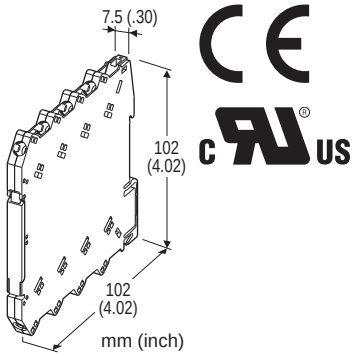
Screw Terminal Ultra-Slim Signal Conditioners M6N Series

SIGNAL TRANSMITTER

(two isolated outputs)

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
- High-density mounting
- Power indicator LED
- UL approval



MODEL: M6NWVS-[1][2][3]-R[4]

ORDERING INFORMATION

- Code number: M6NWVS-[1][2][3]-R[4]

Specify a code from below for each [1] through [4].
(e.g. M6NWVS-AAA-R/K/UL)

[1] INPUT

Current

A: 4 – 20 mA DC (Input resistance 50 Ω)
B: 2 – 10 mA DC (Input resistance 100 Ω)
C: 1 – 5 mA DC (Input resistance 200 Ω)
D: 0 – 20 mA DC (Input resistance 50 Ω)
E: 0 – 16 mA DC (Input resistance 50 Ω)
F: 0 – 10 mA DC (Input resistance 100 Ω)
G: 0 – 1 mA DC (Input resistance 1000 Ω)
H: 10 – 50 mA DC (Input resistance 20 Ω)
Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

3: 0 – 1 V DC (Input resistance 1 MΩ min.)
4: 0 – 10 V DC (Input resistance 1 MΩ min.)
5: 0 – 5 V DC (Input resistance 1 MΩ min.)
6: 1 – 5 V 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.)
0: Specify voltage (See INPUT SPECIFICATIONS)

[2] OUTPUT 1

Current

A: 4 – 20 mA DC (Load resistance 280 Ω max.)
D: 0 – 20 mA DC (Load resistance 280 Ω max.)

Voltage

5: 0 – 5 V DC (Load resistance 5000 Ω min.)
6: 1 – 5 V DC (Load resistance 5000 Ω min.)

[3] OUTPUT 2

Same range availability as Output 1
Y: None

POWER INPUT

DC Power

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

[4] OPTIONS (multiple selections)

RESPONSE TIME (0 – 90 %)

blank: Standard (≤ 0.5 sec.)
/K: Fast Response (Approx. 3.5 msec.)

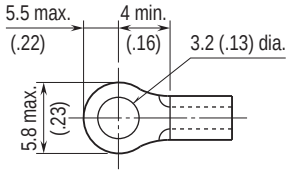
STANDARDS & APPROVALS

blank: CE marking
/UL: UL approval (CE marking)

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 mm^2
Housing material: Flame-resistant resin (black)
Isolation: Input to output 1 to output 2 to power
Zero adjustment: -2 to +2 % (front)
Span adjustment: 98 to 102 % (front)
Power LED: Green light turns on when the power is supplied.

■**Recommended solderless terminal**



INPUT SPECIFICATIONS

• **DC Current**: Input resistor incorporated
Specify input resistance value for code Z.
($R \leq 0.125\ W \div [F.S.\ Current]^2$)
• **DC Voltage**: -30 – +30 V DC
Minimum span: 100 mV
Offset: Max. 1.5 times span
Input resistance: 1 MΩ min. (10 kΩ min. with no power supplied)

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

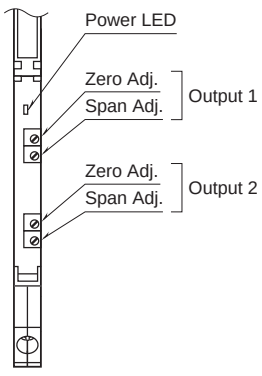
Accuracy: ±0.1 %
Temp. coefficient: ±0.01 %/°C (±0.006 %/°F)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input to output 1 to output 2 to power to ground)

