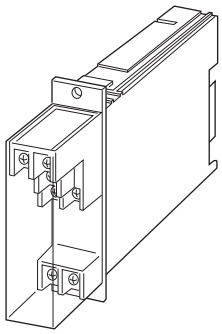
High-density Signal Conditioners 10-RACK

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 of [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 ±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 our web site.)
/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

RELATED PRODUCTS

• Programming Unit (model: PU-2x)
• PC configurator software (model: JXCON)
Downloadable at our web site.
A dedicated cable is required to connect the module to the PC. Please refer to the internet software download site or the users manual for the PC configurator for applicable cable types.

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)

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INPUT SPECIFICATIONS

Maximum leadwire resistance: 200 Ω per wire
Sensing current: 1 mA
Usable range: 0 – 1300 Ω
Minimum span: 800 Ω

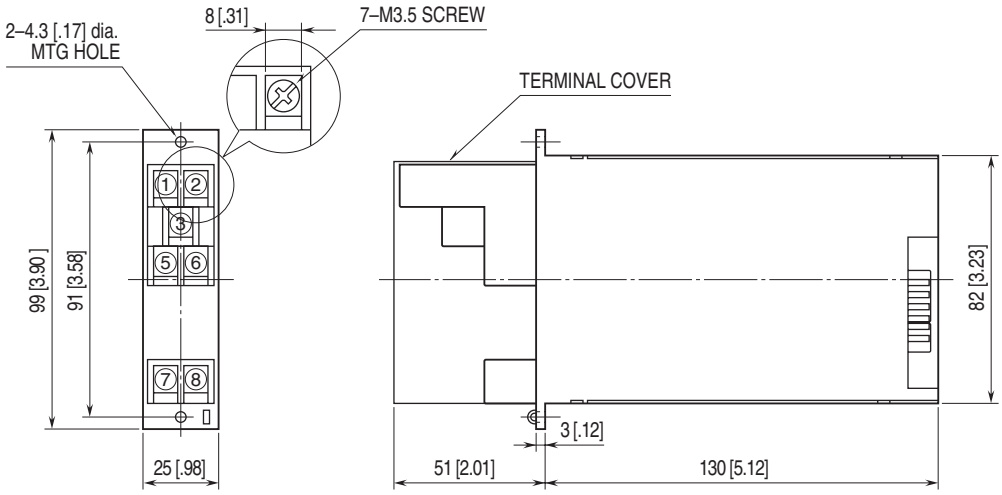
INSTALLATION

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: ±0.1 % with segment gain ≤ 1 [±0.1 % × gain]
with segment gain > 1
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: ≤ 0.5 sec. (0 – 90 %)
Burnout response: ≤ 10 sec.
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 to power)
1500 V AC @ 1 minute (input or output or power to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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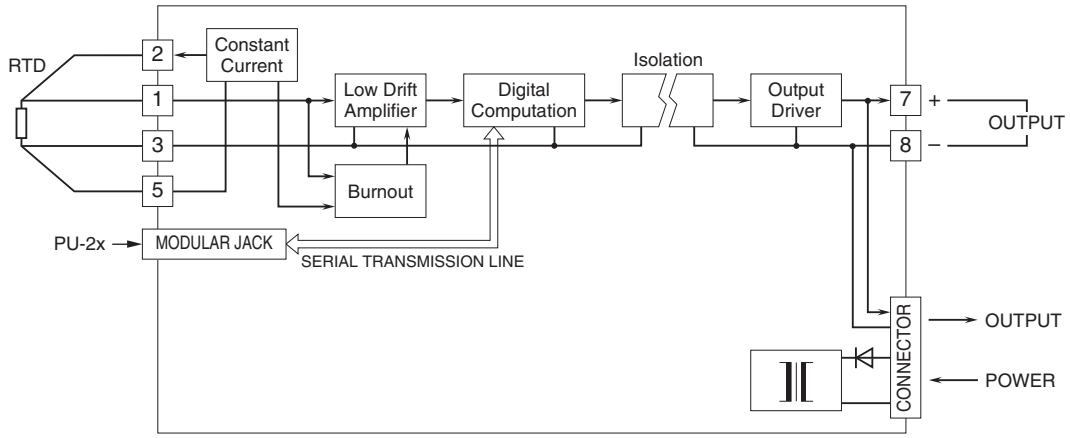
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



⚠ Specifications are subject to change without notice.

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