Timers
Delay on Release
Type DBA52

- **Time range 0.1 s to 100 h**
- **Knob selection of time range**
- **Knob-adjustable time setting**
- **Repeatability: ≤ 0.2%**
- **Output: 5 A SPDT relay**
- **For mounting on DIN-rail in accordance with DIN/ EN/EC 60715**
- **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	Supply: 24 VDC and 24 to 240 VAC
DIN-rail	SPDT	D-Housing	**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	≤ 5%
Repeatability	≤ 0.2%
Time variation	
Within rated power supply	≤ 0.05%/V
Within ambient temperature	≤ 0.2%/°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		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		≥ 30 x 10^6 operations
Electrical life		≥ 50 x 10^3 operations (at 5 A, 250 V, cos φ = 1)
Dielectric strength		
Dielectric voltage		2 kVAC (rms)
Rated impulse withstand volt.		2.5 kV (1.2/50 μs)

Supply Specifications

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

General Specifications

Power ON delay	≤ 100 ms
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	2 (IEC 60664)
Operating temperature	-25° to +60°C, R.H. < 95%
Storage temperature	-30° to +80°C, R.H. < 95%
Housing	
Dimensions	17.5 x 81 x 67.2 mm
Material	PA66
Weight	Approx. 75 g
Screw terminals	
Tightening torque	Max. 0.5 Nm according to IEC EN 60947
Approvals	cULus, CSA, RCM
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 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

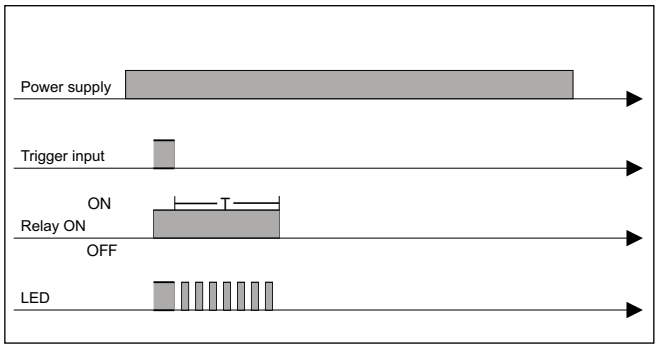
Incorrect knobs position: Fast blinking

Time Setting

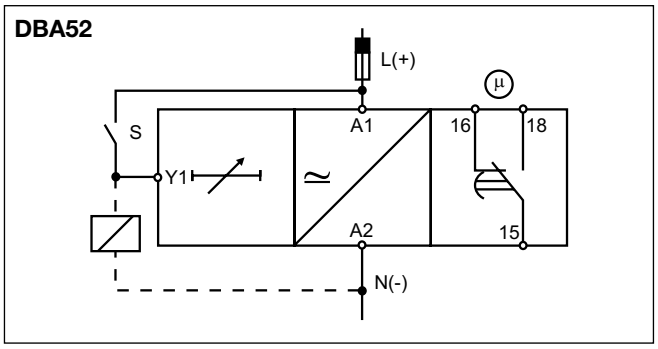
Centre knob:
Time setting on relative scale: 1 to 10 with respect to the chosen range.

Lower knob:
Setting of time range.

Operating Diagram



Wiring Diagram



Dimensions