



ADTECH

95 Mt. Read Blvd # 149
Rochester, New York 14611 USA

www.adtech-inst.com

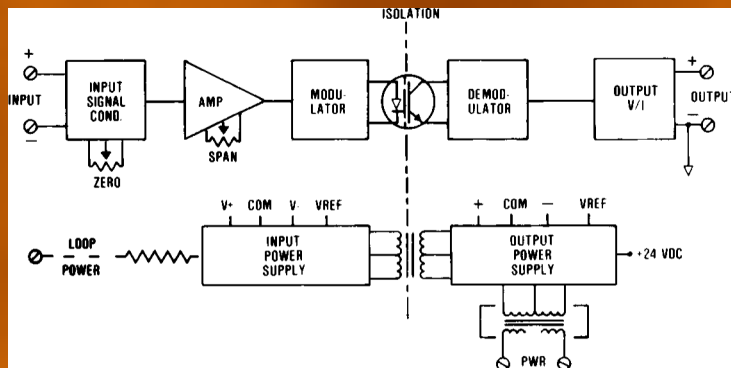
ISOLATED SIGNAL CONVERTER MODEL NO. SCT 02

THE ADTECH MODEL SCT 02 ISOLATED SIGNAL CONVERTER PROVIDES ACCURATE AND ECONOMICAL SIGNAL OR IMPEDANCE CONVERSION FROM A CURRENT OR VOLTAGE SOURCE TO ANY STANDARD PROCESS SIGNALS SUCH AS 4-20 MA DC, 1-5 VDC, OR ZERO-BASED OUTPUT.

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 SCT 02 OFFERS 600 VAC/1,000 VDC ISOLATION WITH A COMMON MODE REJECTION OF 140 DB AT 60 HZ. 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.



TYPICAL APPLICATIONS

- INTERFACE UNEQUAL OR NON-COMPATIBLE PLANT GROUND SYSTEMS
- INTERFACE NON-COMPATIBLE INSTRUMENTS
- COMPUTER/PROGRAMMABLE CONTROLLER INTERFACE
- ISOLATE INTERFERENCE ON SIGNAL LINES
- IMPEDANCE CONVERSION

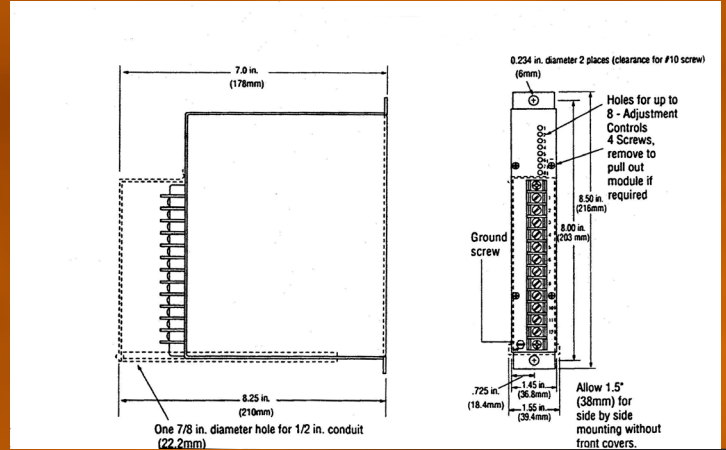
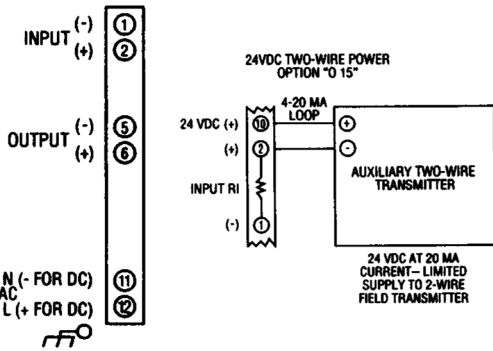
FEATURES

- DC CURRENT INPUTS: 4-20 MA, ETC.
- DC VOLTAGE INPUTS: 1-5 VDC, ETC.
- HIGH INPUT IMPEDANCE: 10 MEGOHMS MINIMUM
- ZERO-BASED CURRENT & VOLTAGE INPUTS: CURRENT AND VOLTAGE
- LOW IMPEDANCE CURRENT INPUTS: 1/10-STANDARD-OPTIONAL
- DC PROCESS SIGNAL OUTPUTS: CURRENT AND VOLTAGE
- REPEATABILITY: $\pm 0.02\%$ OF SPAN -TYPICAL
- HIGH ACCURACY: $\pm 0.1\%$ OF SPAN



CONNECTIONS / DIMENSIONS

Connections/Dimensions



INPUT/OUTPUT

INPUT SIGNALS

4-20 MA DC (Z IN 250 OHMS)
 10-50 MA DC (Z IN 100 OHMS)
 0-1 MA DC (Z IN 5K OHMS)
 0-10 MA DC (Z IN 500 OHMS)
 1-5 VDC (Z IN 10 MEGOHMS)
 0-5 VDC (Z IN 10 MEGOHMS)
 0-10 VDC (Z IN 1 MEGOHM)

OTHER ZERO-BASED CURRENT AND VOLTAGES ARE AVAILABLE.

