

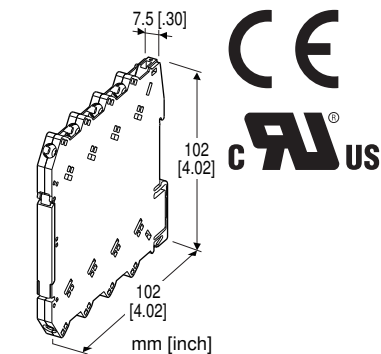
## Screw Terminal Ultra-Slim Signal Conditioners M6N Series

### 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



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

#### ORDERING INFORMATION

- Code number: M6NWVS-[1][2][3]-R[4]
- Specify a code from below for each of [1] through [4].  
(e.g. M6NWVS-AAA-R/K/UL/Q)
- Special input range (For codes Z & 0)
- Specify the specification for option code /Q  
(e.g. /C01)

#### [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

##### Other Options

- blank: none
- /Q: Option other than the above (specify the specification)

#### SPECIFICATIONS OF OPTION: Q

##### COATING (For the detail, refer to M-System's web site.)

- /C01: Silicone coating
- /C02: Polyurethane coating

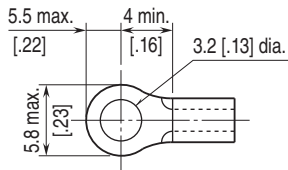
#### GENERAL SPECIFICATIONS

##### 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<sup>2</sup>
- 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 indicator LED:** Green LED turns on when the power is

supplied.

■ **Recommended solderless terminal (unit: mm [inch])**



## INPUT SPECIFICATIONS

- **DC Current:** Input resistor incorporated  
Specify input resistance value among followings for code Z.  
20Ω, 50Ω, 100Ω, 200Ω, 249Ω, 1000Ω  
( $0.125 \text{ W} \geq [\text{Input current}]^2 \times R$ )
- **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

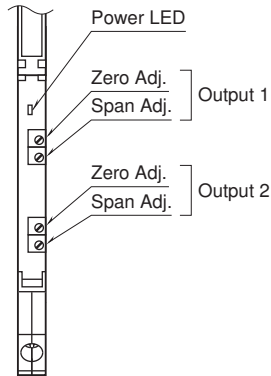
- Accuracy:** ±0.1 %
- Temp. coefficient:** ±0.01 %/°C (±0.006 %/°F)
- Line voltage effect:** ±0.1 % over voltage range
- Insulation resistance:** ≥ 100 MΩ with 500 V DC
- Dielectric strength:** 2000 V AC @1 minute (input to output 1 to output 2 to power to ground)

## STANDARDS & APPROVALS

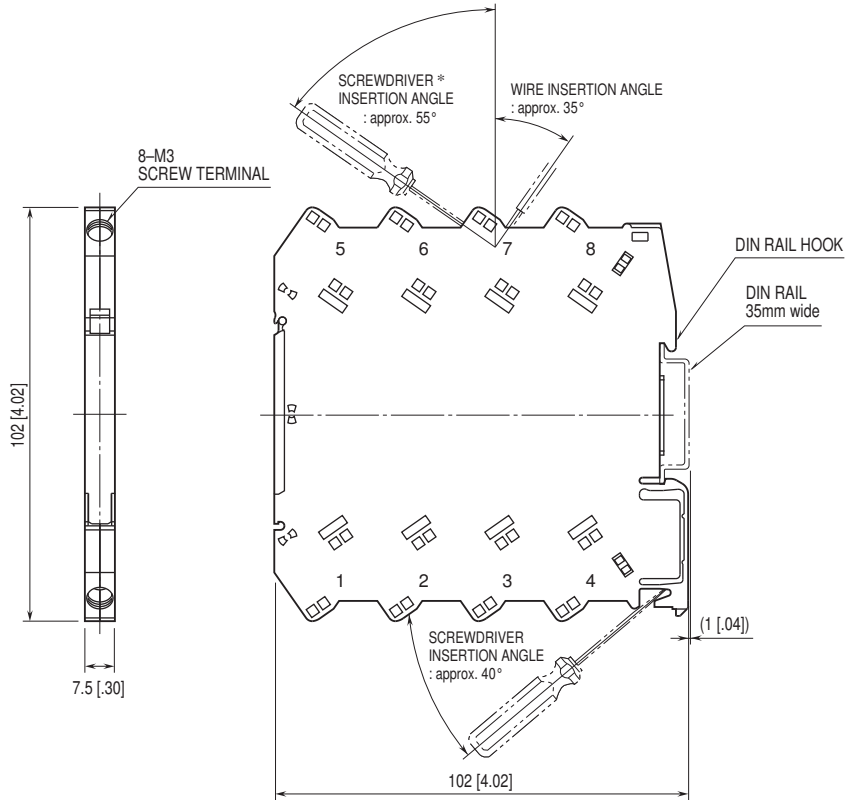
- EU conformity:**
  - EMC Directive
    - EMI EN 61000-6-4
    - EMS EN 61000-6-2
  - RoHS Directive
- Approval:**
  - UL/C-UL nonincendive Class I, Division 2, Groups A, B, C, and D hazardous locations (ANSI/ISA-12.12.01, CAN/CSA-C22.2 No.213)
  - UL/C-UL general safety requirements (UL 61010-1, CAN/CSA-C22.2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

## EXTERNAL VIEW

(With the cover open)



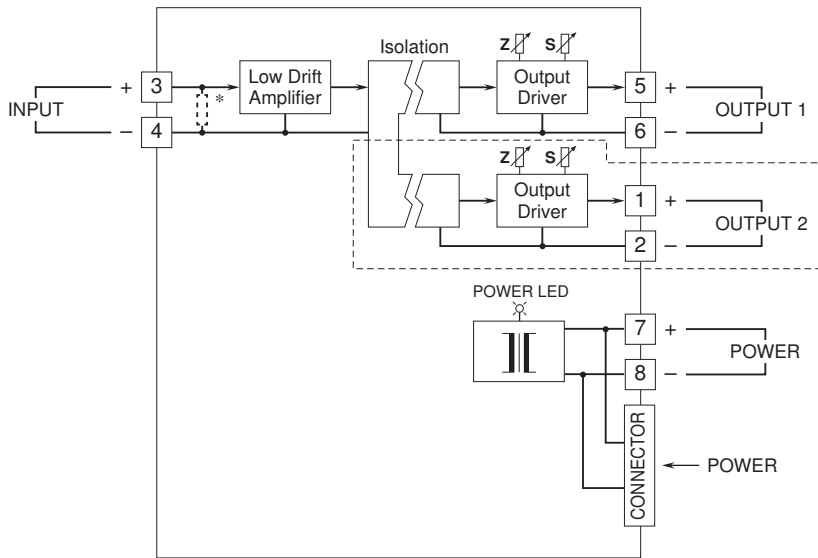
## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



\*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.