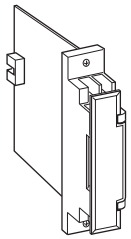
Rack-mounted DCS Signal Conditioners 18K-RACK

CURRENT LOOP SUPPLY

(10 – 50 mA / 4 –20 mA loop)

Functions & Features

• 2-wire transmitter circuit with short-circuit protection
• Reposition the shorting pin to switch input signals between 10 - 50 mA DC and 4 - 20mA DC
• Applicable to smart transmitters
• Can also be used as a 10 - 50 mA DC / 4 - 20 mA DC isolator
• Module can be retracted without removing wiring for an insulation test
• Optional power switch



MODEL: 18KDU–66–R[1]

ORDERING INFORMATION

• Code number: 18KDU-66-R[1]
Specify a code from below for [1].
(e.g. 18KDU-66-R/S)

INPUT

Current

10 – 50 mA DC or 4 – 20 mA DC

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

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
Zero adjustment: -5 to +5 % (front)
Span adjustment: 95 to 105 % (front)
Input range selector: Jumper pin on the PCB
The input is factory set to 10 – 50 mA DC. Specify when 4 – 20 mA is required.

SUPPLY OUTPUT

Output voltage: 24 – 28 V DC with no load
Current rating: ≤ 60mA DC
• **Shortcircuit Protection**
Current limited: Approx. 65 mA
Protected time duration: No limit

INPUT SPECIFICATIONS

■ **DC Current**:
Input resistor incoporated
110 Ω ±1 % with 10 – 50 mA
260 Ω ±1 % with 4 – 20 mA

OUTPUT SPECIFICATIONS

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

INSTALLATION

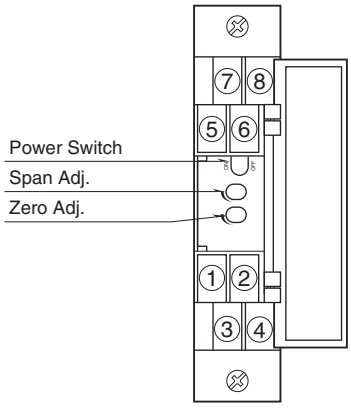
Current consumption: Approx. 105 mA
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Standard Rack 18KBXx
Weight: 150 g (0.33 lb)

PERFORMANCE in percentage of span

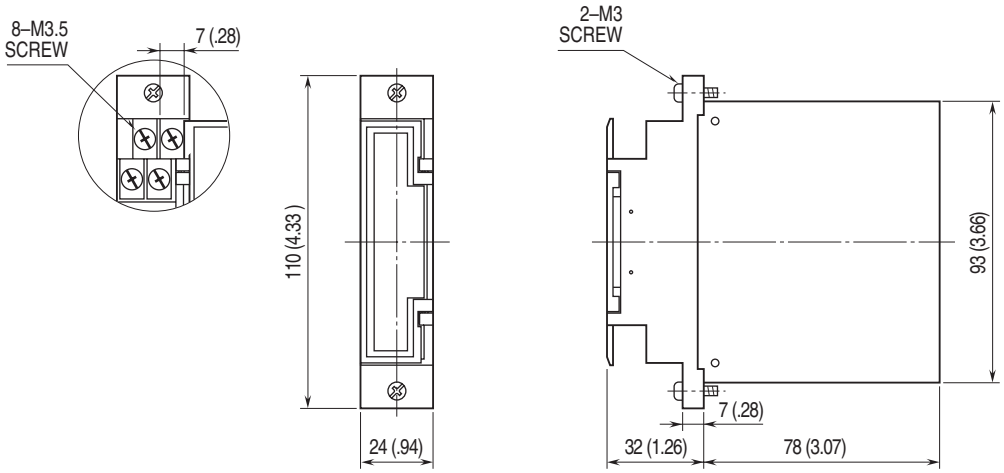
Accuracy: ±0.1 %
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: ≤ 0.5 sec. (0 – 90 %)
Line voltage effect
Supply output: ±3 % over voltage range
Output signal: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 500 V AC @ 1 minute (input to output 1 to output 2 to power to ground)

EXTERNAL VIEW

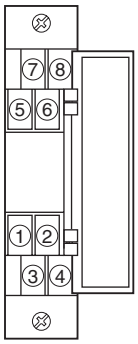
■ **WITH POWER SWITCH**



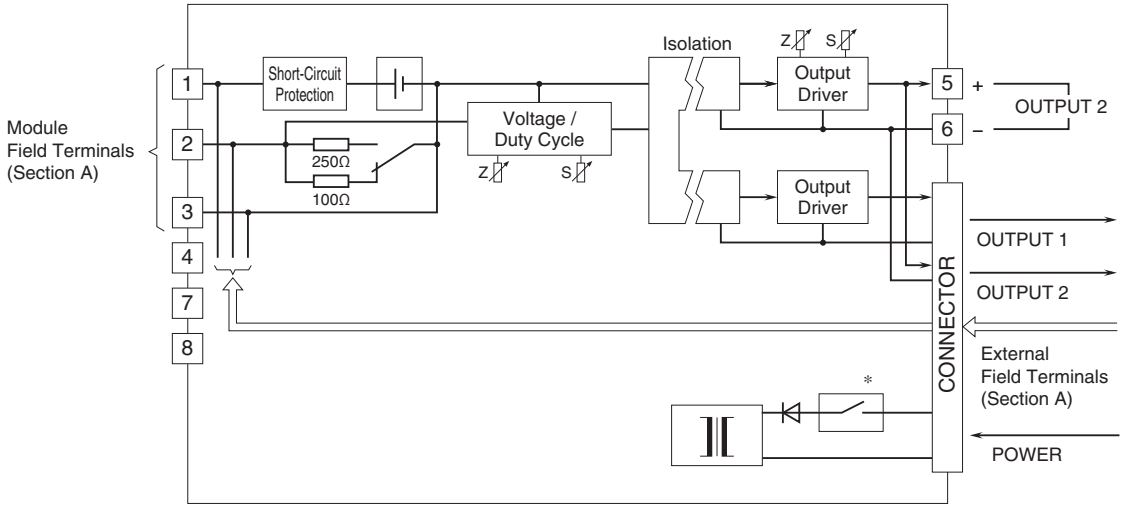
EXTERNAL DIMENSIONS unit: mm (inch)



TERMINAL ASSIGNMENTS



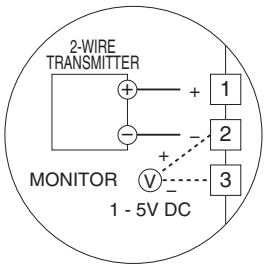
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



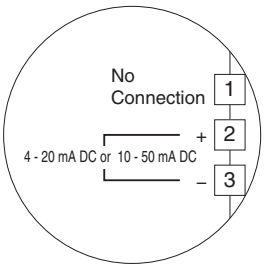
* With power switch only
Use either of module or external field terminals.

Section A. Field Terminals

■ When Used as Current Loop Supply



■ When Used as Isolator



⚠ Specifications are subject to change without notice.