

# Recycling Unequal Times (Pulse Generator) CT-TGD Timer Relay Output

5



- 17.5 mm Wide, 35 mm DIN Rail Mounting
- Universal Voltage 24 ... 240 V AC; 24...48 V DC
- 7 Time Ranges From 0.05 ... 100 h
- Selectable Wiring for ON or OFF Time First
- Repeat Accuracy  $\leq \pm 0.5\%$
- 6 A Isolated SPDT Relay Output
- 2 LED's Indicate Status

Approvals: LISTED

## Operation

**Recycle Both Times Adjustable (Pulse Generator) [ON Time First]:** Upon application of supply voltage, the output relay energizes and TD1 begins. At the end of the TD1, TD2 begins and the output relay de-energizes. At the end of TD2, TD1 repeats and the output relay energizes. This cycle continues until supply voltage is removed.

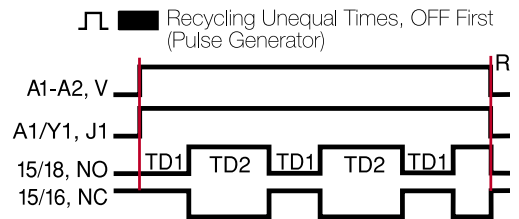
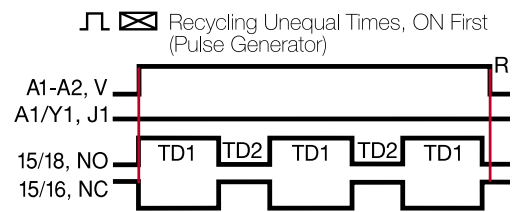
**Reset:** Removing supply voltage resets the time delay, output relay, and the sequence to the ON delay.

**Recycle Both Times Adjustable (Pulse Generator) [OFF Time First]:** Requires Jumper Wire J1 connected A1 to Y1. Upon application of supply voltage, the output relay remains de-energized and the TD1 begins. At the end of the TD1, TD2 begins and the output relay energizes. At the end of TD2, TD1 repeats and the output relay de-energizes. This cycle continues until supply voltage is removed.

**Reset:** Removing supply voltage resets the time delay, output relay, and the sequence to the OFF delay.

LED Operation	Green LED	Red LED
Voltage Applied	Flashing	N/A
Relay Energized	N/A	ON
Timing	Flashing	N/A
Voltage Removed	OFF	OFF

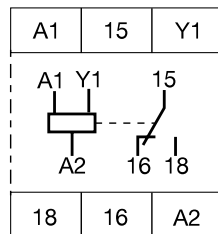
## Function



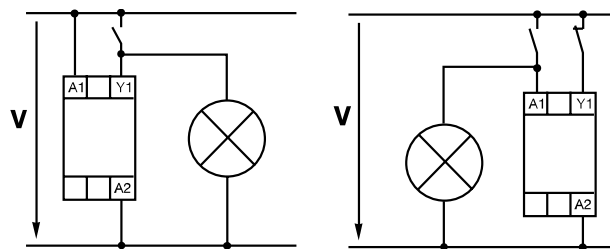
V = Voltage  
TD = Time Delay  
R = Reset  
A1/Y1 Closed = Starting with OFF  
A1/Y1 Open = Starting with ON

NO = Normally Open  
NC = Normally Closed  
J1 = Wire Jumper

## Connection (ON Time First)



## Wiring Diagrams



## Accessories



See accessory pages for specifications.

## Ordering Table

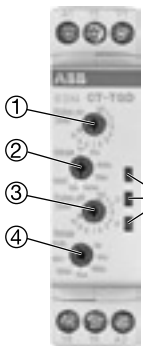
Supply Voltage	Time Ranges	Part Number
	0.05 ... 1 s	
	0.5 ... 10 s	
24 ... 240 V AC	5.0 ... 100 s	1SVR 500 160 R 0000
24...48 V DC	0.5 ... 10 m	
	5.0 ... 100 m	
	0.5 ... 10 h	
	5.0 ... 100 h	

