

Timers

Delay on Operate

Type DAA51



Product Description

Multi-voltage delay on operate timer with 7 selectable time ranges within 0.1 s and 100 hour.
For mounting on DIN-rail housing 17.5mm wide suitable both for back and front panel mounting.

Property

- Time range 0.1 s to 100 h
- Knob selection of time range
- Knob adjustable time setting
- Automatic start
- Repeatability: $\leq 0.2\%$
- Output: 5 A SPDT relay
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm DIN-rail housing (DIN 43880)
- Combined AC and DC power supply
- LED indication for relay status and power supply ON



Type Selection

Mounting	Output	Housing	Supply
DIN-rail	SPDT	Mini-D	24 VDC and 24 to 240 VAC

Time Specifications

Time ranges	Knob selectable
0.1 to 1 s	
1 to 10 s	
6 to 60 s	
60 to 600 s	
0.1 to 1 h	
1 to 10 h	
10 to 100 h	
Setting accuracy	$\leq 5\%$

Repeatability $\leq 0.2\%$

Time variation
 Within rated power supply $\leq 0.05\%/V$
 Within ambient temperature $\leq 0.2\%/^{\circ}C$

Reset
 Power supply interruption ≥ 200 ms

Supply Specifications

Power supply	Overvoltage cat. II (IEC 60664, IEC 60038)
Rated operational voltage through terminals: A1, A2 M24	24 VDC $\pm 15\%$ and 24 to 240 VAC + 10% -15%, 45 to 65 Hz
Voltage interruption	≤ 10 ms
Rated operational power	
AC supply	4 VA
DC supply	1.5 W

Output Specifications

Output	SPDT
Rated insulation voltage	250 VAC (rms)
Contact Ratings (AgSnO₂)	μ
Resistive loads	AC 1 5 A @ 250 VAC DC 12 5 A @ 24 VDC
Small inductive loads	AC 15 2.5 A @ 250 VAC DC 13 2.5 A @ 24 VDC
Mechanical life	$\geq 30 \times 10^6$ operations
Electrical life	$\geq 10^5$ operations (at 5 A, 250 V, $\cos \phi = 1$)
Operating frequency	< 7200 operations/h
Dielectric strength	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand voltage	2.5 kV (1.2/50 μ s)



General Specifications

Power ON delay	≤ 100 ms	Weight	75 g
Indication for		Screw terminals	
Power supply ON	LED, green	Tightening torque	Max. 0.5 Nm according to IEC EN 60947
Output relays ON	LED, yellow (flashing when timing)	Approvals	UL, CSA RINA
Environment	(EN 60529)	CE Marking	Yes
Degree of protection	IP 20	EMC	
Pollution degree	2 (IEC 60664)	Immunity	Electromagnetic Compatibility According to EN 61000-6-2
Operating temperature	-20° to +60°C, R.H. < 95%	Emission	According to EN 61000-6-3
Storage temperature	-30° to +80°C, R.H. < 95%		
Housing			
Dimensions	17.5 x 81 x 67.2 mm		
Material	PA66		

Mode of Operation

The yellow LED flashing when timing, is ON as soon as the relay turns ON. The set delay period begins as the power supply is connected. At the end of the set delay the relay operates and does not release until the power supply is interrupted for at least 200ms

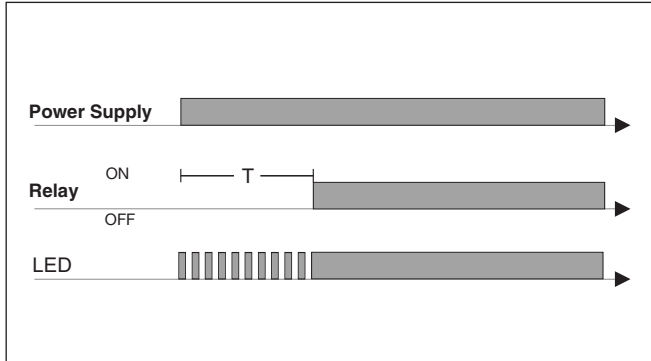
If the power supply is interrupted for at least 200ms before the relay operates the time is set to zero and the circuit is ready for a new time period.

Time Setting

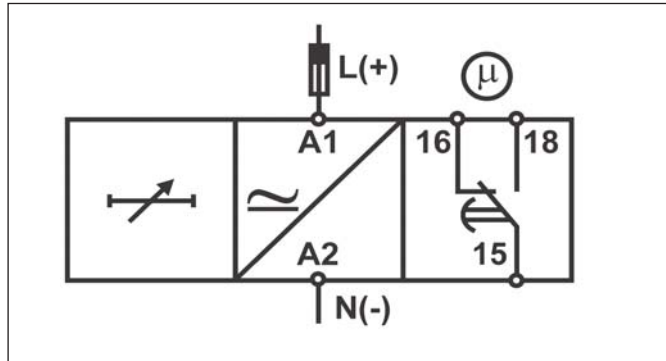
Centre knob:
Time setting on relative scale: From 1 to 10 with respect to the chosen range.

Lower knob:
Setting of time range

Operating Diagram



Wiring Diagram



Dimensions

