

Pulse Width Modulated Input to Analog Current or Voltage Output

FEATURES

- 7 Input Pulse Ranges (Versions 1, 2 & 3)
- Accepts Triac input
- 10 Field Selectable Analog Outputs
- Current or Voltage Output
- 256 Step Resolution
- Signal Isolation (Input to Output)
- LED Status Indicators
- Dial potentiometer for manual override of output
- Jumper selectable Direct or Reverse Acting
- No Wrap-Around



Optional
ENC1
Enclosure

APPLICATIONS

- Pulse to Analog Transducer
- Interface to Variable Speed Pump Drive Control
- Interface to Variable Frequency Fan Drive Control
- Interface to Electric Actuator
- Duty Cycle to Analog Control
- Digital to Analog Conversion
- Can be used with an ATP to transduce one pulse range to another

PRODUCT DESCRIPTION

The PTA converts a single pulse-width modulated input to an analog current or voltage output. There are two LED indicators that designate power and signal. A timed contact or solid state closure from the controlling microprocessor controller is converted to a linear analog output signal with 256 steps of resolution. The last output signal is held until the PTA receives the end of the

next pulsed input signal. The PTA's output will not wrap around if an excessively long input pulse is received. Ten preset analog output signal spans are DIP switch selectable. In addition, the span and offset potentiometer offer maximum user adjustment of the output signal. The input signal is optically isolated and can accept either positive or negative polarity.

ORDERING INFORMATION

Specify: **PTA Version** _____ with _____ **ENC1 Enclosure?**
 _____ **1, 2 or 3** (see page 2 for description). Custom pulse input ranges also available

SPECIFICATIONS

Electrical Requirements

Power Supply

Supply Voltage

Regulated 24 VDC (24 to 35 VDC maximum) or
24 VAC (21.6 to 26.4 VAC), 50/60 Hz

Supply Current

240mA maximum using Voltage Output Terminal
125mA maximum if not using Voltage Output Terminal

Input

Signal source:	Relay contact closure, Transistor, or TRIAC (24 VAC, 50/60 Hz)
Trigger Level	Normal Mode: 5 to 26.4 VDC 5 to 26.4 VAC Triac Mode: 9 to 26.4 VAC
Version #1 (DIP switch selectable ranges)	1) 0.02 to 5 seconds 2) 0.1 to 10 seconds 3) 0.59 to 2.93 seconds 4) 0.1 to 25.5 seconds
Version #2 (DIP switch selectable ranges)	1) 0 to 10 seconds Duty Cycle Pulse (as sampled in a 10 second window) 2) 0.023 to 6 seconds
Version #3	1) 0 to 20V Staefa™ Phase Cut to Analog, Trigger level is detected only above 5% (approx.) and below 95% of phase cut waveform
SPECIAL ORDER MODELS:	1) Flowmeter Pulses Per Minute to Analog 2) Protemp by Fluidmaster™ Pulses Per Minute to Analog 3) HSQ PWM (15 sec.) to Analog (Fails to minimum with no pulse after 60 seconds plus three other "no pulse" ranges.

Output

Voltage Preset Ranges:	Dip switch selectable: 0 to 1 VDC 1 to 2 VDC 0 to 4 VDC 1 to 5 VDC 0 to 10 VDC 1 to 11 VDC 0 to 13 VDC 1 to 14 VDC
Voltage Adjustable Range:	0 to 20 VDC (with adjustable offset)
Load Impedance (voltage):	3300 ohms minimum at 20 volts +/- 10% 400 ohms minimum at 10 volts +/- 10%
Current Preset Ranges:	Dip switch selectable: 0 to 16 mA 4 to 20 mA
Current Adjustable Range:	0 to 20 mA (with adjustable offset and span)
Load Impedance (current)	0 to 750 ohms maximum
Accuracy (60 Hz)	+/- 2% of span for adjustable ranges, 5% for preset +/- 3% of span for adjustable ranges, 5% for preset/ Staefa™ Phase Cut Version
Accuracy (50 Hz)	+/- 3% of span for adjustable ranges, 5% for preset
Note on Voltage Output:	If the voltage output is limited to 18 Volts on the high end of the output span, the DC supply limit can be 24 VDC -10% and the PTA will still maintain the output accuracy.
Note on Current Output:	If the maximum load is 700 ohms, the DC supply can be 24 VDC-10% and the PTA will still maintain the output accuracy.
Resolution	256 steps of resolution.
Regulated Power Output (for user):	24 VDC, 48mA maximum

Mechanical Requirements

Connections

Wire Size	Up to one 14 gauge maximum
Terminal Type	90° plug-in terminal blocks with 5mm pin spacing

Dimensions

3.75" L x 2.25" W x 1.15" H

Weight

1.5 oz

Mounting

Furnished with 3.75" length of 2.25" wide snap track (ENC1 optional)

Environmental Requirements

Operating Temperature	32 to 120 degrees F
Storage Temperature	-20 to 150 degrees F
Operating Humidity	10% to 95% non-condensing

Specifications may change without notice to improve accuracy or functionality.