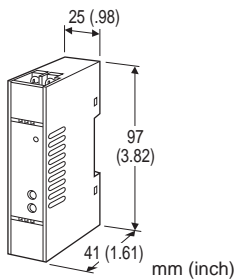


## Super-mini Terminal Block Signal Conditioners M5-UNIT

### SIGNAL TRANSMITTER

#### Functions & Features

- Converts a DC input into an isolated DC signal
- High-density mounting
- Power LED
- CE marking for 24 V power



### MODEL: M5VS-[1][2]-[3][4]

#### ORDERING INFORMATION

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

- Code number: M5VS-[1][2]-[3][4]  
(e.g. M5VS-4W4W-R/K/Q)

Specify variables.

- Special input and output ranges (For codes Z & O)
- Specify the specification for option code /Q  
(e.g. /C01 /V01)

#### [1] INPUT

##### Current

- A: 4 - 20 mA DC (Input resistance 249 Ω)
- A1: 4 - 20 mA DC (Input resistance 49.9 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.)
- O: Specify voltage (See INPUT SPECIFICATIONS)  
(CE not available)

- 01: Specify voltage (See INPUT SPECIFICATIONS)  
(Choose 01 for CE. Power suffix code R only.)
- 02: Specify voltage (See INPUT SPECIFICATIONS)  
(CE not available)

#### [2] OUTPUT

##### Current

- A: 4 - 20 mA DC (Load resistance 550 Ω max.)
- D: 0 - 20 mA DC (Load resistance 550 Ω max.)
- Z: Specify current (See OUTPUT SPECIFICATIONS)

##### Voltage

- 1: 0 - 10 mV DC (Load resistance 100 kΩ min.)  
(CE not available)
- 2: 0 - 100 mV DC (Load resistance 100 kΩ min.)  
(CE not available)
- 3: 0 - 1 V DC (Load resistance 100 Ω min.)
- 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.)
- 1W: -10 - +10 mV DC (Load resistance 100 kΩ min.)  
(CE not available)
- 2W: -100 - +100 mV DC (Load resistance 100 kΩ min.)  
(CE not available)
- 3W: -1 - +1 V DC (Load resistance 800 Ω min.)
- 4W: -10 - +10 V DC (Load resistance 8000 Ω min.)
- 5W: -5 - +5 V DC (Load resistance 4000 Ω min.)
- O: Specify voltage (See OUTPUT SPECIFICATIONS)
- 01: Specify voltage (See OUTPUT SPECIFICATIONS)  
(CE not available)

#### [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 ±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.)
- /F: Fast Response (≤ 1 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

### ADJUSTMENT

/V01: Multi-turn fine adjustment

/VN: Sealed adjustment holes

## 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**

**Input resistance:** 1 MΩ min. (10 kΩ min. at power loss)

**Input code 0 (Not CE)**

**Voltage range:** -300 - +300 V DC

**Minimum span:** 100 mV

**Offset:** Max. 1.5 times span

**Input code 01 (CE)**

**Voltage range:** -70 - +70 V DC

**Minimum span:** 100 mV

**Offset:** Max. 1.5 times span

**Input code 02 (Not CE)**

**Voltage range:** 0 - 500 V DC

**Minimum span:** 200 V

**Offset:** Max. 1.5 times span

**Input at 100%:** min. 300 V

## 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**

**Output code 0 (CE)**

**Voltage range:** -10 - +10 V DC

**Minimum span:** 1 V

**Offset:** Max. 1.5 times span

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

Max. 1.25 mA output drive for negative voltage

**Output code 01 (Not CE)**

**Voltage range:** -1 - +1 V DC

**Minimum span:** 10 mV

**Offset:** Max. 1.5 times span

**Load resistance:** Min. 100 kΩ

Min. 1 MΩ for negative voltage

## INSTALLATION

**Power Consumption**

• **AC Power input:**

Approx. 2 VA at 100 V

Approx. 3 VA at 200 V

Approx. 3 VA at 264 V

• **DC power input:** Approx. 2 W

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

0 to 40°C (32 to 104°F) for the input code 02

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

30 to 70 %RH (non-condensing) for the input code 02

**Mounting:** DIN rail

**Weight:** 80 g (2.8 oz)

## PERFORMANCE in percentage of span

**Accuracy:** ±0.1 %

±0.2 % for the input code 02

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

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

±0.03 %/°C (±0.017 %/°F) for the input code 02

**Line voltage effect:** ±0.1 % over voltage range

**Insulation resistance:** ≥ 100 MΩ 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



幸託有限公司

XIN TOP CORPORATION

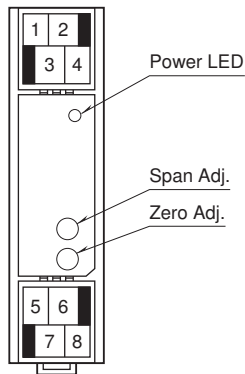
TEL : (02)2598-1199

FAX : (02)2596-2331

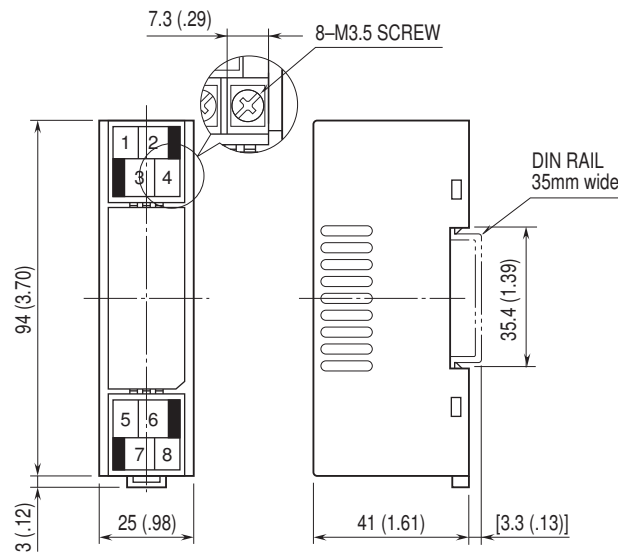
E-mail : info@xintop.com

Website : www.xintop.com

## FRONT VIEW

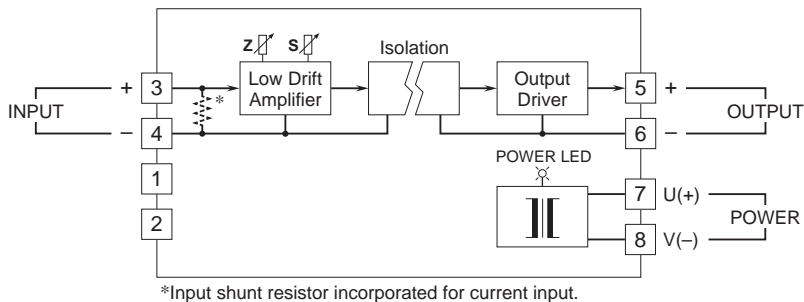


## DIMENSIONS unit: mm (inch)



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

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.