

Screw Terminal Ultra-Slim Signal Conditioners M6N Series

SIGNAL TRANSMITTER

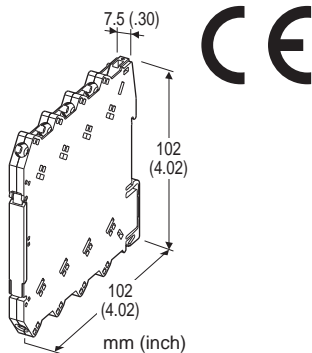
(high-accuracy, ultra-high speed response 30 μsec.)

Functions & Features

- 7.5-mm wide ultra-slim design
- Low profile allows the M6N module mounted in a 120-mm deep panel
- Galvanically isolates process instrumentation signals
- 30-microsecond response
- Frequency characteristics 12 kHz (-3 dB)
- High-density mounting
- Power indicator LED

Typical Applications

- Isolation for a vibration analyzing system
- Isolation for Discharge/Charge tester



MODEL: M6NVF-[1]4W-R

ORDERING INFORMATION

- Code number: M6NVF-[1]4W-R
Specify a code from below for [1].
(e.g. M6NVF-04W-R)
- Special input range (For codes 0: e.g. -164 - +164 mV DC)

[1] INPUT

Voltage

2W : -100 - +100 mV DC (Input resistance 1 MΩ min.)

4W : -10 - +10 V DC (Input resistance 1 MΩ min.)

5W : -5 - +5 V DC (Input resistance 1 MΩ min.)

8W : -20 - +20 V DC (Input resistance 1 MΩ min.)

0 : Specify voltage

(Select input range as indicated below. Input resistance 1 MΩ min.)

-20 - +20 mV DC

-24 - +24 mV DC

-40 - +40 mV DC

-85 - +85 mV DC

-164 - +164 mV DC

-200 - +200 mV DC

-15 - +15 V DC

-25 - +25 V DC

-55 - +55 V DC

-60 - +60 V DC

OUTPUT

Voltage

4W : -10 - +10 V DC (Load resistance 2000 Ω min.)

POWER INPUT

DC Power

R : 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

GENERAL SPECIFICATIONS

Connection

Input and output: M3 screw terminal (torque 0.5 N·m)

Power input: Via the Installation Base (model: M6NBS) or M3 screw terminal (torque 0.5 N·m)

Recommended solderless terminal: Max. 5.8 mm (0.23") wide; Ones with insulation sleeve do not fit.

Applicable wire size 0.2 - 2.5 mm²

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

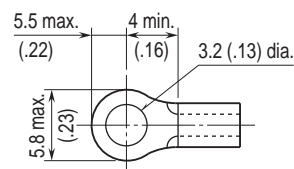
Overrange input: -5 to +105%

Zero adjustment: -1 to +1 % (front)

Span adjustment: 99 to 101 % (front)

Power LED: Green light turns on when the power is supplied.

■Recommended solderless terminal



INPUT SPECIFICATIONS

Input resistance: 1 MΩ min. (3 kΩ min. at power loss)

OUTPUT SPECIFICATIONS

Parallel load capacitance: Max. 2000 pF

INSTALLATION

Power consumption: Approx. 0.6 W

Operating temperature: -20 to +55°C (-4 to +131°F)

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

Mounting: Installation Base (model: M6NBS) or DIN rail

Weight: 60 g (2.1 oz)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.01\%$

Temp. coefficient: $\pm 0.005\%/^{\circ}\text{C}$ ($\pm 0.003\%/^{\circ}\text{F}$)

Frequency characteristics: 12 kHz, -3 dB

Response time: $\leq 30\ \mu\text{sec.}$ (0 - 90 %)

Line voltage effect: $\pm 0.01\%$ over voltage range

Insulation resistance: $\geq 100\ \text{M}\Omega$ with 500 V DC

Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

STANDARDS & APPROVALS

CE conformity:

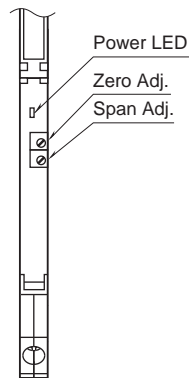
EMC Directive (2004/108/EC)

