ADTECH
Analog-Digital Technology, Inc.

ECONOMY
3-way Isolated Signal Converter DC Powered

Model No. ECT 302-3

The Adtech Model ECT 302-3 DC powered 3 Way Isolated 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.

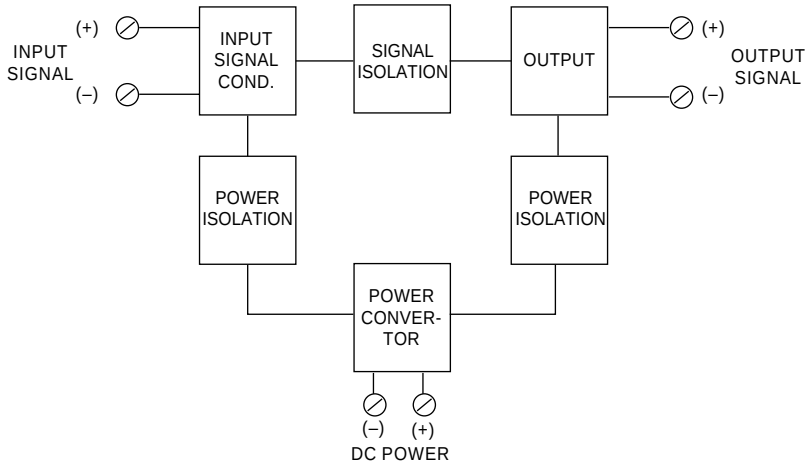
It is highly useful for applications that require signal isolation to eliminate ground loops, instrumentation level shifts, or the conditioning of a process signal riding over high common mode AC or DC voltages. Another common application is to provide additional amplification or drive to a process signal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

The input, output and power supply are mutually isolated to 600 VAC or 1,000 VDC peak minimum. The output is a true current source and provides a process signal of 4-20 mA DC.

It delivers standard process current or 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.

Din mounting is supplied as standard. Surface mount (option H 26) and snap track (option H 25) are available at no extra cost, specify.



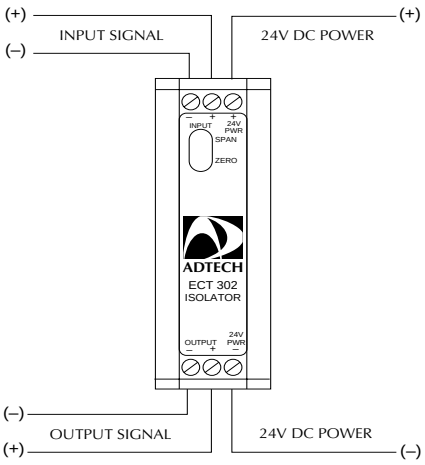
Features

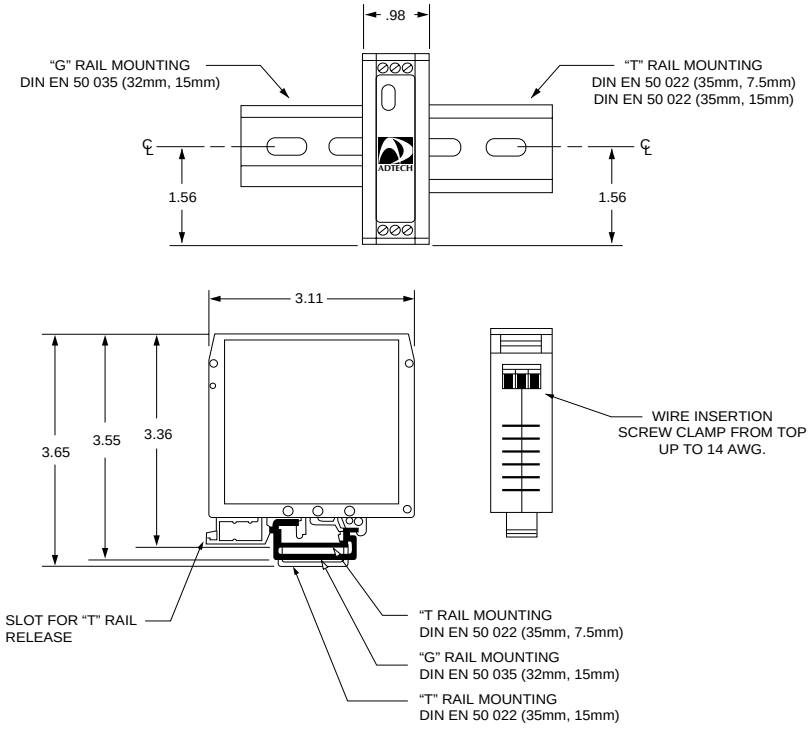
- **DC Current Inputs:** 4-20 or 0-20 mA DC
- **DC Voltage Inputs:** 1-5 or 0-5 VDC
- **Unipolar Inputs:** Current or voltage
- **Unipolar DC Process Signal Output:** Current or voltage
- **Repeatability:** ±0.02% of span typical
- **High Accuracy:** ±0.1% of span
- **Power:** 24 VDC

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**
- **Impedance conversion**

Connections/Dimensions





Input/Output

Input Signals: *Jumper Configurable*
4-20 mA DC (Z in 50 ohms)
0-20 mA (Z in 50 ohms)
1-5 VDC (Z in 1 megohm)
0-5 VDC (Z in 1 megohm)
Voltage inputs to 200 VDC, 1 megohm min. impedence; current inputs of 100 mA max. (Option I 14)

Output Signals: *Jumper Configurable*

4-20 mA DC	0-900 ohms max.
1-5 VDC	250k 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*

Temperature Range:
-25° to 185°F (-31°C to 85°C) operating;
-40° to -200°F (-40°C to 93°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

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

Power

24 VDC, ±10%, 1 watt maximum.

Mechanical

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

Mounting: DIN: Optional surface, snap track or Nema 4 & 7.
Weight: Net unit: 4.0 oz. (115 grams)
Shipping: 7.0 oz. (200 grams)

Options

Option Number	Description
I 14	Voltage inputs to 200 VDC, 1 megohm min. impedence; current inputs of 100 mA max.
H 15D	Explosion Proof: Class 1, Group B,C & D
H 23	Two (2) inch pipe mounting plate & clamps
H 25	Snap-Track Mount (Specify)
H 26	Surface Mounting (Specify)
H 27	NEMA 4 Enclosure
H 29	T 35 DIN "T" rail two feet long
H 30	T 32 DIN "G" rail two feet long

Ordering Information

- Model number
- Input signal
- Output signal
- Housing and miscellaneous options

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

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