

## Rack-mounted Power Transducers 17-RACK

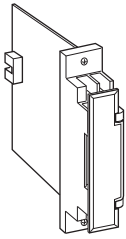
### AC CONVERTER

#### Functions & Features

- Converting an alternating current/voltage into a standard process signal
- True RMS sensing

#### Typical Applications

- Converting a large AC current in combination with a shunt resistor, or a narrow span AC voltage



### MODEL: 17AC-[1]6-R

### ORDERING INFORMATION

- Code number: 17AC-[1]6-R
- Specify a code from below for [1].  
(e.g. 17AC-A16-R)
- Special input range (For codes AZ & A8)

### [1] INPUT

#### Current

- AA:** 0 - 10 mA AC (Input resistance 100 Ω)
- AB:** 0 - 50 mA AC (Input resistance 20 Ω)
- AC:** 0 - 100 mA AC (Input resistance 10 Ω)
- AD:** 0 - 500 mA AC (Input resistance 1 Ω)
- AZ:** Specify current (See INPUT SPECIFICATIONS)  
(0 % input must be 0 mA.)

#### Voltage

- A1:** 0 - 100 mV AC (Input resistance 200 kΩ min.)
- A2:** 0 - 500 mV AC (Input resistance 200 kΩ min.)
- A3:** 0 - 1 V AC (Input resistance 200 kΩ min.)
- A4:** 0 - 5 V AC (Input resistance 200 kΩ min.)
- A5:** 0 - 10 V AC (Input resistance 200 kΩ min.)
- A6:** 0 - 120 V AC (Input resistance 200 kΩ min.)
- A7:** 0 - 150 V AC (Input resistance 200 kΩ min.)
- A8:** Specify voltage (See INPUT SPECIFICATIONS)  
(0 % input must be 0 V.)

### 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

**Input waveform:** Up to 15 % of 3rd harmonic content

**Zero adjustment:** -5 to +5 % (front)

**Span adjustment:** 95 to 105 % (front)

### INPUT SPECIFICATIONS

**Frequency:** 40 Hz min., 1 kHz max.

■ **AC Current:** 0 - 1 A AC; input resistor incorporated

**Minimum span:** 1 mA

#### Input resistance

Span 1 mA: 1 kΩ

Span ≤ 2 mA: 500 Ω

Span ≤ 5 mA: 200 Ω

Span ≤ 10 mA: 100 Ω

Span ≤ 20 mA: 50 Ω

Span ≤ 50 mA: 20 Ω

Span ≤ 100 mA: 10 Ω

Span ≤ 500 mA: 1 Ω

Span ≤ 1 A: 0.5 Ω

■ **AC Voltage:** 0 - 250 V AC

**Minimum span:** 50 mV

**Input resistance:** 200 kΩ min.

### 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:  $\pm 0.4\%$

Temp. coefficient:  $\pm 0.02\%/^{\circ}\text{C}$  ( $\pm 0.01\%/^{\circ}\text{F}$ )

Response time:  $\leq 0.5$  sec. (0 - 90 %)

Ripple: 0.5 %p-p max.

Line voltage effect:  $\pm 0.1\%$  over voltage range

Insulation resistance:  $\geq 100\ \text{M}\Omega$  with 500 V DC

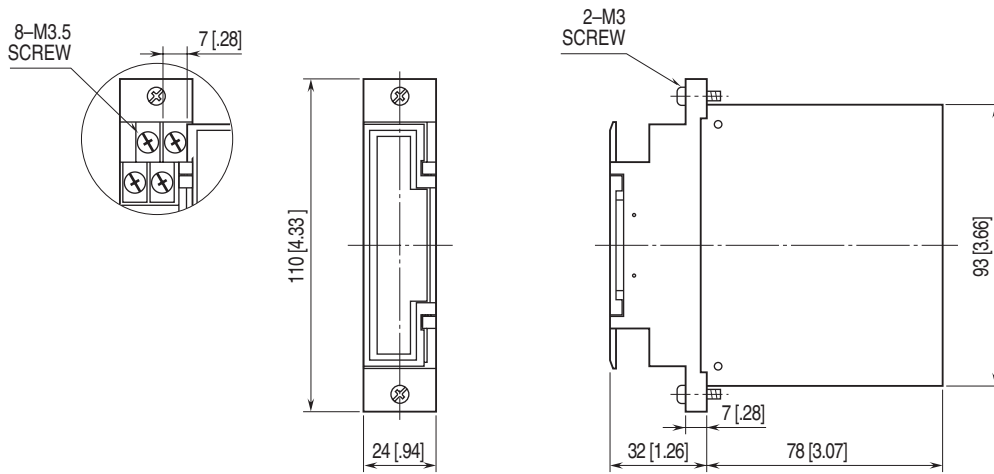
Dielectric strength: 1500 V AC @ 1 minute

(input to output or power)

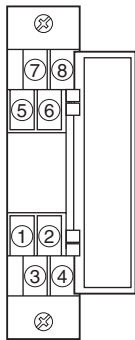
500 V AC @ 1 minute (output to power)

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

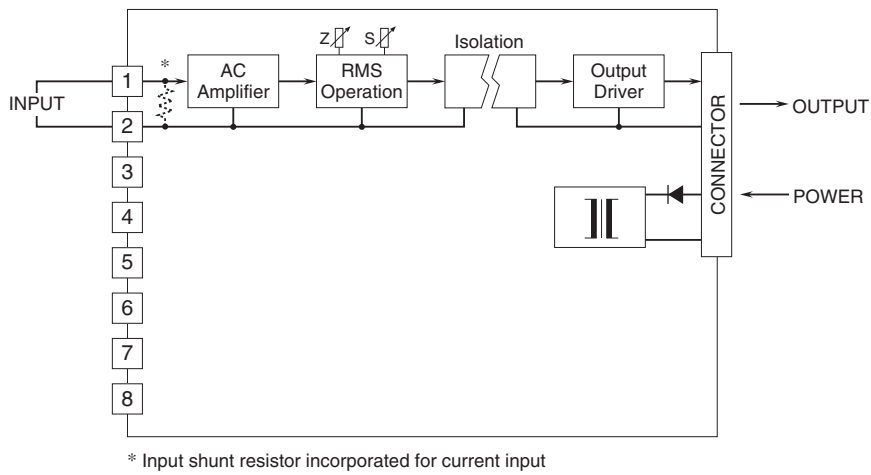
## DIMENSIONS unit: mm (inch)



## TERMINAL ASSIGNMENTS



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.