Thank you for choosing our Autonics product. Please read the following safety considerations before use.

- **Safety Considerations**
  - Please observe all safety considerations for safe and proper product operation to avoid hazards.
  - Safety considerations are categorized as follows:
  - **Warning** Failure to follow these instructions may result in serious injury or death.
  - **Caution** Failure to follow these instructions may result in personal injury or product damage.

- **Symbols used**
  - The symbols used on the product and instruction manual represent the following:
    - 

- **Warning**
  - 1. Fall-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g., nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)
  - Failure to follow this instruction may result in fire, personal injury, or economic loss.
  - 2. Install on a device panel to use.
  - Failure to follow this instruction may result in fire.
  - 3. Do not connect, repair, or inspect the unit while connected to a power source.
  - Failure to follow this instruction may result in fire.
  - 4. Check 'Connections' before wiring.
  - Failure to follow this instruction may result in fire.
  - 5. Do not disassemble or modify the unit.
  - Failure to follow this instruction may result in fire or damage.

- **Caution**
  - 1. When connecting the power/measurement input, use AWG 24 (0.20mm) to AWG 18 (0.35mm) cable and tighten the terminal screw with a tightening torque of 0.98 to 1.18 Nm.
  - Failure to follow this instruction may result in fire due to contact failure.
  - 2. Use the unit within the rated specifications.
  - Failure to follow this instruction may result in fire or product damage.
  - 3. Use dry cloth to clean the unit, and do not use water or organic solvent.
  - Failure to follow this instruction may result in fire.
  - 4. Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
  - Failure to follow this instruction may result in fire or explosion.
  - 5. Keep metal chip, dust, and wire residue from flowing into the unit.
  - Failure to follow this instruction may result in fire or product damage.

- **Connections of Applications**
  - Simultaneous connection of voltmeter and ammeter
  - Power of the load

- **Ordering Information**
  - M4V Size
  - M: from M4V-1 to M4V-4
  - 4: from M4V-1 to M4V-10
  - V: DIN W15 x H25mm
  - D: 9999 (4 digits)
  - M: Model

- **Specifications**
  - **Model**: M4V
  - **Measurement function**:
    - DC current
    - DC voltage
    - Input range: 0-10VDC, 0-2VDC, 1-5VDC
  - **Max. allowable input**:
    - 110% of measurement input
  - **Power supply**:
    - 12-24VDC
  - **Operation voltage**:
    - 90 to 110% of rated voltage
  - **Power consumption**:
    - Max: 5W
  - **Display method**:
    - 7-segment LED display (red) (character height: 14mm)
  - **Display accuracy**:
    - ±0.2% F.S. ±1-digit
  - **Display cycle**:
    - 3 times
  - **Setting type with the front keys**:
    - Enable to change DATA, Display from “0”, setting range: -99 to 99
  - **Source**:
    - DC0-1mA
  - **Vibration**:
    - Mechanical: 3.5mm amplitude at frequency of 10 to 50Hz (for 1 min) in each X, Y, Z direction for 1 hour
    - Shock: 70G (approx. 30G) in each X, Y, Z direction for 1 min (for 5 min)
  - **Environment temp.**:
    - 10 to 50°C
  - **Environmental resistance**:
    - Rated at no freezing or condensation.

- **Error Display**
  - Display indicates “Error” when wrong measuring input value is applied.

- **Parameter Description**
  - **Error display function**
  - Error display function
  - **Connection with the varistor**
    - 2000VAC 50/60Hz for 1 min
  - **0-2V, 1-5V, 0-10V**
  - **Ammeter**
  - **5-40**

- **How to change the setting value**
  - 1. When advance to MODE, change digit flashing by “key then set DATA value by “key.
  - 2. After complete DATA value setting, please press “key for 2 sec, then it will move to next MODE saving DATA.
  - 3. Press “key for 2 sec to return RUN mode after changing setting DATA value in each MODE.
  - 4. Press “key for 2 sec after setting DATA, then it will return to RUN without change setting value.
  - 5. Correct an error occurs in input sensor by “key (digit shift) and “key (changing SV).

- **Input and Connection**
  - **Use terminals of size “**
  - **Low limit scale**: -10 to 0
  - **High limit scale**: F.S. ±0.2% rdg ±1-digit
  - **Display from “0”, setting range**: -99 to 99
  - **When using voltmeter and ammeter simultaneously, connect the separated power supply each.

- **Cautions during Use**
  - 1. Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
  - 2. 12-24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
  - 3. Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.
  - 4. Keep away from high voltage lines or power lines to prevent inductive noise.
  - 5. This unit may be used in the following environments.
    - Indoor (in the environment condition rated in 'Specifications')
    - Pollution degree 2
    - Temperature Controllers
    - Field Network Devices
    - Panel meter
    - Fiber Optic Sensors
    - Control Switches/Lamps/Buzzers
    - Momentary Power Supplies
    - Switching Mode Power Supplies
    - Door Sensors

- **Major Products**
  - Contact your Autonics sales representative.