

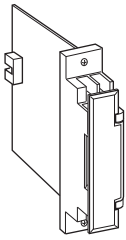
## Rack-mounted DCS Signal Conditioners 18K-RACK

### RTD CONVERTER

(field-programmable)

#### Functions & Features

- Module can be retracted without removing wiring for an insulation test
- Optional power switch
- Software setting of input range via programming unit (model: PU-2x) is available



### MODEL: 18KJR-[1]66-R[2]

#### ORDERING INFORMATION

- Code number: 18KJR-[1]66-R[2]
- Specify a code from below for each of [1] and [2].  
(e.g. 18KJR-166-R/S/BL)
- Temperature range (e.g. 0 - 100°C)

#### [1] INPUT RTD (2- or 3-wire)

**1:** JPt 100 (JIS'89)

(Usable range: -200 to +500°C, -328 to +932°F; min.span: 30°C, 54°F)

**3:** Pt 100 (JIS'89)

(Usable range: -200 to +650°C, -328 to +1202°F; min.span: 30°C, 54°F)

**4:** Pt 100 (JIS'97, IEC)

(Usable range: -200 to +650°C, -328 to +1202°F; min.span: 30°C, 54°F)

**5:** Pt 50 Ω (JIS'81)

(Usable range: -200 to +500°C, -328 to +932°F; min.span: 60°C, 108°F)

**6:** Ni 508.4 Ω

(Usable range: -50 to +200°C, -58 to +392°F; min.span: 20°C, 36°F)

**0:** Specify

Note: Consult us for 2-wire RTD

#### OUTPUT 1

Voltage

**6:** 1 - 5 V DC (Load resistance 2000 Ω min.)

#### OUTPUT 2

Voltage

**6:** 1 - 5 V DC (Load resistance 2000 Ω min.)

#### POWER INPUT

DC Power

**R:** 24 V DC

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

#### [2] OPTIONS (multiple selections)

Power Switch

**blank:** None

**/S:** With power switch

Burnout

**blank:** Upscale burnout

**/BL:** Downscale burnout

#### 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 on the front and connector on the rear; terminal cover provided

#### Connection

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

and connector

**Output 1:** Connector

**Output 2:** M3.5 screw terminals (torque 0.8 N·m)

and connector

**Power input:** Supplied from connector

**Screw terminal:** Nickel-plated steel

**Isolation:** Input to output 1 to output 2 to power

**Overrange output:** Approx. -10 to +120 % at 1 - 5 V

**Linearization:** Standard

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

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

- RTD type (between Pt 100 and JPt 100 only)
- temp. range
- zero and span
- simulating output
- Others

## INPUT SPECIFICATIONS

**Maximum leadwire resistance:** 20  $\Omega$  per wire (3-wire)

**Sensing current:** 2 mA

If not specified, the input range is shown below.

1: JPt 100 (JIS '89) 0 - 100°C

3: Pt 100 (JIS '89) 0 - 100°C

4: Pt 100 (JIS '97, IEC) 0 - 100°C

5: Pt 50  $\Omega$  (JIS '81) 0 - 200°C

6: Ni 508.4  $\Omega$  0 - 100°C

## INSTALLATION

**Current consumption:** Approx. 60 mA

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

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

**Mounting:** Standard Rack 18KBXx

**Weight:** 150 g (0.33 lb)

## PERFORMANCE in percentage of span

**Accuracy:**  $\pm 0.1\%$  or  $\pm 0.1^\circ\text{C}$  ( $\pm 0.18^\circ\text{F}$ ), whichever is greater

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

**Response time:**  $\leq 0.5$  sec. (0 - 90 %)

**Burnout response:** Approx. 10 sec.

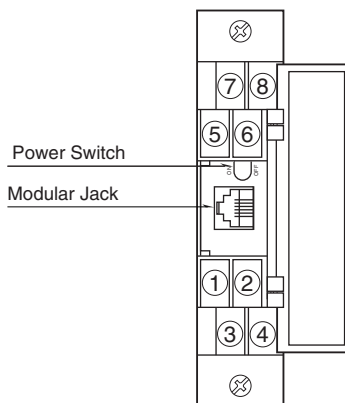
**Line voltage effect:**  $\pm 0.1\%$  over voltage range

