

## Plug-in Signal Conditioners M-UNIT

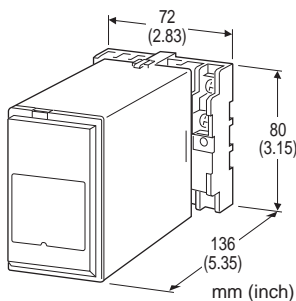
### ANALOG SWITCHING MODULE

#### Functions & Features

- Selecting one signal as output from up to four analog input signals
- Distributing a single input signal to any or all of the up to four output channels
- High-density mounting

#### Typical Applications

- Switching 1 - 5 V DC signal: no contact failure that happens when using mechanical contacts for this purpose
- Switching low-speed pulse signals
- Switching alternating signals



### MODEL: MNV-[1]-[2]

### ORDERING INFORMATION

Code number: MNV-[1]-[2]  
Specify a code from below for each [1] through [2].  
(e.g. MNV-1-B)

#### [1] SWITCHING CIRCUIT

- 1: Single circuit
- 2: Double circuit

#### [2] POWER INPUT

##### AC Power

- B: 100 V AC
- C: 110 V AC
- D: 115 V AC
- F: 120 V AC
- G: 200 V AC
- H: 220 V AC
- J: 240 V AC

##### DC Power

- S: 12 V DC
- R: 24 V DC
- V: 48 V DC

### GENERAL SPECIFICATIONS

**Construction:** Plug-in

**Connection:** M3.5 screw terminals

**Housing material:** Flame-resistant resin (black)

**Switching:** Photo MOS relay

**Isolation:** Switching command relay to signal line to power

**Monitor LED 1:** Red light turns on with SW1 ON

**Monitor LED 2:** Red light turns on with SW2 ON

**Monitor LED 3:** Red light turns on with SW3 ON

**Monitor LED 4:** Red light turns on with SW4 ON

### INPUT & OUTPUT

#### ■ SIGNAL LINE

**Operational voltage range:**  $\pm 50$  V DC or less; minimum span 10 mV

**Operational current range:** 50 mA or less

**ON resistance:** Approx. 50  $\Omega$  per line

**■ SWITCHING COMMAND:** Relay contact or open collector

#### Sensing:

Approx. 20 V DC @ 7 mA with single circuit

Approx. 20 V DC @ 14 mA with double circuit

**ON/OFF level:**  $\leq 1$  k $\Omega$  for ON;  $\geq 100$  k $\Omega$  for OFF

**Leakage current at OFF:** 1  $\mu$ A (400 V AC between lines)

### INSTALLATION

#### Power input

• **AC:** Operational voltage range: rating  $\pm 10$  %, 50/60  $\pm 2$  Hz, approx. 2 VA

• **DC:** Operational voltage range: rating  $\pm 10$  % (ripple 10 % p-p max.) approx. 1 W (30 mA at 24 V)

**Operating temperature:** -5 to +60°C (23 to 140°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Surface or DIN rail

**Weight:** 350 g (0.77 lbs)

### PERFORMANCE

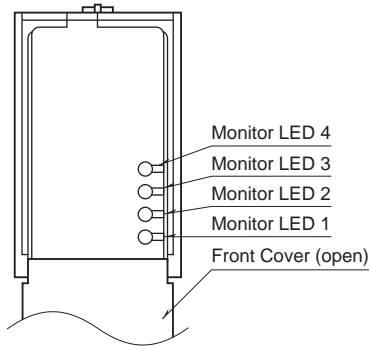
**Response time:** Approx. 1 msec.

