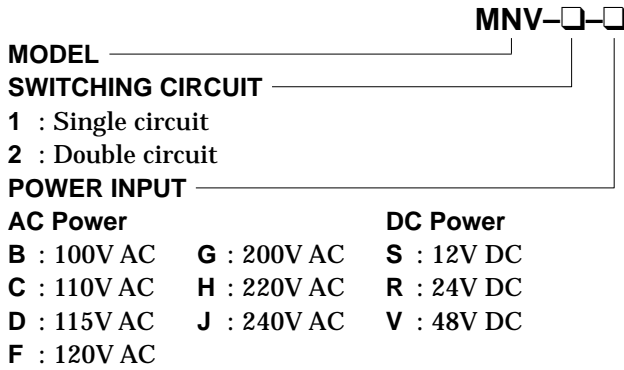


Plug-in Signal Conditioners *M-UNIT*

ANALOG SWITCHING MODULE

MODEL **MNV**

MODEL & SUFFIX CODE SELECTION



ORDERING INFORMATION

Specify code number. (e.g. MNV-1-B)

GENERAL SPECIFICATIONS

Construction: plug-in
Connection: M3.5 screw terminals
Housing material: flame-resistant resin (black)
Isolation: switching command relay to signal line
Switching: photo MOS relay
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

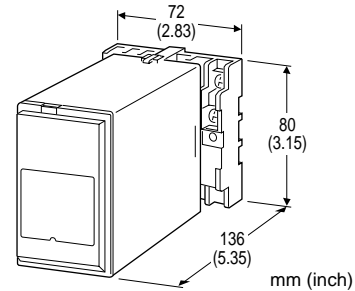
■ **SIGNAL LINE**
Operational voltage range: ±50V DC or less; minimum span 10mV
Operational current range: 50mA or less
ON resistance: approx. 50Ω per line

■ **SWITCHING COMMAND:** relay contact or open collector
Sensing: approx. 20V DC @7mA with single circuit; approx. 20V DC @14mA with double circuit
ON/OFF level: ≤1kΩ for ON; ≥100kΩ for OFF

INSTALLATION

Power input
AC: rating ±10%, 50/60 ±2 Hz, approx. 2VA
DC: rating ±10% (ripple 10% p-p max.) approx. 1W (30mA at 24V)

Operating temperature: -5 to +60°C (23 to 140°F)
Operating humidity: 30 to 90% RH (non-condensing)
Mounting: surface or DIN rail
Dimensions: W72×H80×D136 mm (2.83"×3.15"×5.35")
Weight: 350 g (0.77 lbs)



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

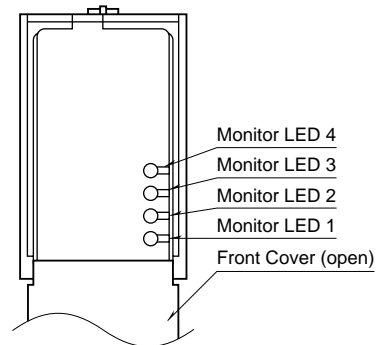
Typical Applications

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

PERFORMANCE

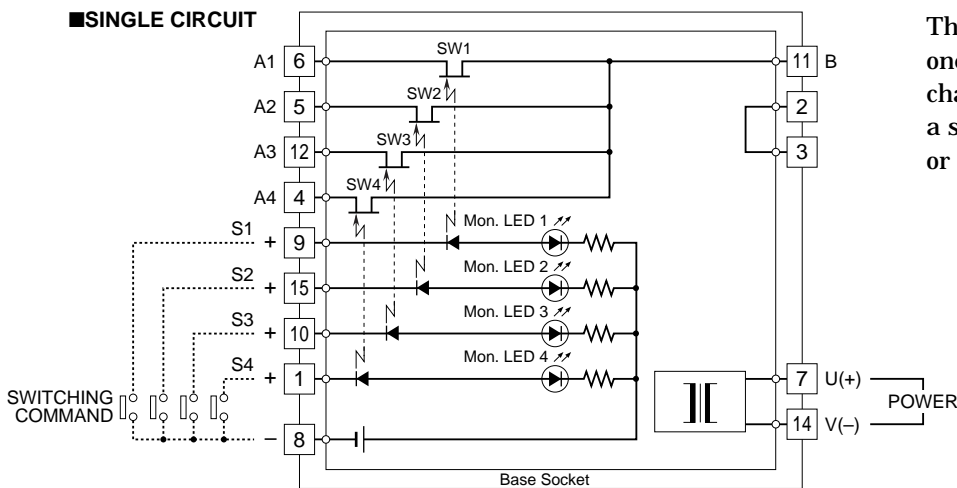
Response time: approx. 1 millisecond
Leakage current at open circuit: 1μA max.
Insulation resistance: ≥100MΩ with 500V DC
Dielectric strength: 1500V AC @1 minute (switching command relay to signal line to power to ground)
 400V AC @1 minute (between lines)

