

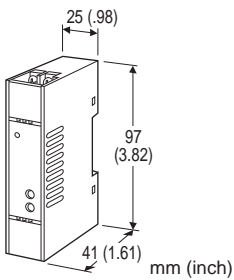
Super-mini Terminal Block Signal Conditioners M5-UNIT

SIGNAL TRANSMITTER

(narrow span input)

Functions & Features

- Converts a narrow span (≤ 100 mV DC) input into an isolated DC signal
- High-density mounting
- Power LED
- CE marking for 24 V DC power



MODEL: M5MV-[1][2]-[3][4]

ORDERING INFORMATION

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

- Code number: M5MV-[1][2]-[3][4]
(e.g. M5MV-14W-R/K/Q)

Specify variables.

- Special input and output range (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Current

- K:** 0 - 100 μ A DC (Input resistance 1000 Ω)
- Z:** Specify current (See INPUT SPECIFICATIONS)

Voltage

- 1:** 0 - 10 mV DC (Input resistance 10 k Ω min.)
- 15:** 0 - 50 mV DC (Input resistance 10 k Ω min.)
- 0:** Specify voltage (See INPUT SPECIFICATIONS)

[2] OUTPUT

Current

- A:** 4 - 20 mA DC (Load resistance 550 Ω max.)
- Z:** Specify current (See OUTPUT SPECIFICATIONS)

Voltage

- 18:** 0 - 80 mV DC (Load resistance 100 k Ω min.)
(CE not available)
- 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.)
- 0:** Specify voltage (See OUTPUT SPECIFICATIONS)

[3] POWER INPUT

AC Power

- M:** 85 - 264 V AC (Operational voltage range 85 - 264 V, 47 -66 Hz)
(CE not available)

DC Power

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

[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)
- Span adjustment:** 98 to 102 % (front)
- 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:** -100 - +100 mV DC
- Minimum span:** 5 mV
- Offset:** Max. 1.5 times span
- Input resistance:** ≥ 10 k Ω

OUTPUT SPECIFICATIONS

- **DC Current:** 0 - 20 mA DC
- Minimum span:** 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 11 V max.

■ **DC Voltage:** 0 - 10 V DC

Minimum span: 1 V

Offset: Max. 1.5 times span

Load resistance: Output drive 10 mA max.; at ≥ 1 V

INSTALLATION

Power Consumption

• **AC:**

Approx. 2 VA at 100 V

Approx. 3 VA at 200 V

Approx. 3 VA at 264 V

• **DC:** Approx. 2 W

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)

Line voltage effect: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength (input to output to power to ground)

DC powered: 2000 V AC @1 minute

AC powered: 1500 V AC @1 minute

STANDARDS & APPROVALS

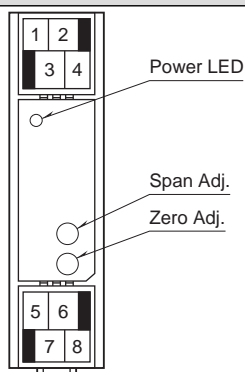
CE conformity:

EMC Directive (2004/108/EC)

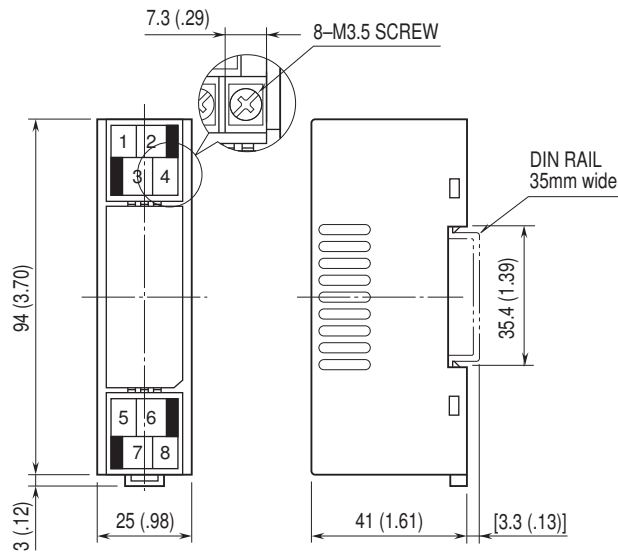
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

FRONT VIEW

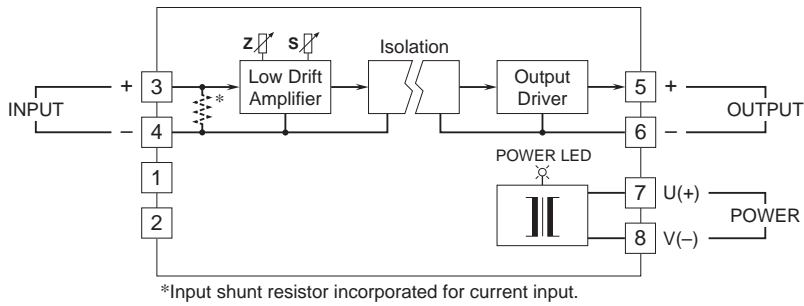


DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.