

ZIROX® Oxygen Measuring Device SGM7

Properties

The compact oxygen measuring device SGM7 is based on the approved, drift-, calibration- and maintenance-free ZIROX® zirconia technique. It contains the measuring cell as well the electronic for cell heating control, flow monitoring, integrated pump and signal processing.

Via microprocessor the measuring cell signal will be processed according to the NERNST equation. The requested value will be given out by display and analog current signal. (Option: digital interface RS232 with software).

Applications

In many technological processes under protective or inert gases oxygen traces are nonconstructively for the product properties. Precondition for detection and prevention of problems is the fast and precious measurement of oxygen respectively the determination of the reducing force of inert gases.

By progressive introduction of quality assurance systems, e.g. according to ISO 9000, a constant monitoring and documentation of quality parameters becomes more important. For it the user get several possibilities with the SGM7.

The SGM7 serves for the continuous measurements of free oxygen in industry and laboratory gases, for the monitoring of protective gases and for the determination of bounded oxygen in gas mixtures.

The main applications of the SGM7 are monitoring functions in the soldering and welding technology (e.g. reflow soldering under protective gas).



SGM7

Sensoren und Elektronik GmbH



Technical Data

Range	2.0 · 10 ⁵ ...1 Vol.-ppm, (20,6...1x10 ⁻⁴ Vol-%), up to 10 ⁻²⁰ Vol.-ppm possible (reducing conditions), <i>range up to 100 Vol.-% on request</i>
Accuracy	rel. error < 5%
Gas flow	5 ... 10 l/h
Max. measuring gas pressure	20 mbar overpressure
Max. measuring gas temperature	80°C at gas input
Pressure drop over measuring cell	approx. 1 kPa (100 mm WS) at 10 l/h
Dimensions (W x H x D).....	135 mm x 100 mm x 240 mm
Mass	3kg
Protection degree.....	IP 40
Gas input	Swagelok® 3 mm
Gas output	tube nipple 3 mm
Working conditions.....	10...45 °C, rel. humidity < 80% at 20 °C
Storage conditions	-20...60 °C, rel. humidity < 95% at 20 °C
Power supply	
Voltage.....	100 – 240 V AC, 47 – 63 Hz
Power consumption	20 VA
Heating measuring cell	24 V DC, ca. 10 W (controlled internally)
Keyboard and display	
Keyboard	3 keys
Clear text display	LCD (lighted)
Interface	RS232
Analog output	
Current output.....	0/4...20 mA, galvanically isolated, free scalable, working resistance max. 500 Ω
<i>Option: Voltage output.....</i>	<i>0/2...10 V, galvanically isolated, free scalable</i>

