Mini ICS Percent Oxygen Analyzer / Controller

For process inert gas concentration control

DESCRIPTION

The MSA Mini-ICS (Inert Gas Control System), powered by Neutronics Technology, is a compact series analyzer designed for continuous real-time oxygen monitoring and concentration control of nitrogen or inert gas. When combined with a sample conditioning package, the Mini-ICS provides reliable measurement of oxygen levels over a wide range of conditions and automatically maintains oxygen levels within specified limits through precise control of the flow of inert gas into the process.

Features

- Compact design for continuous real-time monitoring and control
- User-adjustable alarm and inert gas control with relay outputs
- Low ow indicator for process gas sampling applications
- Remote calibration relay output for “one man” calibration
- Two analog outputs - 4-20mA and 0-1, 0-5, or 0-10VDC

The Mini-ICS includes user-adjustable alarms and setpoints with relay outputs. The oxygen alarm may be configured for the highest level or lowest oxygen level allowable. The high and low limit setpoints are provided for process control, allowing the user to set the levels for activation and deactivation of the inert gas control valve. The low flow indicator LED on the front display panel provides indication that the sample gas flow from the process to the oxygen sensor has dropped below the mechanical set point of the flow switch in the sample conditioning system.

The remote calibration relay activates the valve that allows calibration gas to flow to the sensor during the user initiated routine calibrations. The relay is mapped to the analyzer calibration function and provides a convenient way to calibrate the sensor in applications where the sensor and sampling system are installed a long distance from the analyzer. The user has a choice of options for communicating between the Mini-ICS analyzer and the operating system controller. Two analog outputs are available: 4-20mA and 0-1, 0-5, or 0-10VDC. The RS-232 digital interface gives the user access to all settings including the “factory restore” option which resets the analyzer to the factory delivered configuration settings.

The Mini-ICS is shipped ready to install and operate. Each unit is configured and tested prior to shipment. Setup parameters may be changed by accessing the setup menu or by using the RS-232 service port interface. Mini-ICS analyzers are easy to install. With a small footprint, they are designed to be flush mounted onto the surface of a control panel and integrated into a wide variety of equipment components. Other packaging options include general purpose or explosion proof surface mounted enclosures and custom rack-mounted designs.

Description	Part Number
Mini-ICS, wall mounted, no barriers	7-01-1003-75-0
Mini-ICS, XP	7-01-1003-74-1
Operations manual	5-06-4900-53-0
VAC power supply	C6-01-1000-02-0
12/24 VDC power supply	6-01-1000-17-0
Oxygen sensor, model GP	8-01-1000-02-2
Oxygen sensor, model CAG-250	C1-16-1000-01-1

MORE INFORMATION:

Scan the QR code to learn more about the Mini ICS and other MSA products.

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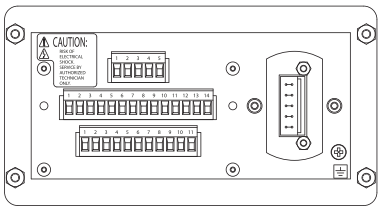
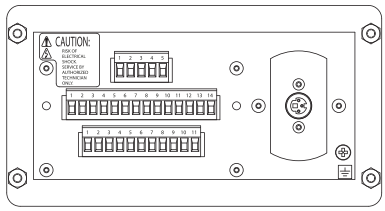
Specifications	Description
Type	Compact series analyzer
Operating range	0-1, 0-10, 0-25, 0-50% oxygen, fixed or auto-range
Sensor types	Electrochemical
Accuracy (analyzer)	± 2.0% full scale
Response time	T90 20 seconds
Warm up time	20 seconds
Relative humidity	0 to 95%, non-condensing
Operating temperature	31 to 104° F (0 to 40° C)
Storage temperature	5 to 122° F (-15 to 50° C)
Power supply	90 to 264VAC, 47-63 Hz, single phase; 10 to 30VDC, 2.5 watts
Display	0.75" 7-segment LED digital display, 4 characters
Signal interface	RS-232 serial port 0-1, 0-5, 0-10V analog output 0-20mA, 4-20mA analog output 0-1%: 5.63V; 0-10%: 6.25V; 0-25%: 6.88V; 0-50%: 7.5V
Relay outputs	Alarm: field adjustable Form C (DPDT), configurable to fail-safe/non-fail-safe and ascending/descending activation ICS: field adjustable form C (DPDT), configurable to fail-safe/non-fail-safe and ascending/descending activation Calibration and fault: non-adjustable Form B (SPST), non-fail-safe activation, Non-configurable
Warranty	Analyzer: 12 months from date of shipment
Dimensions	Faceplate: 3.75" (9.53mm) height x 7.00" (17.78mm) width Chassis: 2.81" (7.14mm) height x 5.98" (15.19mm) width x 3.60" (9.14mm) depth
Ratings	Faceplate: NEMA 4 (IP66) Chassis: NEMA 1 (IP20)
Weight	2 lbs.

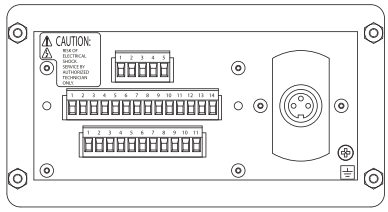
Specifications are subject to change without notice.



Terminal block connector



Mini-DIN 3 pin connector



Locking right angle connector

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit ***MSAsafety.com/offices***.

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