

## PULSE OUTPUT MODULE

(photo MOSFET relay output, 2 points)

MODEL **R5-PC2**

### 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:

Pulse output module ..... (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

#### ■ CONFORMITY WITH EU DIRECTIVES

- This equipment is suitable for Pollution Degree 2 and Measurement Category II (output, transient voltage 1500V). Basic insulation (output to internal bus or internal power: 300V) is maintained. Prior to installation, check that the insulation class of this unit satisfies the system requirements.
- Altitude up to 2000 meters.
- The equipment must be mounted inside the instrument panel of a metal enclosure.
- The equipment must be installed such that appropriate clearance and creepage distances are maintained to conform to CE requirements. Failure to observe these requirements may invalidate the CE conformance.
- The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity.
- Install lightning surge protectors for those wires connected to remote locations.

#### ■ HOT INSERTION/REMOVAL OF MODULES

- Removing or replacing modules does not affect other modules on the same backplane. It is possible to replace them without removing the power supply. However, replacing multiple modules at once may greatly change line voltage levels. We recommend that you replace them one by one.

#### ■ GENERAL PRECAUTIONS

- DO NOT set the switches while the power is supplied. The switches are used only for maintenance without the power.

#### ■ 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 -10 to +55°C (14 to 131°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 ....

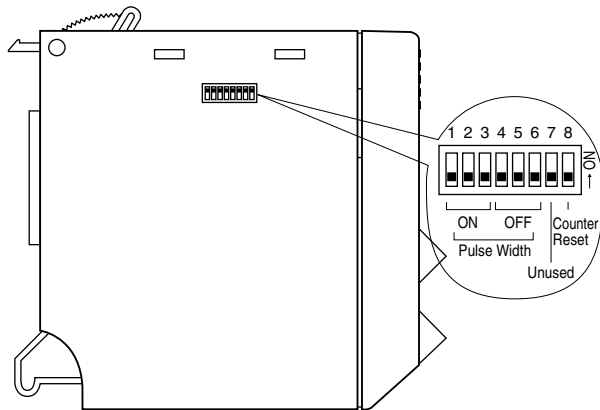
- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

### INSTALLATION

Use the Installation Base (model: R5-BS).

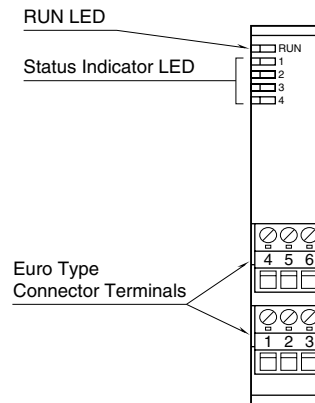
## COMPONENT IDENTIFICATION

### ■ SIDE VIEW



Note: Counter Reset SW is normally OFF during operation.

### ■ FRONT VIEW



### ■ STATUS INDICATOR LED

**RUN indicator:** Bi-color (red/green) LED;

Red when the bus A operates normally;

Green when the bus B operates normally;

Amber when both buses operate normally.

**Output status indicator:** Red LED; turns on with the outputs ON.

### ■ SIDE DIP SW

#### • Pulse Width: SW1 through 6

SW						PULSE WIDTH (TIME)
ON			OFF			
1	2	3	4	5	6	
OFF	OFF	OFF	OFF	OFF	OFF	5 msec.
ON	OFF	OFF	ON	OFF	OFF	10 msec.
OFF	ON	OFF	OFF	ON	OFF	50 msec.
ON	ON	OFF	ON	ON	OFF	100 msec.
OFF	OFF	ON	OFF	OFF	ON	500 msec.
ON	OFF	ON	ON	OFF	ON	1 sec.
OFF	ON	ON	OFF	ON	ON	1.5 sec.
ON	ON	ON	ON	ON	ON	2 sec.

(\*) Factory setting

Note: Be sure to set unused SW7 to OFF.

## PC CONFIGURATOR

With configurator software, settings shown below are available.

Refer to the software manual of R5CON for detailed operation.

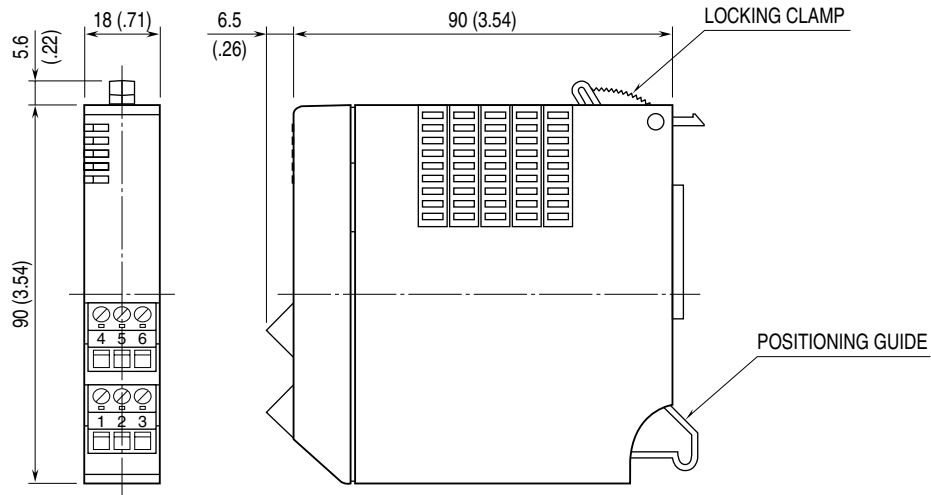
### ■ CHANNEL INDIVIDUAL SETTING

PARAMETER	AVAILABLE RANGE	DEFAULT SETTING
Span	100 to 60000	10000

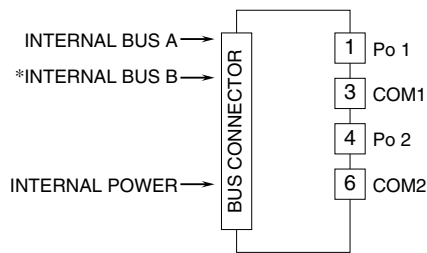
## TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

### EXTERNAL DIMENSIONS unit: mm (inch)



### CONNECTION DIAGRAM



\*For dual redundant communication.

## COUNTER RESET

- 1) Remove Network Module or its cables and interrupt communication with other devices.
- 2) Turn ON the Counter Reset SW (SW8) on R5-PC2 module.
- 3) Return the module to the base and turn the power supply on.
- 4) Red RUN LED turns on and the module starts resetting its counter. When the resetting is complete, the LED turns to green. DO NOT remove the power while the red LED is on.
- 5) After the green LED is confirmed, turn the power supply off.
- 6) Turn OFF the Counter Reset SW (SW8).
- 7) Return the Network module onto the base and turn the power supply on.

Note: Counter Reset SW must be turned OFF after this procedure because the module does not start counting with ON state.

## WIRING INSTRUCTIONS

### EURO TYPE CONNECTOR TERMINAL

Applicable wire size: 0.2 to 2.5 mm<sup>2</sup>

Stripped length: 7 mm