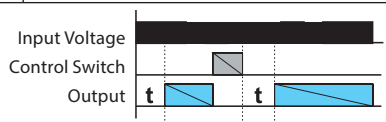


FEATURES

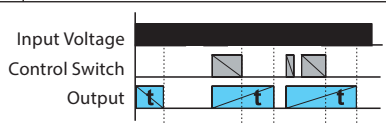
- Single Function time relay
- **Choice of three timing modes:**
 - 181 ZR** – Delay on Make
 - 181 ZN** – Delay on Break
 - 181 BL** – Repeat Cycle
- **Choice of six time ranges:**
 - 1S** – 0.1 to 1 second **10S** – 1 to 10 seconds
 - 1M** – 6 to 60 seconds **10M** – 1 to 10 minutes
 - 1H** – 6 to 60 minutes **10H** – 1 to 10 hours
- Timer controlled via input voltage or control switch
- Relay output form: SPDT – 16 Amps
- Output indicator: Red LED
- Input indicator: Green LED
- DIN rail mounting
- UL and CE approvals, RoHS compliant

TIMING MODES

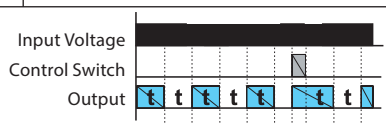
181 ZR Delay on Make Application of input voltage to the timer starts the time delay. At the end of the delay period, the load is energized. To reset, remove the input voltage to the timer or use control switch.



181 ZN Delay on Break Input voltage is applied continuously. Upon closure of the normally open live external initiate switch, the load is energized, and remains energized as long as it is closed. When the external initiate switch opens, the time delay is started. At the end of the time delay, the load is de-energized, and the timer is ready for another cycle.



181 BL Repeat Cycle Application of input voltage to the timer starts the "On" time delay, and energizes the load. At the end of the "On" time delay, the load is de-energized, and the "Off" time delay starts. At the end of the "Off" time delay, the load is again energized, the timer returns to the "On" time delay, and the cycling continues as long as input voltage is applied. Removal of the input voltage resets the timer.



TO ORDER, PLEASE SPECIFY TIMING MODE AND TIME RANGE

example: 181-ZR-1S Single function time relay
 mode: Delay on Make, range: 0.1 to 1 second

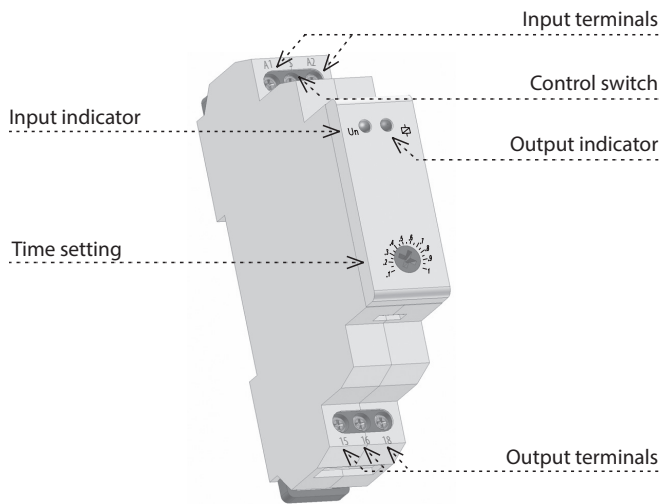


11/14/14

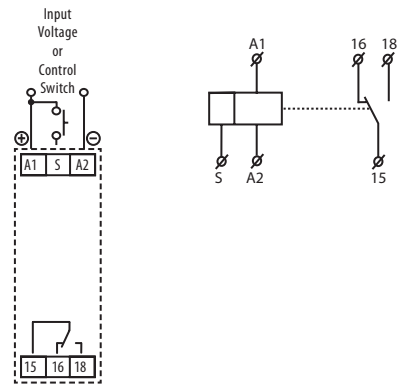
SPECIFICATIONS

Timing mode (choose 1 of 3) ..	Delay on Make, Delay on Break, Repeat Cycle
Input terminals	A1-A2
Input voltage	AC/DC 12-240V (AC 50/60Hz)
Input voltage tolerance ...	-15% to +10%
Input indicator	Green LED
Time ranges (choose 1 of 6) ...	0.1 second to 10 hours
Time settings by	Potentiometer
Setting accuracy	5%
Repeatability	0.2%
Relay output form	SPDT
Rated current	16Amps
Switching capacity	4000 VA/ AC, 384 W/ DC
Inrush current	30A / < 3s
Switching voltage (max) ...	250VAC / 24VDC
Switching capacity DC (min)	500mW
Output indicator	Red LED
Mechanical life	30 million operations
Electrical life (resistive) ...	70,000 operations
Power consumption	AC 0.025 to 0.2 VA DC 0.1 to 0.7W
Load between S-A2	Yes
Operating temperature ...	-20°C to +55°C
Storage temperature	-30°C to +70°C
Control switch	A1-S
Impulse length	25ms (min) / (max) unlimited
Reset time (max)	150ms
Dielectric strength	4 kV
Operating position	any
Mounting	DIN rail EN 60715
Protection degree	IP 40 from front panel
Wire size (max)	14AWG
Standards	EN 61812-1, EN 61010-1, UL, CE, RoHS

FEATURES



WIRING DIAGRAM



A control switch can also turn a second parallel load on and off while connected to the S terminal and A2. S = control switch terminal.

11/14/14

TO ORDER, PLEASE SPECIFY TIMING MODE AND TIME RANGE

example: 181-ZR-1S Single function time relay
mode: Delay on Make , range: 0.1 to 1 second