

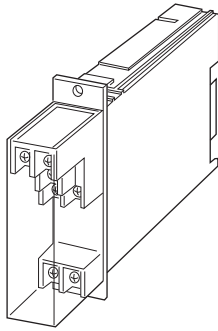
High-density Signal Conditioners 10-RACK

4-WIRE RTD TRANSMITTER

(field-programmable)

Functions & Features

- Accepting direct input from a 4-wire Pt 1000 Ω and providing a standard process signal
- Microprocessor based
- Field-programmable temperature range
- Linearization
- Burnout protection



MODEL: 10JRE-2[1]0-R[2]

ORDERING INFORMATION

- Code number: 10JRE-2[1]0-R[2]

Specify a code from below for each [1] and [2].

(e.g. 10JRE-2A0-R/BL/Q)

- Temperature range (e.g. 0 - 300 K)
- Measuring range (e.g. 100 - 1000 Ω)
- Linearization data (max. 16 points)

Use Ordering Information Sheet (No. ESU-1669) to specify linearization data when the I/O signals are non-linear.

- Specify the specification for option code /Q (e.g. /C01)

INPUT RTD (4-wire)

2: Pt 1000 Ω

[1] OUTPUT 1

Current

A: 4 - 20 mA DC (Load resistance 600 Ω max.)

Voltage

6: 1 - 5 V DC (Load resistance 500 Ω min.)

OUTPUT 2

0: None

POWER INPUT

DC Power

R: 24 V DC

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

[2] OPTIONS (multiple selections)

Burnout

blank: Upscale burnout

/BL: Downscale burnout

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

RELATED PRODUCTS

- JX configurator connection kit (model: JXCON)
- Programming Unit (model: PU-2x)

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 to power

Linearization: 16 points max. within the range of -15.00 - +115.00 % input or output; represented as percentage of full-scale

Adjustments: Programming Unit (model: PU-2x);

linearization data, input range, zero and span, simulating output, etc.

(Refer to the users manual of JXCON for the adjustments configurable with JXCON)

INPUT SPECIFICATIONS

Maximum leadwire resistance: 200 Ω per wire

Sensing current: 1 mA

Usable range: 0 - 1300 Ω

Minimum span: 800 Ω



INSTALLATION

Current consumption: Approx. 60 mA with voltage output 1

Approx. 90 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: 220 g (0.49 lb)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$ with segment gain ≤ 1 [$\pm 0.1\% \times \text{gain}$]
with segment gain ≥ 1

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

Response time: ≤ 0.5 sec. (0 - 90 %)

Burnout response: ≤ 10 sec.

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

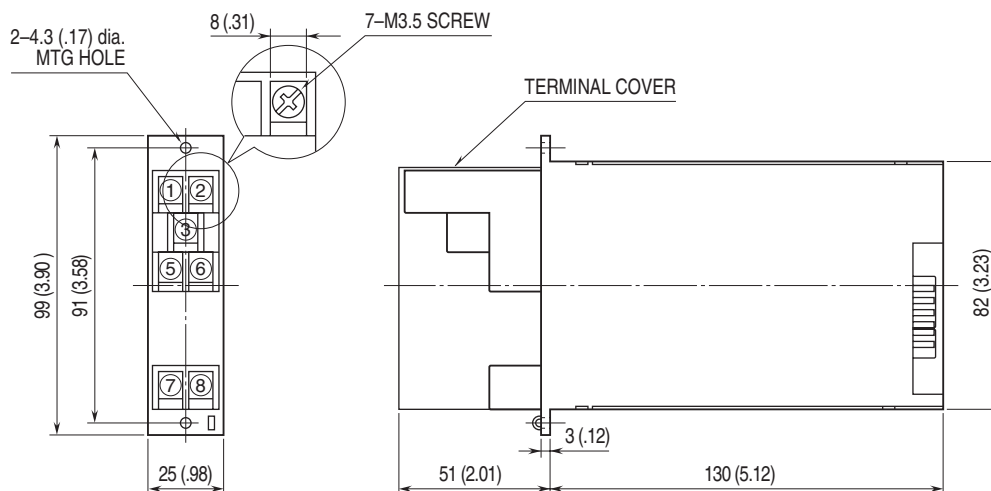
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

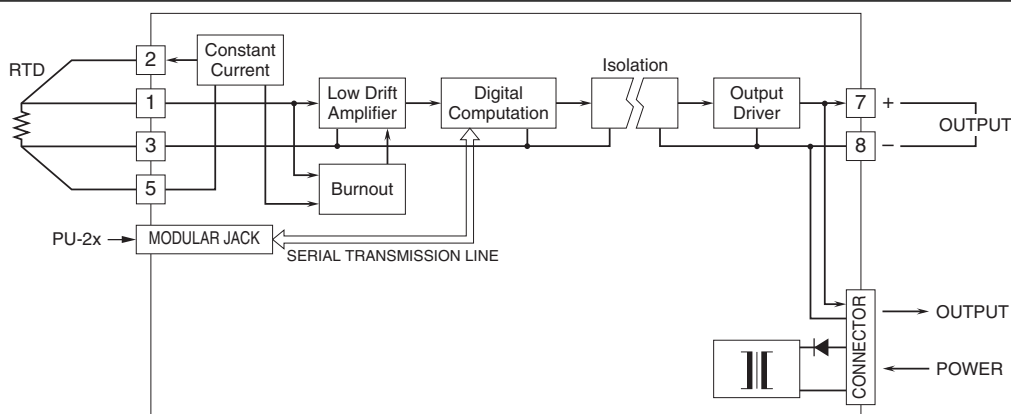
(input to output to power)

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

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.

