

Timers

Delay on Operate

Type S 101



- Time ranges: 0.1 s to 10 h
- Easy time setting
- Knob-adjustable time setting
- Automatic start
- Repeatability: $\leq 0.2\%$
- Output: 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

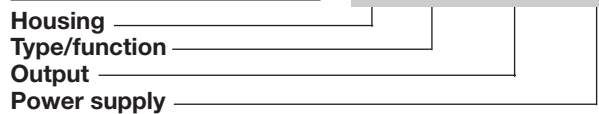
Product Description

Multi-voltage delay on operate timer with 6 selectable time ranges from 0.1 s up to 10 h for standard 11-pin cir-

cular sockets. Used to delay operation of equipment in industrial applications.

Ordering Key

S 101 156 924



Type Selection

Plug	Output	Time range	Supply: 24 VAC/DC & 115-230 VAC
Circular	SPDT	0.1 s - 10 h	S 101 156 924

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	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

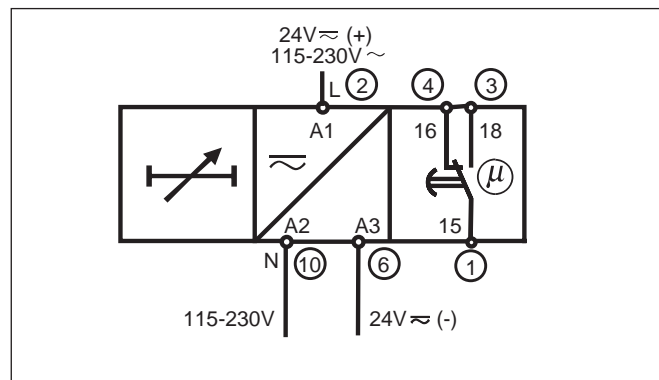
Power supply AC connection	Overvoltage cat. III (IEC 60664)	Power supply DC connection	Overvoltage cat. III (IEC 60664)
Rated operational voltage Through pins 2 & 10	115-230 VAC, -15 to +15% 50/60 Hz, -5/+5 Hz	Rated operational voltage Through pins 2 & 6	924 24 VDC, -15 to +15% (pin 2 positive) ≤ 40 ms
or pins 2 & 6	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) (pins 2 & 6)
Rated impulse withstand volt.	4 kV (1.2/50 μ s) (pins 2 & 10)	Rated operational current	
		AC supply	50 mA @ 230 VAC 25 mA @ 115 VAC 35 mA @ 24 VAC
		DC supply	20 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)
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	UL, CSA
CE-marking	Yes
EMC	Electromagnetic Compatibility
Immunity	Acc. to EN 50082-2
Emission	Acc. to EN 50081-1
Timer specifications	Acc. to IEC 61812-1

Wiring Diagram



Time Setting

DIP-switch selector

Shown example:
min. x 0.1



Operation Diagram



Mode of Operation

The delay period begins when power supply is applied. At the end of the set delay, the relay 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.

Accessories

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