

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

**SIGNAL TRANSMITTER**  
(narrow span input)

MODEL **M5MV**

**MODEL & SUFFIX CODE SELECTION**

M5MV-□□-□□

MODEL \_\_\_\_\_  
INPUT \_\_\_\_\_

**Current**                      **Voltage**  
**K** : 0 – 100μA DC          **1** : 0 – 10mV DC  
**Z** : Specify current        **15** : 0 – 50mV DC  
**0** : Specify voltage

**OUTPUT** \_\_\_\_\_  
**Current**                      **Voltage**  
**A** : 4 – 20mA DC          **4** : 0 – 10V DC  
**Z** : Specify current        **5** : 0 – 5V DC  
**6** : 1 – 5V DC  
**4W** : -10 – +10V DC  
**5W** : -5 – +5V DC  
**0** : Specify voltage

**POWER INPUT** \_\_\_\_\_  
**M** : 85 – 264V AC \*1  
**R** : 24V DC  
\*1: CE not available.

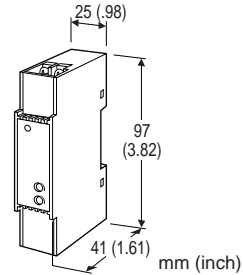
**OPTIONS** \_\_\_\_\_  
**/K** : Fast response

**ORDERING INFORMATION**

Specify code number and variables.  
• **Code number** (e.g. M5MV-14W-R/K)  
• **Special input and output ranges** (For codes Z & 0)

**GENERAL SPECIFICATIONS**

**Construction:** Terminal block  
**Connection:** M3.5 screw terminals  
(nickel-plated steel; torque 0.8 N·m)  
**Housing material:** Flame-resistant resin (black)  
**Isolation:** Input to output to power  
**Front adjustments:** ±2% for zero and span  
**Power LED:** Green light turns on when the power is supplied.



**Functions & Features**

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

**INPUT & OUTPUT**

■ **INPUT**

• **DC Current:** Input resistor incorporated (0.125W)  
**Input resistance:** For resistance values other than listed below, specify when ordering.

Input Span	Input Resistance
0 – 100μA	: 1000Ω

• **DC Voltage:** -100 – +100mV DC  
**Spans:** Min. 5mV, max. 100mV  
**Zero suppression/elevation:** Max. 1.5 times span  
**Input resistance:** 10kΩ minimum

■ **OUTPUT**

• **DC Current:** 0 – 20mA DC  
**Minimum span:** 1mA  
**Zero suppression/elevation:** Max. 1.5 times span  
**Load resistance:** Output drive 11V maximum

Output	Load Resistance
4 – 20mA	: 550Ω maximum

• **DC Voltage:** 0 – 10V DC  
**Minimum span:** 1V  
**Zero suppression/elevation:** Max. 1.5 times span  
**Load resistance:** Output drive 10mA maximum; at ≥1V

Output	Load Resistance
0 – 10V	: 1000 (Ω minimum)
0 – 5V	: 500
1 – 5V	: 500
-10 – +10V	: 8000
-5 – +5V	: 4000

**INSTALLATION**

**Power input**

**AC:** Operational voltage range 85 – 264V;  
47 – 66 Hz; approx. 2VA at 100V  
approx. 3VA at 200V  
approx. 3VA at 264V

**DC:** Operational voltage range 24V ±10%;  
ripple 10% p-p max.; approx. 2W

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

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

**Mounting:** DIN rail

**Dimensions:** W25×H97×D41 mm (0.98"×3.82"×1.61")

See General Spec. Sheet Figure C-1.

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

**Terminal assignment:** See General Spec. Sheet Figure D-1.

**PERFORMANCE in percentage of span**

**Accuracy:** ±0.1%

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

**Response time:** ≤0.5 seconds (0 – 90%)  
approx. 25 milliseconds with option /K

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

**Insulation resistance:** ≥100MΩ with 500V DC

**Dielectric strength**

**DC powered:** 2000V AC @1 minute  
(input to output to power to ground)

**AC powered:** 1500V AC @1 minute  
(input to output to power to ground)

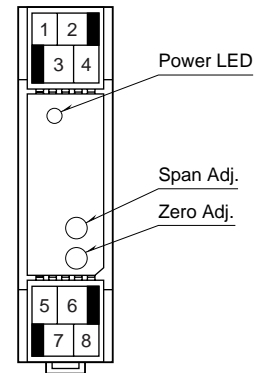
**STANDARDS & APPROVALS**

**CE conformity:** EMC Directive (89/336/EEC)

EMI EN61000-6-4

EMS EN61000-6-2

**FRONT PANEL CONFIGURATION**



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**

