

Hybrid IC Isolation Amplifiers 20 Series

ISOLATION AMPLIFIER

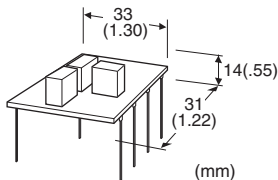
(3-port isolation)

Functions & Features

- Being used for printed wiring board installation
- Isolating between input, output and power input
- Dielectric strength 2000 V AC between input, output and power input
- Power 15 V DC

Typical Applications

- Isolating the field and input or output circuit of microprocessor to reduce noise from field
- Available for manufacturers of small-lot products to omit the development of isolation circuit



MODEL: 20VS7-1104-U

ORDERING INFORMATION

- Code number: 20VS7-1104-U

INPUT RANGE -10 - +10 V DC

OUTPUT RANGE -10 - +10 V DC

POWER INPUT

DC Power

U: 15 V DC

GENERAL SPECIFICATIONS

Construction: Hybrid IC

PWB coating: Silicone

Isolation: Input to output to power

INPUT SPECIFICATIONS

■ **DC Voltage**

Input : -10 - +10 V DC

Input resistance: $\geq 1 \text{ M}\Omega$ (10 k Ω in power failure)

Overload input voltage: 30 V DC continuous

Input offset voltage: $\pm 30 \text{ mV}$

OUTPUT SPECIFICATIONS

■ **DC Voltage:** -10 - +10 V DC

Load resistance: $\geq 5 \text{ k}\Omega$

Output impedance: $\leq 1 \Omega$

INSTALLATION

Power input

• **DC:** Operational voltage range: Rating $\pm 5 \%$; approx. 15 mA with no load; ripple 2 %p-p max.

Operating temperature: -20 to +70°C (-4 to +158°F)

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

Mounting: Soldering to the printed wiring board

Weight: 10 g (0.35 oz)

PERFORMANCE in percentage of span

Linearity: $\pm 0.05 \%$

Temp. coefficient: $\pm 80 \text{ ppm}/^\circ\text{C}$ TYP.

Frequency characteristics: Approx. 5 kHz, -3 dB

Response time: $\leq 80 \mu\text{sec}$. (0 - 90 %)

Conversion gain: $\times 1 \pm 1 \%$

Line voltage effect: $\pm 0.05 \%$ over voltage range

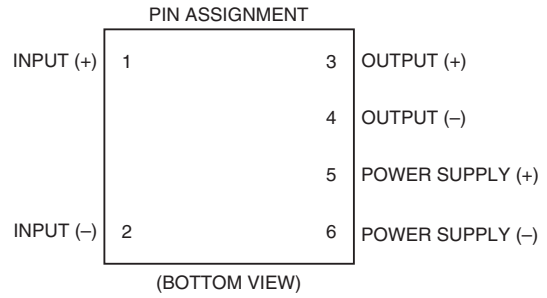
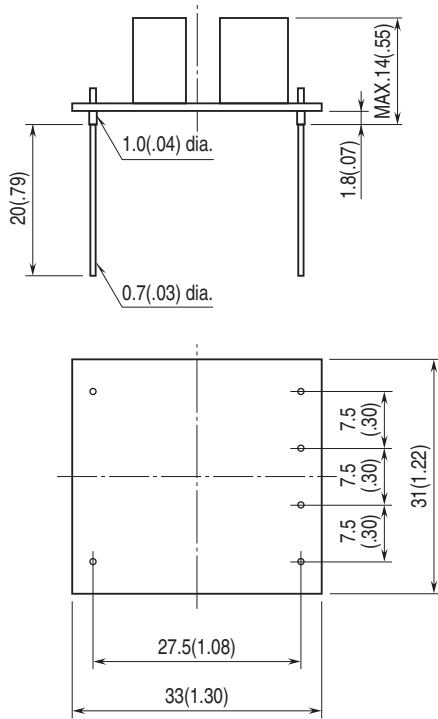
Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 2000 V AC @ 1 minute

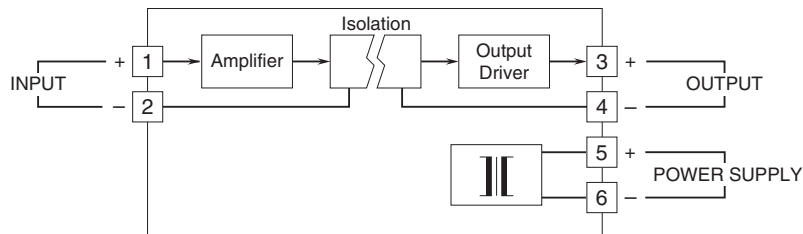
(input to output to power)

CMRR: $\geq 100 \text{ dB}$ (500 V AC 50/60 Hz)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.