



# ADTECH

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## ECONOMY 3-WAY DUAL CHANNEL ISOLATED SIGNAL CONVERTER MODEL NO. ECT 604

THE ADTECH MODEL ECT 604 DC POWERED 3 WAY ISOLATED DUAL OUTPUT 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.

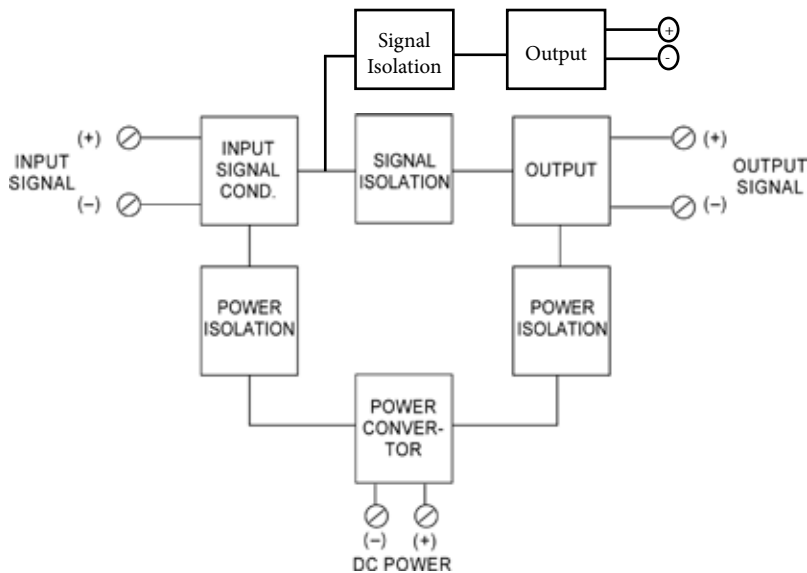
IT IS HIGHLY USEFUL FOR APPLICATIONS THAT REQUIRE SIGNAL ISOLATION ONE SIGNAL TO TWO OUTPUTS AND TO ELIMINATE GROUND LOOPS, INSTRUMENTATION LEVEL SHIFTS, OR THE CONDITIONING OF A PROCESS SIGNAL RIDING OVER HIGH COMMON MODE AC OR DC VOLTAGES. ANOTHER COMMON APPLICATION IS TO PROVIDE ADDITIONAL AMPLIFICATION OR DRIVE TO A PROCESS SIGNAL LOOP.

THE INPUT, OUTPUTS 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. THE STANDARD RESPONSE TIME IS 150 MILLISECONDS.

IT DELIVERS TWO STANDARD PROCESSES 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

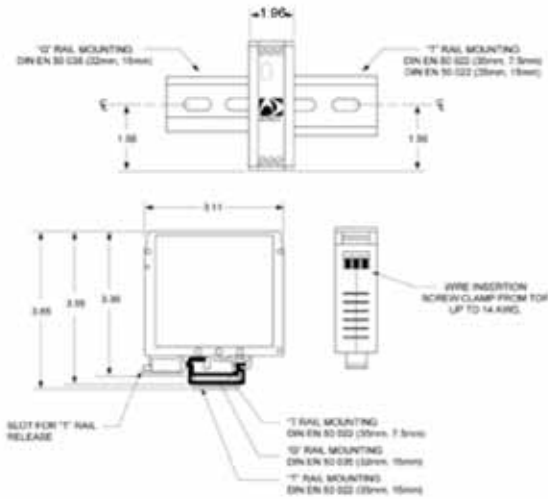
- DC CURRENT INPUTS: 4-20 OR 0-20 MA DC
- DC VOLTAGE INPUTS: 1-5 OR 0-5 VDC
- UNIPOLAR INPUTS: CURRENT OR VOLTAGE
- UNIPOLAR DC PROCESS SIGNAL OUTPUTS: TWO CURRENT OR VOLTAGE SIGNALS
- REPEATABILITY: +0.02% OF SPAN TYPICAL
- HIGH ACCURACY: +0.1% OF SPAN
- POWER: 24 VDC

## 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



<b>INPUT/OUTPUT</b>	<p>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. IMPEDANCE                  CURRENT INPUTS OF 100 mA MAX. (OPTION I 14)</p>	<p>TWO OUTPUT SIGNALS: JUMPER CONFIGURABLE                  4-20 mA DC    0-900 OHMS MAX                  1-5 VDC        250K OHMS MIN.</p>
<b>PERFORMANCE</b>	<p>CALIBRATED ACCURACY: <math>\pm 0.1\%</math>                  LINEARITY: <math>\pm 0.1\%</math> MAX., <math>\pm 0.04\%</math> TYPICAL                  REPEATABILITY: <math>\pm 0.05\%</math> MAXIMUM                  TEMPERATURE STABILITY: <math>\pm 0.01\%</math> / °F,  <math>\pm 0.004\%</math> / °F TYPICAL                  LOAD EFFECT: <math>\pm 0.01\%</math> ZERO TO FULL LOAD                  OUTPUT RIPPLE: 10 mV P/P MAXIMUM                  *RESPONSE TIME: 150 MILLISECONDS                  BANDWIDTH: (-3DB) 2.3 HZ</p>	<p>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: <math>\pm 0.05\%</math> FOR  <math>\pm 10\%</math> POWER VARIATION                  COMMON MODE REJECTION: 100 DB @ 60 HZ                  ISOLATION: INPUT/OUTPUT/POWER 600 VAC, 50/60 HZ,                  1,000 VDC</p>
<b>POWER</b>	<p>NOTE: ALL ACCURACIES ARE GIVEN AS A PERCENTAGE OF SPAN.</p> <p>24 VDC, <math>\pm 10\%</math>, 1 WATT MAXIMUM</p>	
<b>MECHANICAL</b>	<p>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 &amp; 7                  WEIGHT: NET UNIT: 4.0 OZ. (115 GRAMS)                  SHIPPING: 7.0 OZ. (200 GRAMS)</p>	
<b>OPTIONS</b>	<p>OPTION NUMBER</p> <p>I 14                  H 15D                  H 23                  H 25                  H 26                  H 27                  H 29                  H 30</p>	<p>DESCRIPTION</p> <p>VOLTAGE INPUTS TO 200 VDC, 1 MEGOHM MIN. IMPEDANCE; CURRENT INPUTS OF 100 mA MAX.                  EXPLOSION PROOF: CLASS 1, GROUP B,C AND D                  TWO (2) INCH PIPE MOUNTING PLATE &amp; CLAMPS                  SNAP-TRACK MOUNT (SPECIFY)                  SURFACE MOUNTING (SPECIFY)                  NEMA 4 ENCLOSURE                  T 35 DIN "T" RAIL TWO FEET LONG                  T 32 DIN "G" RAIL TWO FEET LONG</p>

**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.*