



# ADTECH

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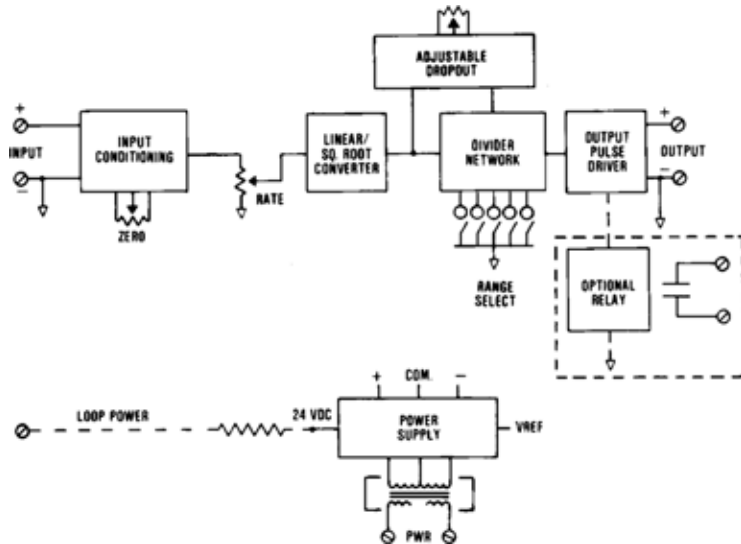
## ELECTRONIC INTEGRATOR / TOTALIZER MODEL NO. LIT 56 LINEAR INTEGRATOR SIT 58 SQUARED INTEGRATOR

THE ADTECH MODEL LIT 56 CONVERTS LINEAR ANALOG INPUTS INTO A VARIABLE PULSE RATE OUTPUT PROPORTIONAL TO THE INPUT. ITS COMPANION, THE SIT 58, CONVERTS THE ANALOG INPUT INTO A VARIABLE PULSE RATE OUTPUT PROPORTIONAL TO THE SQUARE ROOT OF THE INPUT.

THESE UNITS HANDLE ALL STANDARD PROCESS VOLTAGE AND CURRENT INPUTS AND PROVIDE A 24 VDC PULSE OUTPUT CAPABLE OF DRIVING MOST ELECTROMECHANICAL COUNTERS. A RELAY CONTACT OUTPUT CAN BE PROVIDED AS AN OPTION. FOR ELECTRONIC COUNTERS, AN OPTIONAL VOLTAGE PULSE OUTPUT IS ALSO AVAILABLE. A COMPLETE RANGE OF TOTALIZERS, OPTIONS T 10 THROUGH T 14, IS AVAILABLE..

ZERO, RATE, AND DROP-OUT CONTROLS ARE PROVIDED BY INFINITE RESOLUTION MULTITURN POTENTIOMETERS. RECALIBRATION TO OTHER RANGES IS CONVENIENT VIA SIMPLE STRAP SELECTION OF OUTPUT RANGES AND THE ADJUSTABLE DROP-OUT FEATURE.

LOOP POWER (24 VDC AT 35 MA) FOR TWO-WIRE TRANSMITTER EXCITATION IS AVAILABLE AS OPTION O 15.

