

Timers

Delay on Operate

Type DAA01, PAA01



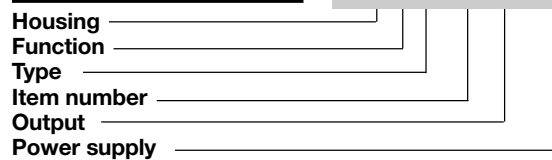
- Time range 0.1 s to 100 h
- Knob selection of time range
- Knob adjustable time setting
- Automatic start
- Repeatability: $\leq 0.2\%$
- Output: 8 A SPDT or 2 x 8 A SPDT relays
- For mounting on DIN-rail in accordance with DIN/EN 50 022 or Plug-in
- 22.5 Euronorm or 36 mm plug-in module housing
- 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 (DAA01) or plug-in (PAA01).

Ordering Key

DAA 01 C M24



Type Selection

Mounting	Output	Housing	Supply: 24 VDC and 24 to 240 VAC	Supply: 24 to 240 VAC/DC
DIN-rail	1 x SPDT 2 x SPDT	D-Housing	DAA01CM24	DAA01DM24
Plug-in	1 x SPDT 2 x SPDT	P-Housing	PAA01CM24	PAA01DM24

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 Within ambient temperature	$\leq 0.05\%/V$ $\leq 0.2\%/^{\circ}C$
Reset Power supply interruption	≥ 200 ms

Output Specifications

Output	1 or 2 x SPDT relays
Rated insulation voltage	250 VAC (rms)
Contact Ratings (AgSnO₂)	μ
Resistive loads	AC 1 DC 12
Small inductive loads	AC 15 DC 13
Mechanical life	$\geq 30 \times 10^6$ operations
Electrical life	$\geq 10^5$ operations (at 8 A, 250 V, $\cos \varphi = 1$)
Operating frequency	< 7200 operations/h
Dielectric strength	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand voltage	4 kV (1.2/50 μ s)

Supply Specifications

Power supply Rated operational voltage through terminals:	Overvoltage cat. III (IEC 60664, IEC 60038)	Voltage interruption	≤ 10 ms
(DAA01C) A1, A2 or (PAA01C) 2, 10	24 VDC $\pm 15\%$ and 24 to 240 VAC + 10% -15%, 45 to 65 Hz	Rated operational power	
(DAA01D) A1, A2 or (PAA01D) 2, 10	24 to 240 VAC/DC + 10% - 15%, 45 to 65 Hz	AC supply	4 VA
		DC supply	1.5 W



General Specifications

Power ON delay	≤ 100 ms	
Reaction time	Instantaneous contact	
	< 20 ms from power ON	
Indication for		
Power supply ON	LED, green	
Output relays ON	LED, yellow (flashing when timing)	
Environment	(EN 60529)	
Degree of protection	IP 20	
Pollution degree	3 (DAA01), 2 (PAA01)	
	(IEC 60664)	
Operating temperature	-20° to +60°C, R.H. < 95%	
Storage temperature	-30° to +80°C, R.H. < 95%	
Housing		
Dimensions	DAA01	22.5 x 80 x 99.5 mm
	PAA01	36 x 80 x 94 mm
Weight	Approx. 130 g	
Screw terminals (DAA01)		
Tightening torque	Max. 0.5 Nm according to IEC EN 60947	
Approvals	UL, CSA RINA (DAA01 only)	
CE marking	Yes	
EMC	Electromagnetic Compatibility	
Immunity	According to EN 61000-6-2	
Emission	According to EN 61000-6-3	
Timer Specifications	According to EN 61812-1	

Mode of Operation

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

The second relay can operate as instantaneous or delayed changeover contact. The selection is made by a DIP-switch placed under the plastic door on the device's front.

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

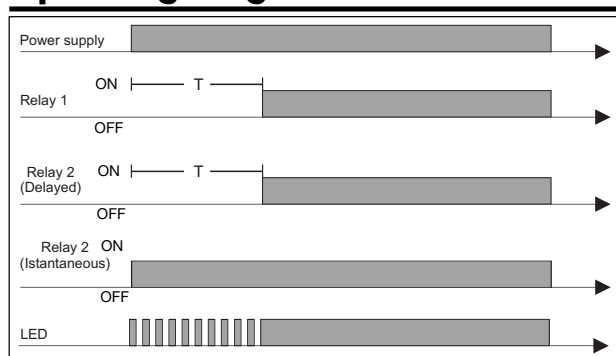
Centre knob:

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

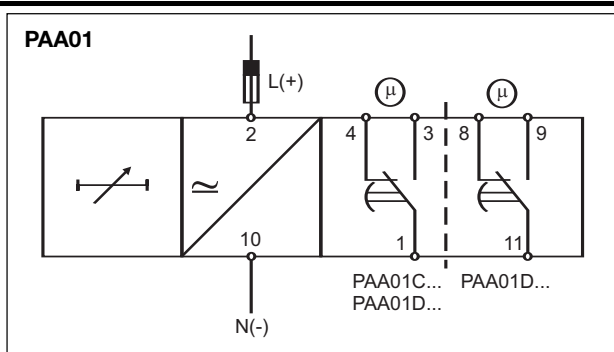
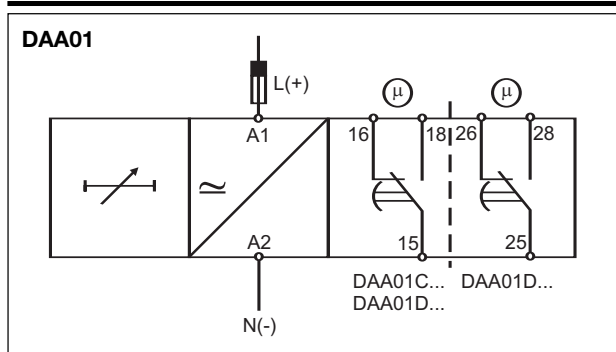
Lower knob:

Setting of time range

Operating Diagram



Wiring Diagrams



Dimensions

