

## Trace Oxygen Analyser AMS 3195



### **The Application:**

The Trace Oxygen Analyser AMS 3195 has been developed for the measurement of oxygen concentrations in technical pure gases which are contaminated with flammable traces of Hydrogen, Carbon monoxide and Hydrocarbons. For this application the Trace Oxygen Analyser AMS 3195 is equipped with a catalytic inactive zircon dioxide sensor.

### **The Measuring principle:**

The deployment of the catalytic inactive sensor in the Trace Oxygen Analyser AMS 3195 allows the use of the fast and even in PPM- measuring ranges highly accurate zircon dioxide technology in technical pure gases which are contaminated by flammable components. The zircon dioxide sensor is built into the housing of the analyser. Prior to a measurement the catalytic inactive sensor of the Trace Oxygen Analyser AMS 3195 is heated to 650 °C and regulated within tight limits to increase the stability of the measurement. The heater and various other sensor and analyser parameters are controlled via the electronics of the AMS 3195.

### **The Measuring system:**

The Trace Oxygen Analyser AMS 3195 is connected to the process gas supply via 3 mm stainless steel tubing. The outlet of the measuring gas is 6 mm to protect the sensor against pressure fluctuations at the gas outlet. An extension of the gas outlet, i. e. a tube back in to the process, may not be lower in diameter than the original 6 mm. Lower diameter of the tubing can generate a pressure in the line which can cause fluctuations of the gas pressure. Gas flow and pressure at the gas inlet can be adjusted with the pneumatic components located conveniently on the analyser front panel. As option the AMS 3195 can be equipped with a pneumatic pump to compensate fluctuations in the process gas pressure. With the optional 5-way valve the Trace Oxygen Analyser AMS 3195 can be manually disconnected from the process gas i. e. to perform a calibration with standard gas. The calibration of the analyser can be started manually from the main menu.

The Trace Oxygen Analyser AMS 3195 has 4 measuring ranges with automatic switch-over and digital measuring range recognition. The

measuring ranges can be set freely within the largest measuring range.

The Trace Oxygen Analyser AMS 3195 is available in various housings for General Applications.

The analysers of AMS comply with the applicable European standards and are manufactured according to customers' specification. Customers on all 5 continents bear witness of the Innovativeness and Performance of AMS and its products.

## Technical Data

<b>Analyser</b>	<b>AMS 3195</b>
Measuring principle	Zircon sensor, catalytic inactiv
application	Gases Industries, Chemical Industries
Sample gas	Inert gases with contamination through hints of hydrogen / carbon monoxide / carbon hydride
Measuring range	4 0 ... 10, 0 ... 100, 0 ... 1000, 0 ... 25 %
Analogue signal port	0 (4) ... 20mA, galvanically separated, with measuring range changeover and digital identification
Reproducibility	+/- 2 % of the measuring value
Resolution	0,01 ppm – C(O <sub>2</sub> ) – 0,01 % depending on the O <sub>2</sub> concentration
T90-Time	ca. 20 seconds
Display	2* 20 digit, illuminated LCD display
Messages	2 free adjustable isolated changeover relays
Gas connection	inlet / outlet 3 / 6 mm ferrule pack
Gas sampling	built-in inlet / outlet valve, pressure reducer, flowmeter
Sample flow	min. 20 NI/h, max. 40 NI/h
Sample pressure (inlet)	min. 1,01 bar abs., max. 2 bar abs.
Sample pressure (measuring cell)	max. 50 mbar pressure
digital communication	serial interface RS 232
Ambient operating temp.	- 5 °C up to + 45 °C
Relative humidity of the gas	0 ... 99 % not condensing
Power supply	230 VAC, 24 VAC
Protection / Housing / Dimensions	IP 55 / wall mounting housing / 19", 3 HU, 473 mm low IP 54 / portable housing / 63 TE, 3 HU IP 20 / 19" rack, 3 HU
Weight	7 – 12 kg
Options	5-way bypass- and purge valve, manual electronic flow control
Version: AMS 3195 E V01-2010-12	

Specification subject to change.

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