**ABB** PRLB1A01 02.17.03

## **Delay On Break (Release) PRLB Series Time Delay Relay**



- Electronic Circuit with Electromechanical Relay
  Popular AC & DC Operating Voltages
- Industry Standard Octal Plug-in Connection
- LED Indication 10 A Rated Relay Output

#### Description

The PRLB Series is designed for use on noncritical timing applications. It offers low cost control, full 10 A relay output, and onboard LED indication. The knob adjustment provides a guaranteed time range of up to 10 m in 6 ranges. The onboard LED indicates whether or not the unit is timing (flashing LED) as well as the status of the output.

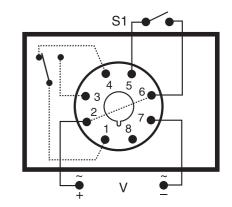
#### Operation

Input voltage must be applied at all times prior to and during timing. Upon closure of the initiate switch, the output contacts transfer and remain transferred if no further action is taken. The LED is on steady. When the initiate switch is opened, the time delay is started. The LED flashes during timing. At the conclusion of the delay, the output contacts revert to their original unenergized position. Applying input voltage with the initiate switch closed will energize the load and begin the time delay.

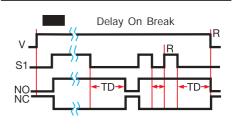
Reset: Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.

Approvals:





Relay contacts are isolated. Dashed lines are internal connnections.



V = Voltage R = ResetS1 = Initiate Switch TD = Time Delay NO = Normally Open NC = Normally Closed ⊰∽ = Undefined time

## **Ordering Table**

PRLB Series Input -1 - 12 V DC -2 - 24 V AC -3 - 24 V DC -4 - 120 V AC –<mark>5</mark> - 110 V DC

Adjustment

-6 - 230 V AC Example P/N: PRLB623 Fixed - PRLB4160

-1 - Factory Fixed 2 - Adjustable

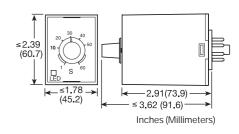
-**1** - 0.05 ... -<mark>2</mark> - 0.1 ... 10 s -3 -1 ... 60 s -4 -2 ... 180 s 7 ... 480 s 7 ... 600 s

Time Delay

\*If Fixed Delay is selected, insert delay [0.05...600] in seconds.

# **Technical Data**

Time Delay	
Type	Analog circuitry
Range	0.05 600 s in 6 adjustable ranges or fixed
Repeat Accuracy	+/-2%
Tolerance	Knob Adjust: Guaranteed range
	Fixed: +/-10%
Reset Time	≤50 ms
Recycle Time	≤16 ms after timing, during timing0.1% of
	max. time delay or 75 ms, whichever is greater
Time Delay vs. Temperature & Voltage	≤+/-10%
Input	
Voltage	24, 120, or 230 V AC; 12, 24, or 110 V DC
Tolerance 12 V DC & 24 V DC/AC	-15% +20%
110 230 V AC/DC	-20% +10%
Line Frequency	50 60 Hz
Power Consumption	≤2.25 W
Output	
Type	Electromechanical relay
Form	Isolated SPDT
Rating	10 A resistive at 28 V DC; 10 A resistive at
-	240 V AC; 1/3 hp at 120 & 240 V AC
Life	Mechanical1x10 <sup>7</sup> ; Full Load1x10 <sup>6</sup>
Protection	
Surge	IEEE C62.41-1991 Level A
Isolation Voltage	≥ 1500 V RMS input to output
Insulation Resistance	≥ 100 MΩ
Polarity	DC units are reverse polarity protected
Indication	
Туре	LED
Operation	Output EnergizedON steady
	Output Energized & TimingFlashing
Mechanical	
Mounting	Plug-in socket
Package	3.62 x 2.39 x 1.78 in. (91.6 x 60.7 x 45.2 mm)
Termination	Octal plug-in (8 pin)
Environmental	
Operating Temperature	-20°C +65°C
Storage Temperature	-30°C +85°C
Weight	≅ 6 oz (170 g)



### Accessories

