

High-density Signal Conditioners 10-RACK

POTENTIOMETER TRANSMITTER

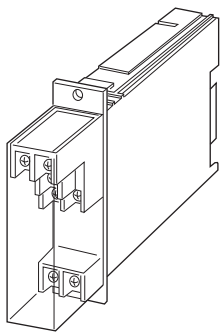
(fast response)

Functions & Features

- Providing two DC outputs proportional to a potentiometer or slidewire position input
- 50 % zero/span adjustments with minimal interaction
- Optional second channel output available at the front terminals and at the Standard Rack connector

Typical Applications

- Tank levels
- Positions



MODEL: 10MK-[1][2]-R[3]

ORDERING INFORMATION

- Code number: 10MK-[1][2]-R[3]
- Specify a code from below for each [1] through [3].
(e.g. 10MK-A6-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

INPUT POTENTIOMETER

Total resistance 100 Ω - 10 k Ω

[1] 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.)

[2] 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.)

[3] 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. -10 to +120 % at 1 - 5 V

Zero adjustment: 0 - 50 % of total resistance (front)

Span adjustment: 50 - 100 % of total resistance (front)

INPUT SPECIFICATIONS

Minimum span: 50 % of total resistance

Excitation: Approx. 0.2 V DC

INSTALLATION

Current consumption: Approx. 35 mA with voltage output 1
Approx. 55 mA with current output 1

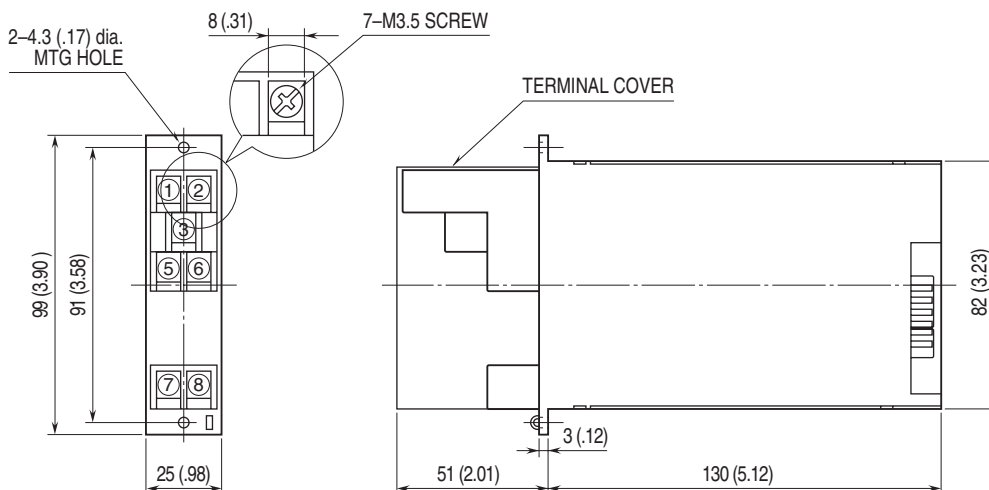


Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Standard Rack 10BXx
Weight: 200 g (0.44 lb)

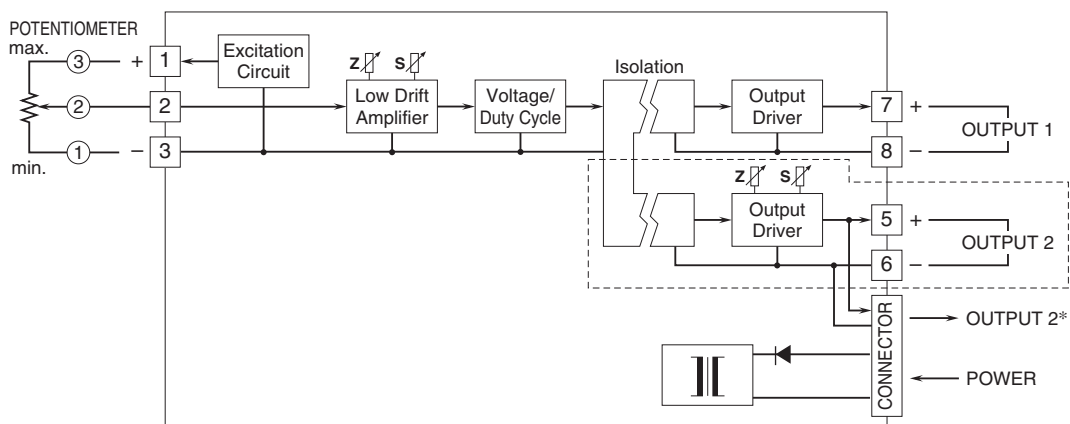
PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$
Temp. coefficient: $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)
Response time: Approx. 25 msec. (0 - 90 %)
Line voltage effect: $\pm 0.1\%$ over voltage range
Insulation resistance: $\geq 100\ \text{M}\Omega$ 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.

