

# Timers

## Delay on Operate

### Types DAA51, DAA71



DAA51



DAA71

- 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 or 5 A DPDT relays
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm (DAA51C) or 35.5 mm (DAA71D) DIN-rail housing (DIN 43880)
- Combined AC and DC power supply
- LED indication for relay status and power supply ON

## Product Description

Multi-voltage delay on operate timer with 7 selectable time ranges within 0.1 s and 100 h. For mounting on DIN-rail

Housing 17.5 mm wide for SPDT version and 35.5 mm for DPDT version, suitable both for back and front panel mounting.

## Ordering Key

**DAA 51 C M24**

Housing \_\_\_\_\_  
 Function \_\_\_\_\_  
 Type \_\_\_\_\_  
 Item number \_\_\_\_\_  
 Output \_\_\_\_\_  
 Power supply \_\_\_\_\_

## Type Selection

Mounting	Output	Housing	Supply: 12 to 240 VAC/DC	Supply: 24 VDC and 24 to 240 VAC
DIN-rail	SPDT	Mini-D		DAA 51 C M24
DIN-rail	DPDT	Mini-D	DAA 71 D W24	DAA 71 D M24

## Time Specifications

<b>Time ranges</b> Knob selectable	0.1 to 1 s	<b>Repeatability</b> $\leq 0.2\%$
	1 to 10 s	
	6 to 60 s	
	60 to 600 s	
	0.1 to 1 h	
<b>Setting accuracy</b>	1 to 10 h	<b>Time variation</b> Within rated power supply $\leq 0.05\%/V$ Within ambient temperature $\leq 0.2\%/^{\circ}C$
	10 to 100 h	
	$\leq 5\%$	
	<b>Reset</b> Power supply interruption $\geq 200$ ms	

## Supply Specifications

<b>Power supply</b> Rated operational voltage through terminals:	Overvoltage cat. II (IEC 60664, IEC 60038)
(DAA51C) A1, A2 M24	24 VDC $\pm 15\%$ and 24 to 240 VAC +10% -15%, 45 to 65 Hz
(DAA71D) A1, A2 M24	24 to 240 VAC +10% -15%, 45 to 65 Hz
W24	12 to 240 VDC +10% -15% and 12 to 240 VAC +10% -15%, 45 to 65 Hz
<b>Voltage interruption</b>	$\leq 10$ ms
<b>Rated operational power</b>	
(DAA51C) AC supply	4 VA
DC supply	1.5 W
(DAA71D) AC supply	5.5 VA
DC supply	2 W

## Output Specifications

<b>Output</b>	SPDT or DPDT relays
<b>Rated insulation voltage</b>	250 VAC (rms)
<b>Contact Ratings (AgSnO<sub>2</sub>)</b>	$\mu$
DAA51 (SPDT):	
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
DAA71 (DPDT)	
Resistive loads	AC 1 5 A @ 250 VAC DC 13 3 A @ 24 VDC
Small inductive loads	AC 15 3 A @ 250 VAC DC 13 3 A @ 24 VDC
<b>Mechanical life</b>	$\geq 30 \times 10^6$ operations
<b>Electrical life</b>	$\geq 10^5$ operations (at 5 A, 250 V, $\cos \varphi = 1$ )
<b>Operating frequency</b>	$< 7200$ operations/h
<b>Dielectric strength</b>	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand voltage	2.5 kV (1.2/50 $\mu$ s)

## General Specifications

<b>Power ON delay</b>	≤ 100 ms	
<b>Indication for</b>	LED, green	
Power supply ON	LED, yellow	
Output relays ON	(flashing when timing)	
<b>Environment</b>	(EN 60529)	
Degree of protection	IP 20	
Pollution degree	2 (IEC 60664)	
Operating temperature	-20° to +60°C, R.H. < 95%	
Storage temperature	-30° to +80°C, R.H. < 95%	
<b>Housing</b>		
Dimensions	(DAA51C)	17.5 x 81 x 67.2 mm
	(DAA71D)	35.5 x 81 x 67.2 mm
Material	PA66	
<b>Weight</b>	75 g	
<b>Screw terminals</b>		
Tightening torque	Max. 0.5 Nm according to IEC EN 60947	
<b>Approvals</b>	UL, CSA RINA (DAA51 only)	
<b>CE Marking</b>	Yes	
<b>EMC</b>	Electromagnetic Compatibility	
Immunity	According to EN 61000-6-2	
Emission	According to EN 61000-6-3	

## Mode of Operation

The yellow LED, flashing when timing, is ON as soon as the relay turns ON.

The set delay period begins as soon 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 200

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

## Time Setting

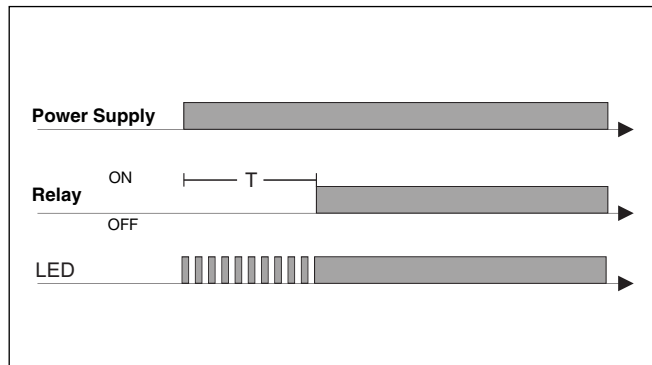
### Centre knob:

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

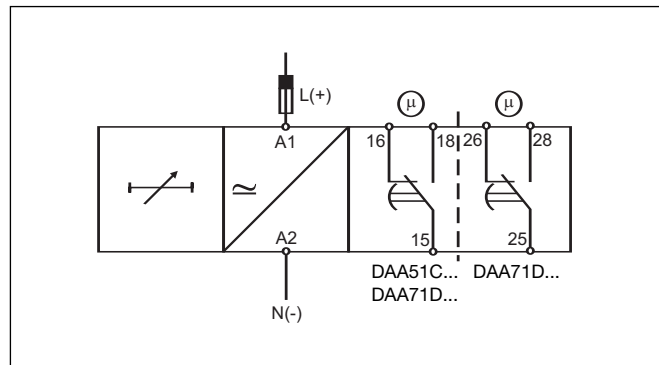
### Lower knob:

Setting of time range

## Operating Diagram



## Wiring Diagram



## Dimensions

