

PULSE DIVIDER

MODEL M2PDU

BEFORE USE

Thank you for choosing us. 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 our 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 – 264V AC rating: 85 – 264V, 47 – 66 Hz, approx. 4 - 6 VA
 - 24V DC rating: 24V ±10%, approx. 2 W
 - 11 – 27V DC rating: 11 – 27V, approx. 2 W
 - 110V DC rating: 85 – 150V, approx. 2 W

■ 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

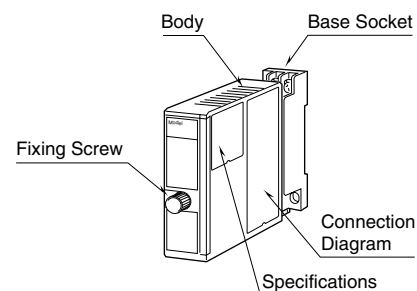
- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -5 to +55°C (23 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.
- Be sure that the ventilation slits are not covered with cables, etc.

■ 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.
- With voltage output, do not leave the output terminals shortcircuited for a long time. The unit is designed to endure it without breakdown, however, it may shorten appropriate life duration.

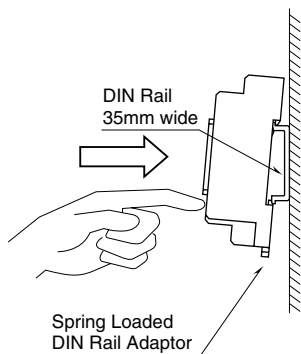
COMPONENT IDENTIFICATION

INSTALLATION

Loosen the fixing screw at the front of the unit in order to separate the body from the base socket.

■ DIN RAIL MOUNTING

Set the base socket so that its DIN rail adaptor is at the bottom. Position 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.

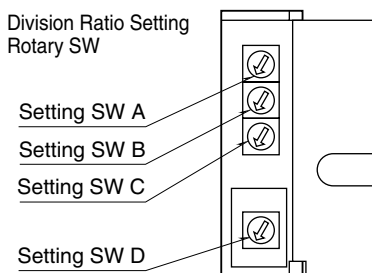


■ WALL MOUNTING

Refer to "EXTERNAL DIMENSIONS."

COMPONENT IDENTIFICATION

■ FRONT VIEW



Division Ratio

In the range of 1/1 to 1/6400, division ratio can be set arbitrarily with the following combinations of the switches.

Switch No.	Switch A	Switch B	Switch C	Switch D
1	No division	No division	No division	No division
2	1/2	1/16	1/128	1/5
3	1/4	1/32	1/256	1/25
4	1/8	1/64	-	-

Note 1. Set two switches out of A through C to "no division". (Settings such as 1/2 for switch A and 1/16 for switch B are disabled.)

Note 2. 1/5 and 1/25 are not settable.

Be sure to set Switch A through C when setting Switch D to 1/5 or 1/25.

