

# Timers

## Delay on Operate

### Types FAA01, FAA08

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- Time range 0.05 s to 300 h
- Knob selection of time range
- Knob adjustable time setting
- Knob selection of operating mode (4 functions):
  - A - delay on operate
  - B<sub>2</sub> - symmetrical recycler ON first
  - E - interval
  - J - one shot
- Automatic start
- Repeatability:  $\pm 0.3\%$  on full scale
- Output: 5 A DPDT relay
- 48 x 48 mm housing for front panel mounting
- 8 or 11 pin sockets
- LED indication for relay status and power supply ON

## Product Description

Delay on operate timer with 4 functions and selectable time ranges from 0.05 seconds to 300 hours. Housing 48 x 48 mm for front panel mounting and on 8-pin or 11-pin socket.

## Ordering Key

**FAA 01 D M24**

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

## Type Selection

Mounting	Output	Plug
Front or socket	DPDT	11-pin
Front or socket	DPDT	8-pin

Supply: 100 to 240 VAC

FAA01DM24  
 FAA08DM24

## Time Specifications

**Time ranges**  
 Selectable by front knob

Time unit	sec	min	hrs	10h
<b>Full scale setting</b>	1.2	0.05 to 1.2		0.5 to 12
	3	0.125 to 3		1.25 to 3
	12	0.5 to 12		5 to 120
	30	1.25 to 30		12.5 to 300

<b>Repeatability</b>	$\pm 0.3\%$ on full scale ( $\pm 0.3\% \pm 10$ ms max in a range of 1.2 s)
<b>Setting accuracy</b>	$\pm 5\%$ on full scale $\pm 50$ ms
<b>Voltage drift</b>	$\pm 0.5\%$ on full scale ( $\pm 0.5\% \pm 10$ ms max in a range of 1.2 s)
<b>Temperature drift</b>	$\pm 2\%$ on full scale ( $\pm 2\% \pm 10$ ms in a range of 1.2 s)
<b>Reset</b>	
Power supply interruption	>100 ms
Pulse width	>50 ms

## Output Specifications

<b>Output</b>	DPDT relay
<b>Output insulation resistance</b>	> 100 M $\Omega$ (at 500 VDC)
<b>Contact Ratings (AgCdO<sub>12</sub>)</b>	$\mu$ 5 A @ 250 VAC / 30 VDC
Resistive loads	AC 1
<b>Mechanical life</b>	$\geq 1 \times 10^7$ operations
<b>Electrical life</b>	$\geq 1 \times 10^5$ operations (5 A at 250 VAC, $\cos \varphi = 1$ , 1.8 x 10 <sup>3</sup> operations/h)
<b>Operating frequency</b>	< 1800 operations/h

## Supply Specifications

<b>Power Supply</b>		<b>Overvoltage cat II (IEC 60947-1)</b>
Rated operational voltage through terminals:		100 to 240 VAC +10%-15% 50 / 60 Hz
(FAA01DM24)	2, 10	100 to 240 VAC +10%-15% 50 / 60 Hz
(FAA08DM24)	2, 7	
<b>Power consumption</b>		
Rated operational power		10VA @ 240 VAC, (50 Hz)



## General Specifications

<b>Indication for</b> Power supply On	LED, green (flashing when timing)
Output ON	LED, red
<b>Environment</b> Degree of protection	IP 40 (front panel)
Operating temperature	-10 to +55 °C (14 to 131 °F)
Ambient humidity	35 to 85% RH
<b>Housing dimensions</b>	48 x 48 mm
<b>Weight</b>	Approx. 95 g
<b>CE marking</b>	Yes
<b>EMC</b> Immunity Emission	Electromagnetic Compatibility According to EN 61000-6-1 According to EN 61000-6-3

## Function and Time Setting

<b>Upper right knob:</b> Setting of function <b>A</b> - delay on operate <b>B2</b> - simmetrical recycler <b>E</b> - interval <b>J</b> - one shot	<b>Lower left knob:</b> Time range selector <b>1.2, 3, 12 and 30</b>
<b>Lower right knob:</b> Time unit selector <b>sec</b> (seconds) <b>min</b> (minutes) <b>hrs</b> (hours) <b>10h</b> (10 hours)	<b>Centre knob:</b> Time setting on relative scale

## Mode of Operation

### Function A

#### Delay on operate

The set delay period begins as soon as the power supply is connected. At the end of the set delay the relay operates and doesn't release until the power supply is interrupted for at least 100 ms.

