**ABB SSAC** TDR01A01 06.10.02

# **Recycling (Pulse Generator) TDR Digi-Set Time Delay Relay**







- Switch Setable Time Delays Both Times Adjustable
- 0.1 s ... 2.8 h in 3 Ranges
- Digital Circuitry +/-0.1% Repeat Accuracy
- 10 A DPDT Isolated Relay Contacts
- Octal Plug-in Base Connection

### Description

The TDR Series of time delay relays are comprised of digital circuitry and a separate oscillator to provide high accuracy and stability. The ON and OFF delays are selected by means of ten binary switches, which allow the setting of the desired delay the first time and every time. Full 10 A isolated DPDT output contacts.

#### Operation

Upon application of input voltage, the output relay is energized and the ON time begins. At the end of the ON time, the output de-energizes and the OFF time begins. At the end of the OFF time, the output relay is energized and the cycle repeats as long as input voltage is applied. The OFF time may be the first delay in recycling timers.

Reset: Removing input voltage resets the output and time delays, and returns the sequence to the first delay.

Approvals:

**ON Time** 





## **Ordering Table**

TDR Series

Input

-1 - 12 V DC 2 - 24 V AC 24 V DC

4 - 120 V AC -<mark>5</mark> - 110 V DC -6 - 230 V AC

TDR4A12

Operating Sequence

-A - ON Time First **B** - OFF Time First

-2 - 1 ... 1023 s in 1 s increments 3 - 10 ... 10,230 s in 10 s increments \*Control status LED not available on 12 V DC units

-<mark>1</mark> - 0.1 ... 102.3 s in

0.1 s increments

**OFF Time** -1 - 0.1 ... 102.3 s in 0.1 s increments -2 - 1 ... 1023 s in 1 s increments 3 - 10 ... 10,230 s in

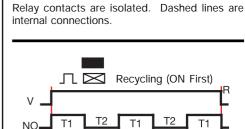
10 s increments

Example P/N:

**Technical Data** 

Time Delay	
Type	Digital integrated circuitry
Range**	0.1 102.3 s in 0.1 s increments
-	1 1023 s in 1 s increments
	10 10,230 s in 10 s increments
Repeat Accuracy	+/-0.1%
Setting Accuracy	+/-2%
Reset Time	≤ 150 ms
Recycle Time	≤ 500 ms
Time Delay vs. Temperature & Voltage	+/-5%
Input	
Voltage	12, 24, or 110 V DC; 24, 120, or 230 V AC
Tolerance 12 V DC & 24 V DC/AC	-15% + 20%
110 230 V AC/DC	-20% +10%
Line Frequency	50 60 Hz
Output	
Type	Electromechanical relay
Form	Double pole double throw (DPDT)
Rating	10 A resistive, 1/3 Hp at 240 V AC
Life	Mechanical 1 x10 <sup>7</sup>
	Full Load 1 x 10 <sup>6</sup>
Protection	
Isolation Voltage	≥ 1500 V RMS input to output
Mechanical	
Mounting	Plug-in socket
Package	3.2 x 2.39 x 1.78 in. (81.3 x 60.7 x 45.2 mm)
Termination	Octal plug (8 Pin)
Environmental	
Operating Temperature	-20°C +60°C
Storage Temperature	-30°C +85°C
Weight	≅ 6 oz (170 g)
	3

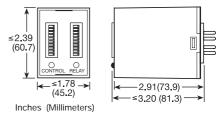
\*\*For CE approved applications, power must be removed from the unit when a switch position is changed

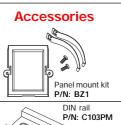


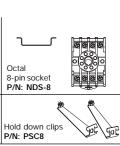
NC

V = Voltage R = Reset T1 = ON Time T2 = OFF Time NO = Normally Open NC = Normally Closed

#### Digi-Set Binary Switch Operation 10...10,230 0.1...102.3 1...1023 OFF ►ON OFF ►ON 0.4 40■ 8 = 16 = 32 = 64 = 128 = 80 = 160 = 320 = 3.2 640**=** 1280**=** 25.6 256 = 2560=







See accessory pages at the end of this section