

# Delay on Make Timer CT-ERS Relay Output



Screw Clamp Connections

- 22.5 mm Wide, DIN 3 Mounting
- 0.05 s ... 300 h in 10 Ranges
- 1 or 2 SPDT Relay Outputs
- 2 or 3 LED Indicators
- 24 V AC/DC ... 240 V AC in 2 Ranges

## Description

The CT-ERS is an accurate, 22.5 mm, delay on make timer that mounts on 35mm DIN Rail. It is available with an isolated SPDT time delay relay output, and with an (optional) second SPDT timed or instantaneous relay. The time delay can be adjusted on the unit or externally.

## Operation

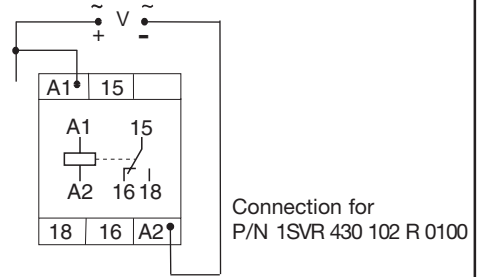
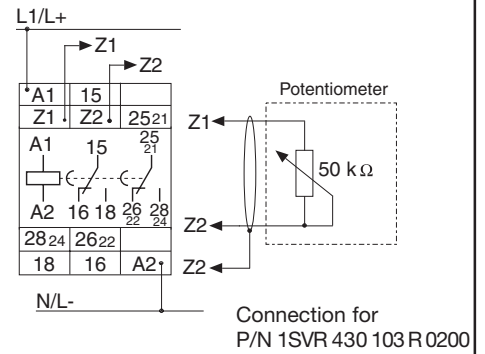
### All models

Upon application of input voltage to the A1 and A2 terminals, the time delay begins and the green LED flashes. The output relay is de-energized before and during the time delay. At the end of the delay, the output relays energizes and both LEDs glow steadily. Removing input voltage resets the time delay and output relay.

### Additional operation for P/N 1SVR 430 103 R 0200:

If the selector switch is set to the Instantaneous Position, the second SPDT relay (RLY2) energizes instantaneously when voltage is applied. If the selector switch is not in the Instantaneous Position, the operation of the second relay is the same as the first. Removing input voltage de-energizes both relays. External adjustment of the time delay is possible by connecting a potentiometer to terminals Z1 and Z2, which disables the internal potentiometer.

- Approvals:



## 10 Time Ranges

1	0.05 - 1 s*	6	15.0 - 300 s
2	0.15 - 3 s*	7	1.50 - 30 m
3	0.50 - 10 s	8	15.0 - 300 m
4	1.50 - 30 s	9	1.50 - 30 h
5	5.00 - 100 s	10	15.0 - 300 h

\* Green LED does not flash during timing.

## Input Voltage

Input Voltage	# Relays	Part Number
24 V, 42 ... 48 V AC/DC	1	1SVR 430 102 R 0100
110 ... 240 V AC	2	1SVR 430 103 R 0200

## Accessories

Accessories	Part Number
Sealable transparent cover	1SVR 430 005 R 0100
Adaptor for screw mounting	1SVR 430 029 R 0100
External Potentiometer	1SVR 701 800 R 1000

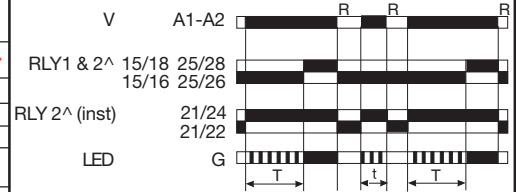
## Technical Data

<b>Input</b>	
Voltage/Power Consumption	A1-A2 24... 48 V AC / DC $\cong$ 0.5 ... 1 VA/W A1-A2 110 ... 240 V AC / $\cong$ 2.5 ... 12 VA
Tolerance	-15 % ... +10 %
Frequency	DC or 50 ... 60 Hz
Duty Cycle	100 %
External Potentiometer Value	Z1-Z2 50 k $\Omega$
Cable Length to the Remote Potentiometer	$\leq$ 80 ft (25 m) shielded, shield connected to Z2
<b>Time Delay</b>	
Range	0.05 s ... 300 h in 10 Ranges
Reset Time	$<$ 50 ms
Repeat Accuracy	$<$ 0.2 %
Time Delay vs. Input Voltage Tolerance	$<$ 0.008 % / % $\Delta$ V
Time Delay vs. Temperature	$<$ 0.07 % / $^{\circ}$ C
<b>Display of Operational Status</b>	
Input Voltage/Timer	Green LED steady / flashing while timing
Output Relay(s) Energized	R1 (R2) Red LED(s)
<b>Output</b>	
Output	25-26/28, 15-16/18 1 or 2 Relays, SPDT isolated contacts in each
Rated Voltage	VDE 0110, IEC 947-1 250 V
Switching Voltage	$\leq$ 250 V AC / DC
Rating	4 A resistive @ 230 V AC (AC 12) 3 A inductive @ 230 V AC (AC 15) 4 A resistive @ 24 V DC (DC 12) 2 A inductive @ 24 V DC (DC 13)
Mechanical Life	$\leq$ 30 x 10 <sup>6</sup> operations
Electrical Life (4 A resistive @ 230 V AC)	$\leq$ 1 x 10 <sup>5</sup> operations
External Fuse for Contacts	$\leq$ 10 A fast acting fuse

## General

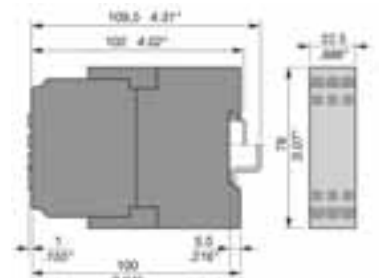
Rated Impulse Withstand Voltage (Vimp)	4 kV / 1.2 ... 50 $\mu$ S
Operating/Storage Temperature	-20 $^{\circ}$ C ... +60 $^{\circ}$ C / -40 $^{\circ}$ C ... +85 $^{\circ}$ C
Mounting of DIN Rail (EN 50022)	Snap-on mounting/Screw mounting with adaptor
Wire size stranded with wire end ferrules	2 x 14 AWG (2 x 2.5 mm <sup>2</sup> )
Weight	$\cong$ 5.3 oz (150 g)
Dimensions (W x H x D)	.89 x 3.07 x 3.94 in. (22.5 x 78 x 100 mm)
Accessories/Mechanical Outline	See Accessories page

## Delay on Make



## Legend

- V = Voltage
- T = Complete Time Delay
- t = Incomplete Time Delay
- R = Reset
- RLY1 = Relay 1
- RLY2 = Relay 2
- G = Green (LED)
- <sup>^</sup> = P/N 1SVR 430 103 R 0200 The operation of Relay 2 is switch selectable; instantaneous or time delayed
- = OFF, open, de-energized
- = ON, closed, energized



Millimeters, Inches

## External Potentiometer



P/N 1SVR 701 800 R 1000

External potentiometer with graduated dial supplied for 22.5 mm (.886") panel cut-out. Degree of protection IP 65 (NEMA 5) fastened with a locking ring. 50 k $\Omega$   $\pm$ 20%