OUTPUT SIGNALS/ OUTPUT DRIVE (RL)

SIGNAL	AC POWER (RL)	DC POWER (RL)
4-20 MA DC	0-1,000 OHMS MAX.	0-900 OHMS MAX.
10-50 MA DC	0-400 OHMS MAX.	0-350 OHMS MAX.
0-1 MA DC	0-20,000 OHMS MAX.	0-18,000 OHMS MAX.
1-5 VDC	100K OHMS MIN.	100K OHMS MIN.
0-10 VDC	200K OHMS MIN.	200K OHMS MIN.

PERFORMANCE

CALIBRATED ACCURACY: $\pm 0.1\%$
 LINEARITY: $\pm 0.1\%$ MAXIMUM, $\pm 0.04\%$ TYPICAL
 REPEATABILITY: $\pm 0.05\%$ MAXIMUM
 TEMPERATURE STABILITY: $\pm 0.01\%$ / $^{\circ}\text{F}$ MAXIMUM, $\pm 0.004\%$ / $^{\circ}\text{F}$ TYPICAL
 LOAD EFFECT: $\pm 0.01\%$ ZERO TO FULL LOAD
 OUTPUT RIPPLE: 10 mV P/P MAXIMUM
 RESPONSE TIME: 150 MILLISECONDS
 TEMPERATURE RANGE: 0° TO 140°F (-18° TO 60°C) OPERATING; -40° TO 185°F (-40° TO 85°C) STORAGE
 POWER SUPPLY EFFECT: $\pm 0.05\%$ FOR A $\pm 10\%$ POWER VARIATION
 COMMON MODE REJECTION: 140 DB @ 60 HZ
 ISOLATION: INPUT/OUTPUT/POWER 600 VAC, 50/60 HZ, 1,000 VDC FOR AC, ISOLATED DC POWERED UNITS
 NOTE: ALL ACCURACIES ARE GIVEN AS A PERCENTAGE OF SPAN.

POWER

115 VAC: 50/60 Hz, 0.7 PF	(STANDARD)	48 VDC: ISOLATED	(OPTION P3)
12 VDC: ISOLATED	(OPTION P8)	125 VDC: ISOLATED (105-140 VDC)	(OPTION P4)
24 VDC: NON-ISOLATED	(OPTION P1)	230 VAC: 50/60 Hz, 0.7 PF	(OPTION P5)
24 VDC: ISOLATED	(OPTION P2)		

NOTE: ALL UNITS 3 WATTS MAXIMUM, AND $\pm 10\%$ POWER VARIATION UNLESS NOTED.

MECHANICAL

ELECTRICAL CLASSIFICATION: GENERAL PURPOSE	MOUNTING: SURFACE MOUNTING STANDARD. SEE HOUSINGS SECTION FOR OPTIONS.
CONNECTION: BARRIER TERMINAL STRIP (3/8" SPACING, NO. 6 SCREWS)	WEIGHT: NET UNIT: 2.6 POUNDS (1.18 KILOGRAMS); SHIPPING: 3.0 POUNDS (1.36 KILOGRAMS)
CONTROLS: MULTITURN ZERO AND SPAN CONTROLS	

OPTIONS

OPTION NUMBER	DESCRIPTION
I 14	VOLTAGE INPUTS TO 200 VDC, 1 MEGOHM MIN. IMPEDANCE; CURRENT INPUTS OF 100 MA MAX.
I 18	LOW IMPEDANCE DC CURRENT INPUT [1/10 OF STANDARD (Z)]
O 12	REVERSE CALIBRATION
O 15	TWO-WIRE TRANSMITTER EXCITATION
H 10	THIN-LINE CONDUIT MOUNTING PLATE AND TERMINAL COVER
H 13B, H 14B, H 15B	NEMA 4.7, AND 12 ENCLOSURES
H 16	PFA 12 HIGH-DENSITY, PLUG-IN ENCLOSURES