



ADTECH
Analog-Digital Technology, Inc.

The Adtech Model SCT 502-1 AC powered Isolated Bipolar Signal Converter provides a user configurable solution for ground loops and problems encountered in connecting together recorders, process control systems, motor control systems, computers, DCS and PLC systems.

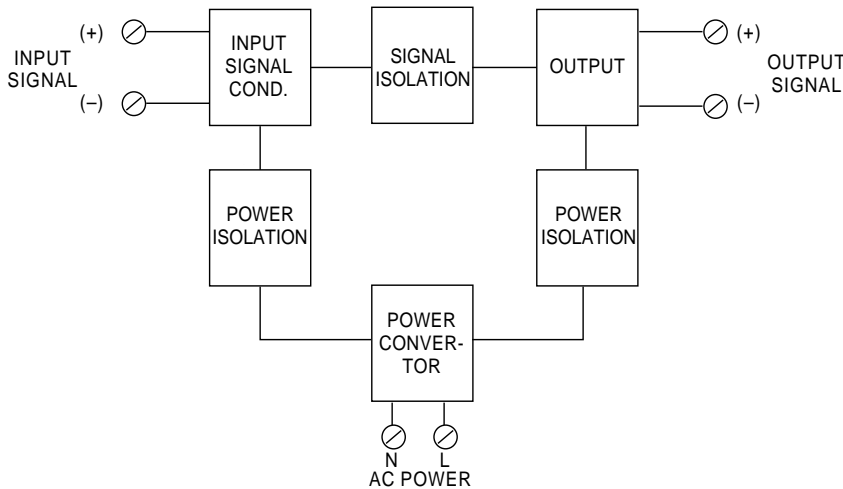
The standard response time is 150 milliseconds. Higher speed of response is available, consult factory.

The SCT 502-1 breaks the galvanic path with 600 VAC/1,000 VDC isolation between the transmitted signal and the output receiving device insuring reliable and accurate signal transfer.

It is highly useful for applications that require signal isolation to eliminate ground loops, instrumentation level shifts, or the conditioning of a process signal riding over high common mode AC or DC voltages.

It delivers standard process voltage signals on the output with a maximum of 10 mV P/P output ripple. This provides convenient interfacing of process signals to a computer system or other process instrumentation for improved resolution.

Zero and span controls are provided by two separate infinite resolution potentiometers. Recalibration to other ranges in the field is easy and convenient.



Features

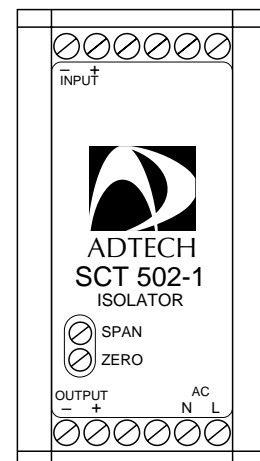
- **DC Current Input:** 4-20 mA DC
- **DC Voltage Inputs:** 0-10 VDC, 0-±10 VDC
- **Bipolar Input:** Voltage
- **DC Voltage Outputs:** 0-10 VDC, 0-±10 VDC
- **Bipolar Output:** Voltage
- **Repeatability:** ±0.02% of span typical
- **High Accuracy:** ±0.1% of span
- **Power:** 115 VAC or 230 VAC

