

## Junction Module (JM™) Enclosure with: **MODBUS** Input/Relay Output Module (JMR95\_\_\_\_; JMI95\_\_\_\_)

These I/O Modules are designed to function as Modbus (RS485) nodes with termination points for connecting switches/sensors (discrete and analog), as well as relay outputs to operate devices such as motors and other high power devices. Relay Outputs can be either Interlocked to operate AC motors or Independent to operate separate AC loads.

### Inputs and Outputs

- Two (2) Discrete Inputs
- Two (2) Discrete Relay Outputs
- One (1) Analog Input (4-20mA)

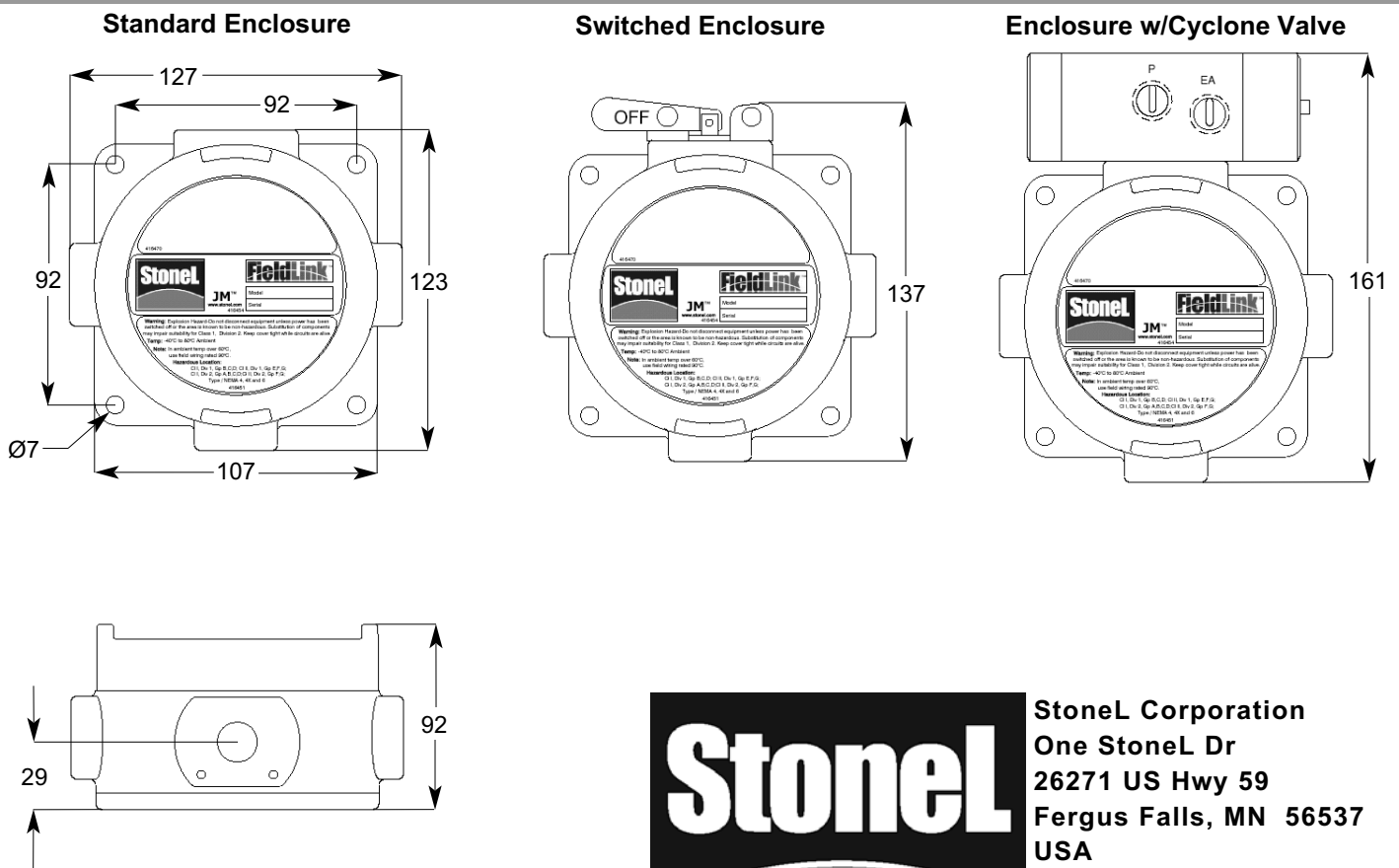
### Features

- LED input displays for Inputs 1 & 2
- Fuse protected relay outputs
- Pre-determined output fail state



