

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:

Quad DC alarm(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. 4.5VA
170 – 264V AC rating: 170 – 264V, 47 – 66 Hz, approx. 4.5VA
24V DC rating: 24V \pm 10%, approx. 2W
110V DC rating: 85 – 150V, approx. 2W

■ GENERAL PRECAUTIONS

- Before you remove the unit 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.

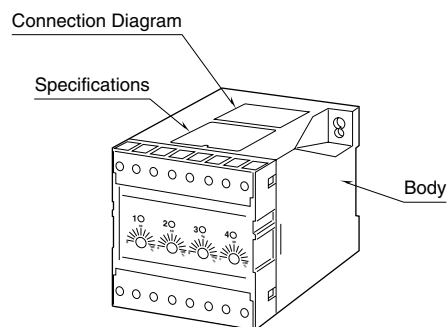
■ WIRING

- 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.
- Be sure to close the terminal cover for safety.

■ AND

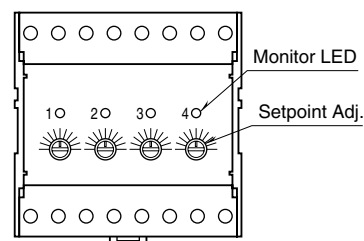
- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

COMPONENT IDENTIFICATION

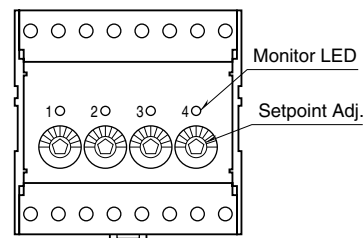


■ FRONT PANEL CONFIGURATION

• SCREWDRIVER ADJUSTMENTS



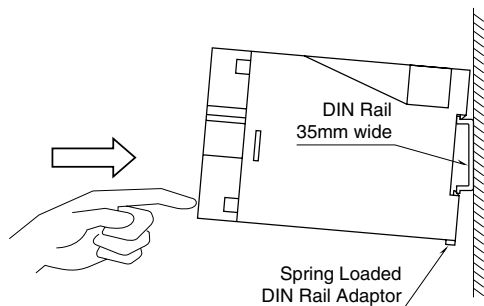
• DIAL ADJUSTMENTS



INSTALLATION

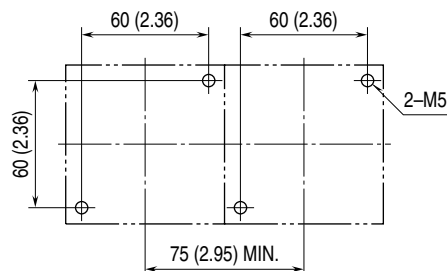
■ DIN RAIL MOUNTING

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

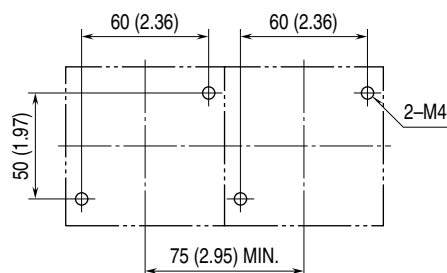


■ WALL MOUNTING unit: mm (inch)

