Hybrid IC Isolation Amplifiers 20 Series

ISOLATION AMPLIFIER

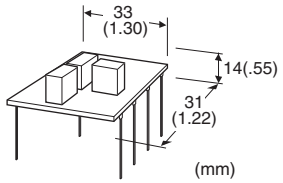
(3-port isolation)

Functions & Features

- Being used for printed wiring board installation
- Isolating between input, output and power input
- Dielectric srength 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: ≥ 1 MΩ (10 kΩ in power failure)
Overload input voltage: 30 V DC continuous
Input offset voltage: ±30 mV

OUTPUT SPECIFICATIONS

■ **DC Voltage**: -10 – +10 V DC
Load resistance: ≥ 5 kΩ
Output impedance: ≤ 1 Ω

INSTALLATION

Power input
•**DC**: Operational voltage range: Rating ±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: ±0.05 %
Temp. coefficient: ±80 ppm/°C TYP.
Frequency characteristics: Approx. 5 kHz, -3 dB
Response time: ≤ 80 µsec. (0 – 90 %)
Conversion gain: ×1 ±1 %
Line voltage effect: ±0.05 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @ 1 minute
(input to output to power)
CMRR: ≥ 100 dB (500 V AC 50/60 Hz)

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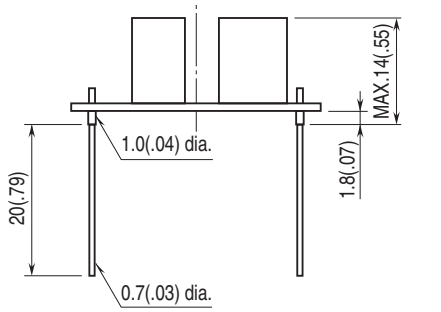
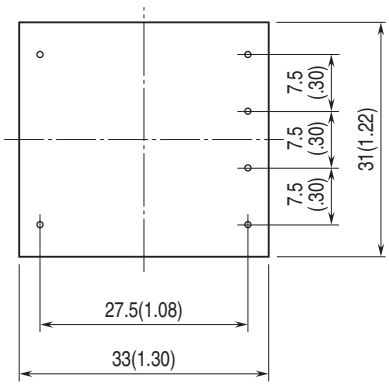
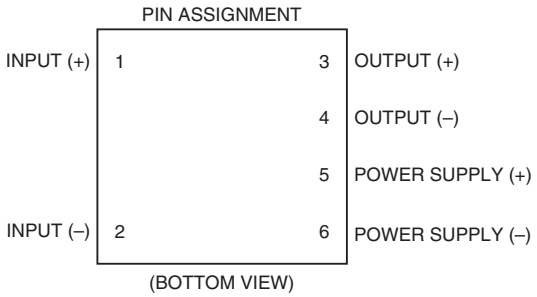
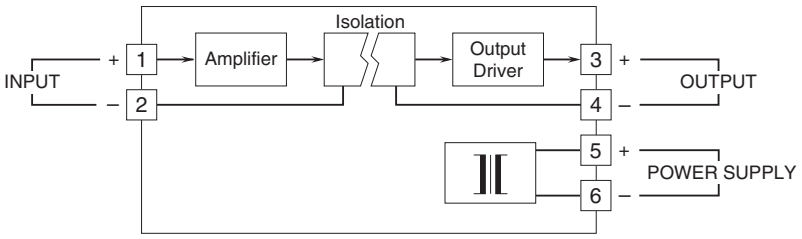
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm







SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



⚠ Specifications are subject to change without notice.

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