**Leakage current at open circuit:**  $\leq 1$   $\mu$ A

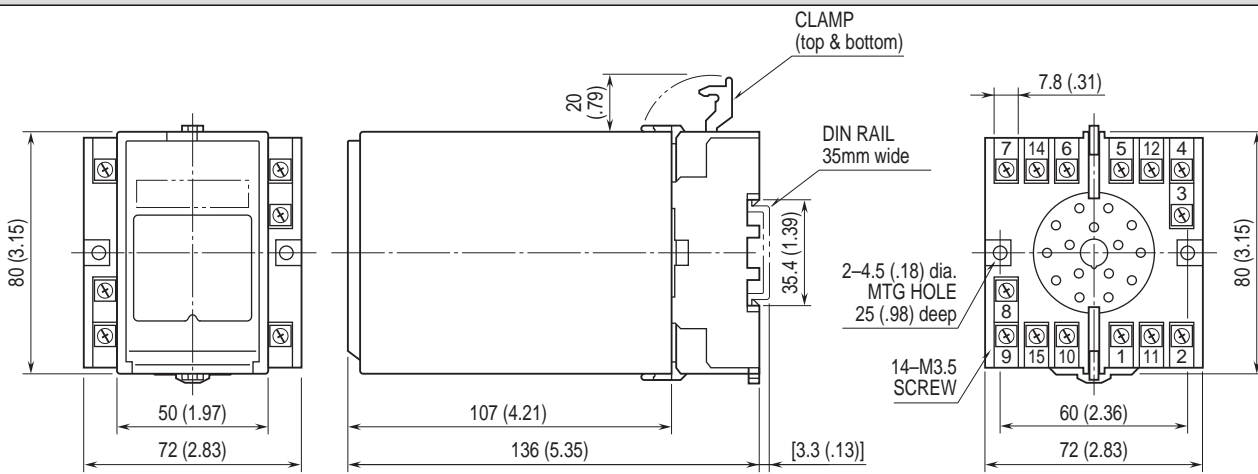
**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute (switching command relay to signal line to power to ground)

## EXTERNAL VIEW



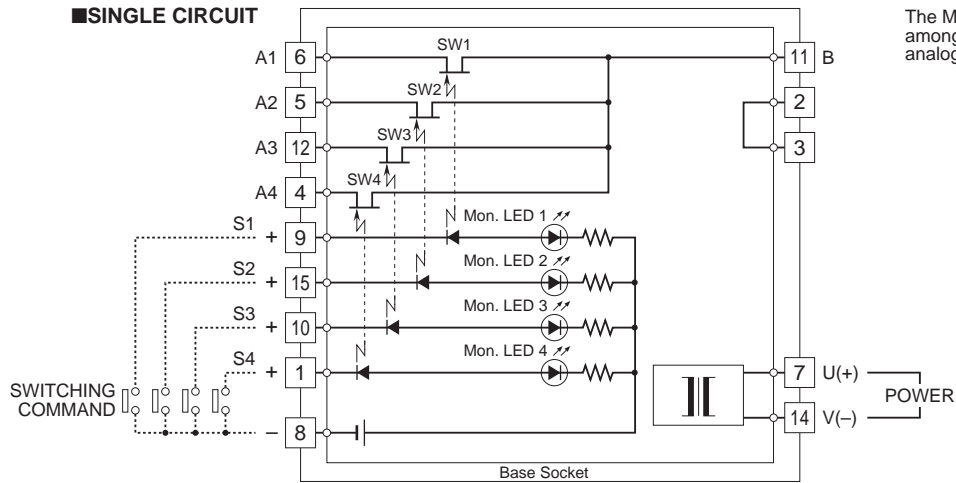
## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



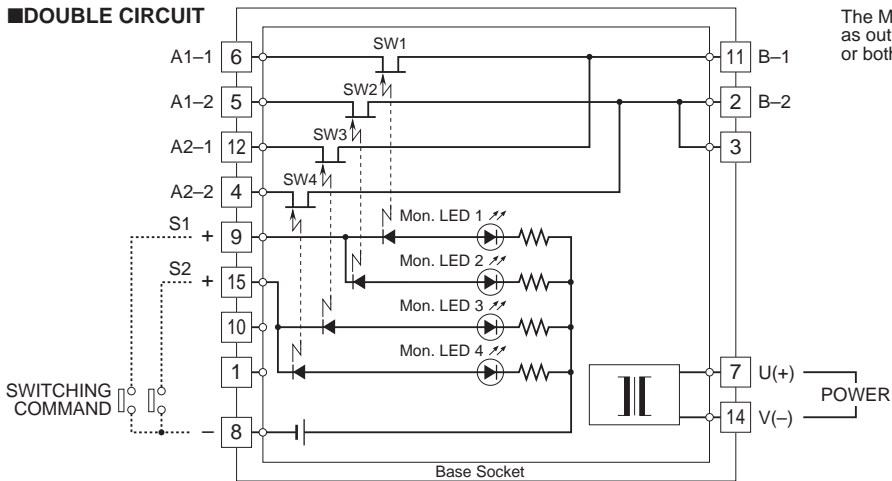
• When mounting, no extra space is needed between units.

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

### ■SINGLE CIRCUIT



### ■DOUBLE CIRCUIT



Specifications are subject to change without notice.