

# Timers

## Delay on Operate

### Types DAA51, DAA71

CARLO GAVAZZI



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

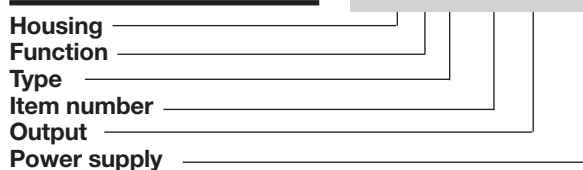
### Product Description

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**



### Type Selection

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

### Time Specifications

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

### Supply Specifications

|   |  |
|---|--|
| <b>Power supply</b><br>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> | $\mu$   |
| Resistive loads                            | AC 1 5 A @ 250 VAC<br>DC 12 5 A @ 24 VDC                    |
| Small inductive loads                      | AC 15 2.5 A @ 250 VAC<br>DC 13 2.5 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><br>Power supply ON<br>Output relays ON   | LED, green<br>LED, yellow<br>(flashing when timing)  |
| <b>Environment</b><br>Degree of protection<br>Pollution degree<br>Operating temperature<br>Storage temperature | (EN 60529)<br>IP 20<br>2 (IEC 60664)<br>-20° to +60°C, R.H. < 95%<br>-30° to +80°C, R.H. < 95% |
| <b>Housing dimensions</b><br>(DAA51C)<br>(DAA71D)  | 17.5 x 81 x 67.2 mm<br>35.5 x 81 x 67.2 mm   |
| <b>Weight</b>  | 75 g   |
| <b>Screw terminals</b><br>Tightening torque  | Max. 0.5 Nm according to IEC EN 60947  |
| <b>Approvals</b>   | UL, CSA (DAA51 only)<br>RINA (DAA51 only)  |
| <b>CE Marking</b>  | Yes  |
| <b>EMC</b><br>Immunity<br>Emission   | Electromagnetic Compatibility<br>According to EN 61000-6-2<br>According to EN 50081-1          |

## 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

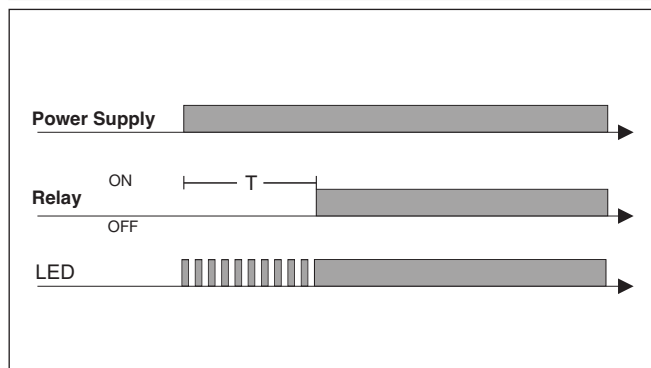
## Mode of Operation

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

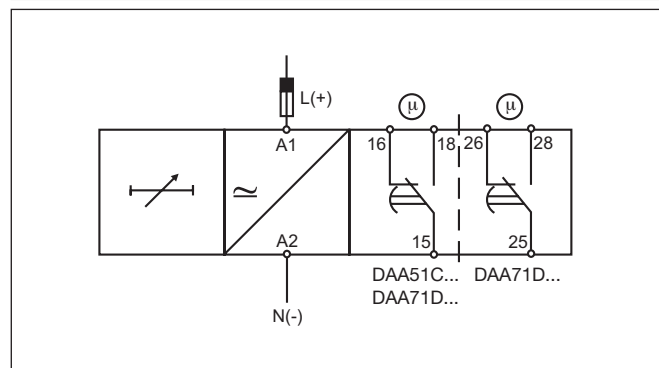
The set delay period begins as soon as the power supply is connected. At the end of the set delay the relay operates and does not release

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.

## Operating Diagram



## Wiring Diagram



## Dimensions

