

Hybrid IC Isolation Amplifiers 20 Series

Input offset voltage: ± 15 mV
 Input bias current: 0.5 nA TYP. (@25°C)

ISOLATION AMPLIFIER

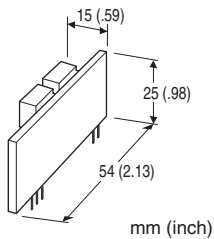
(general purpose input isolation)

Functions & Features

- Being used for printed wiring board installation
- Up to 2.5 kV isolation between input to output or power input
- Small stray capacitance between input and output
- Small installation area in printed wiring board
- Gain adjustable range $\times 1$
- Power 15 V DC

Typical Applications

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



MODEL: 20VS7-205S-U

ORDERING INFORMATION

- Code number: 20VS7-205S-U

INPUT RANGE -5 - +5 V DC

OUTPUT RANGE -5 - +5 V DC

POWER INPUT

DC Power

U: 15 V DC

GENERAL SPECIFICATIONS

Construction: Hybrid IC

Isolation: Input to output or power

INPUT SPECIFICATIONS

■ **DC Voltage**

Input : -5 - +5 V DC

Input resistance: ≥ 1 M Ω (10 k Ω in power failure)

Overload input voltage: ± 30 V DC continuous

OUTPUT SPECIFICATIONS

■ **DC Voltage:** -5 - +5 V DC

Load resistance: ≥ 100 k Ω

Output impedance: ≤ 1 k Ω

INSTALLATION

Power input

• **DC:** Operational voltage range: Rating 15 V \pm 1V DC, ripple 2 %p-p max.; approx. 7 mA with no load

Operating temperature: -10 to +70°C (14 to 158°F)

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

Mounting: Soldering to the printed wiring board

Weight: Approx. 11 g (0.39 oz)

PERFORMANCE in percentage of span

Linearity: ± 0.5 %

Temp. coefficient: ± 150 ppm/°C

Frequency characteristics: Approx. 5 kHz, -3 dB

Response time: ≤ 100 μ sec. (0 - 90 %)

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

Gain adjustable range: $G = \times 1$

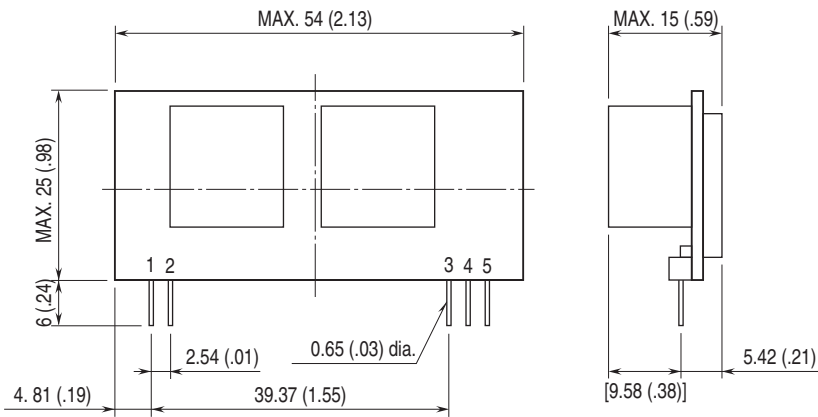
Line voltage effect: ± 0.5 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2500 V AC @1 minute (input to output or power)

CMRR: ≥ 100 dB (500 V AC 50/60 Hz)

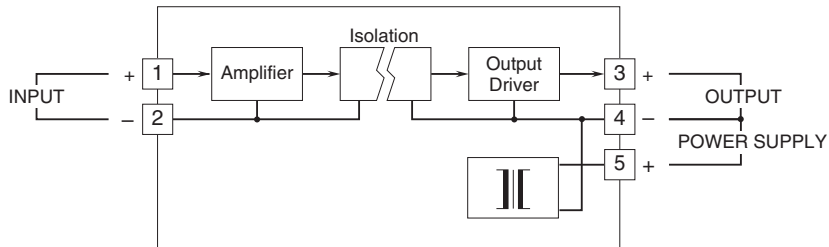
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



PIN ASSIGNMENT

1	INPUT (+)
2	INPUT (-)
3	OUTPUT (+)
4	OUTPUT (-) / POWER SUPPLY (-)
5	POWER SUPPLY (+)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.