

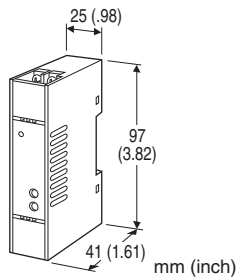
Super-mini Terminal Block Signal Conditioners M5-UNIT

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

- Code number: M5VSH-[1][2]-[3][4]
- Specify a code from below for each [1] through [4].
(e.g. M5VSH-4W4W-M/K/Q)
- Special input range (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01/S01)

[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 (multiple selections)

COATING (For the detail, refer to M-System's 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 to output to power
- Overrange output:** Approx. -10 to +110 % at 1 - 5 V
- 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 LED turns on when the power is supplied.

INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated

Specify input resistance value among followings for code Z.

20Ω, 49.9Ω, 61.9Ω, 100Ω, 249Ω, 499Ω, 1000Ω

$(0.125 \text{ W} \geq [\text{Input current}]^2 \times R)$

■ **DC Voltage:** -70 - +70 V DC

Minimum span: 100 mV

Offset: Max. 1.5 times span

Input resistance: 1 MΩ min.

(10 kΩ 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)

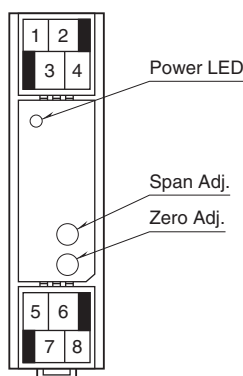
±0.02 %/°C (±0.01 %/°F) at input < 1 V or output < 5 mA

Line voltage effect: ±0.1 % over voltage range

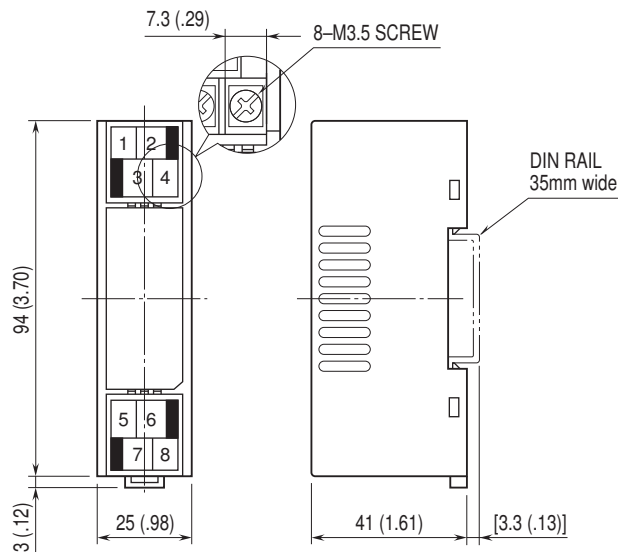
Insulation resistance: ≥ 100 MΩ with 500 V DC

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

FRONT VIEW

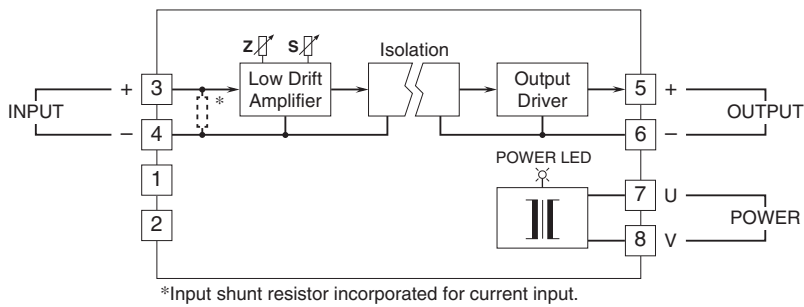


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.