

GM-JR

Gas Monitor Readout/Alarm



The Manning Systems GM-JR is a readout/alarm unit that can be configured in a variety of ways to solve many gas concentration and alarm needs at a very affordable price. The readout provides a calibrated 20-segment LED bargraph, alarm and fault LEDs, plus a relay output with easy trip point adjustment.

The GM-JR standard configuration is composed of a single, rugged, miniaturized board mounted inside the door of the enclosure, and a separate terminal board for the sensor and/or power cable connections. The 20-segment LED bargraph has a calibrated scale that is specified when ordered. Alarm trip adjustments are made easily at 5% increments by a shorting bar on the back of the display board.

On power up or after momentary power loss, the bottom bargraph segment blinks during a one-minute power-up delay period.

During this time the alarm relay is forced into its “no alarm” condition to allow the sensor to stabilize. After this time delay, the bargraph will stop blinking, indicating the readout is armed.

The GM-JR continuously monitors the incoming 4/20 mA signal from the sensor. If the signal drops below 1.4 mA, the fault LED will illuminate and the alarm relay will trip. The alarm relay is always energized in its normal state, providing additional safety.

The GM-JR has an easily adjusted set-point and relay output in either the “stand-

alone” or “feed through” configuration, plus 4/20mA output in the “feed through” design. With its own plug-in power supply, the GM-JR/Manning sensor combination provides an economical answer for local concentration level information and control capability

Applications

The GM-JR offers unique configuration possibilities for clients who have their own computer control system, OEMs who want to incorporate gas sensing in their design and existing Manning Systems customers who want remote indication other than at their main readout.

Key Features

- 20-segment calibrated bargraph
- Power-up delay
- Fail-safe design
- Easy Trip setting
- Relay Output is time delayed
- Downscale Alarm Configuration available for oxygen
- Rugged NEMA 1, steel gasketed enclosure
- Continuous fault monitoring
- Feed-through Configuration allows remote readout capability while being powered from instrument cable (no remote power supply needed)



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by Honeywell

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Manning Systems, Inc. provides a complete line of industrial quality Gas Alarm Monitoring Systems for equipment rooms, refrigerated spaces, storage facilities, laboratories and process areas.

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Specifications

Power Requirement:

15-24 VDC regulated

Signal Input:

4/20 mA precision differential input allows this unit to be mounted remotely and powered from sensor power (internal resistance drop, 100 ohms)

Maximum Current Draw:

300 mA (in standard configuration and no upscale indication, the standby current draw is 100 mA.)

Display:

20-segment LED bargraph, bottom segment flashes to indicate power up delay, lights continuously to indicate power on

Trip Setting:

5% increments by use of shorting tab

Alarm Indication:

Red LED

Fault Indication:

White LED (at 1.4 mA or below)

Accuracy:

LED readout provides 5% of full scale resolution – trip accuracies at these 5% increments are within $\pm 1\%$ of set point

Time Delays:

Alarm relay is 10 second delay ON, 30 second delay for RESET after alarm condition clears.

Power Up Time Delay:

On application of power the alarm relay will be held in the normal state for one (1) minute to allow the sensor to stabilize.

Relay Alarm Output:

Relay is rated at 0.5 amp at 24 VDC or 24 VAC – relay will trip on Alarm and Fault conditions.

Operating Temperatures:

0°F to 120°F; Storage, -40°F to 160°F

Operating Humidity:

5-95% RH, non-condensing

Weight:

3 lbs.

Dimensions:

6"H x 4"W x 3.5"D

Cable Requirements:

#18/3 shielded cable (Belden #8770) for runs up to 1,000' – high current draw sensors may require larger cable (contact Manning Systems for details)

Enclosure:

16 gauge steel, gasketed, painted
NEMA 1 rated

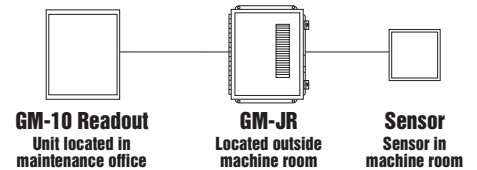
Options:

Down Scale Alarm for oxygen
Can be mounted in most Manning Systems sensors

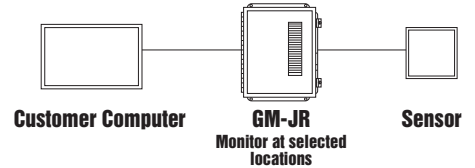
Specifications subject to change without notice.

Possible Applications

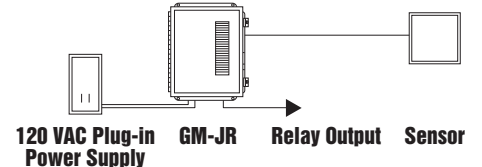
Used with Manning Systems Main Readouts



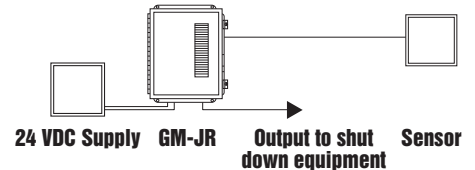
Used with Computer



Stand Alone Configuration



OEM Installation



Concentration Display at Sensor



Calibration Gas Kits are always available from Manning Systems to maintain and verify the highest level of total system performance.

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