

Timers

True Delay on Release

Type DBB51

CARLO GAVAZZI



- Time range 1 to 600 s - capacitor powered
- Knob-adjustable time setting
- Automatic start after drop-out of power supply
- 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 (DIN 43880)
- Combined AC and DC power supply
- LED indication for relay status and power supply ON

Product Description

Multi voltage (true) delay on release timer. Time ranges from 1 to 600 s covered by 3 models.

Housing 17.5 mm wide suitable for DIN-rail mounting. Fits in M36 cover.

Ordering key

DBB 51 C M24 10M

Housing	_____
Function	_____
Type	_____
Item number	_____
Output	_____
Power Supply	_____
Range	_____

Type Selection

Mounting	Output	Time range	Supply: 24 VDC and 24 to 240 VAC
For DIN-rail	SPDT	1 to 10 s	DBB 51 C M24 10S
	SPDT	6 to 60 s	DBB 51 C M24 1M
	SPDT	60 to 600 s	DBB 51 C M24 10M

Time Specifications

Time ranges	
Type 10 S	1 to 10 s
Type 1 M	6 to 60 s
Type 10 M	60 to 600 s
Repeatability	$\leq 0.2\%$
Time variation	
Within rated power supply	$\leq 0.05\%$
Within ambient temperature	$\leq 0.2\%$
Reset	Power supply applied for:
DBB51CM2410S	≥ 200 ms
DBB51CM241M,	≥ 200 ms
DBB51CM2410M	≥ 400 ms

Supply Specifications

Power supply	Overvoltage cat. III (IEC 60664, IEC 60038)
Rated operational voltage through terminals: A1, A2	24 VDC $\pm 15\%$ and 24 to 240 VAC $+10\%$ -15% , 45 to 65 Hz
Voltage interruption	≤ 40 ms
Rated operational power	
AC supply:	1.5 VA
DC supply:	0.06 W

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	$\geq 10^6$ operations (at 5 A, 250 V, $\cos \varphi = 1$)
Operating frequency	< 7200 operations / h
Dielectric strength	
Dielectric voltage	2 kVAC (RMS)
Rated impulse withstand voltage	2.5 kV (1.2/50 μ s)



General Specifications

Power ON delay	≤ 200 ms	Housing	
Power OFF delay	≤ 100 ms	Dimensions	17.5 x 81 x 67.2 mm
Indication for	Power supply ON	Material	PA66
	Output relay ON	Weight	70 g
Environment	(EN 60529)	Screw terminals	
	Degree of protection	Tightening torque	Max 0.5 Nm according to IEC EN 60947
	Pollution degree	CE Marking	Yes
	Operating temperature	EMC	
Storage temperature	-20 to 60 °C, R.H. < 95%	Immunity	Electromagnetic Compatibility According to EN 61000-6-2
	-30 to 80 °C, R.H. < 95%	Emission	According to EN 61000-6-3
		Timer Specifications	According to EN 61812-1

Mode of Operation/Settings

When the power supply is applied the relay operates. When the power supply is interrupted the time period starts and, at the end of the set time period, the relay releases. If power supply is reapplied

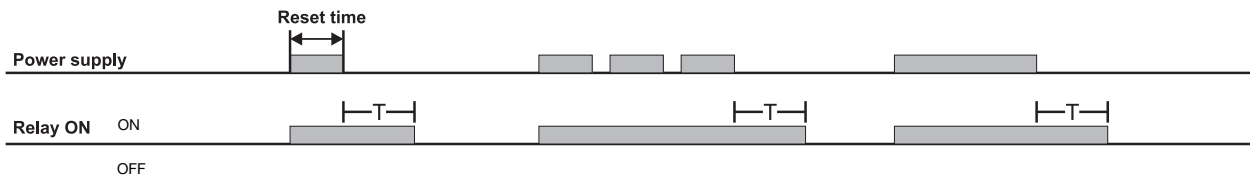
before the relay releases the time is reset and the relay remains ON.

Note:
DBB51 should not be operated by pulses shorter than 200 ms.

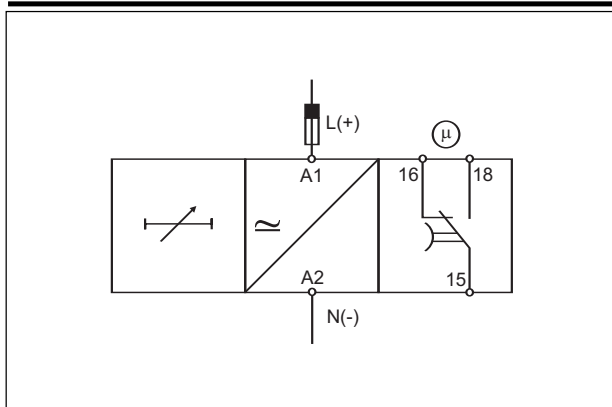
For these purposes the relay DMB51, operated by external contact function, should be used.

Time setting
Knob adjustable on absolute scale.

Operation Diagram



Wiring Diagram



Dimensions

