

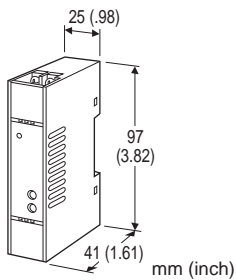
Super-mini Terminal Block Signal Conditioners M5-UNIT

SIGNAL TRANSMITTER

(high dielectric strength)

Functions & Features

- Converts a DC input into an isolated DC signal
- High-density mounting
- Power LED



MODEL: M5VSH-[1][2]-[3][4]

ORDERING INFORMATION

Specify a code from below for each [1] through [4].

- Code number: M5VSH-[1][2]-[3][4]
(e.g. M5VSH-4W4W-M/K/Q)

Specify variables.

- 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 249 Ω)
- B: 2 - 10 mA DC (Input resistance 499 Ω)
- C: 1 - 5 mA DC (Input resistance 1000 Ω)
- D: 0 - 20 mA DC (Input resistance 49.9 Ω)
- E: 0 - 16 mA DC (Input resistance 61.9 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

Current

- A: 4 - 20 mA DC (Load resistance 550 Ω max.)
- D: 0 - 20 mA DC (Load resistance 550 Ω max.)
- E: 0 - 16 mA DC (Load resistance 687 Ω max.)
- F: 0 - 10 mA DC (Load resistance 1100 Ω max.)
- G: 0 - 1 mA DC (Load resistance 11 kΩ max.)

Voltage

- 4: 0 - 10 V DC (Load resistance 1000 Ω min.)
- 5: 0 - 5 V DC (Load resistance 500 Ω min.)
- 6: 1 - 5 V DC (Load resistance 500 Ω min.)
- 4W: -10 - +10 V DC (Load resistance 8000 Ω min.)
- 5W: -5 - +5 V DC (Load resistance 4000 Ω min.)

[3] POWER INPUT

AC Power

- M: 85 - 264 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)

[4] OPTIONS (multiple selections)

Response Time (0 - 90 %)

- blank: Standard (≤ 0.5 sec.)
- /K: Fast Response (Approx. 25 msec.)

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
- /C03: Rubber coating

GENERAL SPECIFICATIONS

Construction: Terminal block

Connection: M3.5 screw terminals (torque 0.8 N·m)

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Zero adjustment: -2 to +2 % (front)

(± 1 % with the input suffix codes 4W and 5W selected)

Span adjustment: 98 to 102 % (front)

(99 to 101 % with the input suffix codes 4W and 5W selected.)

Power LED: Green light turns on when the power is supplied.

INPUT SPECIFICATIONS

- **DC Current:** Input resistor incorporated
Specify input resistance value for code Z.
($R \leq 0.125 \text{ W} \div [\text{F.S. Current}]^2$)



■ **DC Voltage:** -70 - +70 V DC

Minimum span: 100 mV

Offset: Max. 1.5 times span

Input resistance: 1 M Ω min.

(10 k Ω min. at power loss)

INSTALLATION

Power Consumption

• **AC:**

Approx. 2 VA at 100 V

Approx. 3 VA at 200 V

Approx. 3 VA at 264 V

Operating temperature: -5 to +55°C (23 to 131°F)

Operating humidity: 0 to 90 %RH (non-condensing)

Mounting: DIN rail

Weight: 80 g (2.8 oz)

PERFORMANCE in percentage of span

Accuracy: ± 0.1 %

Temp. coefficient: ± 0.015 %/°C (± 0.008 %/°F)

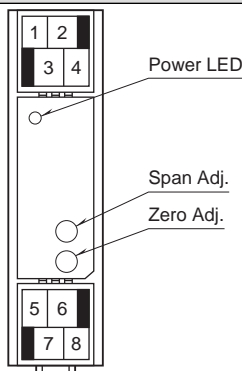
± 0.02 %/°C (± 0.01 %/°F) at input < 1 V or output < 5 mA

Line voltage effect: ± 0.1 % over voltage range

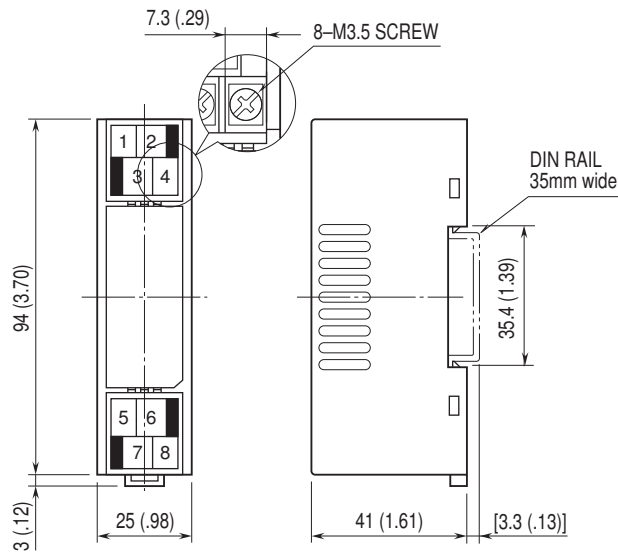
Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

FRONT VIEW

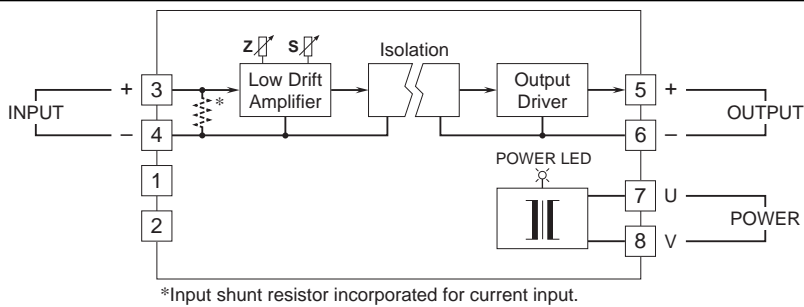


DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.