

# Timers

## Delay on Operate

### Types AAM, BAM

CARLO GAVAZZI



- 6 selectable time ranges: 0.1 s to 10 h
- Knob-adjustable time setting
- Switch selection of time range
- 8- or 11-pin circular plug
- Output: 8 A SPDT
- LED-indications for relay and power supply ON
- 48 x 48 mm housing

## Product Description

Mono-function, plug-in, delay on operate time relay. Adjustable time range from 0.1 s to 10 h divided into 6 individual ranges. Easy frontpanel

mounting if necessary. Often used to prevent overloading the power distribution system, when e.g. pumps or motors should not be switched on at the same time.

## Ordering Key

**AAM C D23**

Plug type \_\_\_\_\_  
 Function \_\_\_\_\_  
 Type \_\_\_\_\_  
 Output \_\_\_\_\_  
 Power supply \_\_\_\_\_

## Type Selection

Plug	Output	Time range	Power supply	Ordering no.
11-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 48 VAC/DC	<b>AAM C D48</b>
11-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 115 VAC	<b>AAM C D11</b>
11-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 230 VAC	<b>AAM C D23</b>
8-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 48 VAC/DC	<b>BAM C D48</b>
8-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 115 VAC	<b>BAM C D11</b>
8-pin	SPDT	0.1 s - 10 h	24 VAC/DC & 230 VAC	<b>BAM C D23</b>

## Time Specifications

<b>Time ranges</b> Selectable by 2 switches	
Range	Sec., min., hrs.
Scale	x 0.1 or x 1
<b>Time range accuracy</b>	±10%
<b>Repeat accuracy</b> At constant parameters	± 0.2%
Within ambient temperature	± 1.5%
<b>Reset</b> After timing	Power supply interruption
During timing	≥ 50 ms
	≥ 100 ms

## Output Specifications

<b>Output</b>	SPDT relay
<b>Rated insulation voltage</b>	250 VAC
<b>Contact ratings (AgCdO)</b> Resistive loads AC 1	μ (micro gap) 8 A, 250 VAC
<b>Mechanical life</b>	≥ 2 x 10 <sup>7</sup> operations
<b>Electrical life</b>	≥ 2 x 10 <sup>5</sup> operations (at 5 A, 250 VAC)
<b>Operating frequency</b>	≤ 600 operations/h (at max. load)

## Supply Specifications

<b>Power supply</b> Rated operational voltage through pins 2 & 10 (AAM) or pins 2 & 7 (BAM)	(IEC 38)
D48	48 VAC/DC & 24 VAC/DC, -15/+15%
D11	115 VAC & 24 VAC/DC, -15/+10%
D23	230 VAC & 24 VAC/DC, -15/+15%
Frequency	50/60 Hz
<b>Rated operational power</b>	7 VA @ 220 VAC

## General Specifications

<b>Indication for</b> Power supply ON	LED, green
Output ON	LED, red
<b>Environment</b> Degree of protection	IP 50
Operating temperature	-20° to +60°C (-4° to +140°F)
Storage temperature	-25° to +70°C (-13° to +158°F)
<b>Housing material</b>	ABS, grey
<b>Weight</b>	100 g
<b>Approvals</b>	UL, CSA

## Mode of Operation

The delay period begins when power supply is applied and the green LED is ON.

At the end of the timing period, the relay operates and the red LED is ON - the load is activated.

To reset the output relay the power supply must be interrupted for at least 100 ms (du-

ring timing) or 50 ms when the timing period has elapsed.

## Time Setting

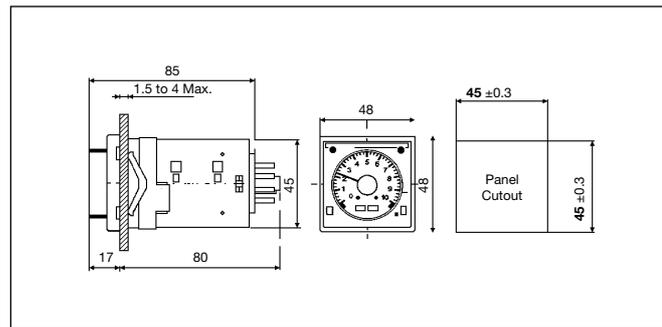
**Selection and adjustment of time ranges**

**Left switch:**  
2-position switch  
(x 0.1, x 1).

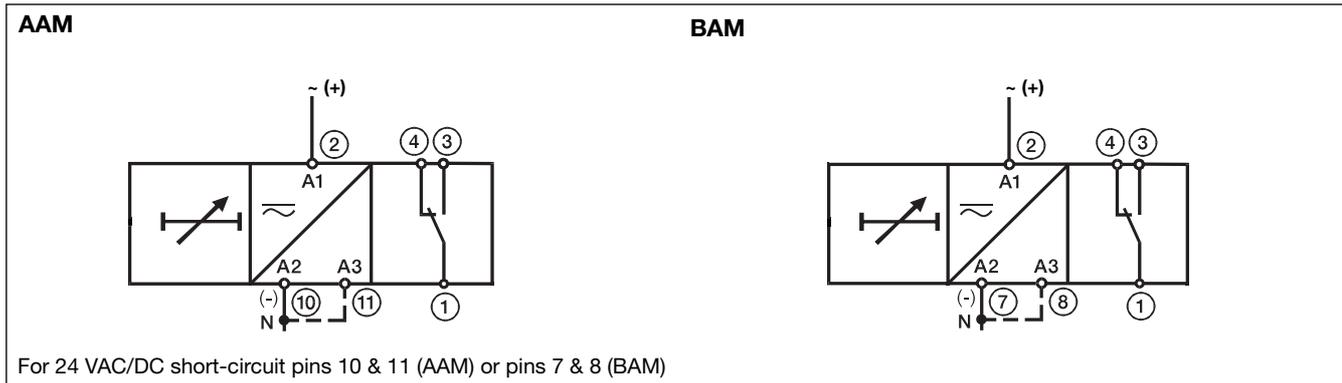
**Right switch:**  
3-position switch  
(sec., min., hrs.).

**Centre knob:**  
Relative scale 1-10.

## Dimensions



## Wiring Diagrams



## Operation Diagram

