Hybrid IC Isolation Amplifiers 20 Series

ISOLATION AMPLIFIER

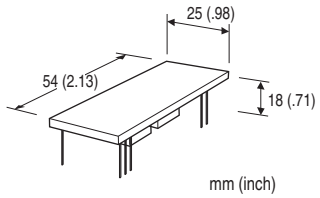
(general purpose input isolation)

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 × 1
- Power 15 V DC

Typical Applications

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



MODEL: 20VS7–205D–U

ORDERING INFORMATION

- Code number: 20VS7-205D-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 MΩ (10 kΩ in power failure)
Overload input voltage: ±30 V DC continuous
Input offset voltage: ±15 mV
Input bias current: 0.5 nA TYP. (@25°C)

OUTPUT SPECIFICATIONS

■ **DC Voltage**: -5 – +5 V DC
Load resistance: ≥ 100 kΩ
Output impedance: ≤ 1 kΩ

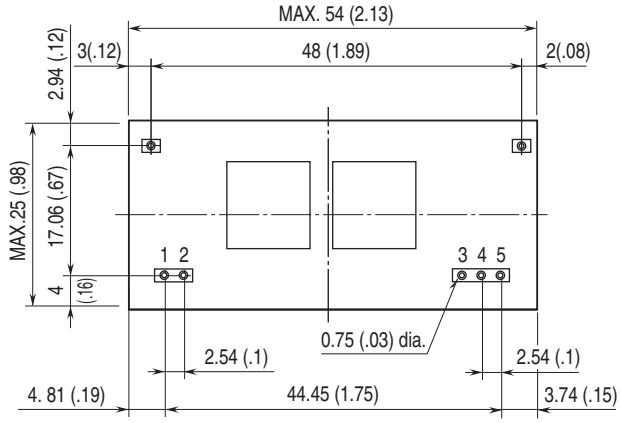
INSTALLATION

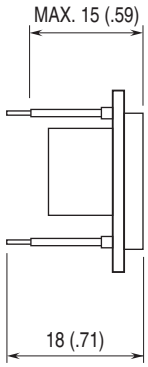
Power input
•**DC**: Operational voltage range: Rating 15 V±1V DC, ripple 2 %p-p max.; approx. 7 mA with no load
Operating temperature: -10 to +70°C (14 to 158°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Soldering to the printed wiring board
Weight: 12 g (0.42 oz)

PERFORMANCE in percentage of span

Linearity: ±0.5 %
Temp. coefficient: ±150 ppm/°C
Frequency characteristics: Approx. 5 kHz, -3 dB
Response time: ≤ 100 µsec. (0 – 90 %)
Conversion gain: ×1 ±1 %
Gain adjustable range: G = × 1
Line voltage effect: ±0.5 % over voltage range
Insulation resistance: ≥ 100 MΩ 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)

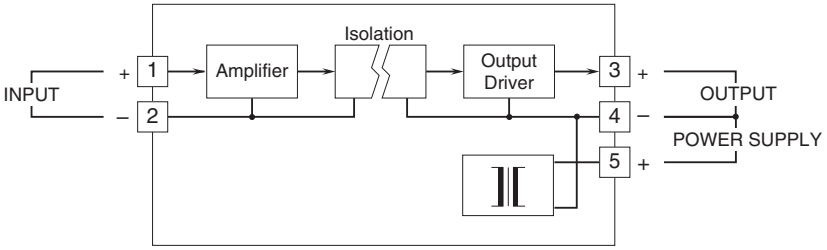




PIN ASSIGNMENT

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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



⚠ Specifications are subject to change without notice.