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 electronics for cell heater control, flow monitoring, integrated pump and signal processing.

Via microprocessor the measuring cell signal is processed according to the NERNST equation. The requested value is displayed and generated as an analog current signal. (option: digital interface RS232 with software).

Applications

In various technological processes under protective or inert gases oxygen traces are detrimental for the product quality. Precondition for detection and prevention of problems is the fast and precise measurement of oxygen or the determination of the reducing force of inert gases.

With the increasing introduction of quality assurance systems, e.g. ISO 9000, a constant monitoring and documentation of quality parameters becomes more important. With the SGM7 the user gets several possibilities for that. The SGM7 serves the continuous measurements of free oxygen in industry and laboratory gases, for the monitoring of protective gases and for the determination of bound 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

ZIROX GmbH · Am Koppelberg 21 · 17489 Greifswald
Email: info@zirox.de

ZIROX
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), *Range up to 100 vol% on request*
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
Weight	3kg
Protection degree	IP 40
Gas input	Swagelok® 3 mm
Gas output	Tube nipple 3 mm
Operating 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
Heater measuring cell	24 V DC, ca. 10 W (controlled internally)

Keypad and display

Keypad	3 keys
Display	LCD dot-matrix

Interface	RS232

Analog output

Current output	0/4…20 mA, isolated, free scalable, working resistance max. 500 Ω
Option: Voltage output	*0/2…10 V, isolated, free scalable*