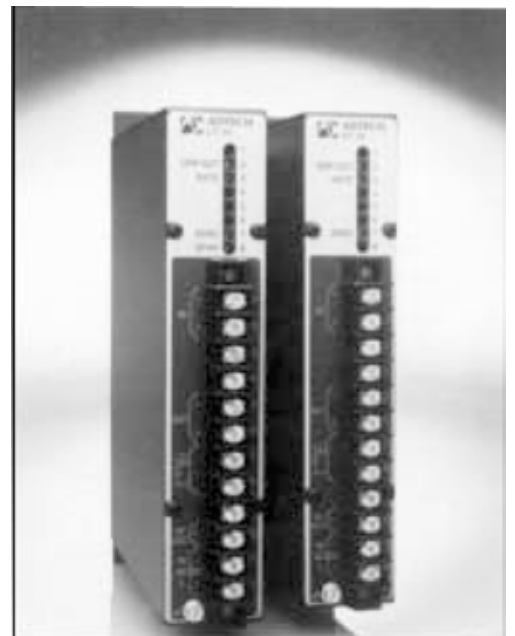


## FEATURES

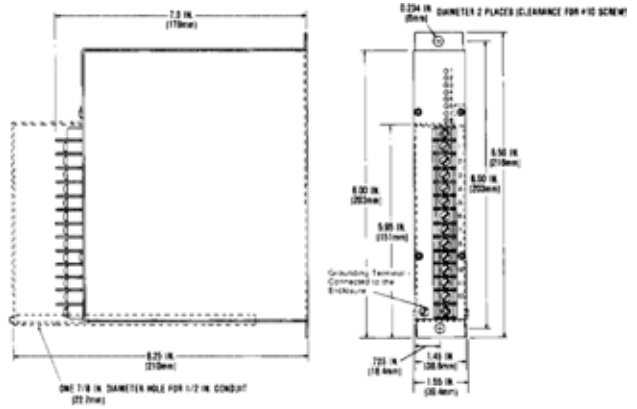
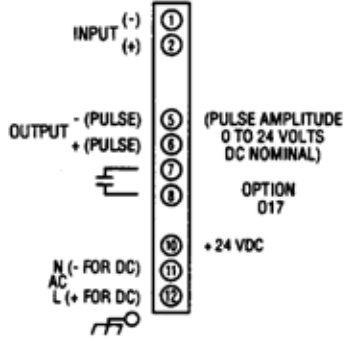
- DC CURRENT INPUTS: 4-20 MA, ETC
- DC VOLTAGE INPUTS: 1-5 VDC, ETC
- HIGH INPUT IMPEDANCE: 10 MEGOHMS MINIMUM AT 5 VDC
- ZERO-BASED INPUTS: CURRENT AND VOLTAGE
- RANGE ADJUSTMENT: 1,000,000:1
- ADJUSTABLE DROPOUT: 0-20%
- REPEATABILITY:  $\pm 0.02\%$  OF SPAN
- HIGH ACCURACY:  $\pm 0.1\%$  OF SPAN
- TWO-WIRE TRANSMITTER EXCITATION-OPTIONAL
- VOLTAGE PULSE OUTPUT FOR ELECTRONIC COUNTERS-OPTIONAL

## TYPICAL APPLICATIONS

- ENERGY TOTALIZER, BTU, KWH
- VOLTAGE OR CURRENT TO FREQUENCY (TELEMETRY TRANSMITTER)
- AMP HOUR TOTALIZER
- GENERAL VOLTAGE TO FREQUENCY CONVERSION
- FLOW TOTALIZER FROM LINEAR FLOW SIGNALS INTO ENGINEERING UNITS
- FLOW TOTALIZER FROM SQUARED FLOW SIGNALS INTO ENGINEERING UNITS



# 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 1 MEGOHM)  
 0-10 VDC (Z IN 1 MEGOHM)  
 OTHER ZERO-BASED CURRENT AND VOLTAGES ARE AVAILABLE.

**OUTPUT SIGNALS**  
 OUTPUT PULSE RATE: 0-10 TO 0-70,000 PER HOUR FULL SCALE  
 24 VDC NOMINAL INTO 100 OHMS MINIMUM.  
 50 MILLISECOND PULSE WIDTH NOMINAL  
 VOLTAGES LOWER THAN 24 VDC: SPECIFY (OPTION O 21)  
 10 TO 1,000 COUNTS PER SECOND OUTPUT: (OPTION O 59)

## PERFORMANCE

CALIBRATED ACCURACY:  $\pm 0.1\%$   
 LINEARITY:  $\pm 0.1\%$  MAXIMUM,  $\pm 0.04\%$  TYPICAL  
 REPEATABILITY:  $\pm 0.05\%$  MAXIMUM  
 TEMPERATURE STABILITY:  $\pm 0.01\%$  / °F MAXIMUM,  $\pm 0.004\%$  / °F TYPICAL  
 LOAD EFFECT:  $\pm 0.01\%$  ZERO TO FULL LOAD  
 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

NOTE: ALL ACCURACIES ARE GIVEN AS A PERCENTAGE OF SPAN.

## POWER

115VAC: 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 A  $\pm 10\%$  POWER VARIATION

## MECHANICAL

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

## 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 INPUTS (1/10 OF STANDARD (Z)) (LIT 56 ONLY)
O 15	TWO-WIRE TRANSMITTER EXCITATION
O 17	INTERNAL MERCURY-WETTED RELAY
O 21	OUTPUT PULSE VOLTAGES LOWER THAN 24 VDC-SPECIFY
O 59	10-1,000 CPS OUTPUT
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 ENCLOSURE

### Ordering Information

- Model number
- Input signal
- Output pulse rate and pulse voltage
- 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.