

API DC to DC Splitter/Isolator/Transmitter

- One Input to Two Outputs with Full Isolation
- Zero and Span for Each Output
- 1200V Input/Output /Power Isolation
- Output LoopTracker LEDs
- Output Test/Manual Override for Each Channel
- Built-In Loop Power Supply for Sink/Source Input



APD4930



The APD4930 IsoSplitter accepts a DC voltage or current input and provides two optically isolated DC voltage or current outputs that are linearly related to the input. The input range and each output range are independent and can be specified as required. This provides an economical solution when one signal must be sent to two different devices. The input signal is filtered, amplified, split, and then passed through an opto-coupler to the output stages. Full 4-way isolation (input, output 1, output 2, power) make this module useful for ground loop elimination, common mode signal rejection, and noise pickup reduction. Two LoopTracker LEDs (one for each output channel) vary in intensity with changes in the process output signals. These save time during initial startup and/or troubleshooting.

ORDERING INFORMATION

To Order: Specify model number, signal and range for input and each output.

APD4390	Splitter/Isolator/Transmitter 85-265VAC/60-300VDC power
APD4390D	Splitter/Isolator/Transmitter 9-30VDC/10-32VAC power

SPECIFICATIONS

DC Input:	Factory ranged, please specify
Voltage:	0-10 mVDC to 0-100 VDC
Bipolar Voltage:	±50 mVDC to ±10 VDC
Current:	0-1 mADC to 0-50 mADC, 4-20 mADC
Input Impedance:	Voltage: 200 kΩ minimum; Current: 50Ω typical
Voltage Burden:	1.25 VDC max. at 20 mA current input
DC Output:	Factory ranged, please specify each channel
Voltage:	0-1 VDC to 0-10 VDC, 10 mA max (20 VDC available)
Bipolar Voltage:	±1 VDC to ±10 VDC
Current:	0-1 mADC to 0-20 mADC, 4-20 mADC 20 V compliance, 1000Ω at 20 mA
Response Time:	70 msec typical
Accuracy:	±0.1of span (includes adjustment resolution & linearity). Output ripple & noise < 10 mV RMS
Isolation:	Full 4-way, 1200V RMS minimum
Temperature:	-10°C to +60°C operating
Power:	85-265 VAC (50/60 Hz), 60-300 VDC standard (6W max); 9-30 VDC, 10-32 VAC optional (D version)
Dimensions:	0.89" W x 4.62" H x 4.81" D (22.5x117x122 mm)
Mounting:	DIN rail
Connectors:	For 4-terminal removable connectors, 14AWG wire max.
LoopTracker®:	Variable brightness LED indicate output level for each channel
Output Adjust:	Each channel zero & span adjustable ±15% via pots
Output Test:	Terminals for external contacts to manually set output levels for each channel. Output test level factory set at 50% of span.
Output Loop Supply:	20 VDC nominal, regulated, 25 mA max for each channel.
Input Loop Supply:	15 VDC ±10%, regulated, 25 mA max.

API Compact Converters/Isolators

NEW

- Only 1/4" (6.2mm) wide
- 0.1% Accuracy
- 1500V RMS Isolation
- -20 to +65°C Operation
- DIN Rail Mount
- Hot Swappable*



K109TC



ORDERING INFORMATION

K109TC	Thermocouple transmitter. User configurable thermocouple type, temperature range and mA or voltage output. 19.2-30 VDC powered
K109UI	DC current/voltage to DC current/voltage isolator/converter. User configurable mA or voltage output. 19.2-30 VDC powered
K121	Universal input transmitter. User configurable V, mA, RTD, potentiometer, T/C. 4-20 mA output. 7-30 VDC loop powered. (not UL)
K121-C-420	K121 transmitter pre-set for 4-20 mA input and output
EASY USB	USB↔UART TTL converter required to set up K121
Other K Line Transmitters	
K109PT	100 Ohm RTD to DC
K107A	RS485 - RS485 serial amplifier/isolator
K107B	RS232 - RS485 serial isolator/converter
K107USB	USB - RS485 isolator/converter

* Hot swappable when using the optional K-Bus backplane power connectors which snap into DIN rail.

K109TC Thermocouple to DC Isolated Transmitter

- DIP Switch Configuration
 - 3-way Isolation (Input/Output/Power)
 - Alarm Relay
- Input: Thermocouples J, K, T, E, R, S, N, or B
Output: 0-5 V, 1-5 V, 0-10 V, 10-0 V, 20-0 mA, 0-20 mA, 20-4 mA, 4-20 mA

K109UI DC to DC Isolated Transmitter

- DIP Switch Configuration
 - 3-way Isolation (Input/Output/Power)
 - Square Root Function
 - Horizontal Cylindrical Tank Linearization
- Input: 0-20 mA, 4-20 mA, 0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-15 VDC, 0-30 VDC
Output: 0-5 V, 1-5 V, 0-10 V, 10-0 V, 20-0 mA, 0-20 mA, 20-4 mA, 4-20 mA

K121 Universal Input to DC Isolated Transmitter

- Loop Powered
 - 2-way Isolation (Input/Output)
 - V, mA, RTD, Potentiometer, Thermocouple Input
 - 4-20mA Output
- V/mA Input: ±150 mV, ±30 V, ±24 mA
RTD: Pt100, Pt500, Pt1000, Ni100; 2, 3, or 4-wire
Thermocouple: Type J, K, T, E, R, S, B, N
Potentiometer: 500 Ω to 10 kΩ