

Plug-in Signal Conditioners K-UNIT

ZCT TRANSMITTER

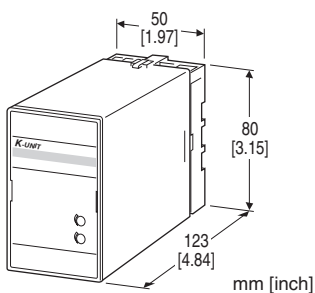
(zero-phase current transformer input)

Functions & Features

- Converts an alternating current from a zero-phase current transformer into a standard process signal
- Input filter
- Isolation up to 2000 V AC
- High-density mounting

Typical Applications

- Continuous monitoring of leakage current



MODEL: KCEZ-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: KCEZ-[1][2]-[3][4]
- Specify a code from below for each of [1] through [4].
(e.g. KCEZ-AA-B/Q)
- Special input and output ranges (For codes Z & 0)
 - Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT

Current

- A:** 0 - 0.1 mA AC (Input resistance 10 Ω)
- B:** 0 - 1.5 mA AC (Input resistance 10 Ω)
- Z:** Specify current (See INPUT SPECIFICATIONS)
(0 % input must be 0 mA.)

[2] OUTPUT

Current

- A:** 4 - 20 mA DC (Load resistance 750 Ω max.)
- B:** 2 - 10 mA DC (Load resistance 1500 Ω max.)
- C:** 1 - 5 mA DC (Load resistance 3000 Ω max.)
- D:** 0 - 20 mA DC (Load resistance 750 Ω max.)
- E:** 0 - 16 mA DC (Load resistance 900 Ω max.)
- F:** 0 - 10 mA DC (Load resistance 1500 Ω max.)
- G:** 0 - 1 mA DC (Load resistance 15 kΩ max.)

Z: Specify current (See OUTPUT SPECIFICATIONS)
Voltage

- 1:** 0 - 10 mV DC (Load resistance 10 kΩ min.)
- 2:** 0 - 100 mV DC (Load resistance 100 kΩ min.)
- 3:** 0 - 1 V DC (Load resistance 100 Ω min.)
- 4:** 0 - 10 V DC (Load resistance 1000 Ω min.)
- 5:** 0 - 5 V DC (Load resistance 500 Ω min.)
- 6:** 1 - 5 V DC (Load resistance 500 Ω min.)
- 4W:** -10 - +10 V DC (Load resistance 2000 Ω min.)
- 5W:** -5 - +5 V DC (Load resistance 1000 Ω min.)
- 0:** Specify voltage (See OUTPUT SPECIFICATIONS)

[3] POWER INPUT

AC Power

- B:** 100 V AC
 - C:** 110 V AC
 - D:** 115 V AC
 - F:** 120 V AC
 - G:** 200 V AC
 - H:** 220 V AC
 - J:** 240 V AC
- DC Power
- S:** 12 V DC
 - R:** 24 V DC

[4] OPTIONS

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

SPECIFICATIONS OF OPTION: Q (multiple selections)

- COATING (For the detail, refer to our web site.)
- /C01:** Silicone coating
 - /C02:** Polyurethane coating
 - /C03:** Rubber coating
- TERMINAL SCREW MATERIAL
- /S01:** Stainless steel

GENERAL SPECIFICATIONS

- Construction:** Plug-in
- Connection:** M3.5 screw terminals
- Screw terminal:** Chromated steel (standard) or stainless steel
- Housing material:** Flame-resistant resin (black)
- Isolation:** Input to output to power
- Overrange output:** 0 to 120 % at 1 - 5 V
- Zero adjustment:** -5 to +5 % (front)
- Span adjustment:** 95 to 105 % (front)

INPUT SPECIFICATIONS

■ **AC Current:** 0 – 100 mA AC

Input resistance: 10 Ω incorporated

Minimum span: 0.1 mA

Note: The primary current depends upon the number of windings (winding ratio) of the zero-phase current transformer.

[Examples]

Winding ratio: 2000 : 1, Transmitter input 0.1 mA

$0.1 \times 2000 = 200$ (mA)

Winding ratio: 133 : 1, Transmitter input 1.5mA

$1.5 \times 133 = 200$ (mA)

OUTPUT SPECIFICATIONS

■ **DC Current:** 0 – 20 mA DC

Minimum span: 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 15 V max.

■ **DC Voltage:** -10 – +12 V DC

Minimum span: 5 mV

Offset: Max. 1.5 times span

Load resistance: Output drive 10 mA max.; 5 mA for negative voltage output; at ≥ 0.5 V

INSTALLATION

Power input

•**AC:** Operational voltage range: rating ± 10 %, 50/60 ± 2 Hz, approx. 3 VA

•**DC:** Operational voltage range: rating ± 10 %, ripple 10 %p-p max., approx. 2 W (80 mA at 24 V)

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

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

Mounting: Surface or DIN rail

Weight: 400 g (0.88 lb)

PERFORMANCE in percentage of span

Accuracy: ± 1 %

Temp. coefficient: ± 0.05 %/°C (± 0.03 %/°F)

Response time: ≤ 0.7 sec. (0 – 90 %)

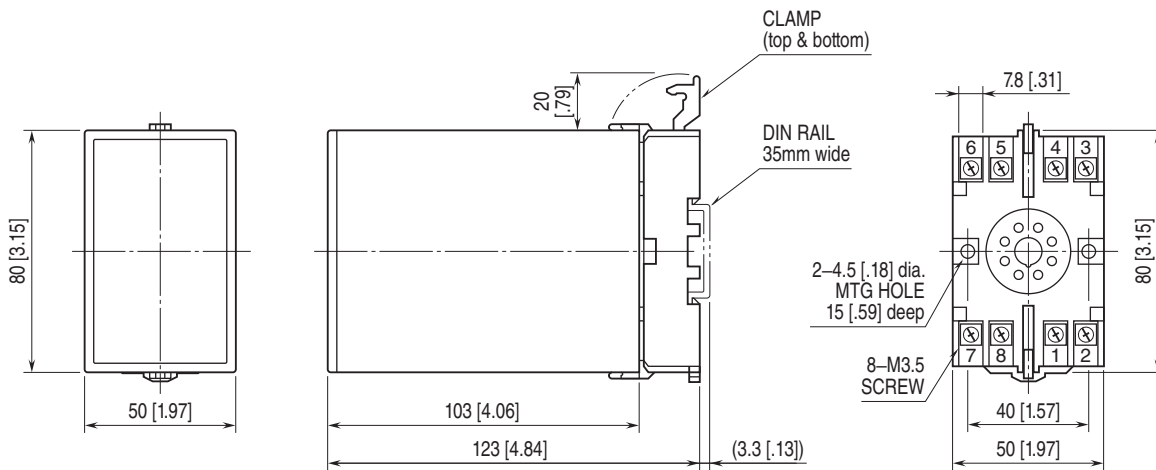
Ripple: 0.5 %p-p max.

Line voltage effect: ± 0.1 % over voltage range (± 1 % for the input spans narrower than 1 mA (input codes A, Z))

Insulation resistance: ≥ 100 M Ω with 500 V DC

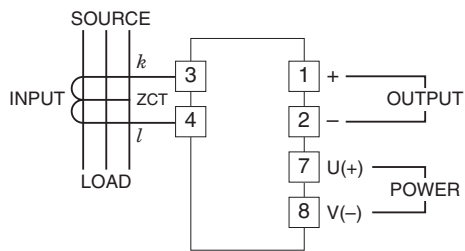
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



• When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.