

Timers

Delay on Release

Type DBA52

CARLO GAVAZZI



- Time range 0.1 s to 100 h
- Knob selection of time range
- Knob-adjustable time setting
- Repeatability: $\leq 0.2\%$
- Output: 5 A SPDT relay
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm DIN-rail housing
- Combined AC and DC power supply
- LED indication for relay status and power supply ON

Product Description

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

Ordering Key

DBA 52 C M24

Housing _____
 Function _____
 Type _____
 Item number _____
 Output _____
 Power supply _____

Type Selection

Mounting	Output	Housing
DIN-rail	SPDT	D-Housing

Supply: 24 VDC and 24 to 240 VAC

DBA 52 C M24

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 Manual reset of time and/or relay	Close the trigger contact between pins A1 and Y1
Pulse duration	≥ 100 ms
Power supply interruption	≥ 200 ms

Output Specifications

Output	SPDT relay
Rated insulation voltage	250 VAC (rms)
Contact Ratings (AgSnO₂)	μ
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
Mechanical life	$\geq 30 \times 10^6$ operations
Electrical life	$\geq 10^5$ operations (at 5 A, 250 V, $\cos \varphi = 1$)
Operating frequency	< 7200 operations/h
Dielectric strength	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand volt.	2.5 kV (1.2/50 μ s)

Supply Specifications

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

General Specifications

Power ON delay	≤ 100 ms
Indication for Power supply ON Output relays ON	LED, green LED, yellow (flashing when timing)
Environment Degree of protection Pollution degree Operating temperature Storage temperature	(EN 60529) IP 20 2 (IEC 60664) -20° to +60°C, R.H. < 95% -30° to +80°C, R.H. < 95%
Housing Dimensions Material	17.5 x 81 x 67.2 mm PA66
Weight	Approx. 75 g
Screw terminals Tightening torque	Max. 0.5 Nm according to IEC EN 60947
Approvals	UL, CSA
CE Marking	Yes
EMC Immunity Emission	Electromagnetic Compatibility According to EN 61000-6-2 According to EN 61000-6-3
Timer Specifications	According to EN 61812-1

Mode of Operation

The relay operates as soon as the trigger contact is closed. The time period begins when the trigger contact is opened. The relay releases at the end of the set delay time or when the power supply is disconnected. The relay operates again when the input contact is closed again. If it is closed before the end of the delay time the relay keeps ON, a new time period begins as soon as the trigger contact is opened again.

Additional Load

It's possible to wire an additional load (i.e. a relay) between pins Y1 and A2 driven by the trigger contact without damaging the device (see wiring diagram).

Yellow LED working mode

Timing: Slow blinking
Relay ON: See operation diagrams

Incorrect knobs position:
Fast blinking

Time Setting

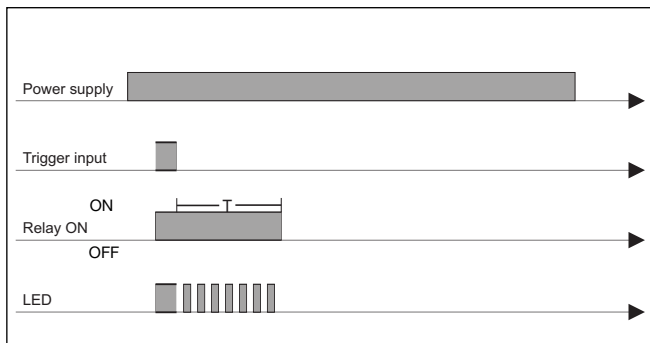
Centre knob:

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

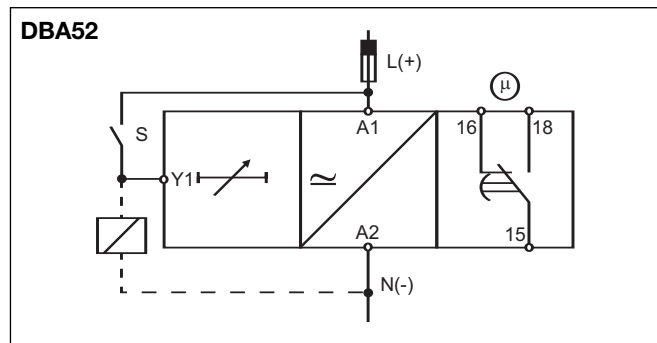
Lower knob:

Setting of time range.

Operating Diagram



Wiring Diagram



Dimensions

