

Hybrid IC Isolation Amplifiers 20 Series

ISOLATION AMPLIFIER

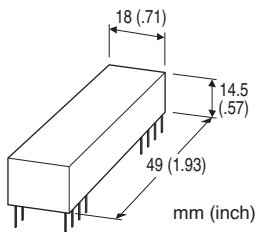
(top adjustment, for current output, output isolation)

Functions & Features

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

Typical Applications

- Isolating the fields and output circuit of microprocessor to reduce common mode noise
- Available for manufacturers of small-lot products to omit the development of isolation circuit



MODEL: 20VS1D-6A-U

ORDERING INFORMATION

- Code number: 20VS1D-6A-U

INPUT

Voltage

6: 1 - 5 V DC (Input resistance 1 MΩ min.)

OUTPUT

Current

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

POWER INPUT

DC Power

U: 15 V DC

GENERAL SPECIFICATIONS

Construction: Hybrid IC

Housing material: Flame-resistant resin (black)

Isolation: Output or excitation to input or power supply

Zero adjustment: -1 to +1 % (top)

Span adjustment: 99 to 101 % (top)

INPUT SPECIFICATIONS

■ DC Voltage

Input : 1 - 5 V DC

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

Overload input voltage: 30 V DC continuous

Input bias current: 15 nA TYP. (@25°C)

OUTPUT SPECIFICATIONS

■ Current Output Range:

4 - 20 mA DC

Load resistance: $\leq 600 \Omega$

Output impedance: $\geq 1 \text{ M}\Omega$

EXCITATION

Output voltage: $\pm 16 \text{ V DC} \pm 5 \%$ (when power supply is 15 V DC)

Load current: $\leq 5 \text{ mA}$

INSTALLATION

Power input

- **DC:** Rating $\pm 2 \%$; approx. 35 mA with 20 mA output; ripple 2 %p-p max.

Operating temperature: 0 to 60°C (32 to 140°F)

Operating humidity: 10 to 95 % RH (non-condensing)

Mounting: Soldering to the printed wiring board

Weight: 20 g (0.71 oz)

PERFORMANCE in percentage of span

Linearity: $\pm 0.05 \%$

Temp. coefficient: 120 ppm/°C

Frequency characteristics: Approx. 200 Hz (-3 dB)

Response time: $\leq 2 \text{ ms}$ (0 - 90 %)

Gain adjustable range: $\times 1$ to $\times 10$

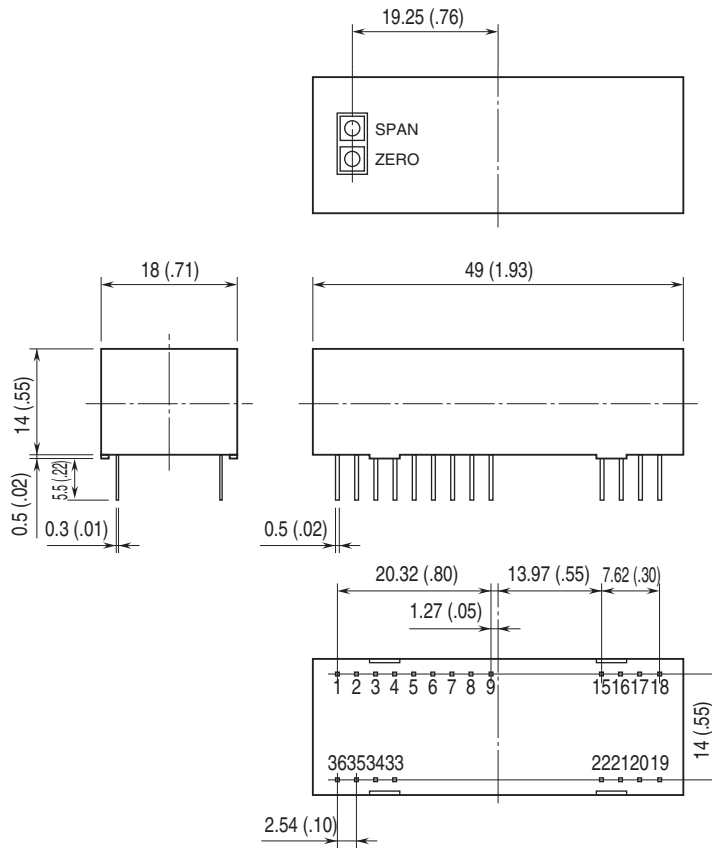
Line voltage effect: $\pm 0.05 \%$ over voltage range

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

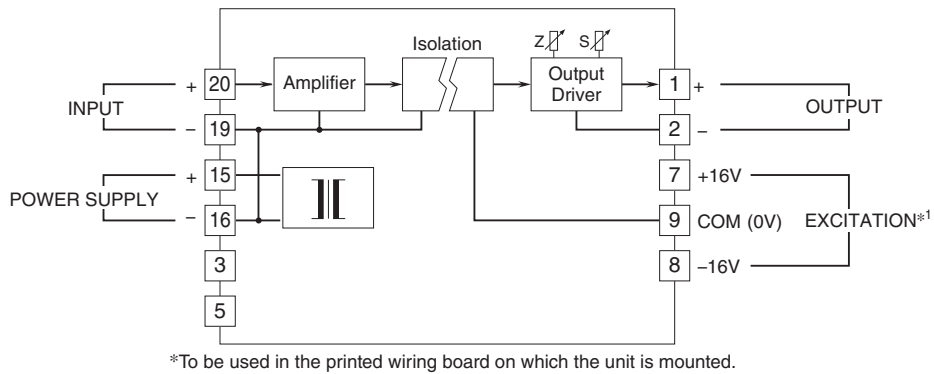
Dielectric strength: 2000 V AC @ 1 minute

(output or excitation to input or power supply)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.