



# International Technologies

## Dr. Gambert GmbH

Product Specification of:

### O<sub>2</sub> - Automotive Sensor

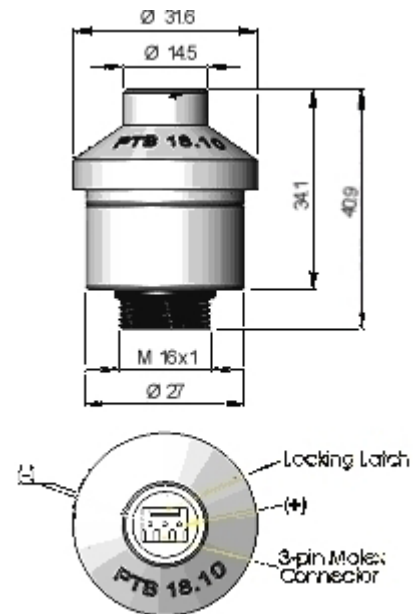
### Type : A – 01 / T

Part. No.: 47 00 03

**Key Features:** Specially designed for use in automotive exhaust gas analyzers, this sensor is released according to PTB 18.10, meets all OIML standards and BAR '02 requirements. Fits AVL and SUN analyzers.

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

Electrical Connector:	3-pin Molex
Measurement Range:	0 to 100 Vol.%
Accuracy:	< 2 Vol.% +/- 0.1% < 25 Vol.% +/- 0.5% < 100 Vol.% +/- 1%
Nominal Sensor Life:	750,000 Vol.% h
Expected Operating Life:	< 4 years @ ambient air
Output Signal:	7 to 13 mV @ dry ambient air
Response Time $t_{90}$ :	< 5 s
Signal Response to N <sub>2</sub> :	U <sub>a</sub> /200 @ 100% N <sub>2</sub> in < 40 sec
Drift:	10% per year
Operating Temperature:	0 to 50°C
Pressure Range:	750 to 1750 hPa
Influence of Humidity:	-0.03% rel. O <sub>2</sub> reading per % RH
Recommended Load Resistor:	≥ 10 kOhm
Temperature Compensation:	NTC
Interferences:	< 0.1 % O <sub>2</sub> response to: 15.0 % CO <sub>2</sub> balance N <sub>2</sub> 10.0 % CO balance N <sub>2</sub> 3,000 ppm NO balance N <sub>2</sub> 3,000 ppm C <sub>3</sub> H <sub>8</sub> balance N <sub>2</sub> 500 ppm H <sub>2</sub> S 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>



Tolerance : ± 0.15 mm

#### Storage Conditions

Temperature Range:	recommended: 5 to 25°C maximum: - 20 to 50°C
Ambient Pressure:	600 to 1750 hPa
Material in Contact with Media:	PA 12, PPS, stainless steel, PTFE
Shelf Life:	< 6 months recommended
Weight:	approximately 25 g
Warranty Period:	15 months
Housing Colour:	translucent

#### Different A-01 types

A-01 Type	Part number	Output signal	Outline dimensions
A-01 / T	47 00 03	7 to 11.5 mV @ dry ambient air	Cap diameter : 31.6 mm
A-01 / AVL / T	47 00 05	7 to 11.5 mV @ dry ambient air	Cap diameter : 30.2 mm
A-01 / S / T	47 00 10	10.5 to 12.5 mV @ dry ambient air	Cap diameter : 31.6 mm

This data sheet is subject to change without prior notice!

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