

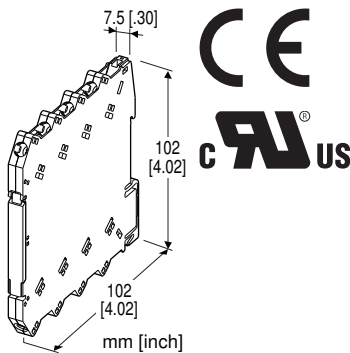
## Screw Terminal Ultra-Slim Signal Conditioners M6N Series

(Operational voltage range 24 V  $\pm$ 10 %, ripple 10 %p-p max.)

### CURRENT LOOP SUPPLY

#### Functions & Features

- 7.5-mm wide ultra-slim design
- Low profile allows the M6N module mounted in a 120-mm deep panel
- Powers a two-wire transmitter and galvanically isolates its output signal
- High-density mounting
- Power indicator LED



### MODEL: M6NDY-[1]-R[2]

#### ORDERING INFORMATION

- Code number: M6NDY-[1]-R[2]
- Specify a code from below for each of [1] and [2].  
(e.g. M6NDY-A-R/UL/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### INPUT

##### Current

4 - 20 mA DC (Input resistance 249.5  $\Omega$ )

#### [1] OUTPUT

##### Current

A: 4 - 20 mA DC (Load resistance 550  $\Omega$  max.)

##### Voltage

- 4: 0 - 10 V DC (Load resistance 10 k $\Omega$  min.)
- 5: 0 - 5 V DC (Load resistance 5000  $\Omega$  min.)
- 6: 1 - 5 V DC (Load resistance 5000  $\Omega$  min.)

#### POWER INPUT

##### DC Power

R: 24 V DC

### [2] OPTIONS (multiple selections)

#### 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)

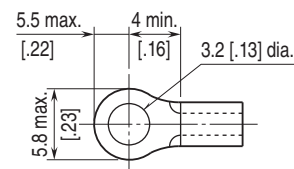
**Isolation:** Input to output to power

**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])



#### SUPPLY OUTPUT

(across the terminals 3 - 4)

**Output voltage:** 24 - 30 V DC with no load

18 V DC min. at 20 mA

**Current rating:**  $\leq$  22 mA DC

• **Shortcircuit Protection**

**Current limited:** 45 mA max.

**Protected time duration:** No limit

#### INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated

## INSTALLATION

**Power consumption:** Approx. 1 W (1.1 W for UL approval)  
**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:**  $\pm 0.1\%$   
**Temp. coefficient:**  $\pm 0.01\%/^{\circ}\text{C}$  ( $\pm 0.006\%/^{\circ}\text{F}$ )  
**Response time:**  $\leq 100$  msec. (0 - 90 %)  
**Line voltage effect:**  $\pm 0.1\%$  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

### EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

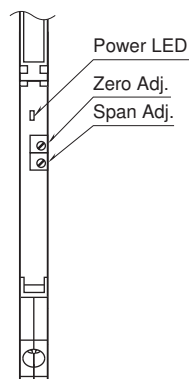
RoHS Directive

### Approval:

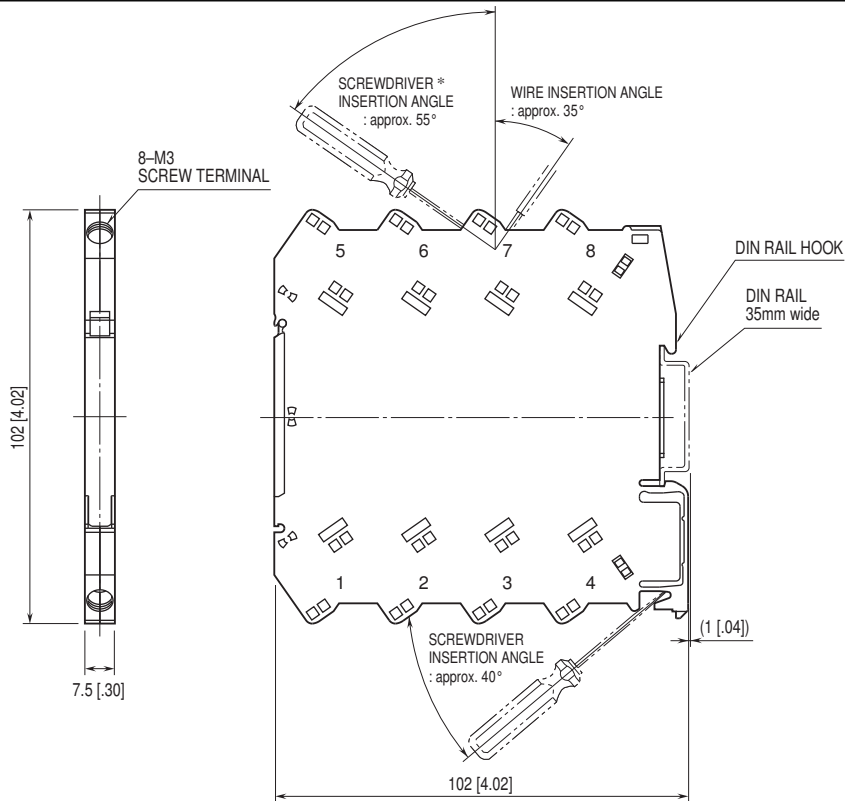
UL/C-UL nonincendive Class I, Division 2,  
Groups A, B, C, and D hazardous locations  
(ANSI/ISA-12.12.01, CAN/CSA-C22.2 No.213)  
UL/C-UL general safety requirements  
(UL 61010-1, CAN/CSA-C22.2 No.61010-1)

## EXTERNAL VIEW

(With the cover open)

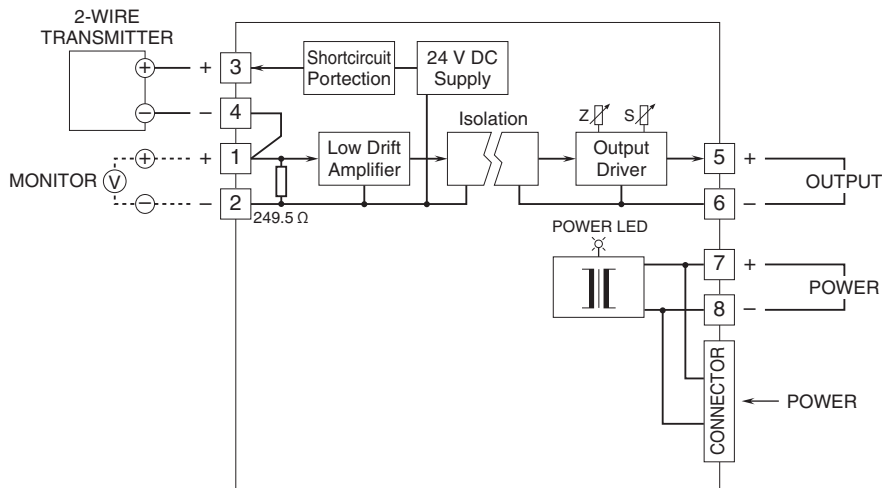


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

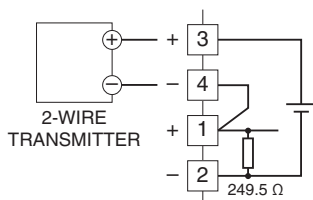


\*Screwdriver stem diameter: 6 mm [.24"] or less • When mounting, no extra space is needed between units.

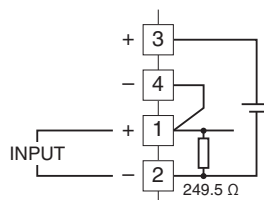
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



### ■ When Used as DC Supply



### ■ When Used as Isolator





Specifications are subject to change without notice.