**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

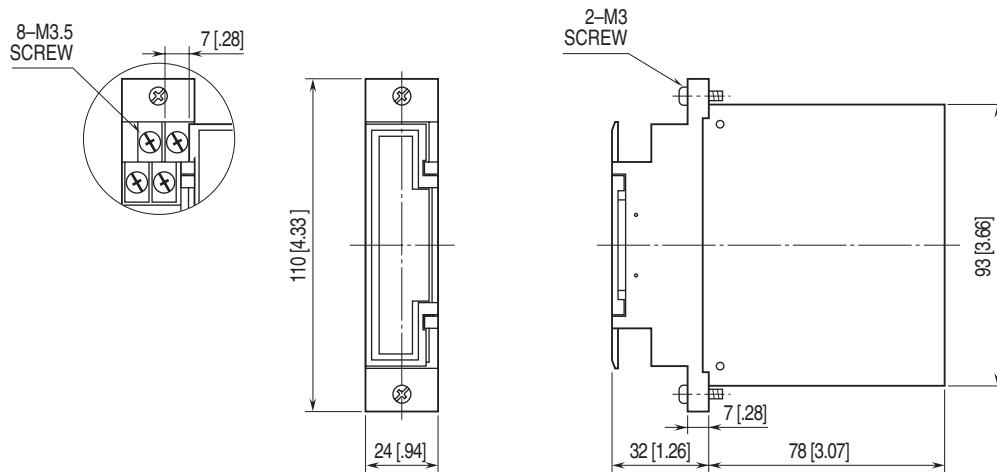
**Dielectric strength:** 500 V AC @ 1 minute (input to output 1 to output 2 to power to ground)

## EXTERNAL VIEW

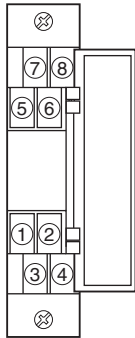
### ■ WITH POWER SWITCH



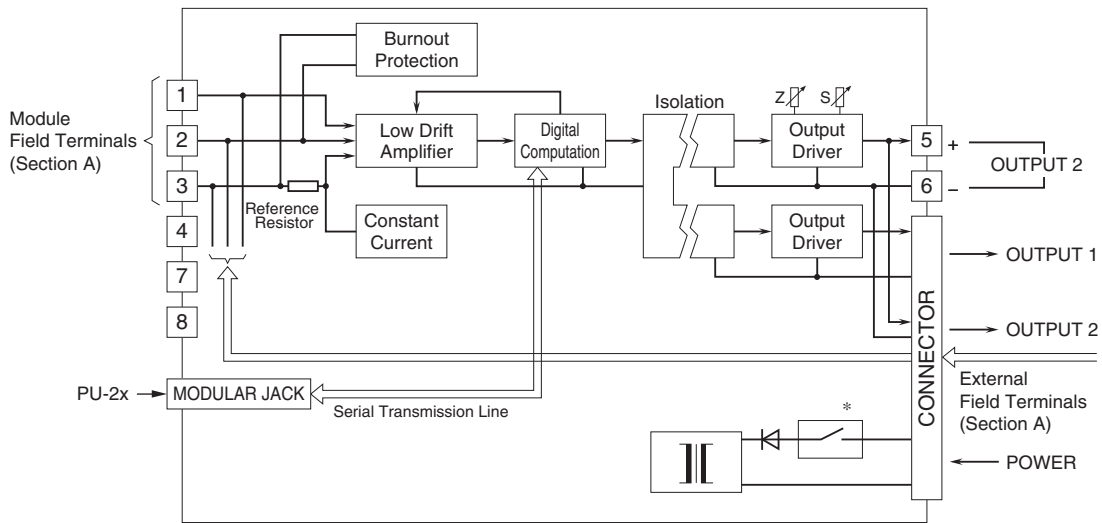
## EXTERNAL DIMENSIONS unit: mm [inch]



## TERMINAL ASSIGNMENTS

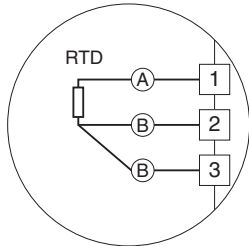


**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\* With power switch only  
Use either of module or external field terminals.

Section A. Field Terminals



Specifications are subject to change without notice.