



DynAmp

SI-2284

Shunt Isolator



Description

The SI-2284 Signal Isolator provides an isolated voltage and current output proportional to the input voltage signal from a DynAmp LKP High Current Measuring System. Gain and zero offsets are set by microprocessor and the design conforms to appropriate CE standards.

The voltage input range has been set to match the voltage output from the LKP measuring system. The unit provides a primary and secondary output that can be specified for standard or special currents and voltages within the signal range. The standard primary 0...20mA current output is available with a simultaneous secondary voltage output of 0...1V or 0...10V. The standard primary 4-20mA current output is available with a simultaneous secondary voltage output of 0.2...1V or 2...10V. A mating socket and mounting clip are included with the isolator for fast installation.

Application

The SI-2284 Signal Isolator provides a separately scaled output for the current measurement system that has galvanic separation of the analog signals. This eliminates signal ground loops and provides a low current loop signal path for transmission to remote locations through electrically noisy environments.

Specifications

Input from LKP current measurement system:

LKP System	Isolator input (voltage out from LKP)
LKP - 6,12	100 mV / kA
LKP -15, 30, 45, 60	10 mV / kA
LKP80 - 500	1 mV / kA
LKP-OEM	Requires optional shunt (Refer to LKP-OEM data sheet)

Current Output:

Signal range	0 ... 20 mA
Minimum signal span	4mA
Load (max)	20 mA / 1000 Ω
Load stability	<± 0.01% FS/100 Ω
Current limit	23 mA

Voltage output (through internal shunt):

Signal range (with 0-20mA)	0...1V or 0...10V
(with 4-20mA)	0.2...1V or 2...10V
Minimum Signal Span	200mV
Load (min)	1M Ω
Load with buffer (min)	2000 Ω

General Specifications:

Isolation, test / operation	3.75 kVAC / 250 VAC
Accuracy	
Primary output	± 0.1%*
Secondary output	± 1.0%*
Linearity error	<± 0.1% FS
Repeatability error	+0.01%
Temperature Range	-20 to +60 °C (-4 to +140 °F)
Temperature coefficient	<± 0.01% FS/°C
Signal/noise ratio	min. 60 dB
Effect of supply voltage change	<± 0.005% FS / %V
EMC-immunity influence	<± 0,5% FS
Response time (0 ...90%)	<25 ms
Relative humidity	0 ... 90% RH (non-condensing)
Mains voltage	115 / 230 VAC
Frequency	50 ... 60 Hz
Max. consumption	4 W (24/115/230VAC)

Physical:

Dimensions	3.17 x 1.39 x 4.33 Inches 80.5 x 35.5 x 110 mm
Mounting	DIN Rail
Enclosure rating	IP 50
Weight	9.7 oz. / 275 g

Observed authority requirements – Standard:

EMC 89/336/EEC, Emission	EN 500081-1
Immunity	EN 50082-2
LVD 73/23/EEC	EN 61010-1
PELV/SELV	IEC 364-4-41 and EN 6

* At calibration point, under reference conditions
Specifications subject to change without notice

Ordering Information

Please specify:

- Standard Model SI-2284, item number 42315
Isolator with Buffered Voltage output, item number 045359
- Requires completed Isolator Worksheet BEN061
Input voltage range
Primary and secondary output range
Mains input voltage