

Rack-mounted DCS Signal Conditioners 18K-RACK

CURRENT LOOP SUPPLY

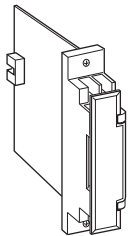
(with square root extractor)

Functions & Features

- 2-wire transmitter circuit with short-circuit protection
- Applicable to smart transmitters
- Can also be used as a 4 - 20 mA DC square root extractor
- Module can be retracted without removing wiring for an insulation test
- Optional power switch

Typical Applications

- Various 2-wire transmitters



MODEL: 18KJDN-A66-R[1]

ORDERING INFORMATION

- Code number: 18KJDN-A66-R[1]
- Specify a code from below for [1].
(e.g. 18KJDN-A66-R/S)

INPUT

Current

A: 4 - 20 mA DC (Input resistance 250 Ω)

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

/S: With power switch

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

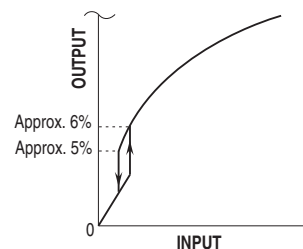
Isolation: Input to output 1 to output 2 to power

Overrange output: 0 - 105 % at 1 - 5 V

Adjustments: Programming Unit (model: PU-2x); (For settings programable with JXCON, refer to its instruction manual)

- Zero and span

Low-end cutout: Output is proportional to input when the output is less than approx. 5 %



SUPPLY OUTPUT

Output voltage: 24 - 28 V DC with no load

Current rating: ≤ 22 mA DC

- Shortcircuit Protection

Current limited: 30 mA max.

Protected time duration: No limit

INPUT SPECIFICATIONS

- DC Current: Input resistor incorporated

OUTPUT SPECIFICATIONS

The output goes below 0 % when the input is open.

INSTALLATION

Current consumption: Approx. 85 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: ± 0.25 % (input 1 - 100 %)

Temp. coefficient: ± 0.03 %/°C (± 0.02 %/°F)

Response time: ≤ 0.5 sec. (0 - 90 %)

Line voltage effect

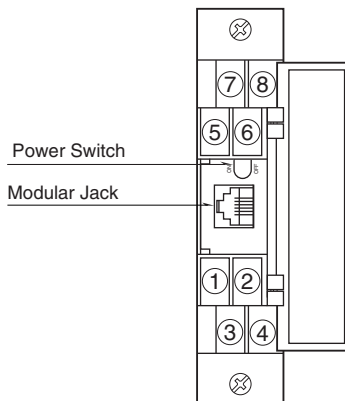
Output signal: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

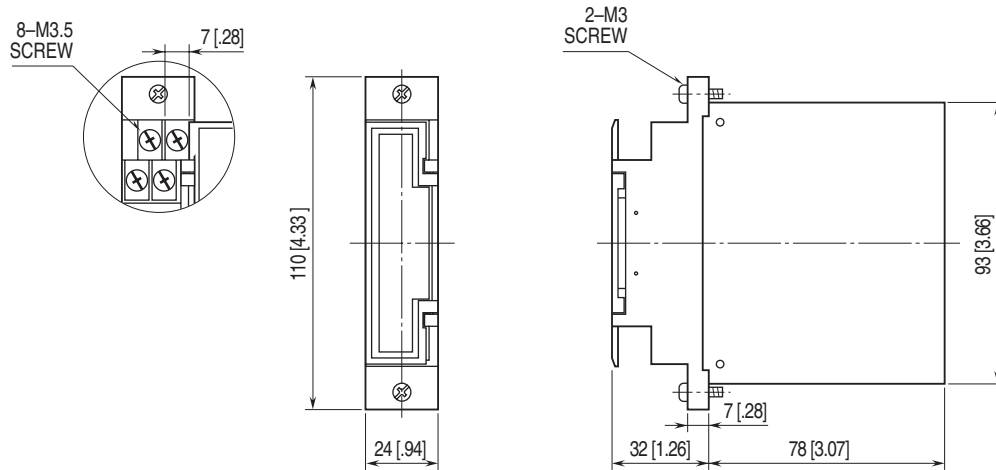
Dielectric strength: 500 V AC @ 1 minute (input to output 1 to output 2 to power to ground)

EXTERNAL VIEW

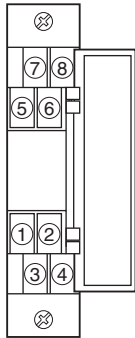
- WITH POWER SWITCH



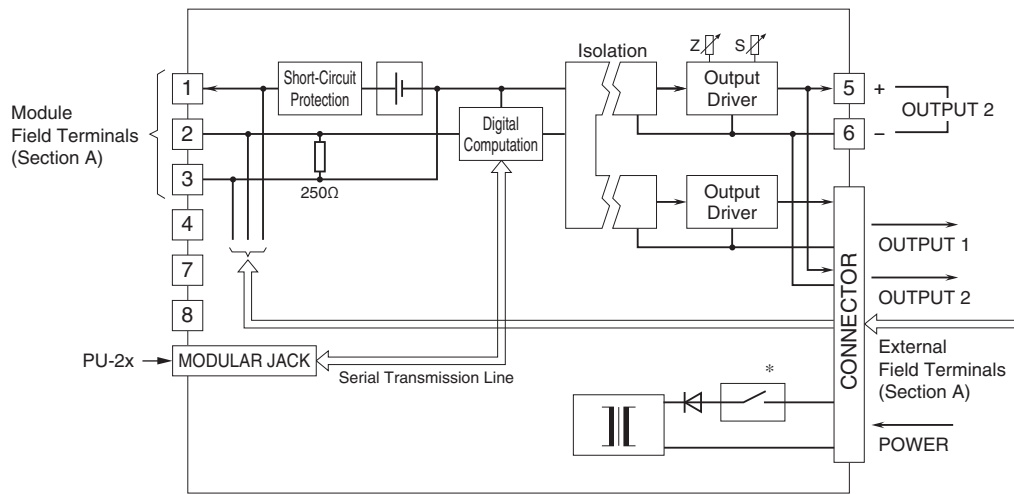
EXTERNAL DIMENSIONS unit: mm [inch]



TERMINAL ASSIGNMENTS



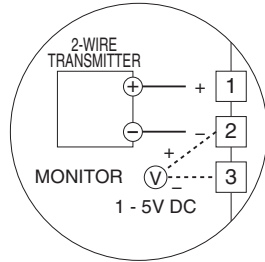
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



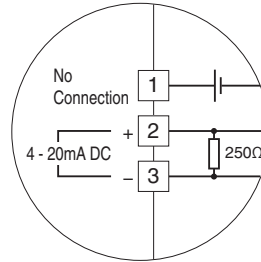
* With power switch only
Use either of module or external field terminals.

Section A. Field Terminals

■ When Used as Current Loop Supply



■ When Used as Sq. Root Extractor



Specifications are subject to change without notice.