

High-density Signal Conditioners 10-RACK

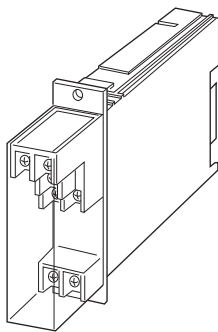
TACHOGENERATOR TRANSMITTER

Functions & Features

- Converting an AC voltage from a tachogenerator (tachometer) into two standard process signals
- Optional second channel output available at the front terminals and at the Standard Rack connector

Typical Applications

- Measuring rotating or moving speed of multispeed motors, belt conveyers, metering pumps



MODEL: 10TG-[1][2][3]-R[4]

ORDERING INFORMATION

- Code number: 10TG-[1][2][3]-R[4]
- Specify a code from below for each [1] through [4]. (e.g. 10TG-1A6-R/Q)
- Special input range (For code U)
- Specify the specification for option code /Q (e.g. /C01)

[1] INPUT

Voltage

- 1: 0 - 35 V AC (Input resistance 200 k Ω min.)
- U: Specify voltage (See INPUT SPECIFICATIONS) (0 % input must be 0 V.)

[2] OUTPUT 1

Current

- A: 4 - 20 mA DC (Load resistance 600 Ω max.)
- B: 2 - 10 mA DC (Load resistance 1200 Ω max.)
- C: 1 - 5 mA DC (Load resistance 2400 Ω max.)
- D: 0 - 20 mA DC (Load resistance 600 Ω max.)
- E: 0 - 16 mA DC (Load resistance 750 Ω max.)

F: 0 - 10 mA DC (Load resistance 1200 Ω max.)

G: 0 - 1 mA DC (Load resistance 12 k Ω max.)

Voltage

- 1: 0 - 10 mV DC (Load resistance 10 k Ω min.)
- 2: 0 - 100 mV DC (Load resistance 100 k Ω min.)
- 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.)

[3] OUTPUT 2

0: None

Voltage

6: 1 - 5 V DC (Load resistance 5000 Ω min.)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V \pm 10 %, ripple 10 %p-p max.)

[4] OPTIONS

blank: none

/Q: With options (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: Rack-mounted; terminal access via screw terminals at the front and via card-edge connector at the rear; terminal cover provided

Connection

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

Output: Card-edge connector and M3.5 screw terminals (torque 0.8 N·m)

Power input: Supplied from card-edge connector

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output 1 to output 2 to power

Overrange output: Approx. 0 to 120 % at 1 - 5V

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS

Minimum span: 50 mV

Input span: Input Resistance

50 mV - 3 V : 10 k (Ω minimum)



≥ 3V : 200 k

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

INSTALLATION

Current consumption: Approx. 35 mA with voltage output 1

Approx. 55 mA with current output 1

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

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

Mounting: Standard Rack 10BXx

Weight: 200 g (0.44 lb)

PERFORMANCE in percentage of span

Accuracy: ±0.4 % (excluding ≤ 15 Hz)

Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)

Response time: ≤ 0.5 sec. (0 - 90 %)

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

Line voltage effect: ±0.1 % over voltage range

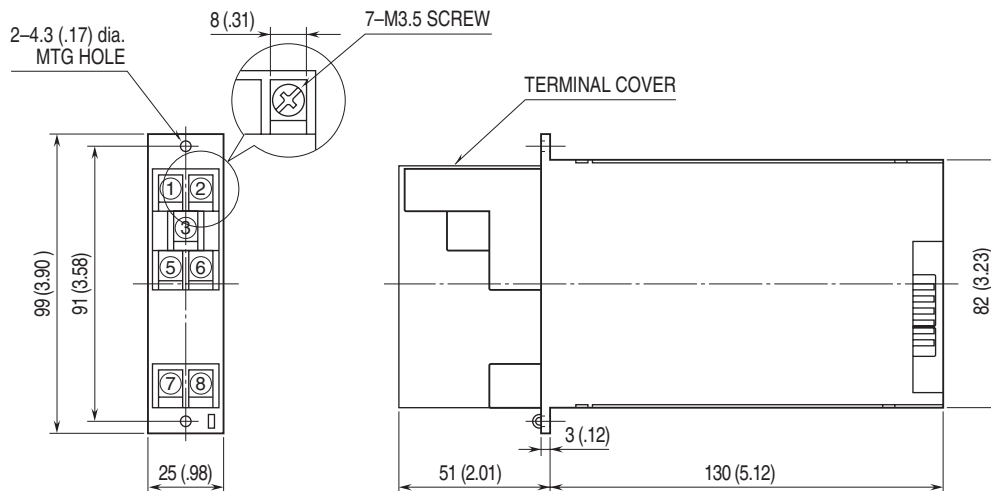
Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

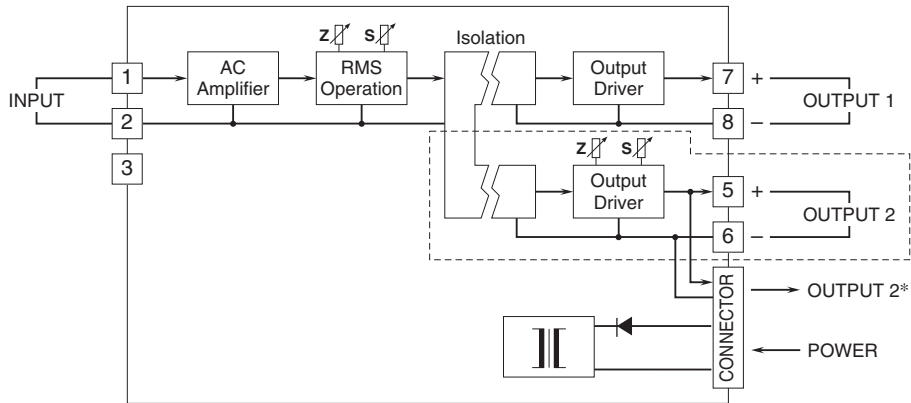
(input to output 1 to output 2 to power)

1500 V AC @ 1 minute (input or output or power to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1 output type has the output 1 connected to the card-edge connector in parallel.
 Remark 1) The section enclosed by broken line is only for 2nd output channel.



Specifications are subject to change without notice.

