

High-density Signal Conditioners 10-RACK

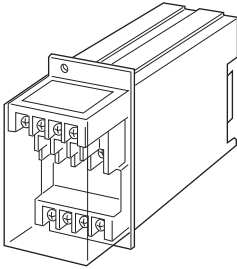
FREQUENCY TRANSDUCER

Functions & Features

- Providing a DC output signal in proportion to deviation (± 5 Hz) from center frequency (50 Hz or 60 Hz)
- DC output containing little ripple is ideal for computer input
- Isolation up to 2000 V AC (input)

Typical Applications

- Centralized monitoring and control of power management system in manufacturing facility or building
- Measuring frequency for UPS



MODEL: 10EHZ-[1][2][3]-R[4]

ORDERING INFORMATION

- Code number: 10EHZ-[1][2][3]-R[4]
- Specify a code from below for each of [1] through [4].
(e.g. 10EHZ-11A-R/Q)
- Special output range (For codes Z & 0)
 - Specify the specification for option code /Q
(e.g. /C01)

[1] FREQUENCY

- 1: 45 - 55 Hz
- 2: 55 - 65 Hz
- 3: 45 - 65 Hz

[2] INPUT

- 1: 110 V AC
- 2: 220 V AC

[3] OUTPUT

- Current
- A: 4 - 20 mA DC (Load resistance 600 Ω max.)
 - D: 0 - 20 mA DC (Load resistance 600 Ω max.)

- E: 0 - 16 mA DC (Load resistance 750 Ω max.)
 - F: 0 - 10 mA DC (Load resistance 1200 Ω max.)
 - G: 0 - 1 mA DC (Load resistance 12 k Ω max.)
 - J: 0 - 5 mA DC (Load resistance 2400 Ω max.)
 - Z: Specify current (See OUTPUT SPECIFICATIONS)
- Voltage
- 1: 0 - 10 mV DC (Load resistance 10 k Ω min.)
 - 2: 0 - 100 mV DC (Load resistance 100 k Ω min.)
 - 3: 0 - 1 V DC (Load resistance 1000 Ω min.)
 - 4: 0 - 10 V DC (Load resistance 10 k Ω min.)
 - 5: 0 - 5 V DC (Load resistance 5000 Ω min.)
 - 6: 1 - 5 V DC (Load resistance 5000 Ω min.)
 - 0: Specify voltage (See OUTPUT SPECIFICATIONS)

POWER INPUT

- DC Power
- R: 24 V DC
- (Operational voltage range 24 V ± 10 %, ripple 10 %p-p max.)

[4] OPTIONS

- blank: none
- /Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

- COATING (For the detail, refer to our web site.)
- /C01: Silicone coating
 - /C02: Polyurethane coating
 - /C03: Rubber coating

GENERAL SPECIFICATIONS

- Construction:** Rack-mounted; terminal access via screw terminals at the front and via card-edge connector at the rear; terminal cover provided
- Connection**
- Input:** M3.5 screw terminals (torque 0.8 N·m)
 - Output:** Card-edge connector and M3.5 screw terminals (torque 0.8 N·m)
 - Power input:** Supplied from card-edge connector
- Screw terminal:** Nickel-plated steel
- Housing material:** Flame-resistant resin (black)
- Isolation:** Input to output 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 SPECIFICATIONS

- Input burden:** 1 VA max.
- Operational range:** 85 - 120 % of rating
- Overload capacity:** 150 % of rating for 10 sec., 120 % continuous

OUTPUT SPECIFICATIONS

■ **DC Current:** 0 - 20 mA DC

Minimum span: 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 12 V maximum

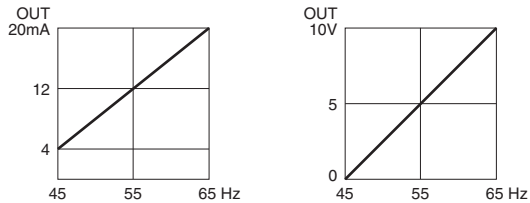
■ **DC Voltage:** 0 - 12 V DC

Minimum span: 5 mV

Offset: Max. 1.5 times span

Load resistance: Output drive 1 mA max.; at ≥ 0.5 V

■ **OPERATION DIAGRAM (example)**



Note: When there is no input voltage, the transducer outputs as negative (-) overrange.

INSTALLATION

Current consumption: Approx. 80 mA

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

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

Mounting: Standard Rack 10BXx

Weight: 400 g (0.88 lb)

PERFORMANCE in percentage of span

Accuracy: ± 1.0 %

Temp. coefficient: ± 0.1 %/°C (± 0.06 %/°F)

Response time: ≤ 1 sec. (0 - 90 %)

Ripple: 0.5 %p-p max.

Line voltage effect: ± 0.1 % over voltage range

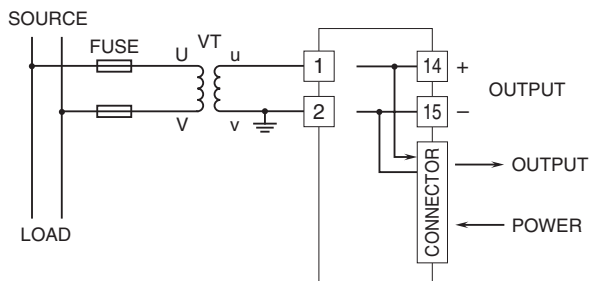
Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @ 1 minute

(input to output or power to ground)

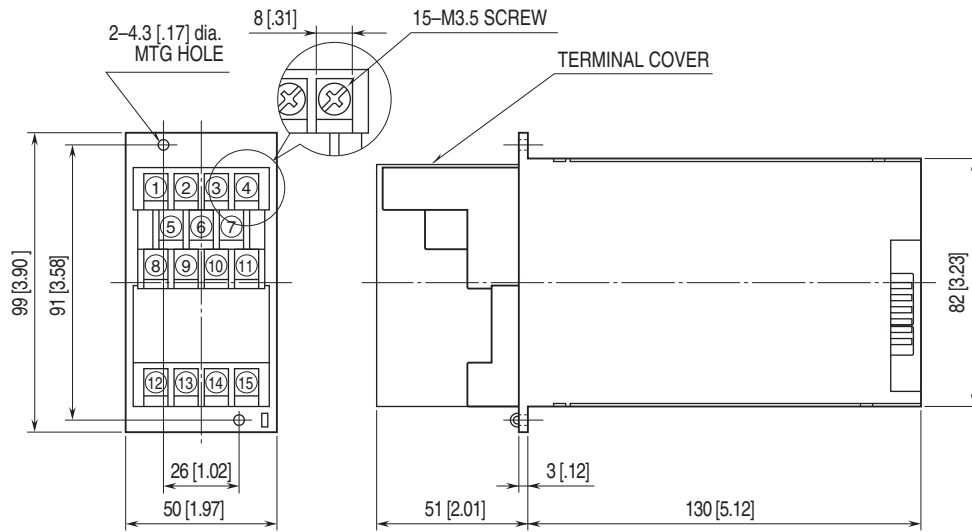
500 V AC @ 1 minute (output to power)

CONNECTION DIAGRAM



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

Terminals 8 through 11 are deleted.



Specifications are subject to change without notice.