



International Technologies Dr. Gambert GmbH

Product Specification of:

O₂ - Automotive Sensor

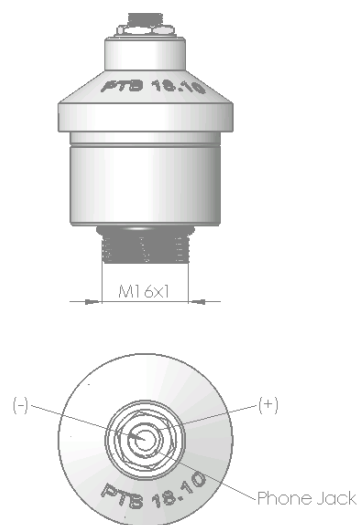
Type : A - 02 / T

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 ₉₀ : | < 5 s |
| Signal Response to N ₂ : | U _a /200 @ 100% N ₂ 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 ₂ |
| Recommended Load Resistor: | ≥ 10 kOhm |
| Temperature Compensation: | NTC |
| Interferences: | < 0.1 % O ₂ response to: |
| | 15.0 % CO ₂ balance N ₂ |
| | 10.0 % CO balance N ₂ |
| | 3,000 ppm NO balance N ₂ |
| | 3,000 ppm C ₃ H ₈ balance N ₂ |
| | 500 ppm H ₂ S 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: | 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]

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