



# International Technologies Dr. Gambert GmbH

Product Specification of:

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

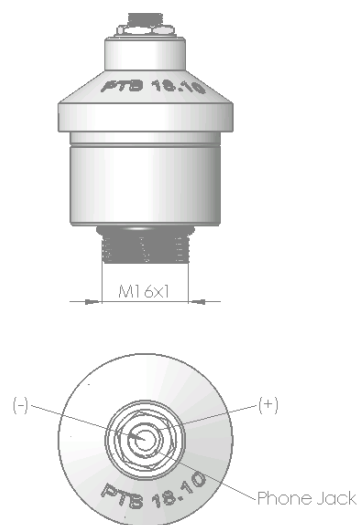
Type : A - 02 / T

Part. No.: 47 00 11

**Key Features:** Specially designed for use in automotive exhaust gas. Sensor is released according to PTB 18.10, meets all OIML standards and BAR '02 requirements, fits to all Bosch emission analyzers.

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

Electrical Connector:	3.5 mm mono jack
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 13.5 mV @ dry ambient air
Response Time t <sub>90</sub> :	< 5 s
Signal Response to N <sub>2</sub> :	U <sub>a</sub> /200 @ 100% N <sub>2</sub> in less than 40 sec
Drift:	10% per year
Operating Temperature:	0 to 50°C
Pressure Range:	750 to 1250 hPa
Influence of Humidity:	entails partial pressure change of O <sub>2</sub>
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:	750 to 1250 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-02 types

A-02 Type	Part number	Output Signal	O-Ring
A-02 / T standard	47 00 11	7 - 12.5 mV	14 x 1.78 mm
A-02 / B / T	47 00 20	7 - 12.5 mV	14 x 2.50 mm
A-02 / S / T	47 00 14	8 - 13.0 mV	14 x 1.78 mm

This data sheet is subject to change without prior notice!

[A-02 Rev. 01-06.doc]

page 1/1

**IT Dr. Gambert GmbH, Hinter dem Chor 21, 23966 Wismar, Germany**

Tel.: +49 (0) 3841 22 00 50, Fax: +49 (0) 3841 22 00 522, [sales@it-wismar.de](mailto:sales@it-wismar.de), [www.it-wismar.de](http://www.it-wismar.de)

SUNSTAR自动化 <http://www.sensor-ic.com/> TEL: 0755-83376489 FAX:0755-83376182 E-MAIL: szss20@163.com