

Single Shot (Pulse Former) PRLS Series Time Delay Relay



Description

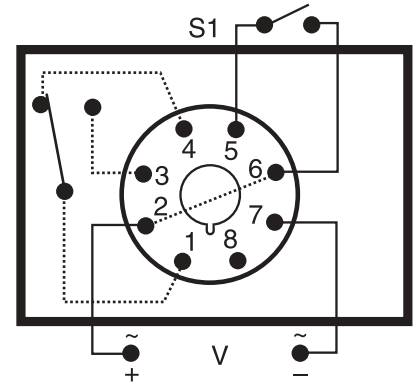
The PRLS Series is designed for use on non-critical timing applications. It offers low cost control, full 10 A relay output, and onboard LED indication. The knob adjustment provides a guaranteed time range of up to 10 m in 6 ranges. The onboard LED indicates whether or not the unit is timing (flashing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

Operation

Input voltage must be applied to the input at all times prior to and during timing. Upon closure of the initiate switch (momentary or maintained) the output contacts transfer and the time delay is initiated. The LED flashes during timing. At the end of the delay, the output contacts revert to their original position. If the initiate switch is reclosed during timing, the time delay will not be affected. Applying input voltage with the initiate switch closed will energize the load and begin the time delay.

Reset: Reset occurs when the time delay is complete and the initiate switch is opened. Loss of input voltage resets the time delay and output.

Approvals:



Relay contacts are isolated. Dashed lines are internal connections.

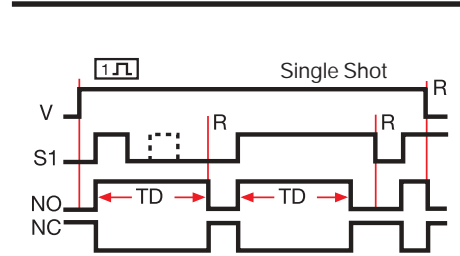
- Electronic Circuit with Electromechanical Relay
- Popular AC & DC Operating Voltages
- Industry Standard Octal Plug-in Connection
- LED Indication
- 10 A Rated Relay Output

Ordering Table

PRLS Series	X Input	X Adjustment	X Time Delay *
	-1 - 12 V DC	-1 - Factory Fixed	-1 - 0.05 ... 3 s
	-2 - 24 V AC	-2 - Adjustable	-2 - 0.1 ... 10 s
	-3 - 24 V DC		-3 - 1 ... 60 s
	-4 - 120 V AC		-4 - 2 ... 180 s
	-5 - 110 V DC		-5 - 7 ... 480 s
	-6 - 230 V AC		-6 - 7 ... 600 s

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

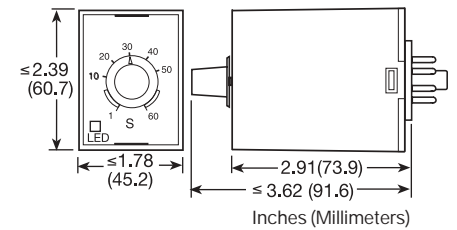
Example P/N: **PRLS422** Fixed - **PRLS2160**



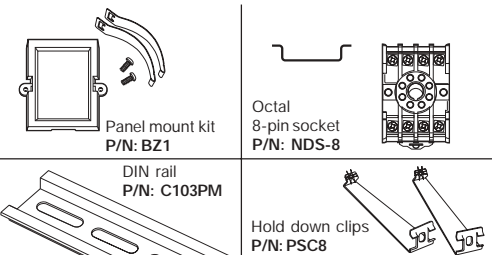
V = Voltage S1 = Initiate Switch TD = Time Delay
R = Reset NO = Normally Open
NC = Normally Closed

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 timing--0.1% 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	Mechanical--1x10 ⁷ ; Full Load--1x10 ⁶
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	
Type	LED
Operation	Output Energized & Timing--Flashing
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



See accessory pages at the end of this section.