

Hybrid IC Isolation Amplifiers 20 Series**ISOLATION AMPLIFIER**

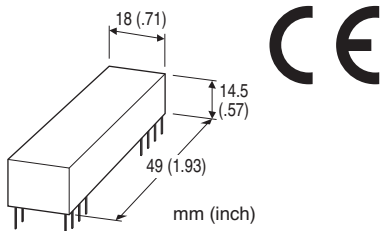
(high speed response, output isolation)

Functions & Features

- Ultra-high speed response 80 microseconds
- Being used for printed wiring board installation
- Isolating between input and output, output and power
- Built in surge protectors
- Isolation between input and output up to 2000 V AC
- Power 15 V 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: 20VF-2-U****ORDERING INFORMATION**

- Code number: 20VF-2-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**Housing material:** Flame-resistant resin (black)**Isolation:** Output or reference voltage source to input or power supply**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:** $\pm 15 \text{ mV}$ **Input bias current:** 15 nA TYP. (@25°C)**OUTPUT SPECIFICATIONS****DC Voltage:** -10 - +10 V DC**Load resistance:** $\geq 2 \text{ k}\Omega$ **Output impedance:** $\leq 1 \Omega$ **REFERENCE VOLTAGE SOURCE****Output voltage:** $\pm 15 \text{ V DC} \pm 5 \%$ **Load current:** $\leq 5 \text{ mA}$ **INSTALLATION****Power input**Rating $\pm 2 \%$; approx. 35 mA with no load; ripple 2 %p-p max.**Operating temperature:** 0 to 60°C (32 to 140°F)**Operating humidity:** 30 to 90 %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:**

Offset drift 40 ppm/°C

Span drift 50 ppm/°C

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

(output or reference voltage source to input or power supply)

STANDARDS & APPROVALS**EU conformity:**

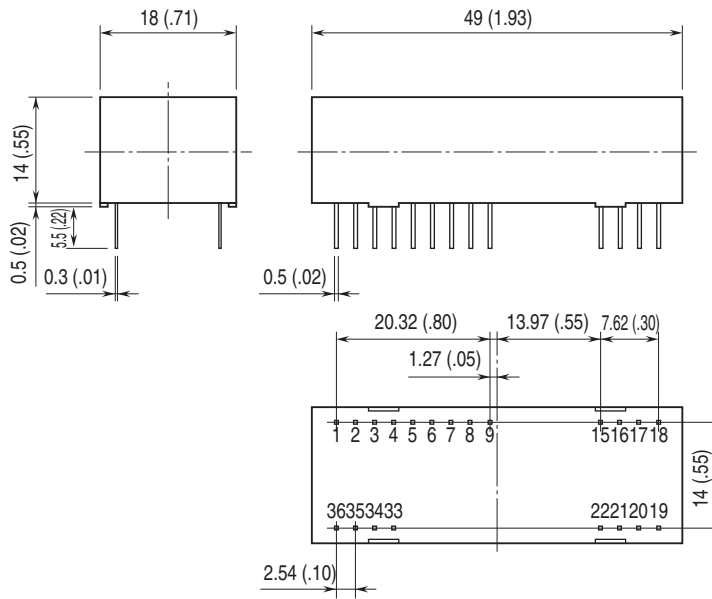
EMC Directive

EMI EN 61000-6-4

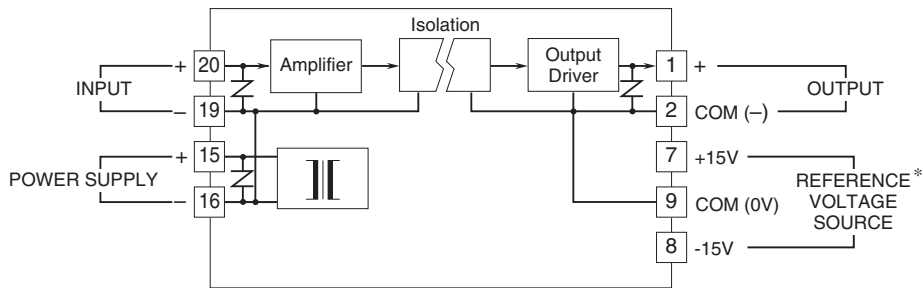
EMS EN 61000-6-2

RoHS Directive

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*To be used in the printed wiring board on which the unit is mounted.

APPLICATION EXAMPLE

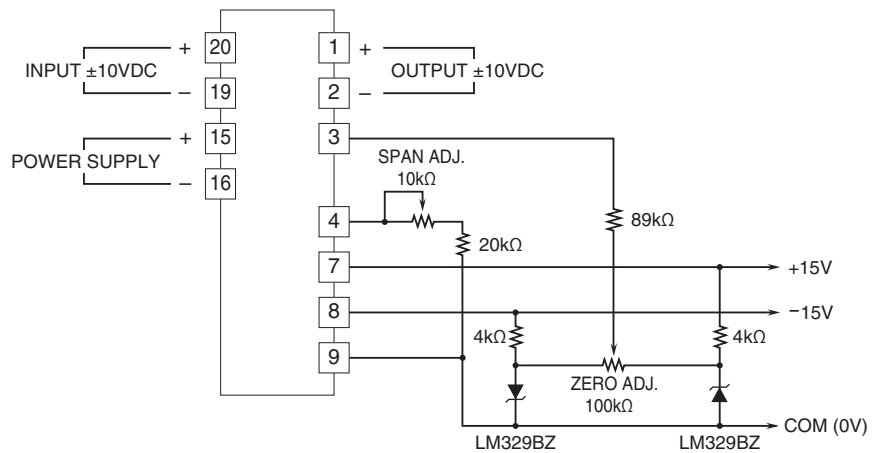
External circuit of zero/span adjustment

Input: $\pm 10V$ DC

Output: $\pm 10V$ DC

Zero adjustments: approx. -1.0 – +1.0%

Span adjustments: approx. 99 – 101%



Specifications are subject to change without notice.