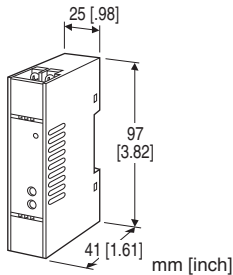


## Super-mini Terminal Block Signal Conditioners M5-UNIT

### TACHOGENERATOR TRANSMITTER

#### Functions & Features

- Converts an AC voltage from a tachogenerator (tachometer) into a standard process signal
- Wide input range
- Power LED



### MODEL: M5TG-[1][2]-M[3]

#### ORDERING INFORMATION

- Code number: M5TG-[1][2]-M[3]
- Specify a code from below for each of [1] through [3].  
(e.g. M5TG-AA-M/Q)
- Specify the specification for option code /Q  
(e.g. /C01/S01)

#### [1] INPUT

Voltage

- 1: 0 - 35 V AC (Input resistance 100 k $\Omega$  min.)
- 2: 0 - 50 mV AC (Input resistance 100 k $\Omega$  min.)
- 3: 0 - 60 mV AC (Input resistance 100 k $\Omega$  min.)
- 4: 0 - 100 mV AC (Input resistance 100 k $\Omega$  min.)
- 5: 0 - 1 V AC (Input resistance 100 k $\Omega$  min.)
- 6: 0 - 10 V AC (Input resistance 100 k $\Omega$  min.)
- 7: 0 - 100 V AC (Input resistance 100 k $\Omega$  min.)
- 8: 0 - 110 V AC (Input resistance 100 k $\Omega$  min.)
- 9: 0 - 150 V AC (Input resistance 100 k $\Omega$  min.)
- A: 0 - 200 V AC (Input resistance 100 k $\Omega$  min.)
- B: 0 - 250 V AC (Input resistance 100 k $\Omega$  min.)
- U: Specify voltage (See INPUT SPECIFICATIONS)  
(0 % input must be 0 V.)

#### [2] OUTPUT

Current

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

Voltage

- 4: 0 - 10 V DC (Load resistance 1000  $\Omega$  min.)

- 5: 0 - 5 V DC (Load resistance 500  $\Omega$  min.)
- 6: 1 - 5 V DC (Load resistance 500  $\Omega$  min.)
- 4W: -10 - +10 V DC (Load resistance 8000  $\Omega$  min.)
- 5W: -5 - +5 V DC (Load resistance 4000  $\Omega$  min.)
- 0: Specify voltage (See OUTPUT SPECIFICATIONS)

#### POWER INPUT

AC Power

M: 85 - 264 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)

#### [3] OPTIONS

blank: none

/Q: Options other than the above (specify the specification)

#### SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

#### GENERAL SPECIFICATIONS

**Construction:** Terminal block

**Connection:** M3.5 screw terminals (torque 0.8 N·m)

**Screw terminal:** Nickel-plated steel (standard) or stainless steel

**Housing material:** Flame-resistant resin (black)

**Isolation:** Input to output to power

**Overrange output:** Approx. 0 to 110 % at 1 - 5 V

**Zero adjustment:** -2 to +2 % (front)

( $\pm 1$  % 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 indicator LED:** Green LED turns on when the power is supplied.

#### INPUT SPECIFICATIONS

• **AC Voltage:** 0 - 250 V AC

**Minimum span:** 50 mV

**Frequency:** 15 Hz min., 1 kHz max. with 100 % input

**Input resistance:**  $\geq 100$  k $\Omega$

#### 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  $\geq 1$  V

## INSTALLATION

### Power consumption

#### •AC:

Approx. 1.6 VA at 100 V

Approx. 1.8 VA at 200 V

Approx. 2 VA at 264 V

**Operating temperature:** -20 to +65°C (-4 to +149°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** DIN rail

**Weight:** 90 g (0.2 lb)

## PERFORMANCE in percentage of span

**Accuracy:**  $\pm 0.4$  % (input 5 - 100 %)

(10 - 100 % when output code is 4W or 5W)

**Temp. coefficient:**  $\pm 0.05$  %/°C ( $\pm 0.03$  %/°F)

**Response time:**  $\leq 0.7$  sec. (0 - 90 %)

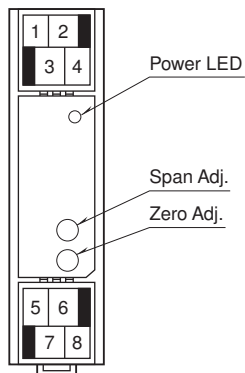
**Ripple:** 0.5 %p-p max. (100/120 Hz)

**Line voltage effect:**  $\pm 0.1$  % over voltage range

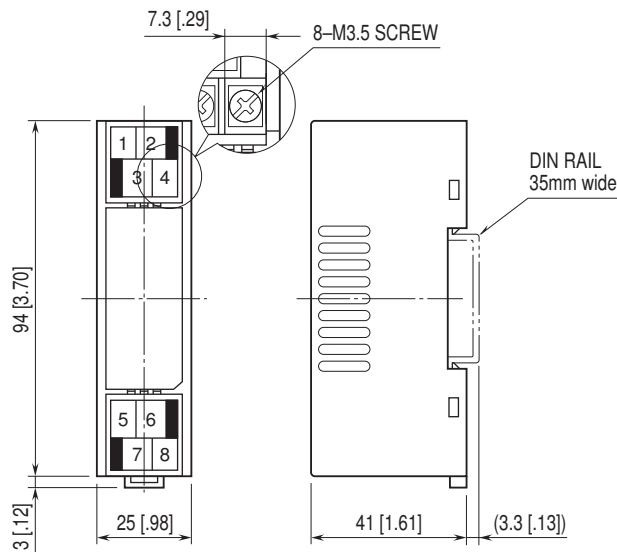
**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

**Dielectric strength:** 2000 V AC @1 minute (input to output to power to ground)

## FRONT VIEW

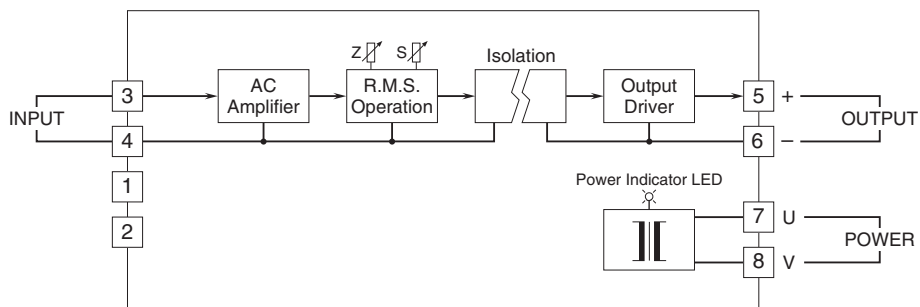


**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS** unit: mm [inch]



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

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.