International Technologies
Dr. Gambert GmbH

Product Specification of:

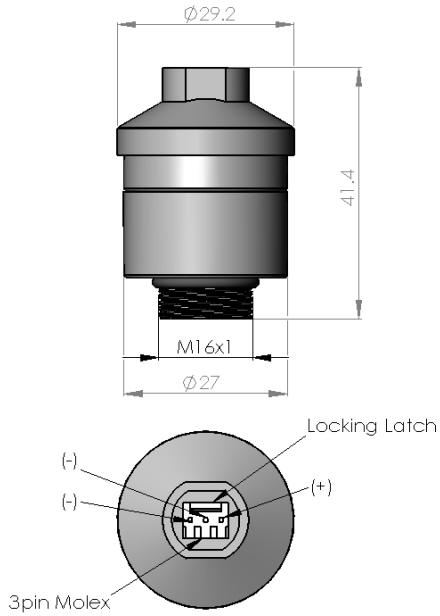
Industrial O_2-Sensor — Type: I - 103

Part. No.: 48 03 14

Key Features: sensor contains acid electrolyte to withstand high CO_2 concentrations, shows high resistivity to acid gases and a short response time

All characteristics are based on conditions at 25°C, 50 % RH and 1013 hPa

Operating Principle:	galvanic fuel cell
Electrical Connector:	3-pin Molex
Measurement Range:	0.5 - 100 Vol.%
Nominal Sensor Life:	> 1, 200, 000 Vol.% h
Expected Operating Life:	6 years @ ambient air
Output Signal Delivery Condition: Output Signal Range:	10.5 - 17 mV @ dry ambient air 5 - 17 mV @ dry ambient air
Response Time t_{90} :	< 5 sec
Linearity Error:	0 - 2 % oxygen: ± 0.1 % absolute 2.1 - 35 % oxygen: ± 0.5 % relative
Drift:	< 3 % per month
Operating Temperature:	0 - 50°C
Pressure Range:	750 - 1250 hPa
Influence of Humidity:	-0.03% rel. O_2 reading / % RH
Recommended Load Resistor:	≥ 1 MOhm
Temperature Compensation:	NTC
Interferences:	< 20 ppm O_2 response to: 100 Vol.% CO 100 Vol.% CO_2 3, 000 ppm NO, balance N_2 1, 000 ppm H_2 , balance N_2 100 Vol.% C_3H_8 2, 000 ppm H_2S , balance N_2 500 ppm SO_2 , balance N_2 1, 000 ppm Benzene, balance N_2



Tolerance: ± 0.15 mm

Storage Conditions

Temperature Range:	maximum: - 15 - 60 °C recommended: 5 - 30 °C
Ambient Pressure:	750 - 1250 hPa
Humidity:	up to 100 % RH
Material in Contact with Media:	PA12, PVC, PPS, PTFE, Stainless Steel
Shelf Life:	less than 6 months recommended
Weight:	approximately 25 g
Warranty Period:	12 months
Housing Colour:	white

This data sheet is subject to change without prior notice!

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