# Recycling Unequal Times (Pulse Generator) CT-TGD Timer Relay Output

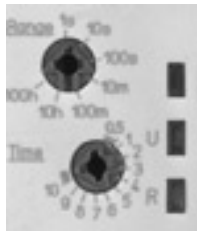
## Technical Data

<b>Input</b>		
Voltage/Power Consumption	A1-A2	24 ... 240 V AC; 24...48 V DC / $\approx$ 2.0 VA / W
Tolerance		-15% ... +10%
Frequency		50 ... 60 Hz
<b>Time Delay</b>		
Range		0.05 s ... 100 h in 7 ranges
Reset Time		$\leq$ 50 ms
Repeat Accuracy		$\leq$ +/- 0.5%
Time Delay vs Input Voltage Tolerance		$\leq$ 0.5%
Time Delay vs Temperature		$\leq$ 0.06%/°C
<b>Status Display</b>		
Supply Voltage		LED green
Output Relay Energized		LED red
<b>Output</b>		
Rated Voltage	15-16/18 VDE 0100, IEC947-1	Isolated SPDT Relay 250 V
Rating		6 A resistive @ 230 V AC (AC 12) 3 A inductive @ 230 V AC (AC 15) 6 A resistive @ 24 V DC (DC 12) 2 A inductive @ 24 V DC (DC 13)
Switching Voltage		$\leq$ 240 V AC
Mechanical Life		$\leq$ 30 x 10 <sup>6</sup> operations
Electrical Life (4A resistive @ 230 V AC)		$\leq$ 1 x 10 <sup>6</sup> operations
External Fuse For (NO) Contact Protection		$\leq$ 10 A fast acting
<b>General</b>		
Rated Impulse Withstand Voltage (Vimp)		4 kV/1.2 ... 50 $\mu$ S
Operating/Storage Temperature		-20°C ... +60°C / -40°C ... +85°C
Mounting on DIN Rail (EN 50022)		Snap-on mounting/Screw mounting with adaptor
Wire Size Stranded with Wire End Ferrule		2 x 14 AWG (2 x 2.5 mm <sup>2</sup> )
Weight		$\approx$ 2.1 oz (60 g)
Dimensions (W x H x D)		0.69 x 2.76 x 2.48 in. (17.5 x 70 x 63 mm)

## Face View



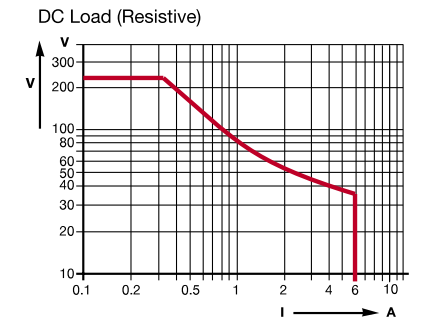
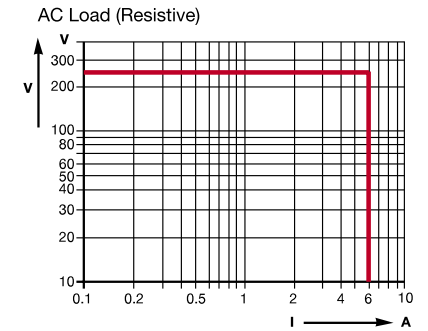
- ① – ON Time, Time delay adjustment
- ② – ON Time, Time range selection switch, 7 ranges
- ③ – OFF Time, Time delay adjustment
- ④ – OFF Time, Time range selection switch, 7 ranges
- ⑤ – LED Indicators  
R-Red - Output relay energized  
U-Green (Flashing) - Voltage applied and timing



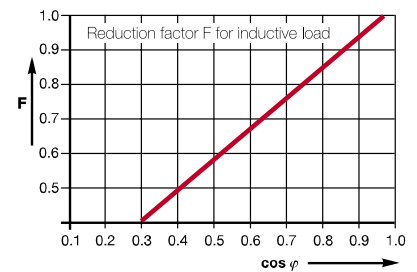
The time range selection switch displays the longest time delay in the range in seconds, minutes, or hours.

The time delay adjustment has a 0.5 to 10 reference dial. Use the time range setting as a multiplier, 1s = x0.1, 100s = x10.

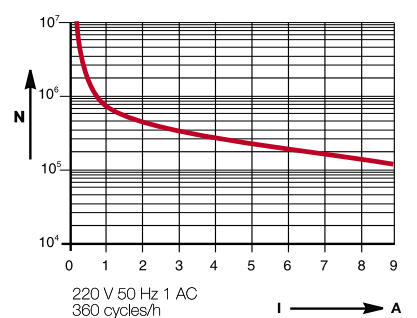
## Load Limit Curves



## Reduction Factor for Inductive AC Load



## Contact Lifetime



## Mechanical View

