Rack-mounted Power Transducers 17-RACK

SIGNAL CONVERTER

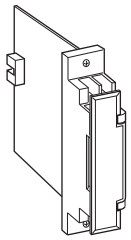
(fast response)

Functions & Features

- Converting a DC input into a standard process signal
- Isolation between input and output

Typical Applications

- Isolation between control room and field instrumentation



MODEL: 17VK-[1]6-R

ORDERING INFORMATION

- Code number: 17VK-[1]6-R

Specify a code from below for [1].
(e.g. 17VK-26-R)

- Special input range (For codes Z & 0)

[1] INPUT

Current

A: 4 – 20 mA DC (Input resistance 250 Ω)
D: 0 – 20 mA DC (Input resistance 50 Ω)
G: 0 – 1 mA DC (Input resistance 1000 Ω)
H: 10 – 50 mA DC (Input resistance 100 Ω)
Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

1: 0 – 10 mV DC (Input resistance 10 kΩ min.)
2: 0 – 100 mV DC (Input resistance 100 kΩ min.)
3: 0 – 1 V DC (Input resistance 1 MΩ min.)
4: 0 – 10 V DC (Input resistance 1 MΩ min.)
5: 0 – 5 V DC (Input resistance 1 MΩ min.)
6: 1 – 5 V DC (Input resistance 1 MΩ min.)
0: Specify voltage (See INPUT SPECIFICATIONS)

OUTPUT

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: Connector
  Power input: Supplied from connector
Screw terminal: Nickel-plated steel
Isolation: Input to output to power
Zero adjustment: -5 to +5 % (front)
Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS

■ DC Current: Input resistor incorporated
Specify input resistance value for code Z.
($R \leq 2\ W \div [F.S.\ Current]^2$)
■ DC Voltage: 0 – 300 V DC
Minimum span: 3 mV
Offset: Max. 1.5 times span

Input span	Input Resistance
3 – 10 mV	≥ 10 kΩ
10 – 100 mV	≥ 10 kΩ
0.1 – 1 V	≥ 100 kΩ
≥ 1 V	≥ 1 MΩ

OUTPUT SPECIFICATIONS

With the input voltage code 3, 4, 5, 6 and current, the output goes below 0 % when the input is open.

INSTALLATION

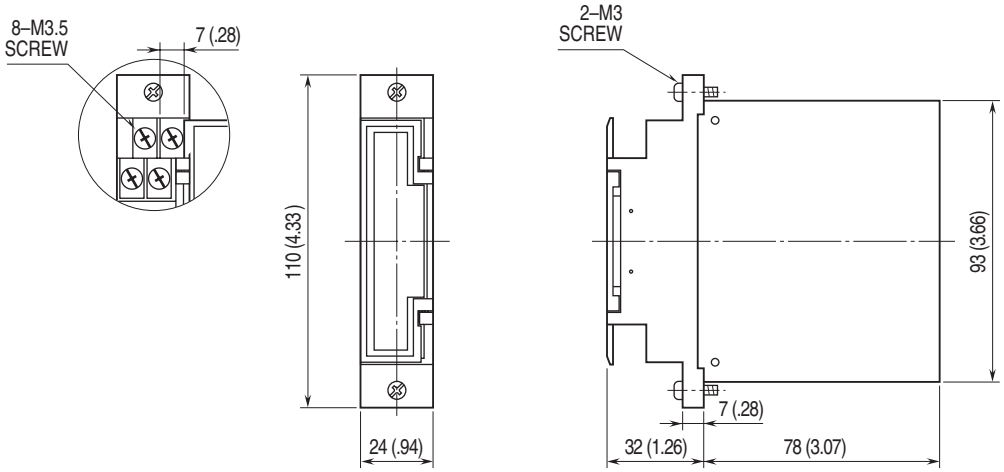
Current consumption: Approx. 35 mA
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 40 to 85 % RH (non-condensing)
Mounting: Standard Rack 17BXE
Weight: 150 g (0.33 lb)

PERFORMANCE in percentage of span

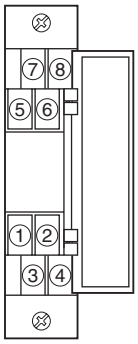
Accuracy: ±0.3 %
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: Approx. 25 msec. (0 – 90 %)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
(input to output or power)

500 V AC @ 1 minute (outut to power)
1500 V AC @ 1 minute (input or output or power to ground)

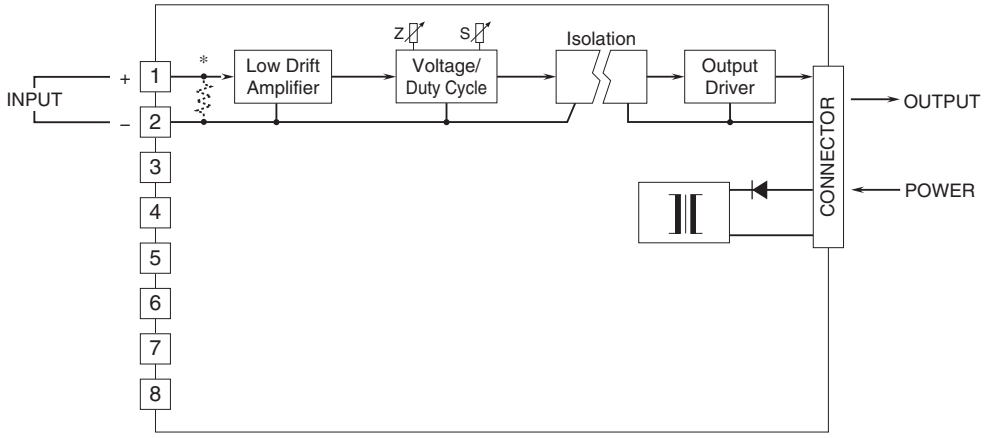
DIMENSIONS unit: mm (inch)



TERMINAL ASSIGNMENTS



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.

⚠ Specifications are subject to change without notice.