STANDARDS & APPROVALS

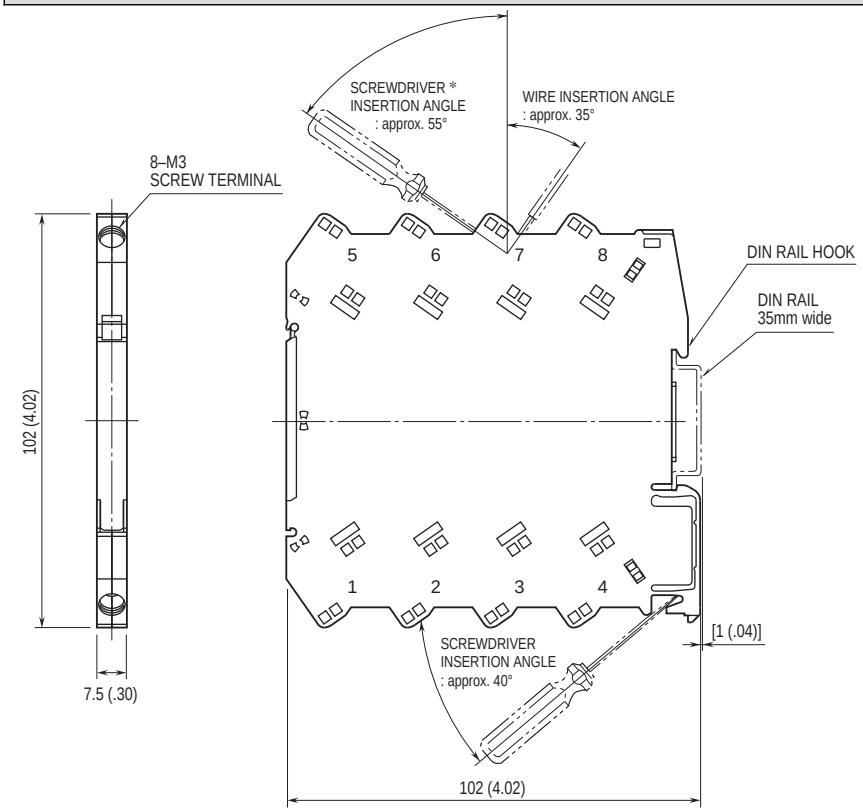
CE conformity:
EMC Directive (2004/108/EC)
EN 61000-6-4 (EMI)
EN 61000-6-2 (EMS)
Approval:
UL/C-UL nonincendive Class I, Division 2,
Groups A, B, C, and D hazardous locations
(ANSI/ISA-12.12.01, CAN/CSA-C22.2 No.213)
UL/C-UL general safety requirements
(UL 61010-1, CAN/CSA-C22.2 No.61010-1)

EXTERNAL VIEW

(With the cover open)

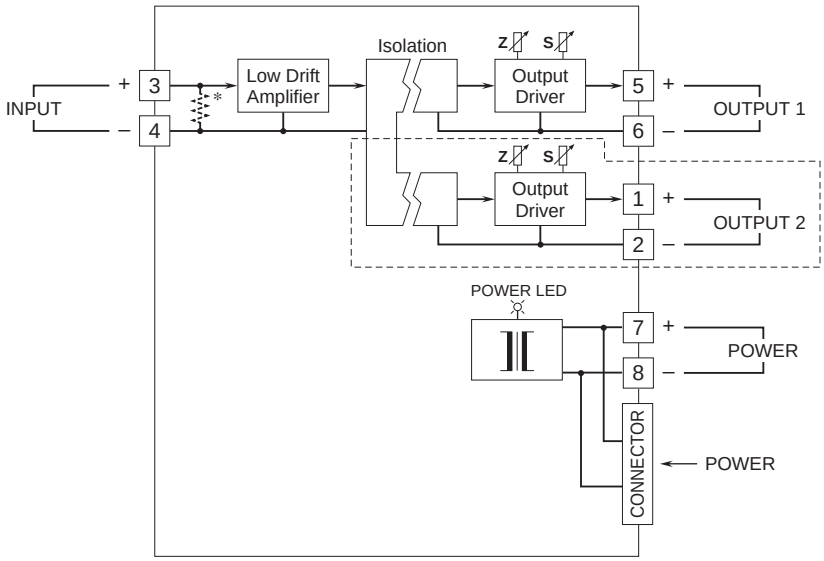


DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.
Remark: The section enclosed by broken line is only with 2nd output option.

⚠ Specifications are subject to change without notice.