

## SE 706 Memosens Oxygen Sensor

Sensor in robust and hygienic stainless steel design, high accuracy and low detection limit, simple and fast maintenance due to special membrane, digital, with Memosens technology.

Reliable in-line measurement of dissolved oxygen, even under sterile and hygienic conditions. High signal stability. Simple maintenance due to modular design.

Special membrane with steel mesh and PTFE coating. Sterilizable, autoclavable and CIP capable. Also suitable for use in hazardous locations.

### Applications

Biotechnology, pharmaceutical industry, fermentation, various fields of analytical chemistry

### Facts

- perfect galvanic isolation thanks to Memosens technology
- no influence of humidity in the connector
- precalibration in the lab
- digital data transfer
- integrated sensor diagnostics
- high level of process safety
- durable materials
- robust design
- easy to clean thanks to extremely smooth surface
- cost-efficient service due to easy-to-replace membrane module and interior body
- hygienic design
- high resolution of 6 ppb
- operation also in hazardous locations

# SE 706 Memosens Oxygen Sensor

## Specifications

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Range:	pO <sub>2</sub> < 1200 mbar
Detection limit:	6 ppb
Accuracy:	1 % + 4 ppb
Response time at 25 °C (air → N <sub>2</sub> ):	98 % full scale < 90 s
Signal in ambient air:	50 ... 110 nA
Residual signal in O <sub>2</sub> -free medium:	≤ 0.1 % of signal in ambient air
Flow dependence:	≤ 5 %
Permissible pressure range (measurement):	0.2 ... 6 bar absolute
Mechanical pressure resistance:	max. 12 bar absolute
Permissible temperature range (measurement):	0 ... 80 °C
Temperature range (stability):	-5 ... +135 °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 0567)
Sensor cap:	Memosens
Certificates:	3A, 3.1 (EN 10204)
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**

SE 706 X oxygen sensor

**Length**

120 mm  
220 mm

**Order No.**

SE 706X/1-NMSN  
SE 706X/2-NMSN

**Cables**

Memosens cable

**Length**

3 m  
5 m  
10 m  
20 m<sup>\*)</sup>

**Order No.**

CA/MS-003NAA  
CA/MS-005NAA  
CA/MS-010NAA  
CA/MS-020NAA

Memosens-cable, Ex

3 m  
5 m  
10 m  
20 m<sup>\*)</sup>

CA/MS-003XAA  
CA/MS-005XAA  
CA/MS-010XAA  
CA/MS-020XAA

**Accessories**

O<sub>2</sub> electrolyte

**Quantity**

25 ml

**Order No.**

ZU 0565

O<sub>2</sub> membrane module

separate

ZU 0563

O<sub>2</sub> membrane kit

membrane module (4x), O-ring set (1x), 25 ml electrolyte (1x)

ZU 0564

Interior body for SE 706

ZU 0567

O-ring set

Silicone

ZU 0679

**MemoSuite**

Management software for  
Memosens sensors

Basic version (calibration)

Advanced version (calibration, diagnostics, documentation)

**Order No.**

SW-MS1400-B

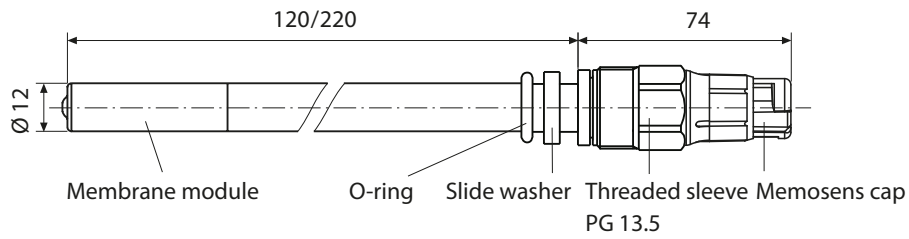
SW-MS1400-A

<sup>\*)</sup> Greater lengths on request

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## Dimension Drawing

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All dimensions in mm