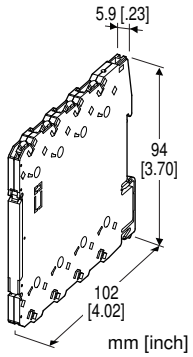
Tension-Clamp Ultra-Slim Signal Conditioners M6S Series

CURRENT LOOP SUPPLY

Functions & Features

- Maintenance-free tension clamp connection
- 5.9-mm wide ultra-slim design
- Low profile allows the M6S 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: M6SDY-[1]-R[2]

ORDERING INFORMATION

- Code number: M6SDY-[1]-R[2]

Specify a code from below for each of [1] and [2].
(e.g. M6SDY-A-R/UL/Q)

- Specify the specification for option code /Q
(e.g. /C01)

INPUT

Current

4 – 20 mA DC (Input resistance 249.5 Ω)

[1] OUTPUT

Current

A: 4 – 20 mA DC (Load resistance 550 Ω max.)

Voltage

4: 0 – 10 V DC (Load resistance 10 kΩ min.)
5: 0 – 5 V DC (Load resistance 5000 Ω min.)
6: 1 – 5 V DC (Load resistance 5000 Ω min.)

POWER INPUT

DC Power

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

[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: Tension clamp
Power input: Via the Installation Base (model: M6SBS) or Tension clamp
Applicable wire size: 0.2 to 2.5 mm^2, stripped length 8 mm
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.

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: ≤ 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: M6SBS) or DIN rail
Weight: 60 g (2.1 oz)

PERFORMANCE in percentage of span

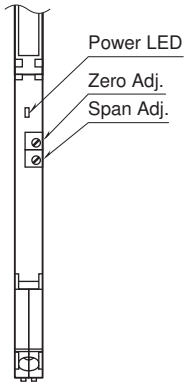
Accuracy: ±0.1 %
Temp. coefficient: ±0.01 %/°C (±0.006 %/°F)
Response time: ≤ 100 msec. (0 – 90 %)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

STANDARDS & APPROVALS

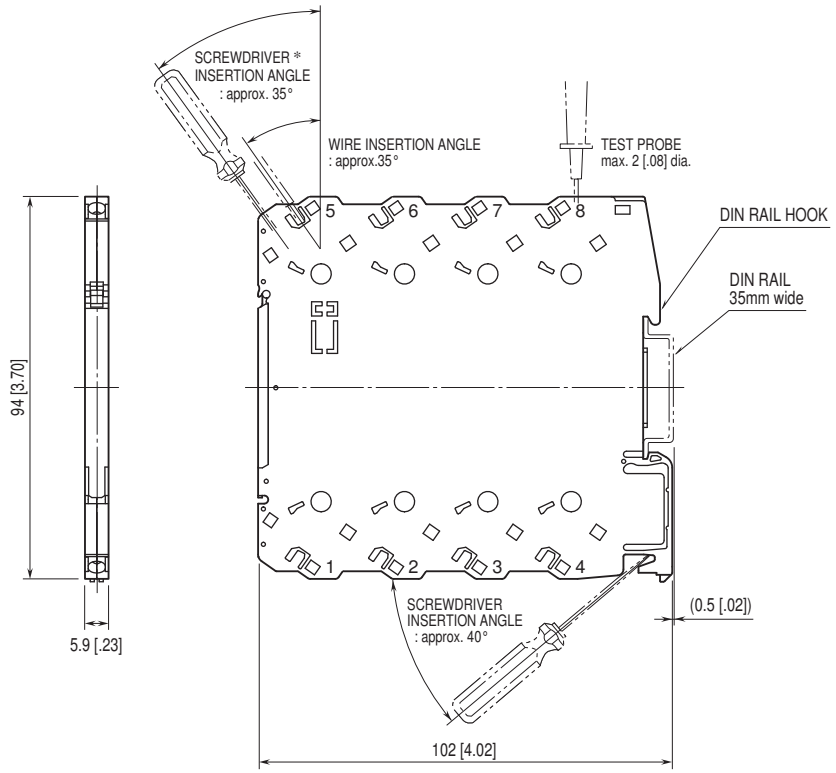
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive
Approval:
UL/C-UL nonincendive Class I, Division 2,
Groups A, B, C, and D hazardous locations
(ANSI/ISA-12.12.01, CAN/CSA-C22.2 No.213)
UL/C-UL general safety requirements
(UL 61010-1, CAN/CSA-C22.2 No.61010-1)

EXTERNAL VIEW

(With the cover open)



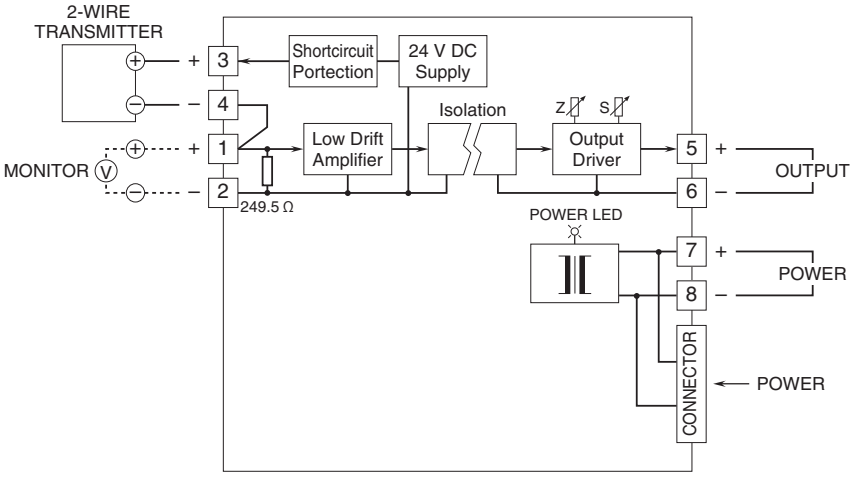
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



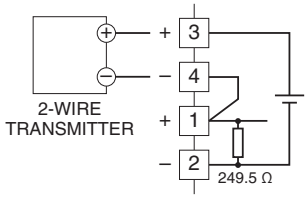
• When mounting, no extra space is needed between units.

*Use a minus screwdriver: tip width 3.8 mm max., tip thickness 0.5 to 0.6 mm

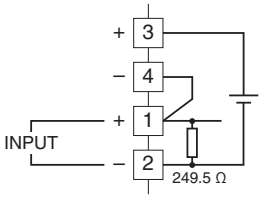
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ **When Used as DC Supply**



■ **When Used as Isolator**



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⚠ Specifications are subject to change without notice.

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