FRONT PANEL CONFIGURATION



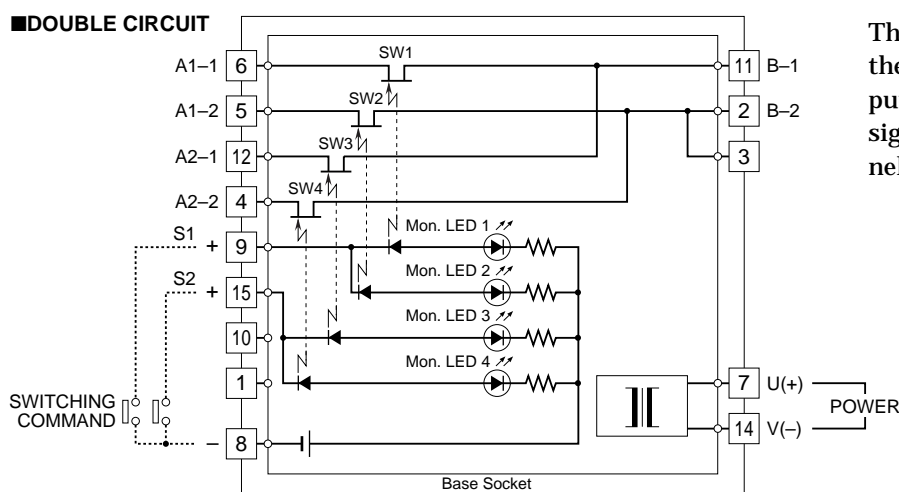
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

■ SINGLE CIRCUIT



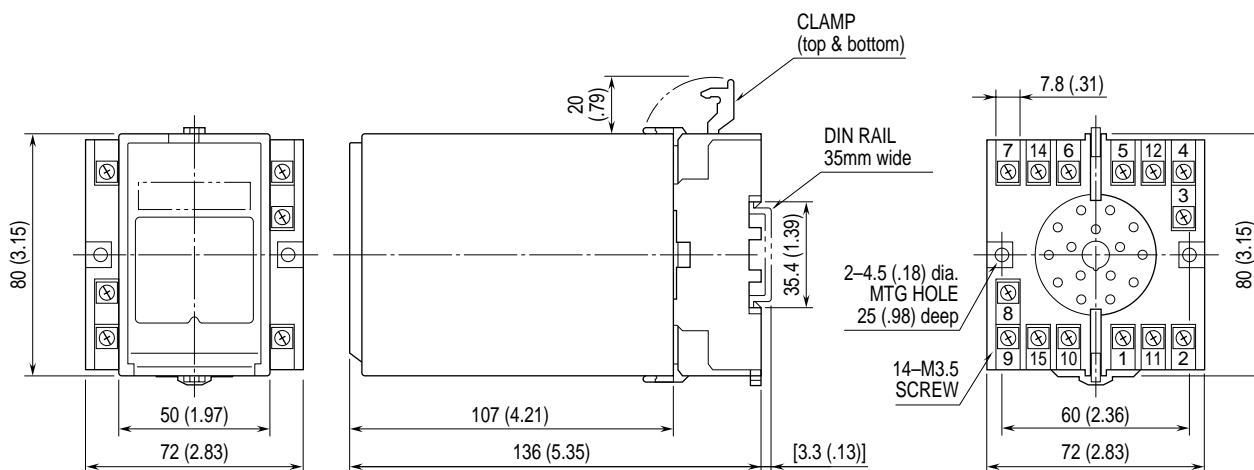
The MNV can select and output one signal (B) from among the 4 channels (A1 – A4) or distribute a single analog signal (B) to any or all of the channels (A1 – A4).

■ DOUBLE CIRCUIT



The MNV can select either (B) of the 2 channels (A1, A2) as output or distribute a single analog signal (B) to either or both channels (A1, A2).

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENT mm (inch)



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