# DEVAR Inc.

## ISOLATED SIGNAL CONVERTER MODEL 18-119

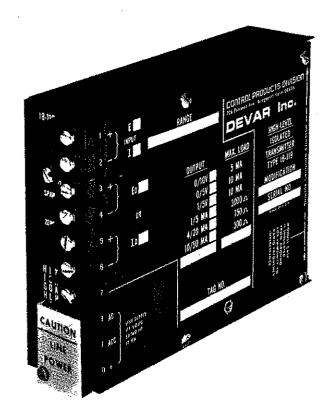
- LOW VOLTAGE DROP (1.0 VDC)
- 1200 OHM LOAD CAPACITY (4-20 MA)
- 0.1% LINEARITY
- D-C VOLTAGE OR CURRENT INPUT-OUTPUT ISOLATED

The 18-119 accepts inputs of DC voltage or current signals and provides a completely isolated current or voltage output. It is used to isolate and convert DC current or DC voltage signals whose common-mode potential, relative to the receiver circuitry, is uncertain or incompatible.

The input signal is applied to an input shunt or divider resistor network whose values have been determined on the basis of a one (1) volt drop. The signal is then modulated for transformer coupling and isolation. It is then demodulated and filtered to convert back to DC.

This DC signal is further conditioned for a voltage or current output to meet the user's requirements.

The torodial transformers required to obtain isolation are designed and packaged to secure maximum leakage resistance between input, output and power supply circuits.



Each transmitter is subjected to a <u>2000 volt</u> AC dielectric test between <u>input to output</u>, <u>input to line</u> terminals and <u>input to case</u>.

This compact package is designed for ease of installation and service. It may be mounted individually as shown using an optional mounting bracket or in a high density 10 channel rack mounting case.

Certification to Nuclear Seismic Requirements per IEEE-344-1987 and Quality Assurance provisions of 10CFR Parts 21 & 50 is available.

#### **GENERAL SPECIFICATIONS**

Linearity	±0.1%
Recommended Temperature Limits	20 to 140°F
Frequency Response	3 db @ 2 Hz
Time Constant (Full Scale)	78mS
Common Mode Rejection	100 db @ 60 Hz
Line Regulation	0.1% max.

#### 115V,±10V 115V, ±10V Power Requirements 50/60 Hz, 12 VA

#### INPUT

Current	
Range	Shunt
1/5mA	249 Ohms
4/20mA	61.9 Ohms
10/50mA	24.9 Ohms
Voltage	
Range	Approx, Input Resistance
0/1VDC	16K Ohms
1/5VDC	4K Ohms
0/5VDC	5K Ohms
0/10VDC	10K Ohms

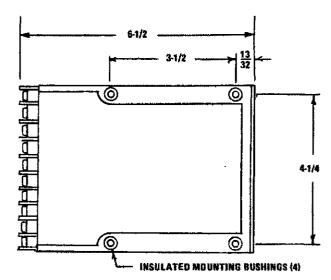
#### **OUTPUT**

### Current

Range	LOAD R	ANGE
	115VAC	24VDC/220VAC
1/5mA	0/4800	0/3,000 Ohms
4/20mA	0/1200	0/750 Ohms
10/50mA	0/430	0/300 Ohms

#### Voltage

Range	Max. Load
0/10VDC	5mA
0/5VDC	10mA
1/5VDC	10mA
40	



#### **OPTIONS**

-E122 -SC -E70 -E71 -M31 -M32 -M14S -E25 -E109 -E88 -E92I -M29 -T -M41 -HV	RFI Protection Special Calibration 0 to 20mA Output 220V AC Power Mounting Bracket Mtg. Brkt. with T.B. cover Stainless Steel Tag Fast Response Modify for slower response Input Voltage Divider 24V DC Power Line Terminals at rear Tropicalized Rack Mtg. Cover 300V <input<1000v, 18"="" leads<="" th="" with=""></input<1000v,>
4 11 18	HIGH-LEVEL INPUT SIGNAL    O   *2

706 Bostwick Ave., Bridgeport, CT 06605-2396 TEL: 203-368-6751, TOLL FREE: 1-800-566-6822

FAX: 203-368-3747
LOG ON via the Internet through the world wide web use: http://www.devarinc.com