(See Page 3 detailed wiring instructions)

### JM Enclosure Dimensions (in mm)



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Example: JMR9511E3

	<u>Function</u>	<u>Solenoid</u>	<u>Enclosure</u>	<u>Conduit Entries</u>
<b>JM</b>	<b>R95</b> I/O Relay Module, 2 DI/2 DO/1 AI Independent Outputs, Modbus	<b>11</b> No Solenoid (Relay models not available with solenoid)	<b>C</b> Clear Cover	<b>3</b> (3) 1/2" NPT
	<b>I95</b> I/O Relay Module, 2 DI/2 DO/1 AI Interlocked Outputs, Modbus		<b>E</b> Epoxy Coated Aluminum	<b>N</b> (4) 1/2" NPT <b>6</b> (3) M20 <b>M</b> (4) M20 <b>9</b> (3) 3/4" NPT <b>T</b> (4) 3/4" NPT

General Specifications

<b>Operating Life</b>	Unlimited	<b>Temperature Range</b>	-40° to +80° C (-23° to 180° F)
<b>Materials of Construction</b>		<b>Enclosure Protection</b>	NEMA 4, 4X & 6; IP67
Housing and Cover	Marine grade anodized aluminum epoxy coating	<b>Hazardous Area Ratings</b>	
Clear Cover	Lexan® Polycarbonate	<b>Explosion Proof</b> (Aluminum Cover)	Class I, Div. 1 and 2, Groups B,C,D
Elastomer Seals	Buna-N		Class II, Div. 1 and 2, Groups E,F,G
Fasteners	Stainless Steel	<b>Non-incendive</b> (Clear Cover)	Class I, Div. 2, Groups A,B,C,D
<b>Warranty</b>			Class II, Div. 2, Groups E,F,G
Complete Assemblies	Two Years		(Not all units carry approvals, consult factory)

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Mounting Instructions

Mounting The JM Enclosure

1. Locate the position where the JM enclosure will be mounted. Ensure that there is sufficient room to operate the disconnect switch levers and to remove the cover.
2. Attach the JM enclosure to a wall or other stationary flat surface using the mounting holes provided.
3. Secure the cover until hand tight

Attaching Conduit and Fittings

1. Conduit entries are provided for the convenient attachment of threaded conduit and threaded conduit fittings. Attach threaded fittings and conduits securely.
2. Follow all applicable NEC codes and other regulations.

