

## ISA-60M with MRI-5175

Oxygen Monitor with Remote Sensor/Transmitter  
Designed for MRI Rooms



### PRODUCT HIGHLIGHTS

- **Continuous monitoring of ambient air in MRI facility**
- **Realtime display of oxygen level**
- **Long-life oxygen sensor**
- **Audio and visual alarms with relays**
- **Available with up to three remote sensor transmitters**

ISA-60M oxygen monitor and alarm system with remote MRI-5175 oxygen sensor transmitter is specifically designed for monitoring oxygen deficiency in Magnetic Resonance Imaging (MRI) facilities. Maintaining the quality of breathing air in an MRI facility is vital to the health and safety of patients, MRI technologists and hospital maintenance staff.

MRI systems use compressed (liquid) helium, to cool down the superconductive magnets in MRI scanners. Equipment failure can cause a potential risk of helium gas being released from the MRI system. If helium gas is released into the atmosphere of the MRI room, it will quickly displace oxygen, reducing the concentration of oxygen in the atmosphere to unsafe levels. Reduced oxygen levels can cause fatigue, confusion and disorientation without individuals even being aware. If oxygen levels are further reduced, fatalities may result in minutes. This puts the technician, patients and anyone in or entering the MRI room in danger.

The ISA-60M system ensures the safety of the technicians and patients by continuously

monitoring and displaying the levels of oxygen in the room and providing audio and visual alarms when there is an unsafe, low level oxygen condition in the area being monitored. The ISA-60M controller can be mounted in the MRI control room for operators to observe during scanning procedures.

The MRI-5175 sensor transmitter is designed with non-magnetic housing which is RF shielded so it can be mounted remotely in the area where the MRI unit is actively operating. This unique sensor transmitter will continuously monitor oxygen levels and communicates through a 4-20 mA output, to the ISA-60M controller. If the oxygen in the atmosphere goes below unsafe levels, visual and audible alarms will indicate dangerous conditions and alert staff in both areas.

This system is available with up to three channels, allowing for up to three MRI-5175 O<sub>2</sub> sensors to be located in separate locations with one ISA-60M unit in the MRI control room. ENMET's ISA-60M with an MRI-5175 provides confidence in keeping patients and staff safe at all times during MRI procedures.

# ISA-60M with MRI-5175

## GENERAL SPECIFICATIONS

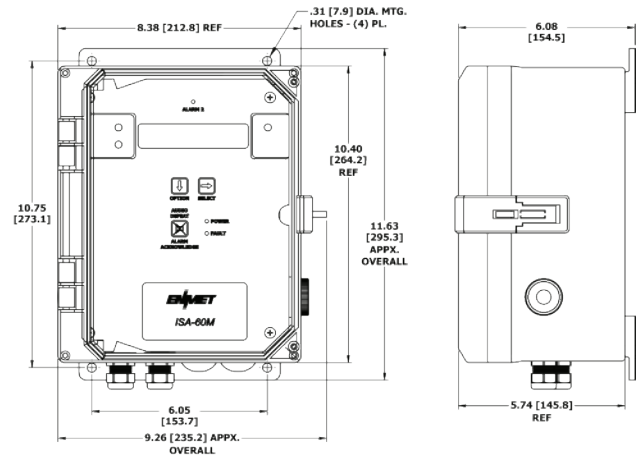
<b>Display:</b>	High-contrast, backlit
<b>Alarms:</b>	Visual: LEDs Audible: Piezoelectric horn, 95 dB at 2 feet
<b>Standard Alarm Points:</b>	19.5% & 17% decreasing oxygen Range: 0 to 30.0% by volume oxygen
<b>Alarm Relays:</b>	5 programmable oxygen alarm relays, plus fault. All relays are programmable latching or non-latching, dry SPDT, 10 amps (resistive load only) at 110 VAC
<b>Operating Power:</b>	100 to 240 VAC and/or 12 VDC, 15 Watts
<b>Sensor Type:</b>	Oxygen: Electrochemical - Supplied in MRI-5175 remote sensor transmitter
<b>Sensor Life:</b>	4 to 5 years
<b>Sensor Cable:</b>	Cable from MRI-5175 to ISA-60M: 3-wire, shielded cable, typically 18 to 20 AWG, user supplied, UL Listed type CM, PLTC or TC
<b>Inputs/Outputs:</b>	Analog: 4-20 mA Digital: RS-232 and RS-485 Modbus
<b>Connections:</b>	Strain relief (2 supplied) for: 0.20" to 0.35" OD Cable
<b>Enclosure:</b>	Thermoplastic box with clear, hinged front cover, designed for NEMA 12 and 4X
<b>Dimensions:</b>	8.5 W x 10.5 H x 5.8 D inches (22 W x 27 H x 15 D cm)
<b>Weight:</b>	8 Lbs. (3.6 kg)
<b>Agency Approval:</b>	IEC 61010-1:2010

## MRI-5175 Transmitter Specifications:

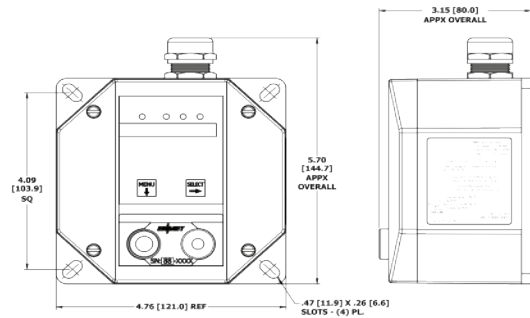
<b>Visual Gas Alarm:</b>	3 Red LEDs
<b>Operating Power:</b>	24 VDC from ISA-60M
<b>Outputs:</b>	Analog: 4-20 mA
<b>Connection to ISA-60M</b>	Strain relief (1 supplied) for 24 VDC, 4-20 mA 0.20" to 0.35" OD Cable

<b>Enclosure:</b>	Fiberglass-reinforced polyester, RF shielded with non-magnetic coating and hardware
<b>Dimensions:</b>	5.7 H x 4.76 W x 3.15 D (14.48 H x 12.09 W x 8 D cm)
<b>Weight:</b>	2 lbs. (0.9 kg)

## DIMENSIONS



ISA-60M Oxygen Monitor



MRI-5175 Sensor Transmitter

## ORDERING INFORMATION

### Description

ISA-60M, Single-Channel, with one MRI-5175 O2 Sensor/transmitter	04650-001
ISA-60M, Single-Channel, with one MRI-5175 O2 Sensor/transmitter with audio alarm	04650-005
ISA-60M-2, Dual-Channel, with two MRI-5175 O2 Sensor/transmitters	04650-002
ISA-60M, Single-Channel, with one MRI-5175 O2 Sensor/transmitter with audio alarm	04650-006
ISA-60M-3, Three-Channel, with three MRI-5175 O2 Sensor/transmitters	04650-003
ISA-60M, Single-Channel, with one MRI-5175 O2 Sensor/transmitter with audio alarm	04650-007

### Calibration Equipment, Accessories and Replacement Parts

Alarm Point Test Gas, 11 liter aluminum cylinder, 18.5% Oxygen with bellows	03100-185
Calibration Gas, 11 liter aluminum cylinder, 20.9% Oxygen with bellows	03100-209
Calibration Adapter for use with P/N 3100-185 and 03100-209	03620-021
Calibration Equipment Case	73083-000
Battery Backup and Charging System, 12 VDC, 24 amp/hour	04566-004
Cable, 3-conductor, 18 AWG, shielded (MRI-5175 to ISA-60M)	66017-006
Replacement Oxygen Sensor, long-life type (supplied in a sealed vapor proof bag)	67016-1152

