

## O<sub>2</sub> | Automotive Sensor | Type A-01



### .: KEY FEATURES :.

**Galvanic gas sensor designed for use in automotive exhaust gas analysers, released according to PTB 18.10, meets all OIML standards and BAR '02 requirements.**

*All characteristics are based on conditions at 25 °C, 50 %rH, 1013 hPa and a gas flow of > 2.5 L/min.*

<b>Measurement Range:</b>	0 to 25 Vol.% O <sub>2</sub>
<b>Expected Operating Life:</b>	< 3 years @ ambient air, depending on application
<b>Nominal Sensor Life:</b>	< 500.000 Vol.%h O <sub>2</sub>
<b>Electrical Connector:</b>	3-Pin Molex
<b>Initial Output Signal:</b>	8 to 14 mV @ dry ambient air
<b>Response Time t<sub>90</sub>:</b>	< 5 s
<b>Signal Drift:</b>	< 10 % / year, depending on application
<b>Accuracy:</b>	< 2 Vol.% O <sub>2</sub> ± 0.1 Vol.% O <sub>2</sub> < 25 Vol.%O <sub>2</sub> ± 0.5 Vol.% O <sub>2</sub>
<b>Zero Offset Voltage:</b>	< U <sub>a</sub> /200 @ 100 Vol.% N <sub>2</sub> , applied for 40 s
<b>Operating Temperature Range:</b>	0 to 50 °C
<b>Operating Pressure Range:</b>	700 to 1750 hPa
<b>Influence of Gas Humidity:</b>	-0.03 % rel. O <sub>2</sub> reading per %rH
<b>Recommended Load Resistor:</b>	≥ 10 kOhm
<b>Temperature Compensation:</b>	NTC on Sensor PCB
<b>Cross Sensitivities:</b>	< 0.1 Vol.%O <sub>2</sub> response to: 15.0 Vol.% CO <sub>2</sub> , balance N <sub>2</sub> 3 000 ppm C <sub>3</sub> H <sub>8</sub> , balance N <sub>2</sub> 10.0 Vol.% CO, balance N <sub>2</sub> 500 ppm H <sub>2</sub> S, balance N <sub>2</sub> 3 000 ppm NO, balance N <sub>2</sub> 500 ppm SO <sub>2</sub> , balance N <sub>2</sub> 1 000 ppm Benzene, balance N <sub>2</sub>
<b>Weight:</b>	< 27 g
<b>Material in Contact with Media:</b>	PA12, PTFE, Stainless Steel, PPS, NBR



### .: STORAGE CONDITIONS IN UNOPENED ORIGINAL PACKAGE :.

<b>Temperature Range:</b>	5 to 25 °C     recommended -20 to 50 °C     maximum (< 72 hours)
<b>Pressure Range:</b>	600 to 1750 hPa
<b>Humidity Range:</b>	10 to 98 %rH     (non-condensing)
<b>Shelf Life:</b>	< 6 months recommended

### .: RELATED PRODUCTS :.

Product	Part-No.	Housing Colour	Other Specifics
O <sub>2</sub> -Sensor A-01M	44 01 01	white	Initial Output Signal: 8.0 to 12.5 mV, Cap diameter: 31.6 mm
O <sub>2</sub> -Sensor A-01T	47 00 03	translucent	Initial Output Signal: 9.0 to 13.5 mV, Cap diameter: 31.6 mm
O <sub>2</sub> -Sensor A-01AVLT	47 00 05	translucent	Initial Output Signal: 8.0 to 12.0 mV, Cap diameter: 30.2 mm
O <sub>2</sub> -Sensor A-01ST	47 00 01	translucent	Initial Output Signal: 10.0 to 14.0 mV, Cap diameter: 31.6 mm