence:	≤ 5 %
Permissible pressure range (measurement):	0.2 ... 6 bar absolute
Mechanical pressure resistance:	max. 12 bar absolute
Perm. temp range (measurement):	0 ... 80 °C
Temp range (stability):	–5 ... +121 °C (steam sterilizable/autoclavable)
O-ring material (process-wetted):	silicone (FDA&USP Class VI tested)
Membrane material:	PTFE/silicone/PTFE, FDA compliant (reinforced with steel mesh)
Process-wetted sensor parts:	1.4404 stainless steel (material certificate 3.1B)
Surface roughness:	N 5 (RA < 0.4 µm)
Temperature detector:	NTC 22 kohms
Interior body incl. electrodes:	replaceable (ZU 0568)
Sensor cap:	Memosens
ATEX Certificate:	II 1/2 GD Ex ia IIC T6/T5/T4/T3
FM Certificate:	IS for Class I, Division 1, Groups A, B, C, D; Class I, Zone 0, AEx/Ex ia IIC T6 ... T4 NIFW for Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, IIC T6 ... T4

Product Line

Sensor	Length	Order No.
SE 707 X oxygen sensor	120 mm	SE 707X/1-NMSN
	220 mm	SE 707X/2-NMSN

Cables	Length	Order No.
Memosens cable	3 m	CA/MS-003NAA
	5 m	CA/MS-005NAA
	10 m	CA/MS-010NAA
	20 m*)	CA/MS-020NAA
Memosens-cable, Ex	3 m	CA/MS-003XAA
	5 m	CA/MS-005XAA
	10 m	CA/MS-010XAA
	20 m*)	CA/MS-020XAA

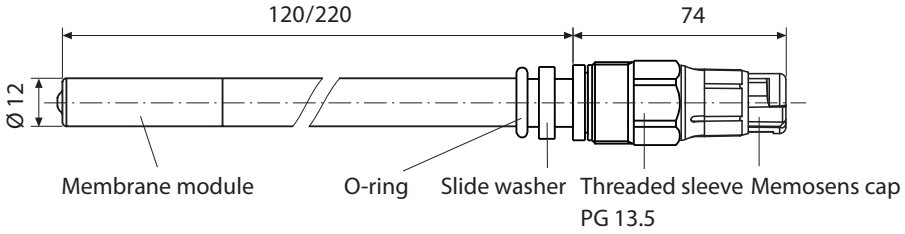
Accessories		Quantity	Order No.
O_2 electrolyte		25 ml	ZU 0565
O_2 membrane module	separate		ZU 0563
O_2 membrane kit	membrane module (4x), O-ring set (1x), 25 ml electrolyte (1x)		ZU 0564
Interior body for SE 707			ZU 0568
O-ring set	Silicone		ZU 0679

MemoSuite		Order No.
Management software for Memosens sensors	Basic version (calibration)	SW-MS1400-B
	Advanced version (calibration, diagnostics, documentation)	SW-MS1400-A

*) Greater lengths on request

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Dimension Drawing



All dimensions in mm