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Pulse Accumulating Module Model No. PAM 59

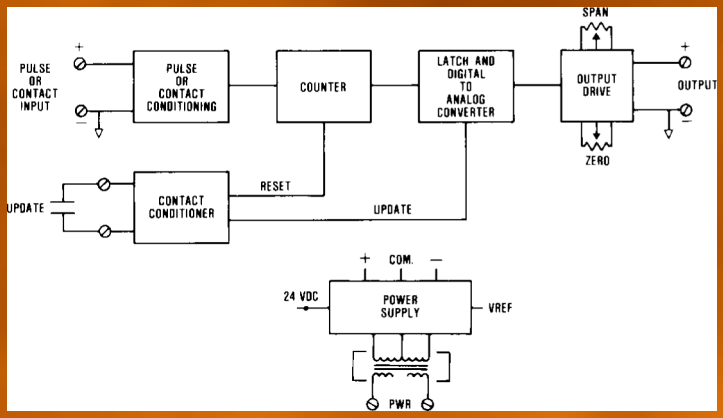
The Adtech Model PAM 59 Pulse Accumulating Module provides an accurate and economical means for integrating /totalizing the output of a wide variety of pulse output sensors to any standard process signal such as 4-20 mA DC, 1-5 VDC, or zero-based output signals.

At any time the output analog signal represents the total number of input pulses after the reset. Normally, a total of 4080 pulses represents the full-scale output. Applications include turbine meters, positive displacement meter contacts, and watt-hour meters.

The PAM 59 offers two modes of operation. In the standard mode, "Summing over a long period," the output is updated at a selectable preset rate. A typical application for this mode is totalizing flow pulses per unit of time..

Alternately, the update pulse may be applied externally, which you can specify. The update or reset pulse can be either a transitional pulse or standard contact input.

Contact anti-bounce circuitry protection prevents false information and loss of pulses during operation. Minimum discrimination time between input pulses is 0.01 milliseconds.



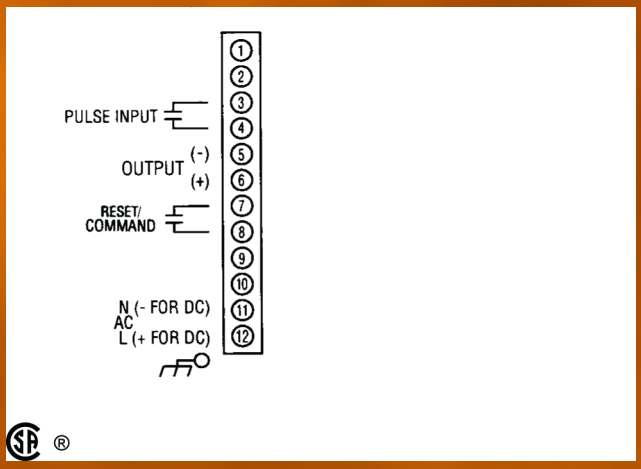
FEATURES

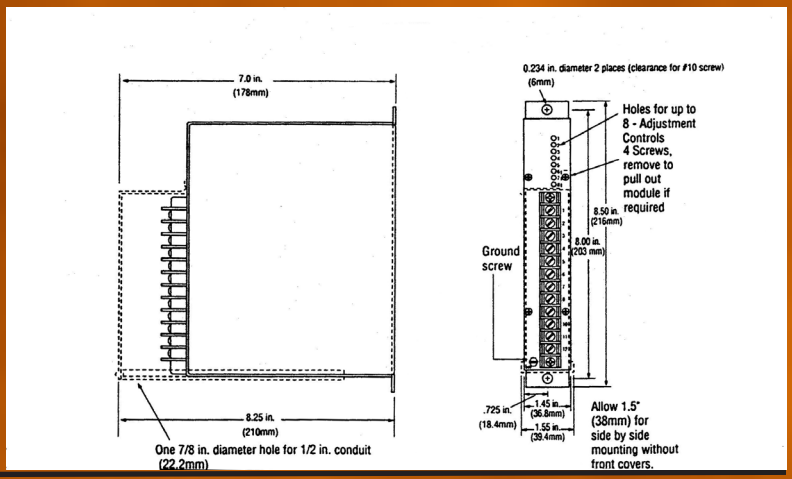
- Types of Inputs: Sine, square wave, or contact closure
- Inputs, Voltage, or Contact : Turbine/flowmeter, tachometer
- Input Voltage range: 9-volt to 24-volt pulses-standard; other ranges--consult Adtech
- Input frequency range: DC to 20 kHz
- High Input Impedance: 100K ohms
- Contact Anti-Bounce Inputs
- Response Time: 50 milliseconds
- Repeatability:/Resolution: 1 pulse
- High Accuracy: ±1 Input Pulse or ±0.1% of Span
- High Accuracy: ±0.1% of Span
- Discrimination Time: 0.01 milliseconds

TYPICAL APPLICATIONS

- Turbine Meter Flow Totalization
- Positive Displacement Meter Flow Totalization
- Watt-Hour Energy Demand Totalization
- Energy Peak Demand Computation

CONNECTIONS / DIMENSIONS





INPUT/OUTPUT

Input Signals
Voltage: Sine or square wave
9-volt to 24-volt pulse. Other ranges-consult Adtech
Frequency Range: DC to 20 kHz
Full Scale Count: Up to 4080 pulses specify
Input Command
Contact: Dry or solid state, 24 VDC at 2 mA
Pulse: 0-9 to 0-30 VDC (specify logic state)

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: 1 pulse or 0.1% of range
Linearity: 1 pulse
Repeatability: 1 pulse
Temperature Stability: ±0.01% / °F maximum, ±0.004% / °F typical
Load Effect: ±0.01% zero to full load
Output Ripple: 10 mV P/P maximum
Temperature Range: 0° to 140°F (-18° to 60 °C) operating; -40° to 185 °F (-40° to 85°C) storage
Power Supply Effect: ±0.05% for a ±10% power variation
Note: All accuracies are given as a percentage of span.

POWER

115 VAC: 50/60 Hz, 0.7 PF (Standard)
12 VDC: Isolated (Option P8)
24 VDC: Isolated (Option P2)
48 VDC: Isolated (Option P3)
125 VDC: Isolated(105-140 VDC) (Option P4)
230 VAC: 50/60 Hz, 0.7 PF (Option P5)
Note: All units 3 watts maximum, and a ±10% power variation unless noted)

MECHANICAL

Electrical Classification: General Purpose
Connection: Barrier terminal strip (3/8" spacing, No. 6 screws)
Controls: Multiturn zero and span controls
Mounting: Surface Mounting standard. See housing Section for options.
Weight: Net Unit: 2.6 pounds (1.18 kilograms); Shipping 3.0 pounds (1.36 kilograms)

OPTIONS

Option Number	Description
O 10	Bipolar current (larger than ±1mA)
O 11	Bipolar voltage to ±10 VDC: at 1 mA, bipolar current ±1 mA
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 high-density, plug-in enclosure

Ordering Information

- Model number
- Input pulse rate and voltage
- Number of pulses for full-scale output
- Internal or external pulse update
- Output signal
- Prime power with option no.
- Input/output options
- Housing and miscellaneous options

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