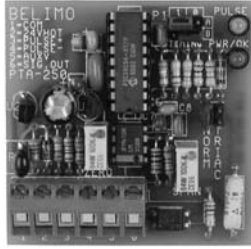


# Pulse Width Modulation Interface PTA-250

To Convert a Pulse Width Modulated Signal to a 2 to 10 VDC Signal for Belimo Proportional Actuators  
(Series 3)



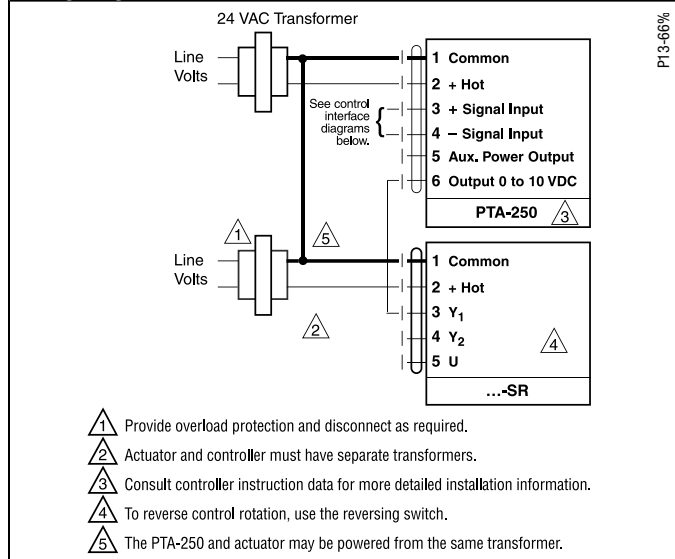
Technical Data	PTA-250
Power supply	24 VAC $\pm 15\%$ 24 VDC $\pm 15\%$
Power consumption	<1 W
Transformer sizing	2 VA

Input	
Isolation	optically isolated (when wired as such)
Type	normal or triac, jumper selectable
Trigger level	12 to 24 VAC/VDC or dry contact to com
Time between trigger pulses	12.5 milliseconds min
Impedance	VAC - 500 $\Omega$ , VDC - 10 k $\Omega$
Pulse duration/resolution	four selectable ranges, in seconds of dry contact or SSR closure $\pm 40\%$ of signal increment
Range 1	0.0235 to 6 seconds/in 0.0235 sec increments
Range 2	0.0196 to 5 seconds/in 0.0196 sec increments
Range 3	0.1 to 25.5 seconds/in 0.100 sec increments
Range 4	0.59 to 2.93 seconds/in in 0.0092 increments

Output	
Voltage	2 to 10 VDC
Current	15 mA max
Accuracy	$\pm 2\%$

Electrical connection	wire terminals, 14 gauge max
Ambient temperature	-20°F to 150° F [-30°C to 65° C]
Operating humidity	5% to 95% non-condensing
Mounting	Snap-Track (provided)
Dimensions	board 2 3/16" x 2 3/16" x 9/16"
	with Snap-Track 2 3/8" x 2 1/4" x 15/16"
Weight	1.5 oz

## Wiring Diagram



## Application

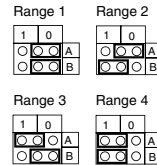
The PTA-250 converts a single pulse-width modulated input to an analog, 2 to 10 VDC, output to modulate a Belimo -SR actuator. The PTA-250 is available for replacement of existing installations. The ...MFT product can replace 100% of the PTA-250 applications, more effectively.

## Operation

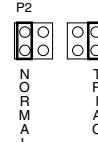
A timed contact or solid state closure from the controlling microprocessor controller is converted to a linear analog output with 256 steps of resolution. The last output is held until the PTA-250 receives the end of the next pulsed output. The PTA-250's output will not wrap around if an excessively long input pulse is received. Four input pulse clock rates are jumper selectable. Normal/Triac input positions are also jumper selectable. The input signal can be optically isolated from the PTA-250 circuit and can accept either positive or negative polarity. A red LED indicator is provided to indicate that power is applied to the PTA-250 and that the microprocessor is functioning. A green LED indicator is provided to indicate the presence of a pulse from the controller.

**NOTE:** The onboard zero and span adjustments are not for field use.

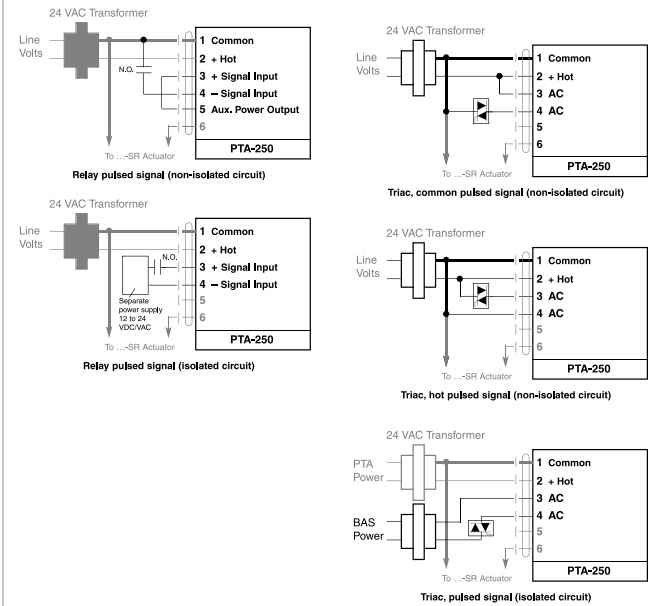
## Pulse Timing Selection



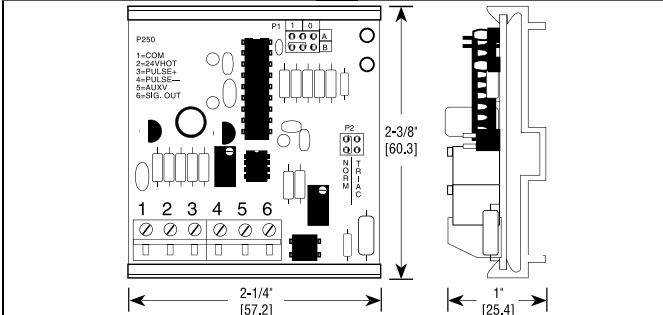
## Normal/Triac Input Selection



## Control Interface Drawings



## Dimensions (Inches [mm])



M40024 - 05/10 - Subject to change. © Belimo Aircontrols (USA), Inc.