

**Super-mini Two-wire Terminal Block Signal Conditioners *B5-UNIT***

**POTENTIOMETER TRANSMITTER**

MODEL **B5MS**

**MODEL & SUFFIX CODE SELECTION**

MODEL \_\_\_\_\_ **B5MS**

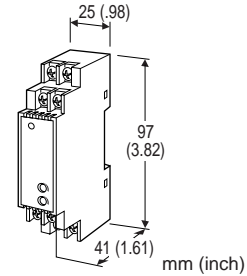
**INPUT POTENTIOMETER**  
Total resistance 100Ω – 10kΩ

**OUTPUT**  
4 – 20mA DC

**SUPPLY VOLTAGE**  
12 – 28V DC

**OPTIONS** \_\_\_\_\_

/K : Fast response



**Functions & Features**

- Providing an isolated 4 – 20mA DC output proportional to a potentiometer or slidewire position input
- Constant voltage excitation
- Monitor terminals
- High-density mounting
- Power LED
- CE marking

**ORDERING INFORMATION**

Specify code number and variables.

- **Code number** (e.g. B5MS/K)

**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

**Front adjustments:** 0 – 30% of total resistance for zero; 70 – 100% for span

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

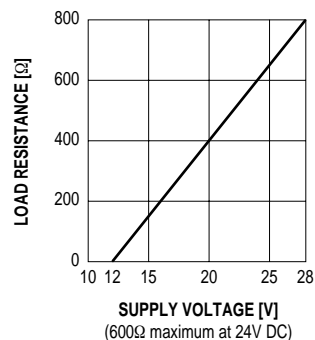
**INPUT & OUTPUT**

■ **INPUT:** Potentiometer; 100Ω – 10kΩ  
**Minimum span:** 70% of total resistance  
**Excitation:** 0.2V DC

■ **OUTPUT:** 4 – 20mA DC  
**Load resistance vs. supply voltage:**

$$\text{Load Resistance } (\Omega) = \frac{\text{Supply Voltage (V)} - 12 \text{ (V)}}{0.02 \text{ (A)}}$$

(including leadwire resistance)



**INSTALLATION**

**Supply voltage:** 12 – 28V DC  
**Operating temperature:** -40 to +80°C (-40 to +176°F)  
**Operating humidity:** 0 to 90% RH (non-condensing)  
**Mounting:** DIN rail  
**Dimensions:** W25×H94×D41 mm (0.98"×3.70"×1.61")  
 See General Spec. Sheet Figure A-1.  
**Weight:** 60 g (2.1 oz.)  
**Terminal assignment:** See General Spec. Sheet Figure B-1.

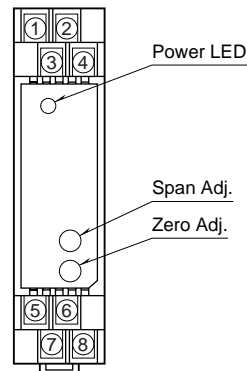
**PERFORMANCE in percentage of span**

**Accuracy:** ±0.1%  
**Temp. coefficient:** ±0.015%/°C (±0.008%/°F)  
**Response time:** ≤0.5 seconds (0 – 90%)  
 approx. 25 milliseconds with option /K  
**Burnout response:** ≤10 seconds  
**Insulation resistance:** ≥100MΩ with 500V DC  
**Dielectric strength:** 2000V AC @1 minute  
 (input to output 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**