EN 61000-6-4 (EMI)

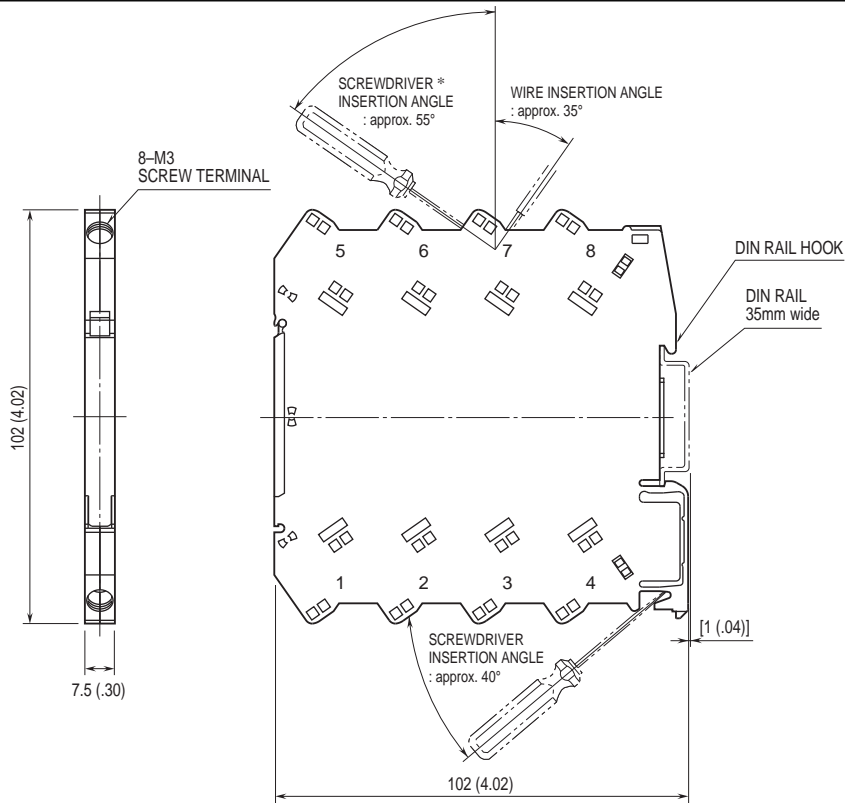
EN 61000-6-2 (EMS)

EXTERNAL VIEW

(With the cover open)

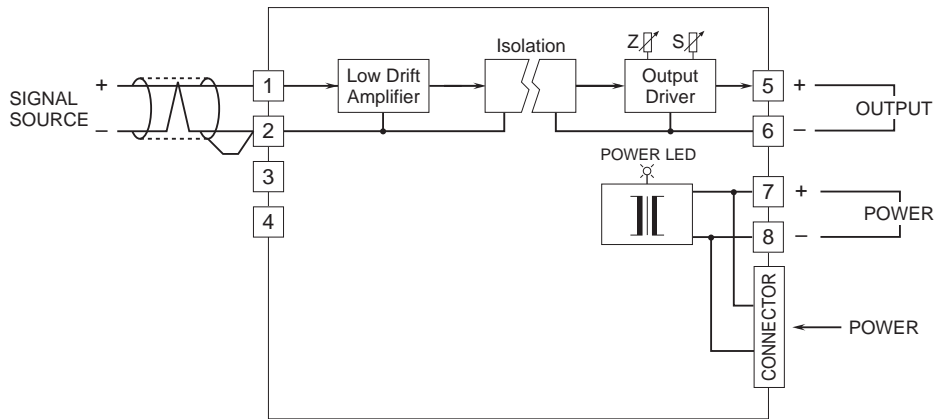


DIMENSIONS unit: mm (inch)



*Screwdriver stem diameter: 6 mm (.24") or less • When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



This unit, by its fast-response feature, is not designed to eliminate noise present in the input signal. Use a shielded twisted-pair cable to prevent noise from entering through the input wiring.



Specifications are subject to change without notice.