

## High-density Signal Conditioners 10-RACK

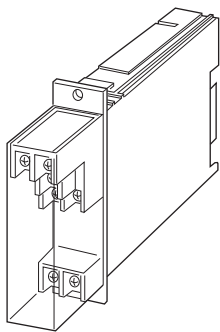
### TACHOGENERATOR TRANSMITTER

#### 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 of [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 $\Omega$  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  $\Omega$  max.)
- B:** 2 - 10 mA DC (Load resistance 1200  $\Omega$  max.)
- C:** 1 - 5 mA DC (Load resistance 2400  $\Omega$  max.)
- D:** 0 - 20 mA DC (Load resistance 600  $\Omega$  max.)
- E:** 0 - 16 mA DC (Load resistance 750  $\Omega$  max.)

- F:** 0 - 10 mA DC (Load resistance 1200  $\Omega$  max.)
  - G:** 0 - 1 mA DC (Load resistance 12 k $\Omega$  max.)
- Voltage
- 1:** 0 - 10 mV DC (Load resistance 10 k $\Omega$  min.)
  - 2:** 0 - 100 mV DC (Load resistance 100 k $\Omega$  min.)
  - 3:** 0 - 1 V DC (Load resistance 100  $\Omega$  min.)
  - 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.)

#### [3] OUTPUT 2

- 0:** None
- Voltage
- 6:** 1 - 5 V DC (Load resistance 5000  $\Omega$  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 our 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 ( $\Omega$  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

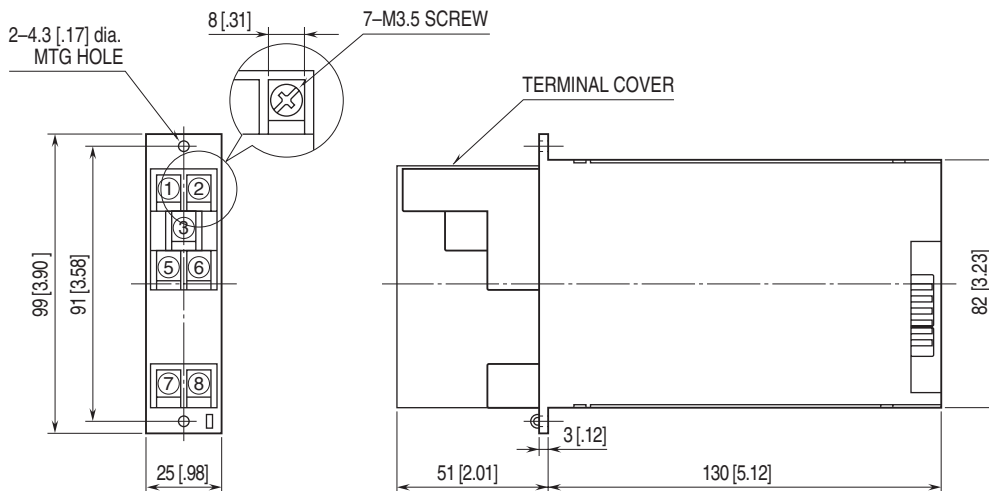
**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 500 V AC @ 1 minute

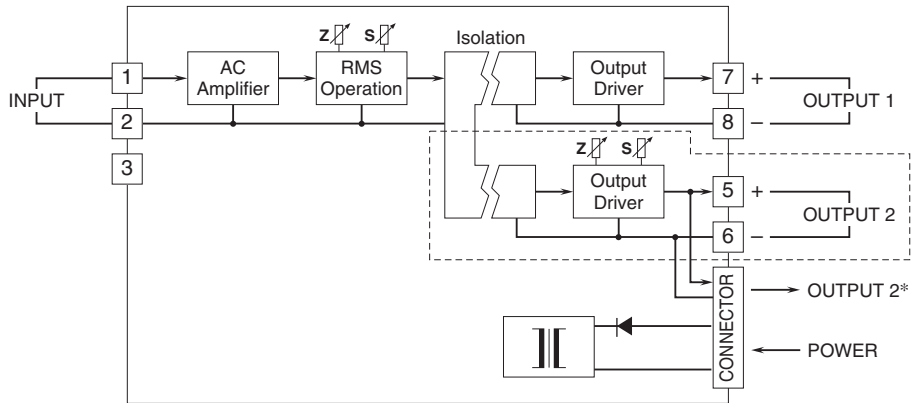
(input to output 1 to output 2 to power)

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.