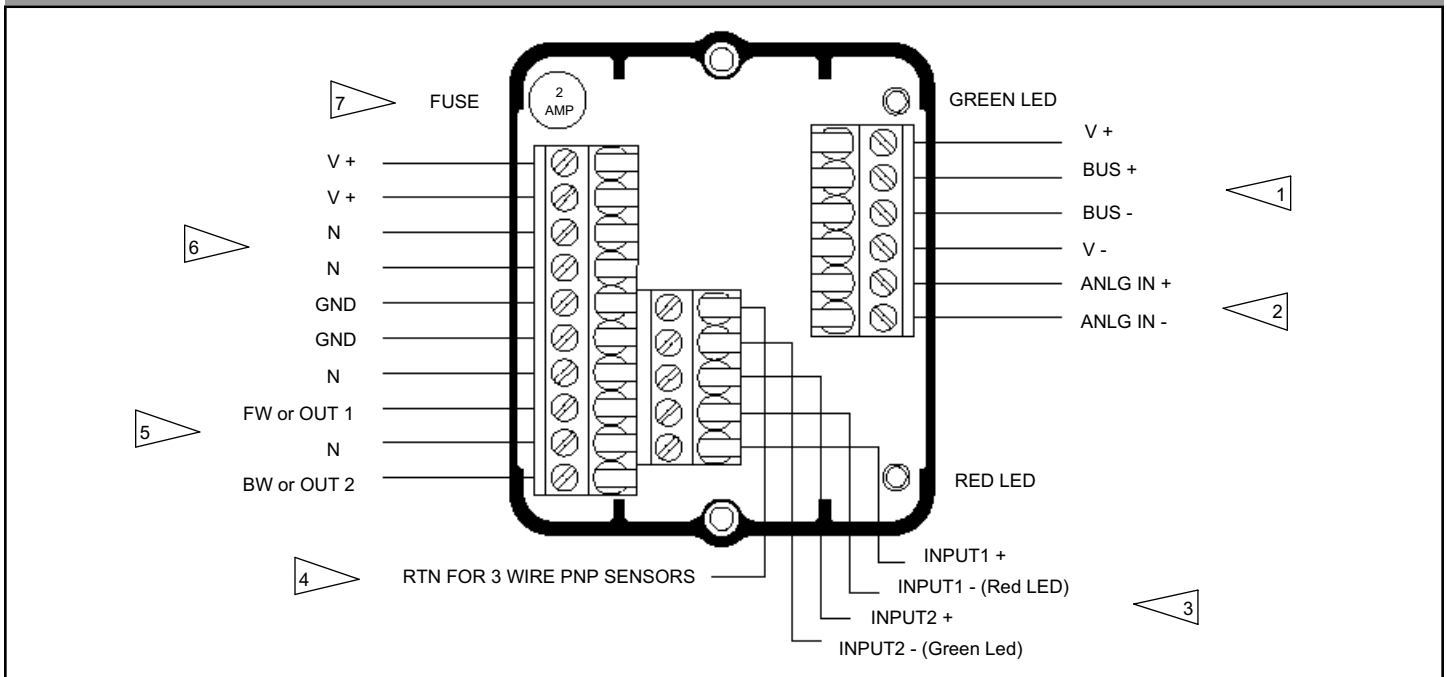
Installing & Removing Cover

1. To insure NEMA 4, 4X, 6 and hazardous location ratings are maintained the cover **must be** completely closed and the O-Ring sealed to keep out water.

## Modbus 2 DI/2 Relay DO/1 AI Input/Output Modules

Operating Voltage	24VDC (The 24VDC power source should share the same ground reference as the communication line)	External Voltage	Up to 250VAC; 30VDC(For Relay Outputs)
Discrete Inputs	(2) 7mA @ 24VDC gold contact mechanical, low power reed, 2 wire solid state, or 3 wire PNP solid state sensors	Default Address	03
Analog Input	(1) Analog (4-20 mA) input. 10 bit resolution (0.1%)	Bit Assignment:	
Relay Outputs	(2) 120/250VAC/30VDC fused @ 2 amps (Interlocked or Independent)	<b>Input Data</b>	<b>Output Data</b>
		Input 1 (Red LED) = 10001	Output 1= 00001
		Input 2 (Green LED) = 10002	Output 2 = 00002
		Analog Input = 30001	
		Operating Life	Unlimited
		Warranty	Two Years

## Input/Relay Output Module Wiring Diagram and Installation Notes



### INSTALLATION NOTES:

1. Modbus bus communications connection points.
2. 24VDC Bus powered Analog Input device connection points. (4-20mA)
3. Bus powered Discrete Input connection points for low power (7mA @ 24VDC) gold contact mechanical switches, low power reed, 2 wire solid state, or 3 wire PNP solid state proximity sensors (max allowable current leakage of sensors 0.2mA). Red LED is local indication of discrete Input 1 on/off status and the Green LED for discrete Input 2 on/off status.
4. Connection point for the "return" of 3 wire PNP sensors. (See Note 3)
5. Connection points for devices to be controlled by the Relay Outputs. OUT1 and OUT2 are markings found on modules with independent outputs (461086). BW And FW markings are used on modules with interlocked outputs (461085). Modules with interlocked outputs are typically used with AC motors. BW and FW represent forward and reverse operation of the motor.
6. Connection points for external 120/250VAC or 30VDC power for devices connected to the Relay Outputs. V+, V+, N, N, GND, GND are redundant termination points. The external power source feeds both Relay Outputs
7. 2 amp replaceable fuse (Part# 434162) for Relay Output protection. (See Note 6)