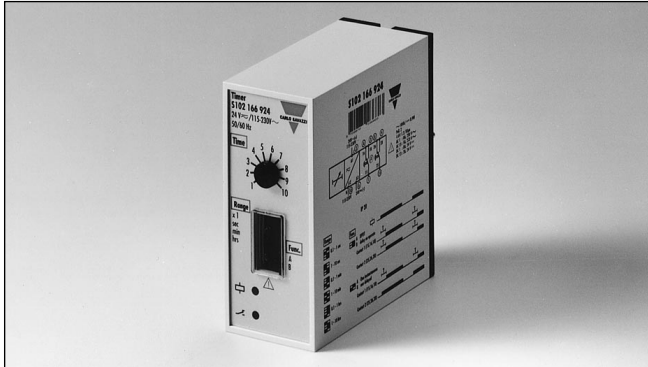


Timers

Delay on Operate

Type S 102

CARLO GAVAZZI



- Time ranges: 0.1 s to 10 h
- 2 contact functions: - DPDT delay on operate
- One instantaneous, one delayed
- Easy time and function setting
- Knob-adjustable time setting
- Automatic start functions
- Repeatability: $\leq 0.2\%$
- Output: 2 x 5 A SPDT relay
- Plug-in module, S-housing
- LED-indication for relay and power supply ON
- 24 VAC/DC and 115 to 230 VAC power supply
- Cadmium-free contacts
- Timer in accordance with IEC 61812-1

Product Description

Multi-voltage delay on operate timer with 6 selectable time ranges from 0.1 s up to 10 h for standard 11-pin circular sockets. Can be configured

with one instantaneous output contact, which can be used in applications where an output is desired immediately when power supply is applied.

Ordering Key **S 102 166 924**

Housing _____
 Type/function _____
 Output _____
 Power supply _____

Type Selection

Plug	Output	Time range
Circular	DPDT	0.1 s - 10 h

Supply: 24 VAC/DC & 115-230 VAC

S 102 166 924

Time Specifications

Time ranges	
Selectable by DIP-switch	0.1 - 1 s 1 - 10 s 0.1 - 1 m 1 - 10 m 0.1 - 1 h 1 - 10 h
Setting accuracy	$\leq 5\%$
Repeatability	$\leq 0.2\%$
Time variation	
Within rated power supply and ambient temperature	$\leq 0.05\%/V$ $\leq 0.2\%/^{\circ}C$
Reset	
Power supply interruption	≥ 200 ms

Output Specifications

Output	2 x SPDT relay
Rated insulation voltage	250 VAC (rms) (cont./elect.)
Contact ratings (AgNi)	
	μ (micro gap) (IEC 60947-5-1/IEC 60337)
Resistive loads	AC 1 5 A/250 VAC DC 1 5 A/24 VDC
Small inductive loads	AC 15 5 A/250 VAC DC 13 2 A/24 VDC
Mechanical life	$\geq 30 \times 10^6$ operations
Electrical life	AC 1 $\geq 10^5$ operations (at max. load)
Operating frequency	≤ 7200 operations/h
Insulation voltage	
Rated insulation voltage	≥ 2.0 kVAC (rms) (cont./elect.)
Rated impulse withstand volt.	4 kV (1.2/50 μ s) (cont./elect.) (IEC 60664)

Supply Specifications

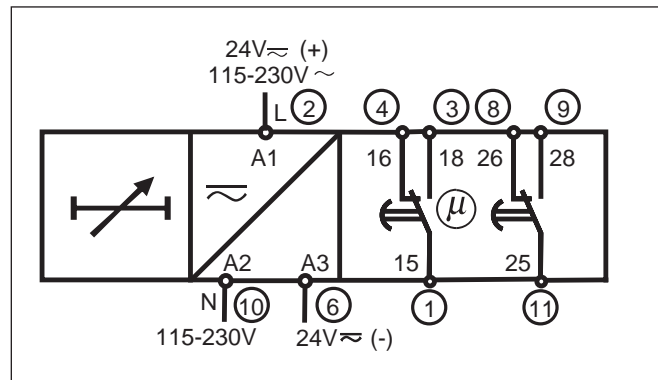
Power supply AC connection	Overvoltage cat. III (IEC 60664)	Power supply DC connection	Overvoltage cat. III (IEC 60664)
Rated operational voltage		Rated operational voltage	
Through pins 2 & 10	115-230 VAC, -15 to +15% 50/60 Hz, -5/+5 Hz	Through pins 2 & 10 924	24 VDC, -15 to +15% (pin 2 positive)
or pins 2 & 10 (interconnect pins 6 & 10)	24 VAC, -15 to +15% 50/60 Hz, -5/+5 Hz	Voltage interruption	≤ 40 ms
Voltage interruption	≤ 40 ms	Rated insulation voltage	None
Rated insulation voltage	None	Rated impulse withstand volt.	1 kV (1.2/50 μ s) (pin 2 & 6)
Rated impulse withstand volt.	4 kV (1.2/50 μ s) (pin 2 & 10)	Rated operational current	
		AC supply	75 mA @ 230 VAC 40 mA @ 115 VAC 55 mA @ 24 VAC
		DC supply	35 mA @ 24 VDC



General Specifications

Power ON delay	≤ 200 ms
Power OFF delay	≤ 200 ms
Indication for	
Power supply ON	LED, green (flashing during time delay)
Timer output ON	LED, yellow
Environment	
Degree of protection	IP 20
Pollution degree	2 (IEC 60664)
Operating temperature	-20° to +50°C (-4° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
Weight	100 g
Approvals	CE
EMC	Electromagnetic Compatibility
Immunity	Acc. to EN 50082-2
Emission	Acc. to EN 50081-1
Timer specifications	Acc. to IEC 61812-1

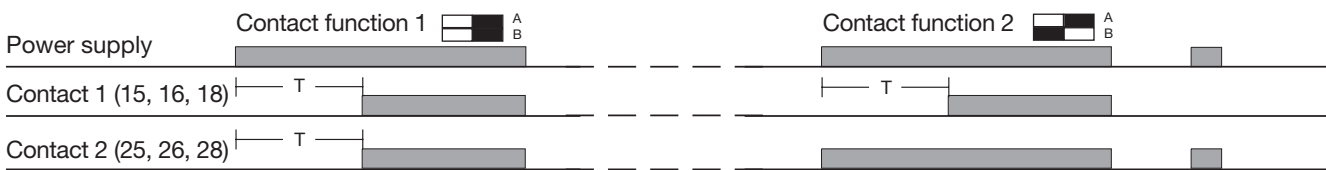
Wiring Diagram



Function and Time Setting

DIP-switch selector	Shown example: min. x 0.1, function 2

Operation Diagram



Mode of Operation

Functions selectable by DIP-switch

Contact function 1 DPDT delay on operate

The delay period begins when power supply is applied. At the end of the set delay, both relay contacts will operate and will not release until power supply is interrupted. If power supply is interrupted for at least 200 ms before the relay operates, the time circuit is reset to zero and the relay is ready for a new time period.

Contact function 2 One instantaneous, one delayed

Relay contact 2 operates instantaneously when power supply is applied. After expiration of the set delay, relay contact 1 operates.

Both contacts remain in ON-position until power supply is interrupted. After 200 ms the time relay is ready for renewed start.

Accessories

Socket◇	S 411
Hold down spring◇	HF
Mounting rack	SM 13
Socket cover	BB 4