

Rack-mounted DCS Signal Conditioners 18K-RACK

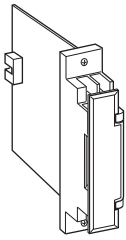
/S: With power switch

POTENTIOMETER CONVERTER

(field-programmable)

Functions & Features

- Segment linearization characteristics are freely configurable via programming unit
- Module can be retracted without removing wiring for an insulation test
- Optional power switch



MODEL: 18KJM-166-R[1]

ORDERING INFORMATION

- Code number: 18KJM-166-R[1]
- Specify a code from below for [1].
(e.g. 18KJM-166-R/S)
- Linearization data (max. 16 points)
- Use Ordering Information Sheet (No. ESU-1669) to specify linearization data when the I/O signals are non-linear.

INPUT POTENTIOMETER

1: Total resistance 100 Ω - 10 kΩ

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.)

[1] OPTIONS

Power Switch

blank: None

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

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 (Unused resistance of the potentiometer's total resistance can be programmed with the linearization table.), zero and span, simulating output, etc.

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

INPUT SPECIFICATIONS

Minimum span: 25 % of total resistance (set with the Programming Unit [model: PU-2x] or PC configurator software [model: JXCON])

Excitation: 0.25 V DC

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)

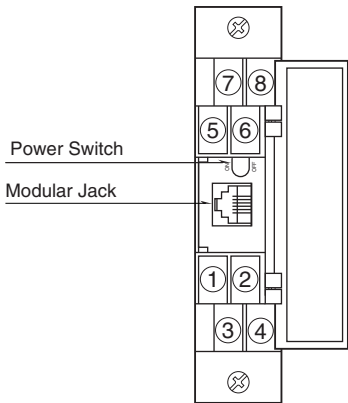
PERFORMANCE in percentage of span

Accuracy: ±0.1 % with segment gain ≤ 1 [±0.1 % × gain] with segment gain > 1

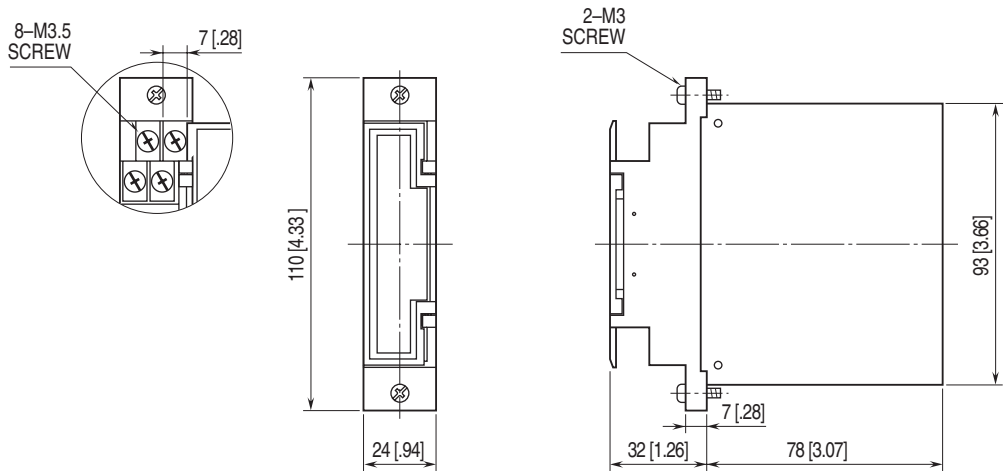
Temp. coefficient: $\pm 0.015 \text{ \%}/^{\circ}\text{C}$ ($\pm 0.008 \text{ \%}/^{\circ}\text{F}$)
 Response time: $\leq 0.5 \text{ sec.}$ (0 - 90 %)
 Line voltage effect: $\pm 0.1 \text{ \%}$ over voltage range
 Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC
 Dielectric strength: 500 V AC @ 1 minute (input to output 1 to output 2 to power to ground)

EXTERNAL VIEW

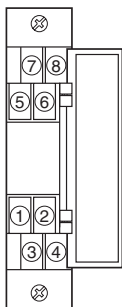
■ WITH POWER SWITCH



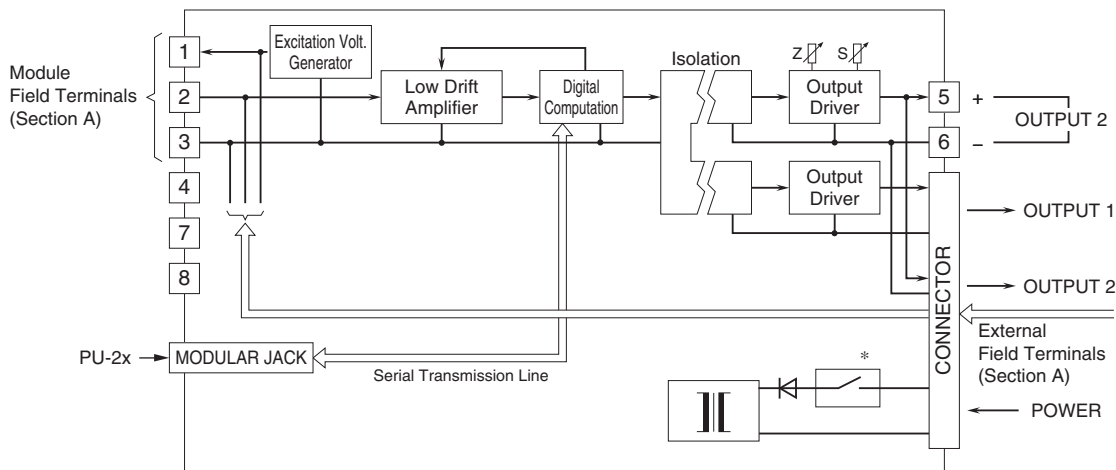
EXTERNAL DIMENSIONS unit: mm [inch]



TERMINAL ASSIGNMENTS

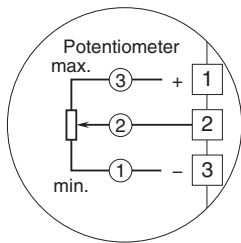


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



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

Section A. Field Terminals



Specifications are subject to change without notice.