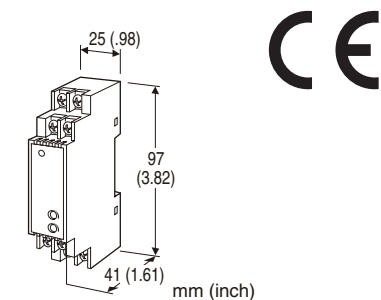


## Super-mini Two-wire Terminal Block Signal Conditioners B5-UNIT

### POTENTIOMETER TRANSMITTER

#### Functions & Features

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



### MODEL: B5MS[1]

#### ORDERING INFORMATION

- Code number: B5MS[1]  
Specify a code from below for [1].  
(e.g. B5MS/K/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### [1] OPTIONS (multiple selections)

##### Response Time (0 - 90 %)

blank: Standard ( $\leq 0.5$  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

**Zero adjustment:** 0 - 30 % of total resistance (front)

**Span adjustment:** 70 - 100 % of total resistance (front)

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

#### INPUT SPECIFICATIONS

**Input:** Potentiometer; 100  $\Omega$  - 10 k $\Omega$

**Minimum span:** 70 % of total resistance

**Excitation:** 0.2 V DC

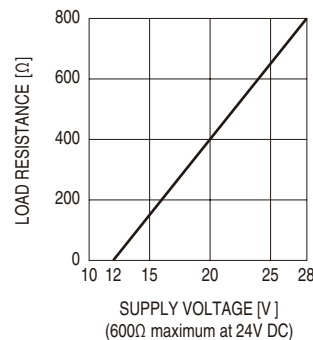
#### OUTPUT SPECIFICATIONS

**Output:** 4 - 20 mA DC

**Load resistance vs. supply voltage:**

Load Resistance ( $\Omega$ ) = (Supply Voltage (V) - 12 (V))  $\div$  0.02

(A) (including leadwire resistance)



#### INSTALLATION

**Supply voltage:** 12 - 28 V DC

**Operating temperature:** -40 to +80 $^{\circ}$ C (-40 to +176 $^{\circ}$ F)

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

**Mounting:** DIN rail

**Weight:** 60 g (2.1 oz)

#### PERFORMANCE in percentage of span

**Accuracy:**  $\pm 0.1$  %

**Temp. coefficient:**  $\pm 0.015$  %/ $^{\circ}$ C ( $\pm 0.008$  %/ $^{\circ}$ F)

**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

**Dielectric strength:** 2000 V AC @1 minute

(input to output to ground)

#### STANDARDS & APPROVALS

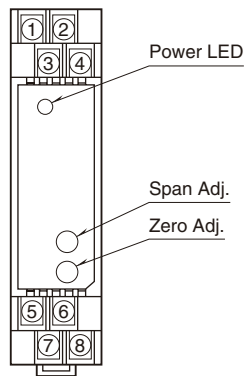
**CE conformity:**

EMC Directive (2004/108/EC)

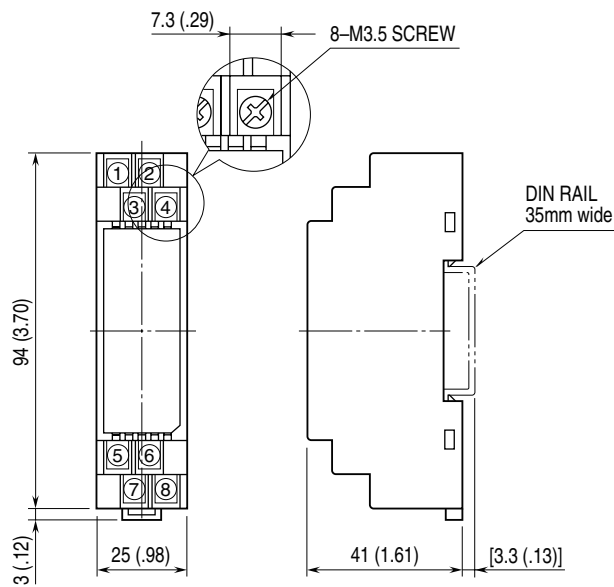
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

## EXTERNAL VIEW

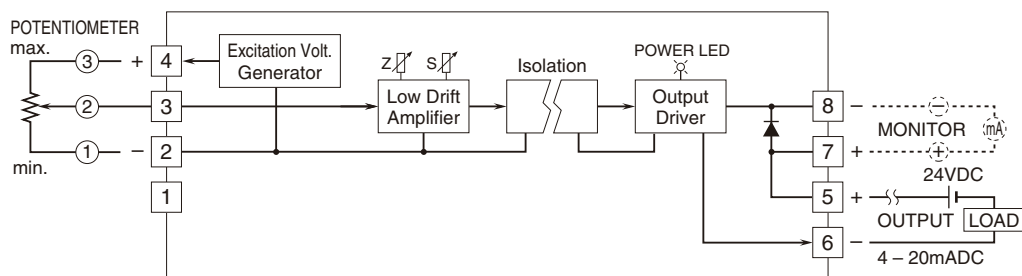


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.