Isolated Bipolar Signal Converter AC Powered

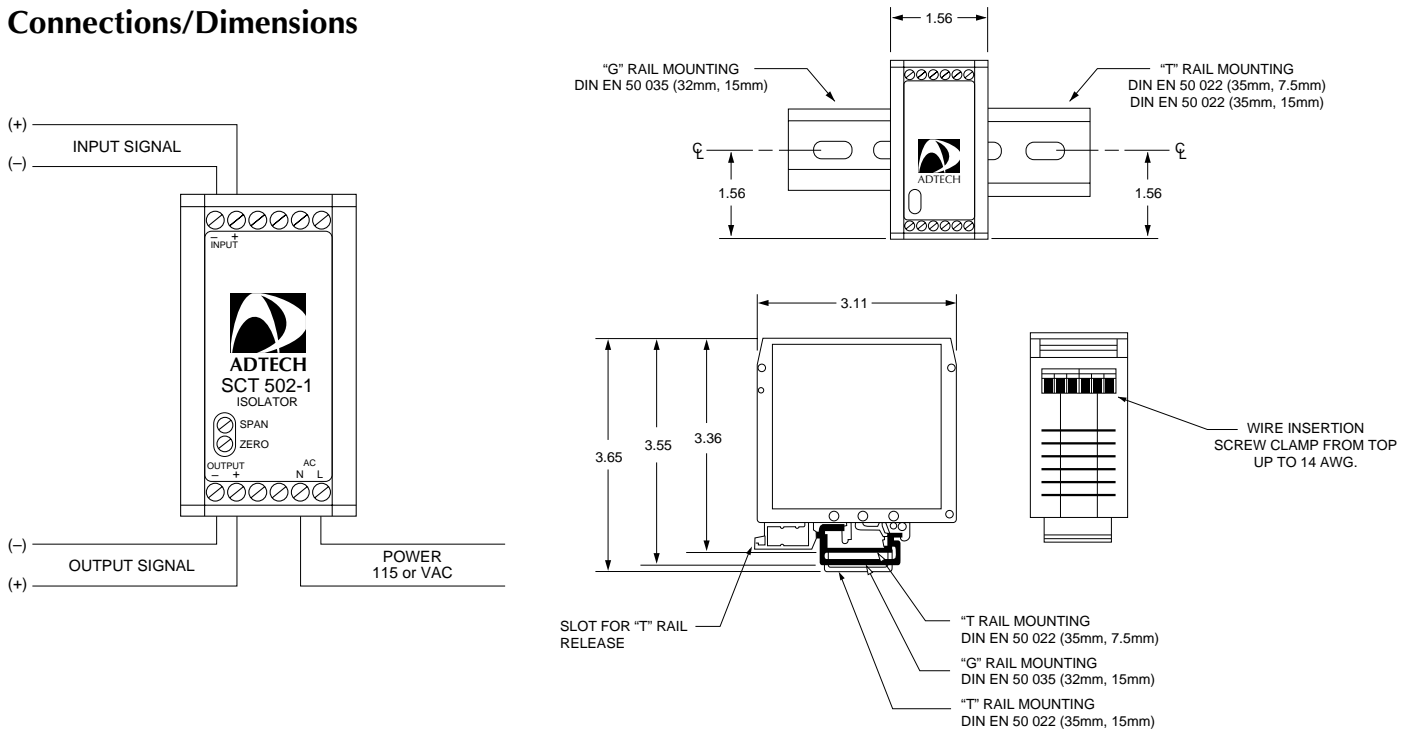
Model No. SCT 502-1

Typical Applications

- **Fast response isolation**
- **Interface unequal or non-compatible plant ground systems**
- **Interface non-compatible instruments**
- **DCS-PLC-PC-MC Interface**
- **Isolate common mode interference on signal lines**



Connections/Dimensions



Input/Output

Input Signals:
4-20 mA DC (Z in 50 ohms)
0-10 VDC (Z in 1 megohm)
0±10 VDC (Z in 1 megohm)

Output Signals:
0-10 VDC into 5k ohms min.
0±10 VDC into 5k ohms min.

Performance

Calibrated Accuracy: ±0.1%
Linearity: ±0.1% max., ±0.04% typical
Repeatability: ±0.05% maximum
Temperature Stability: ±0.01%/°F max.,
±0.004%/°F typical
Load Effect: ±0.01% zero to full load
Output Ripple: 10 mV P/P maximum
***Response Time:** 150 milliseconds
Bandwidth: (-3db) 2.3 Hz

***Up to 10kHz bandwidth:** Specify
Consult factory for higher bandwidth

Note: All accuracies are given as a percentage of span.

Temperature Range:
0° to 140°F (-18°C to 60°C) operating;
-40° to 185°F (-40°C to 85°C) storage
Power Supply Effect: ±0.05% for
±10% power variation
Common Mode Rejection: 100 db @ 60 Hz
Isolation: Input/output/power 600 VAC, 50/60 Hz,
1,000 VDC

Power

115 VAC: 50/60 Hz, 0.7 PF (Standard) **230 VAC:** 50/60 Hz, 0.7 PF (Option P5)

*Note: All units 3 watts maximum, and a ±10% power variation unless noted.
For DC power use the ECT 302-1.*

Mechanical

Electrical Classification: General purpose
Connection: Screw compression type
accepts up to 14 AWG
Controls: Multiturn zero and span controls

Mounting: DIN: Optional Nema 4 & 7
Weight: Net unit: 9.0 oz (257 grams)
Shipping: 16.0 oz (455 grams)

Options

Option Number	Description
I 14	Voltage inputs to 200 VDC, 1 megohm min. impedance; current inputs of 100 mA max.
H 15D5	Explosion Proof: Class 1, Group B,C & D
H 23	Two (2) inch pipe mounting plate & clamps
H 27	NEMA 4 Enclosure
H 28	Single Instrument Surface Mounting
H 29	T 35 DIN T-Rail 2 ft. long
H 30	T 32 DIN G-rail 2 ft. long

Ordering Information

- Model number
- Input signal
- Output signal
- Prime power with option no.
- Input/output options
- Housing and miscellaneous options

Please refer to the Housing and/or Option Section for more specific and detailed information.

Represented by:



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