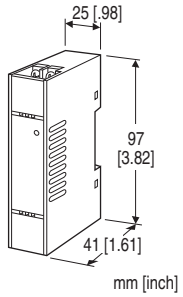
Super-mini Terminal Block Signal Conditioners M5-UNIT

CURRENT LOOP SUPPLY

(non-isolated)

Functions & Features

- Powers a 4 – 20 mA DC current loop
- Electrically isolating output signal from power input
- Shortcircuit protection
- Applicable to smart transmitters
- High-density mounting
- Power LED



MODEL: M5D-24-R[1]

ORDERING INFORMATION

- Code number: M5D-24 -[1]

Specify a code from below for [1].
(e.g. M5D-24-R/Q)

- Specify the specification for option code /Q

(e.g. /C01/S01)

SUPPLY OUTPUT

24: 24 V DC

INPUT

Current
4 – 20 mA DC (Input resistance 250 Ω)

OUTPUT 1 / OUTPUT 2

1-5 V DC (Load resistance 250 kΩ min.)/
4-20 mA DC (Load resistance 250 Ω max.)

Use either output 1 or output 2.
Shortcircuit the unused output.

POWER INPUT

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

[1] OPTIONS

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

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)
/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating
TERMINAL SCREW MATERIAL
/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Terminal block
Connection: M3.5 screw terminals (torque 0.8 N·m)
Screw terminal: Nickel-plated steel (standard) or stainless steel
Housing material: Flame-resistant resin (black)
Isolation: Input or output to power
Power indicator LED: Green LED turns on when the power is supplied.

SUPPLY OUTPUT

(across the terminals 3 – 4)
Output voltage: 24 – 28 V DC with no load
Current rating: ≤ 22 mA DC
• **Shortcircuit Protection**
Current limited: 30 mA max.
Protected time duration: No limit

INPUT SPECIFICATIONS

■ **DC Current**: Input resistor incorporated

INSTALLATION

Power consumption
•**DC**: Approx. 1 W
Operating temperature: -20 to +65°C (-4 to +149°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: DIN rail
Weight: 80 g (2.8 oz)

PERFORMANCE in percentage of span

Accuracy: ±0.1 % (accuracy of the receiving resistor)
Temp. coefficient: ±0.003 %/°C (±0.002 %/°F) (temp. coefficient of the receiving resistor)
Line voltage effect to supply output: ±3 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input or output

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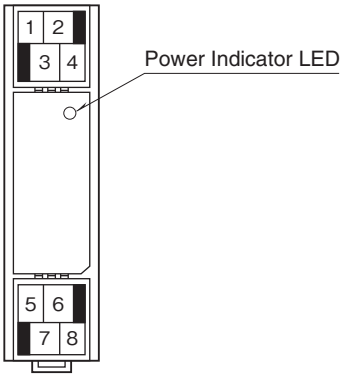
to power to ground)

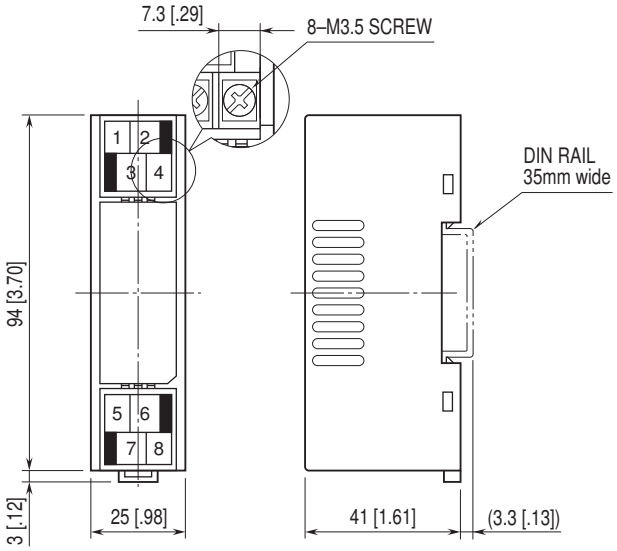
STANDARDS & APPROVALS

EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

EXTERNAL VIEW



EXTERNAL DIMENSIONS unit: mm [inch]



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

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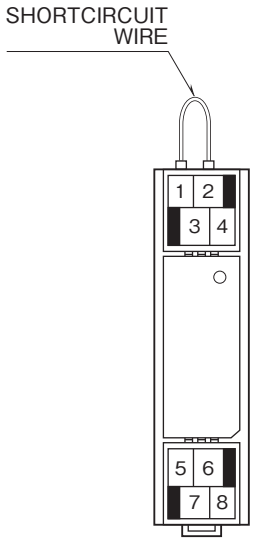
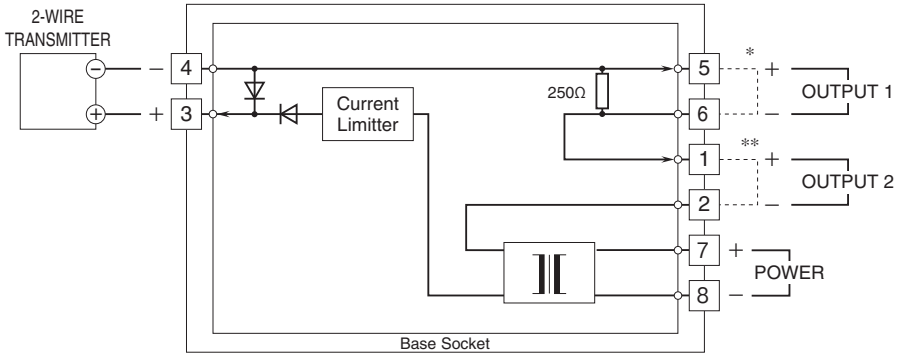
TERMINAL ASSIGNMENTS



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



* Short across these terminals for large voltage allowance at Output 2.
Be sure to match specifications of smart transmitter.
Do not connect a capacitive load to Output 1.
** Short across these terminals when not using output 2.

⚠ Specifications are subject to change without notice.

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