### Function B<sub>2</sub>

#### Symmetrical recycler (ON first)

The relay operates and the time period start as soon as the power is applied. At the end of the first set time period, the relay releases. At the end of the second time period (equal to the first), the relay operates again. This sequence continues with equal ON- and OFF- time periods until the power supply is interrupted for at least 100 ms.

### Function E

#### Interval

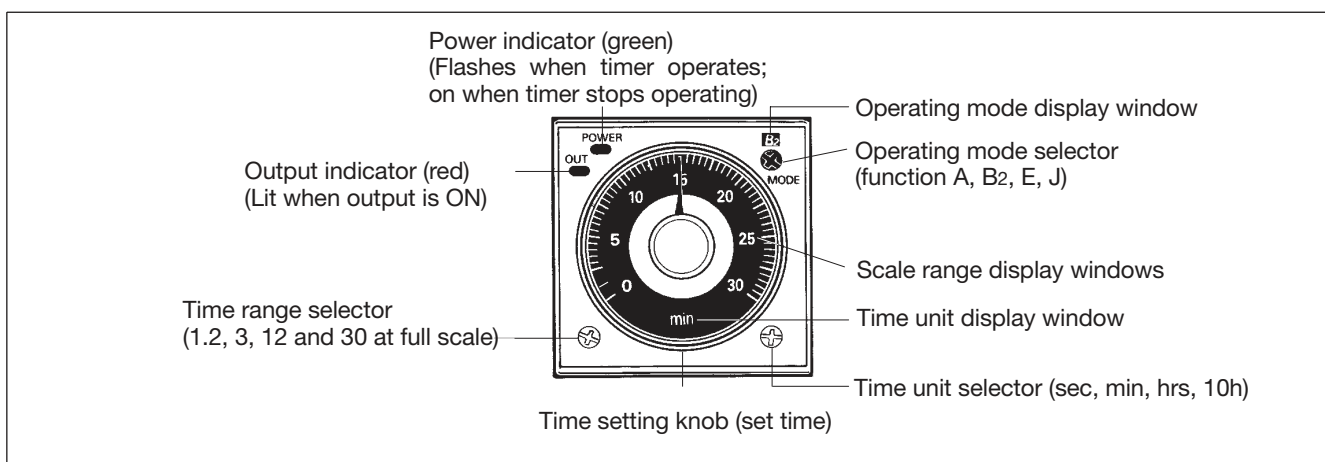
The relay operates and the time period begins as soon as the power is applied. The relay releases at the end of the time period or when the power supply is disconnected for at least 100 ms.

### Function J

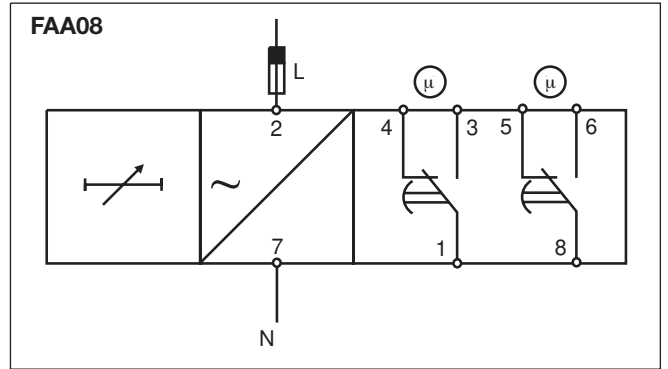
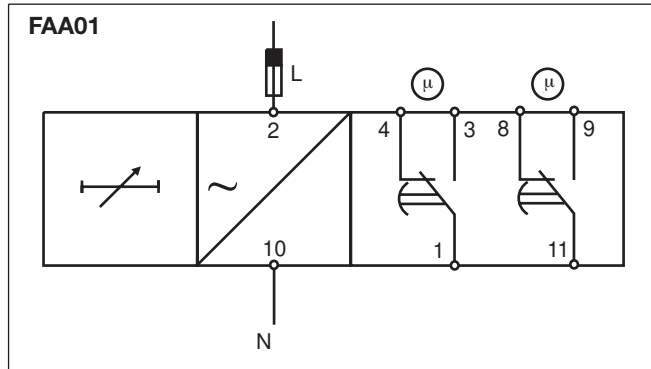
#### One shot

The time period begins as soon as the power supply is connected and at the end of this period the relay operates for 1s.

