

<p><b>PULSE ISOLATOR</b> (built-in excitation)</p>	<p>MODEL <b>PP</b></p>
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**BEFORE USE ....**

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

**■ PACKAGE INCLUDES:**

Signal conditioner (body + base socket).....(1)

**■ MODEL NO.**

Confirm Model No. marking on the product to be exactly what you ordered.

**■ INSTRUCTION MANUAL**

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

**POINTS OF CAUTION**

**■ POWER INPUT RATING & OPERATIONAL RANGE**

- Locate the power input rating marked on the product and confirm its operational range as indicated below:  
85 – 132V AC rating: 85 – 132V, 47 – 66 Hz, approx. 2VA  
12V and 24V DC ratings: Rating ±10%, approx. 2W

**■ GENERAL PRECAUTIONS**

- Before you remove the unit from its base socket or mount it, turn off the power supply and input signal for safety.

**■ ENVIRONMENT**

- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -5 to +60°C (23 to 140°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

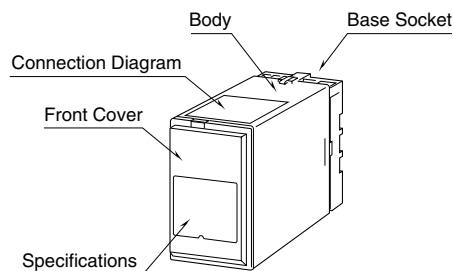
**■ WIRING**

- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

**■ AND ....**

- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

**COMPONENT IDENTIFICATION**

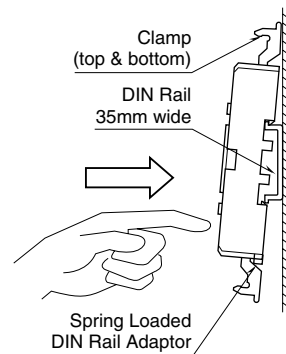


**INSTALLATION**

Detach the yellow clamps located at the top and bottom of the unit for separate the body from the base socket.

**■ DIN RAIL MOUNTING**

Set the base socket so that its DIN rail adaptor is at the bottom. Hang the upper hook at the rear side of base socket on the DIN rail and push in the lower. When removing the socket, push down the DIN rail adaptor utilizing a minus screwdriver and pull.



**■ WALL MOUNTING**

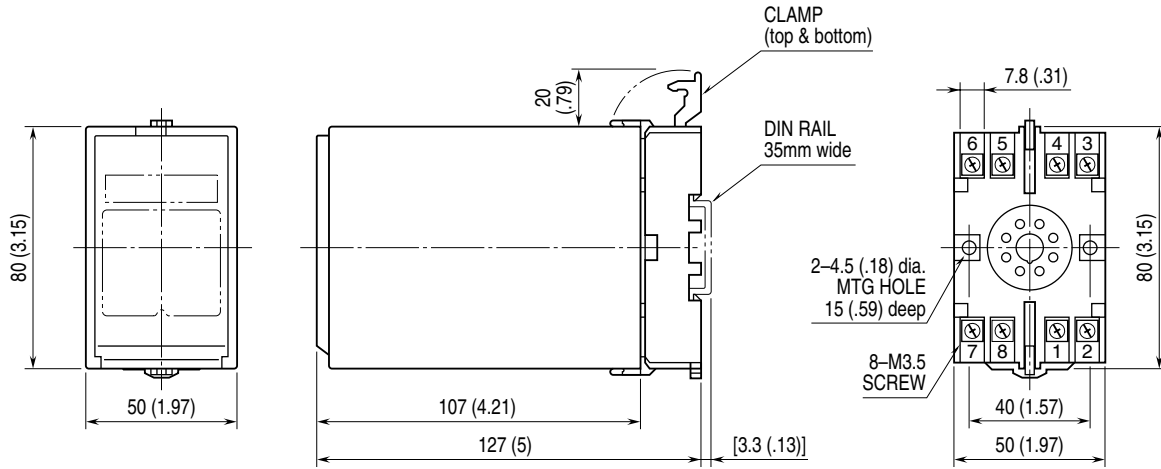
Refer to "EXTERNAL DIMENSIONS."

Shape and size of the base socket are slightly different with various socket types.

# TERMINAL CONNECTIONS

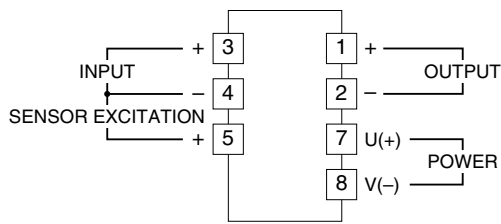
Connect the unit as in the diagram below or refer to the connection diagram on the top of the unit.

## EXTERNAL DIMENSIONS unit: mm (inch)



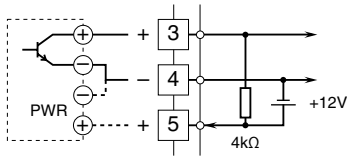
• When mounting, no extra space is needed between units.

## CONNECTION DIAGRAM

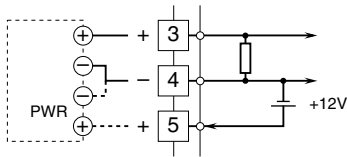


### Input Connection Examples

#### Mechanical Contact or Open Collector

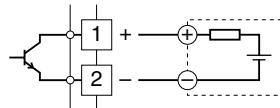


#### Voltage Pulse

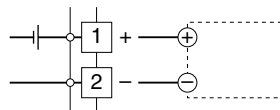


### Output Connection Examples

#### Open Collector

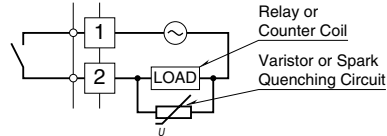


#### Voltage Pulse

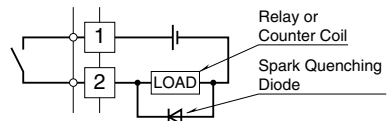


### Photo MOSFET Relay Pulse

#### AC Powered



#### DC Powered



## CHECKING

- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Power input voltage: Check voltage across the terminal 7 – 8 with a multimeter.
- 3) Input: Check that the input frequency is 30 Hz or less for Mechanical contact, 10 kHz or less for other types of input.  
Be sure that the frequency is within the max. limit of output frequency.  
Check also that the input pulse is of 10 msec. or wider for Mechanical contact, 10  $\mu$ sec. or wider for other types of input.
- 4) Output: Check that the load resistance meets the specifications as shown below.

OUTPUT	LOAD REQUIREMENTS
Open collector	50V DC @100mA max.
Voltage pulse	250 $\Omega$ min. for 5V 600 $\Omega$ min. for 12V 1200 $\Omega$ min. for 24V
Photo MOSFET relay pulse	30V DC @200mA max. (resistive load) 132V AC @200mA max. ( $\cos\phi=1$ )

## LIGHTNING SURGE PROTECTION

M-System offers a series of lightning surge protector for protection against induced lightning surges. Please contact M-System to choose appropriate models.