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SDS 
Sensor Transmitter
Manual

Manual Part Number
80003-034
MCN-387, 10/23/07

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2.0 Sensor / Transmitter

2.1 Features

See figure A for location of features.

Feature

Function

2.2 Installation

- The interior of a sensor/transmitter with the cover removed is shown in the accompanying **Figure A**, for reference during these operations.
- Remove the cover of the sensor/transmitter by removing the two black cover screws.
- Mount the sensor/transmitter to an appropriate stable vertical surface with the sensor facing downward.

CAUTION: Since the sensor/transmitter detects gas only at the sensor location, pay attention to the possible sources of gas, the density of the gas, locations where the gas may be confined and locations where the gas may damage or injure property or personnel, when choosing locations of sensor/transmitters.

- Mount the sensor/transmitter using the two mounting holes in the corners of the enclosure. For maximum RFI protection the enclosure should be grounded to earth ground, either by means of the mounting screws, a conductive conduit, or a wire connected to earth ground.
- The interface terminal strip J3 is located at the left edge of the internal circuit board. Wires enter through the port in the left wall of the enclosure, that is supplied with a watertight strain relief. Wiring may be with good quality three conductor shielded cable or with three insulated wires in metallic conduit. When the watertight strain relief is removed, the hole at the entry point is threaded 3/8 NPT female; use appropriate watertight conduit fittings.

2.2.1 Sensor/Transmitter without ISB

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2.2.2 Sensor/Transmitter with ISB

Installation with a recommended Intrinsic Safety Barrier properly connected and grounded renders the sensor/transmitter nonincendive as defined by the National Electrical Code. An MTL 787S+ barrier is recommended connected as shown in **Figure C**. Connections at the sensor/transmitter are shown

If the sensor/transmitter enclosure is grounded, connect the shield at the control.

The terminals on the barrier are clearly numbered, and a schematic of the barrier is on a label on the barrier housing. At the barrier, the connections are as shown in Table 3 and Figure D:

Table 3: Wiring at ISB

Position	Function
1	V+, power supply, safe side
2	signal, the positive side of the loop, safe side
3	V+, power supply, hazardous side
4	signal, the positive side of the loop, hazardous side

The negative side of the loop (from J3-3 at the sensor/transmitter), the negative side of the readout device, and the negative side of the 24 VDC power supply are all connected to earth ground at the barrier. When working in a hazardous area, even if it has been temporarily declassified, it is good practice to connect the negative side of the loop to earth ground first, and, if disconnecting a sensor/transmitter, disconnect the same wire last. The two ground points on the barrier must be securely connected to earth ground with a connection that cannot be interrupted by separating a connector or pulling the plug of a line cord.

3.0 Programmer

5.0 Warranty

ENMET warrants new instruments to be free from defects in workmanship and material under normal use for a period of one year from date of shipment from **ENMET**. The warranty covers both parts and labor excluding instrument calibration and expendable parts such as calibration gas, filters, batteries, etc... Equipment believed to be defective should be returned to **ENMET** within the warranty period (transportation prepaid) for inspection. If the evaluation by **ENMET** confirms that the product is defective, it will be repaired or replaced at no charge, within the stated limitations, and returned prepaid to any location in the United States by the most economical means, e.g. Surface UPS/FedEx Ground. If an expedient means of transportation is requested during the warranty period, the customer is responsible for the difference between the most economical means and the expedient mode. **ENMET** shall not be liable for any loss or damage caused by the improper use of the product. The purchaser indemnifies and saves harmless the company with respect to any loss or damages that may arise through the use by the purchaser or others of this equipment.

This warranty is expressly given in lieu of all other warranties, either expressed or implied, including that of merchantability, and all other obligations or liabilities of **ENMET**



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Returning an Instrument for Repair

ENMET instruments may be returned to the factory or any one of our Field Service Centers for regular repair service or calibration. The *ENMET* Repair Department and Field Service Centers also perform warranty service work.

When returning an instrument to the factory or serv



Repair Return Form

Mailing Address:
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