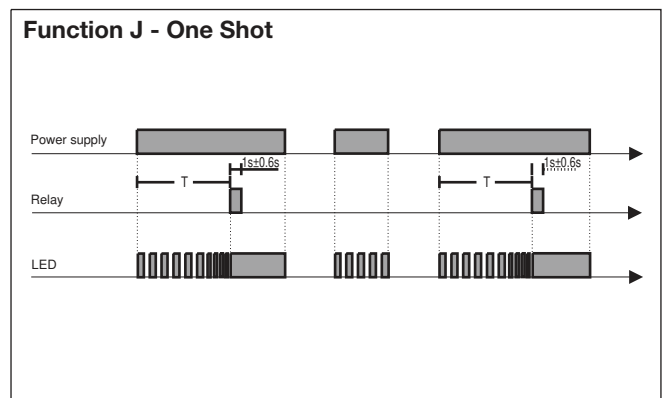
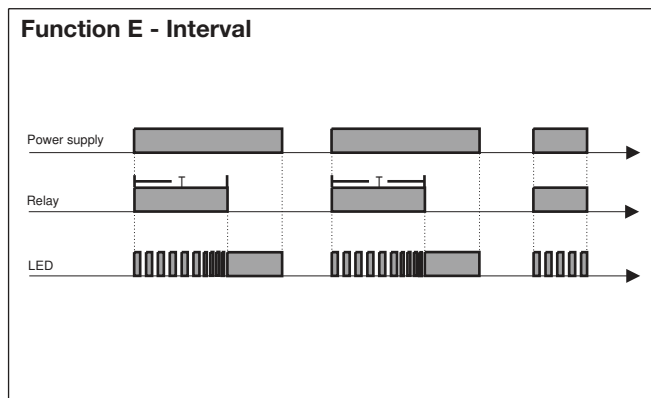
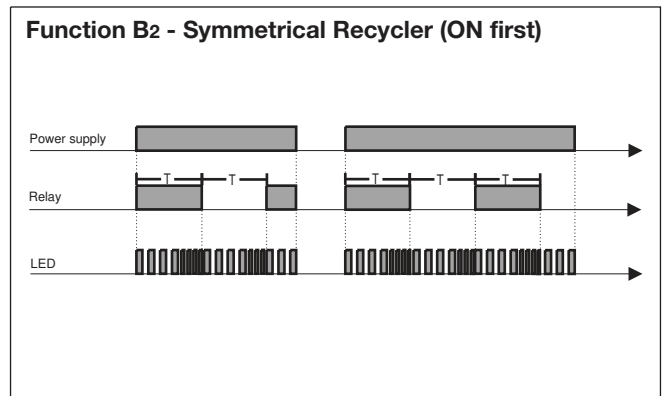
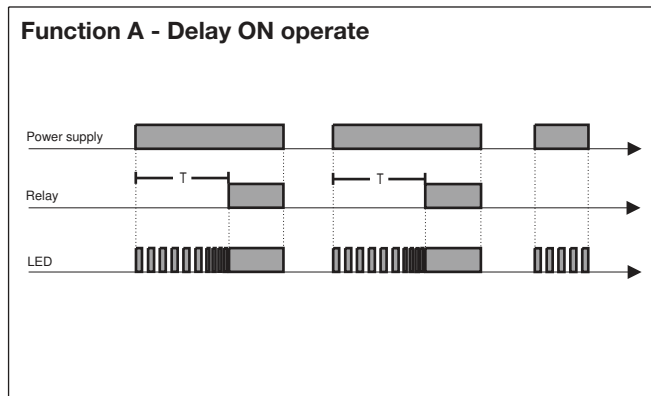
## Range and operation mode selection



## Wiring Diagrams



## Operating Diagrams



## Dimensions

