



Badger Meter

Recordall® Model Gas-RT Gas Transmitter

DESCRIPTION

APPLICATION: The Gas Recordall® Transmitter (Gas-RT) is designed to provide digital connectivity to the gas industry. This is accomplished by utilizing piezo technology to produce a scaled electrical signal representing gas usage. It is designed to be mounted on the plastic index box of a variety of diaphragm gas meters and produces an accurate digital signal for each revolution of the gas meter’s drive dial. In a typical application, the signal is then transmitted from the gas meter to a receiver used in an automated meter reading system.

OPERATION: The Gas-RT consists of a mechanically coupled interface cam with electronic circuitry producing a pulse or signal. Its self contained housing is mechanically fastened to the gas meter’s index cover. The Gas-RT is also designed for forward rotation only. Bidirectional flows may cause damage to the gas meter’s index when the Gas-RT is attached.

MECHANICAL: The Gas-RT is mechanically coupled to the meter’s index drive dial and designed for forward rotation only. Since the various gas meters have different index designs, it must be determined in advance if the forward rotation is Clockwise (CW) or Counter Clockwise (CCW), so the correct version of the Gas-RT is utilized.

MEASUREMENT RESOLUTION: The minimum measurement resolution of the Gas-RT is consistent with the resolution of the index drive dial: 1 cubic foot, 2 cubic feet, etc.

TAMPER-PROOF FEATURES: Removal of the Gas-RT to obtain free gas can be detected by the interlocking cover design.

INSTALLATION: The Gas-RT is designed to be field mounted to the Lexan® (clear plastic) index cover of hard gas meters with a vertical index (straight reading). Its multi-position package design simplifies meter installation and retrofitting for all applicable gas meters. Additionally, it can be mounted without disconnecting the gas meter or service.

WIRE CONNECTIONS: Signal line connections to the Gas-RT use gel-filled splices for a simple, yet reliable wire connection. Red (positive) and black (negative) solid conductors are attached for field connections. All transmitter wire runs must be properly shielded (grounded) for protection against lightning and electrical transients.

CONSTRUCTION: The Gas-RT’s construction material is of high strength and corrosion-resistant thermoplastic. Its electronic circuitry is protected from the potential effects of ground currents and transients.

ENVIRONMENTAL: The Gas-RT is water resistant and operates in 0% to 100% relative humidity (condensing). The full operating temperature range is -40°F to +140°F.



ELECTRICAL CRITERIA: The electrical signal characteristics of the Gas-RT are those of an open collector field effect transistor (FET). The standard signal duration (ON state) is 15 to 75 milliseconds. The ON and OFF state impedances are 7.5 ohms and 2 meg ohms, respectively. The maximum switching voltage is 30 VDC at a maximum continuous current of 1 mA at 25°C.

SPECIFICATIONS

ELECTRICAL

Signal Characteristics	Open drain (FET)
Pulse Width	15 to 75 mSec.
ON State Resistance	7.5 ohms @ 25°C (77°F)
Max. Switching Voltage	30 VDC @ 1 mA @ 25°C (77°F)
Power Source	External

MECHANICAL

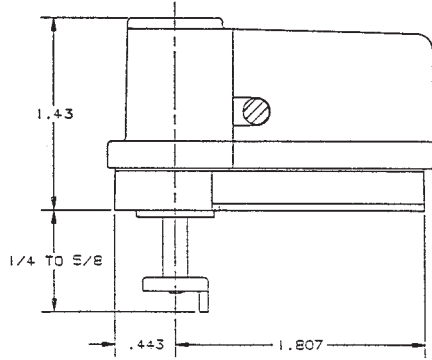
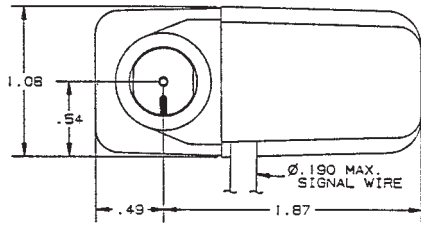
Forward Rotation of Drive Dial	Select either Clockwise (CW) or Counter Clockwise (CCW)
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ENVIRONMENTAL

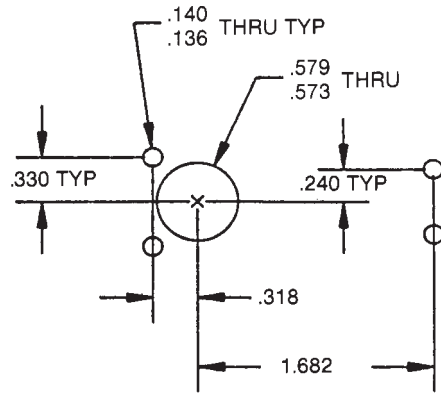
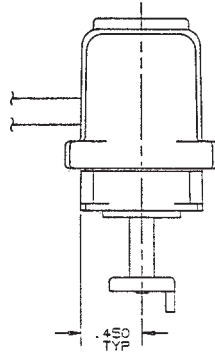
Temperature	Operating -40°F to +140°F
Moisture	0% to 100% condensing relative humidity

MATERIALS

Enclosure	Weatherproof Thermoplastic
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GAS-RT DIMENSIONS



MOUNTING HOLE PATTERN

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