Division setting list

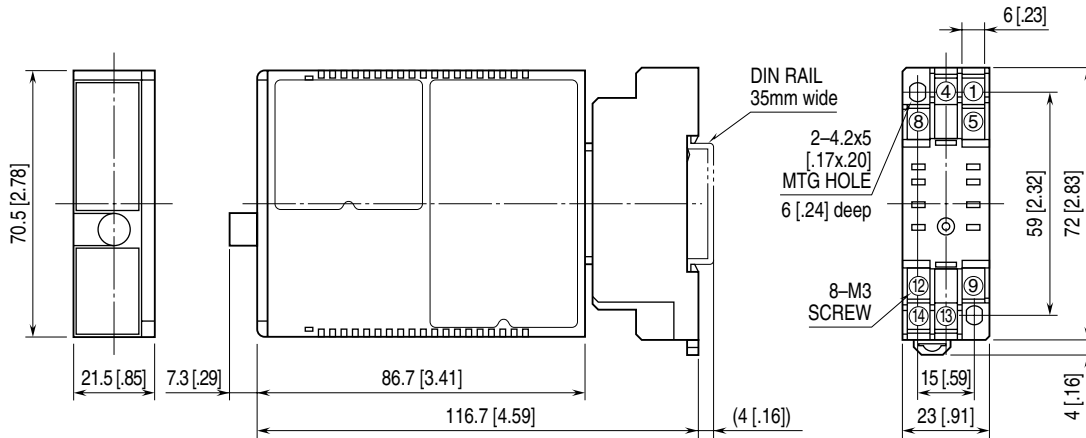
(*) factory default setting

Division ratio	Switch A	Switch B	Switch C	Switch D
No division (*)	1	1	1	1
1/2	2	1	1	1
1/4	3	1	1	1
1/8	4	1	1	1
1/10	2	1	1	2
1/16	1	2	1	1
1/20	3	1	1	2
1/32	1	3	1	1
1/40	4	1	1	2
1/50	2	1	1	3
1/64	1	4	1	1
1/80	1	2	1	2
1/100	3	1	1	3
1/128	1	1	2	1
1/160	1	3	1	2
1/200	4	1	1	3
1/256	1	1	3	1
1/320	1	4	1	2
1/400	1	2	1	3
1/640	1	1	2	2
1/800	1	3	1	3
1/1280	1	1	3	2
1/1600	1	4	1	3
1/3200	1	1	2	3
1/6400	1	1	3	3

TERMINAL CONNECTIONS

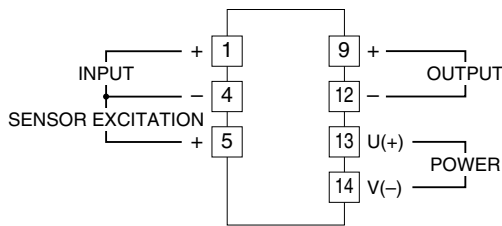
Connect the unit as in the diagram below or refer to the connection diagram on the side of the unit.

EXTERNAL DIMENSIONS unit: mm [inch]



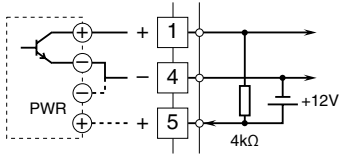
• When mounting, no extra space is needed between units.

CONNECTION DIAGRAM



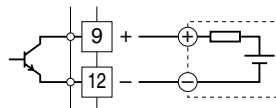
Input Connection Examples

Mechanical Contact, Open Collector or Clamp-on Pulse Sensor CLSP

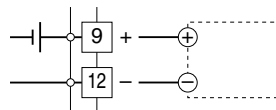


Output Connection Examples

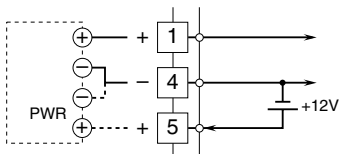
Open Collector



Voltage Pulse



Voltage Pulse



WIRING INSTRUCTIONS

■ SCREW TERMINAL

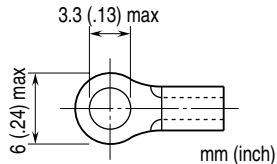
Torque: 0.8 N·m

■ SOLDERLESS TERMINAL

Refer to the drawing below for recommended ring tongue terminal size. Spade tongue type is also applicable.

Applicable wire size: 0.25 to 1.65 mm² (AWG 22 to 16)

Recommended manufacturer: Japan Solderless Terminal MFG.Co.Ltd, Nichifu Co.,Ltd



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 13 – 14 with a multimeter.
- 3) Input: Check that the input frequency is 30 Hz or less for relay contact, 100 kHz or less for other types of input.
Check also that the input pulse is of 10 msec. or wider for relay contact, 5 μsec. or wider for other types of input.
- 4) Output: Check that the load resistance meets the described specifications as shown below.

OUTPUT	LOAD REQUIREMENTS
Open collector	50V DC @ 100mA max.
Voltage pulse	250Ω min. for 5V
	600Ω min. for 12V
	1200Ω min. for 24V

LIGHTNING SURGE PROTECTION

We offer a series of lightning surge protector for protection against induced lightning surges. Please contact us to choose appropriate models.