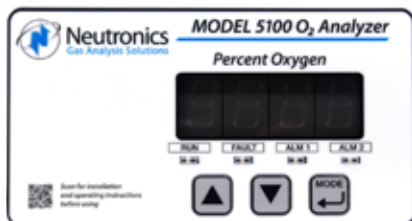


Model 5100 Percent Oxygen Analyzer

Compact series / high purity



DESCRIPTION

The MSA Model 5100, powered by Neutronics Technology, is a compact analyzer designed for percent oxygen gas measurement. This analyzer features a rapid-response mini-zirconia sensor with a measurement range of 0 to 100% oxygen. Extremely high accuracy and single point calibration make this analyzer a low-maintenance solution that delivers reliable performance for critical process control applications.

Features

0 to 100% measurement range

Mini-zirconia oxide ZR500 sensor

± 0.5% accuracy

Internal or remote sensor mounting

T90 < 15 seconds

The Model 5100 is available in two configurations – with the sensor mounted inside the analyzer housing in a flow-through chamber or with the sensor installed in a Stainless Steel housing designed for remote mounting. The Model 5100 is shipped ready to install and operate with the complete configuration already programmed and tested by the factory. Setup parameters may be changed by the user by accessing the setup menu by pressing the buttons on the keypad. All parameters may be changed by using the RS-232 service port interface.

The user has a choice of options for communicating between the Model 5100 analyzer and the operating system controller. Two analog outputs are available: 4-20 mA and 0-1, 0-5, or 0-10 VDC. The RS-232 digital interface gives the user access to all settings including the option to restore the analyzer to its factory delivered settings.

The easy to read 7-segment large alphanumeric display shows the oxygen concentration and guides the user through system setup, calibration, and maintenance procedures. Alarms with configurable relay outputs initiate active modes and light indicator LEDs based on user defined settings. The alarm status clears automatically when the measured oxygen concentration is within the set threshold value.

The Model 5100 can be configured to automatically change the measurement range based on the concentration of oxygen in the process. System control devices require a continuous indication of the analyzer's selected range for accurate scaling. The Model 5100 analyzer features a 0-10 VDC auto-range identification output. Used in conjunction with the analog voltage and analog current outputs when auto-ranging is used, the auto-range ID provides an indication of the analog outputs' selected full-scale.

Description	Part Number
5100B-N1, 90-264 VAC, with internal sensor	C7-01-5100-00-0
5100BE-N1, 90-264 VAC, with remote mounted sensor	C7-01-5100-03-x
5124B-N1, 20-30 VDC, with internal sensor	C7-01-5124-00-0
5124BE-N1, 24 VDC, with remote mounted sensor	C7-01-5124-01-x



MORE INFORMATION:

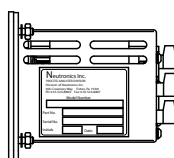
Scan the QR code to learn more about the Model 5100 Percent Oxygen Analyzer and other MSA products.

Model 5100 Percent Oxygen Analyzer

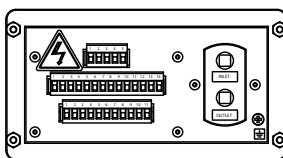


Specifications	Description
Type	Percent oxygen analyzer
Operating range	0-1%, 0-10%, 0-25%, 0-50%, 0-100%, auto
Sensor	Mini-zirconia, limiting current type, ZR500
Accuracy	Within $\pm 0.5\%$ of measurement range
Response time	T90 < 15 seconds
Warm up time	60 seconds to operation; 35 minutes for temperature equilibrium
Sensor expected service life	2 years
Relative humidity (analyzer)	0 - 95% non-condensing
Operating temperature	-10° - 50° C (14° - 122° F)
Sample pressure (internal sensor)	1-10 psig; not to exceed 20 psig
Sample pressure (external sensor)	15" Hg vacuum to 7 PSIG (0.5 to 1.5 Bar)
Display	7-segment, 0.75" alphanumeric LED, 4 characters LEDs for system status: run, fault, alarm-1, alarm-2
Power supply	90 - 264 VAC or 24 VDC
Analog current output	4 - 20 mA, 12 VDC, negative ground, powered by the analyzer
Analog voltage output	0-1, 0-5, 0-10 VDC
Relay outputs	Two alarm relays, 1eld adjustable Form C (SPDT), One system fault relay, non-adjustable Form B (SPST)
Serial service port	RS-232
Control panel rating	Weatherproof NEMA 4, IP66
Rear electronics chassis rating	NEMA 1, IP20
Warranty	Analyzer: 12 months, sensor: 12 months
Analyzer dimensions (LxWxH)	7.00" (117.80mm) x 4.125" (104.78mm) x 3.75" (95.25mm)
External sensor dimensions	1.5" diameter x 3.25" long (NEMA 1, IP20)
Weight	3 lbs (1.4 kg)

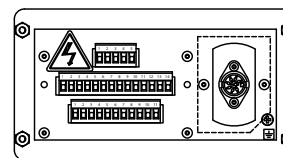
Specifications are subject to change without notice.



Side view



Oxygen analyzer with internal sensor



Oxygen analyzer with remote sensor connection

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice. MSA is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit <https://us.msasafety.com/Trademarks>.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit [MSAsafety.com/offices](https://us.msasafety.com/offices).