Rack-mounted DCS Signal Conditioners 18-RACK

CURRENT LOOP SUPPLY

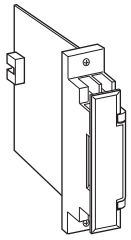
(10 – 50 mA / 4 –20 mA loop)

Functions & Features

- Powering a current loop
- 10 – 50 mA or 4 – 20 mA jumper selectable
- Isolation
- Shortcircuit protection
- Applicable to smart transmitters
- Usable as Isolator for 10 – 50 mA / 4 – 20 mA DC signals
- Second channel output available at the front terminals and at the Standard Rack connector

Typical Applications

- Various 2-wire transmitters



MODEL: 18DU-66-R

ORDERING INFORMATION

- Code number: 18DU-66-R

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.)

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)

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: 77 mA maximum

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

Power consumption

•**DC**: Approx. 105 mA

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

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

Mounting: Standard Rack 18BXx or 18KBXx

Weight: 150 g (0.33 lbs)

PERFORMANCE in percentage of span

Accuracy: ±0.1 %

Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)

Response time: Approx. 0.5 sec. (0 – 90 %)

Line voltage effect

Supply output: ±3 % over voltage range

Output signal: ±0.1 % over voltage range

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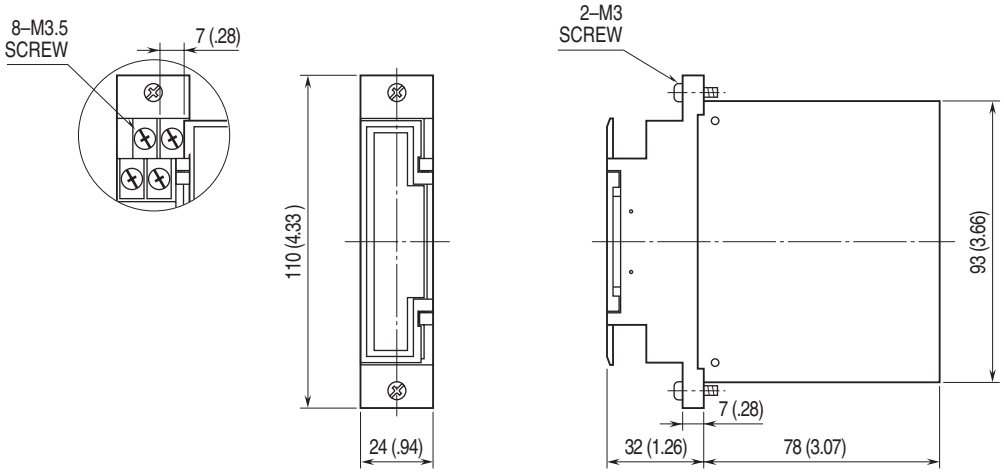
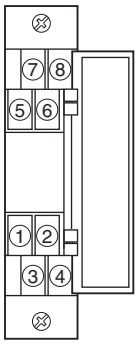
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
(input to output 1 or output 2 or power)
500 V AC @ 1 minute
(output 1 to output 2 to power)
1500 V AC @ 1 minute
(input or output or power to ground)

DIMENSIONS unit: mm (inch)



TERMINAL ASSIGNMENTS



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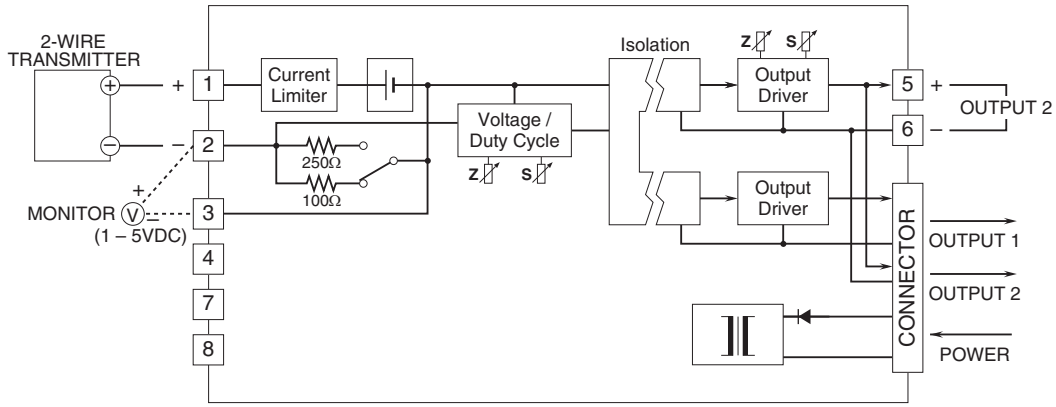
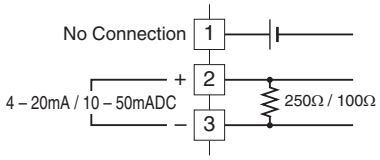
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ **When Used as Isolator**



⚠ Specifications are subject to change without notice.

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