■ M5 SCREWS



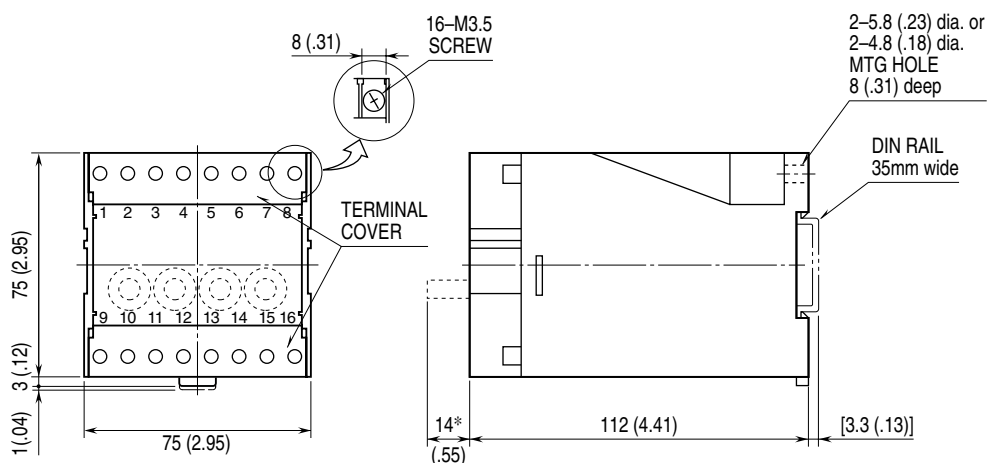
■ M4 SCREWS



TERMINAL CONNECTIONS

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

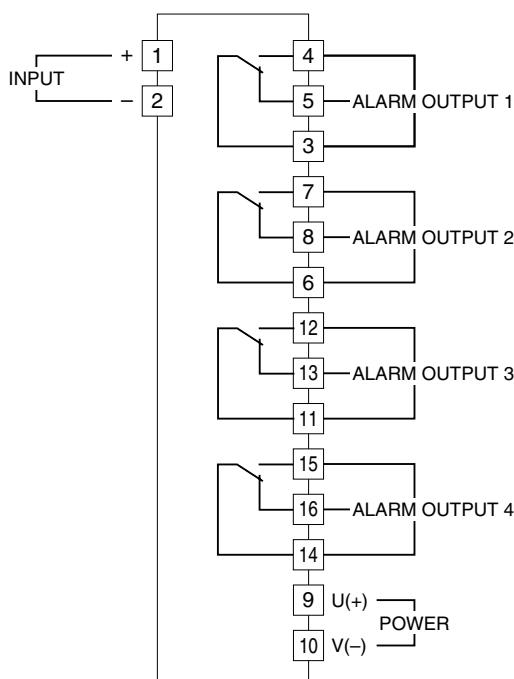
■ EXTERNAL DIMENSIONS unit: mm (inch)



*Dial adj.

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

CONNECTION DIAGRAM



WIRING INSTRUCTIONS

SCREW TERMINAL

Torque: 0.8 N·m

CHECKING

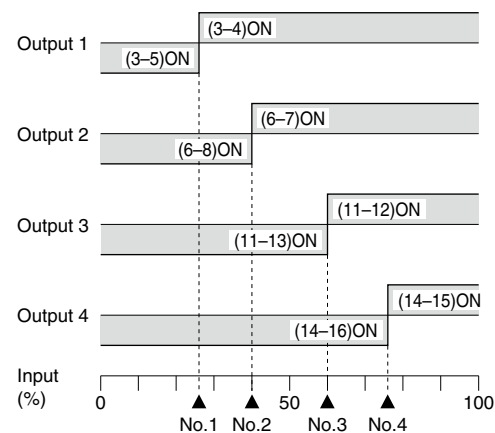
- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Power input voltage: Check voltage across the terminal 9 – 10 with a multimeter.
- 3) Input: Check that the input signal is within 0 – 100% of the full-scale.
- 4) Alarm operations: Check the alarm operations referring to the figure below.
- 5) Output load: Check that the output load is 380V AC/ 120VA or 125V DC/30W at the maximum. For maximum relay life with inductive load, external protection is recommended.

Alarm Trip Operation Terminal No. in parentheses

Output Code : 1

Trip Operation in Power Failure:

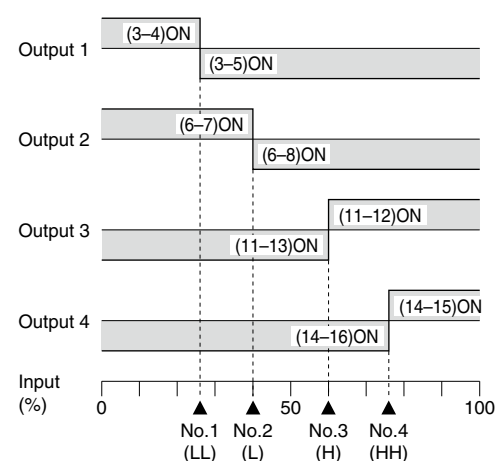
Terminals 3 – 5, 6 – 8, 11 – 13 and 14 – 16 turn ON.



Output Code : 2

Trip Operation in Power Failure:

Terminals 3 – 5, 6 – 8, 11 – 13 and 14 – 16 turn ON.



MAINTENANCE

Regular calibration procedure is explained below:

CALIBRATION

Warm up the unit for at least 10 minutes.

Hi or HH Setpoint

Increase the input signal from a value lower than the setpoint and check that the trip point remains within the accuracy described in the data sheet.

Lo or LL Setpoint

Decrease the input signal from a value higher than the setpoint and check that the trip point remains within the accuracy described in the data sheet.

When the trip points are shifted, please contact M-System's Sales Office or representatives.

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.