

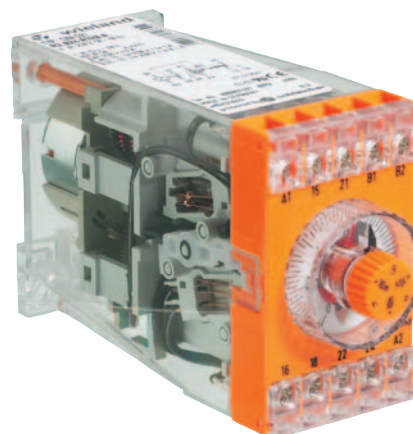
Timer and switching relays

OFF-delay SZA 521

interface

OFF-delay multi-range electromechanical timer relay with auxiliary supply

- Device for single voltage
- Function: OFF-delay (RV)
- 1 setting range divided into 6 time ranges
- Contact assignment: 1 timed and 1 instantaneous change-over contact



General information	Time ranges
<ul style="list-style-type: none"> • The electromechanical timer relay is equipped with synchronous motor and solenoid clutch. • The time ranges are set on the front through selector switches. Infinitely variable time setting within a range is selected by means of a transparent rotary switch. • The countdown indicator moves during operation from the set time value towards zero. 	<p>Available time ranges:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>0.1 s to 1000 s divided into 6 time ranges</p> <p>0.1...3 s 0.3...10 s 1...30 s 3.3...100 s 10...300 s 33...1000 s</p> <p>0.1 s to 30 h divided into 6 time ranges</p> <p>0.1...3 s 1...30 s 0.1...3 min 1...30 min 0.1...3 h 1...30 h</p> </div> <div style="width: 45%;"> <p>0.2 s to 60 h divided into 6 time ranges</p> <p>0.2...6 s 2...60 s 0.2...6 min 2...60 min 0.2...6 h 2...60 h</p> </div> </div>
Function	Circuit diagram
<p>Upon application of the supply voltage at the motor and of the energizing quantity at the coil, the timed and the instantaneous contacts will switch. When the coil is de-energized, the countdown begins and the instantaneous contact falls back into the OFF position.</p> <p>The countdown can be interrupted as often as desired without clearing the elapsed time. When the pre-set time has elapsed, the time contact falls back into the OFF position.</p> <p>Time accumulation: Only by actuating the motor are the resulting operating times accumulated, meaning that the elapsed times are stored.</p>	<p>SZA 521 KS 5125/3</p>
Notes	
<ul style="list-style-type: none"> • With a frequency switch located at the bottom of the housing the relay can be adapted to the relevant frequency (50 or 60 Hz). The factory pre-setting is 50 Hz. • Maximum repeatability is achieved with multi-range models by selecting the shortest possible time range. • The time range on the devices has to be selected in the OFF position to avoid possible timing errors and incorrect contact switching. 	

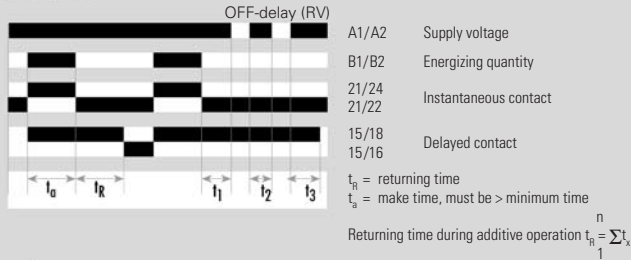
Timer and switching relays OFF-delay SZA 521

interface

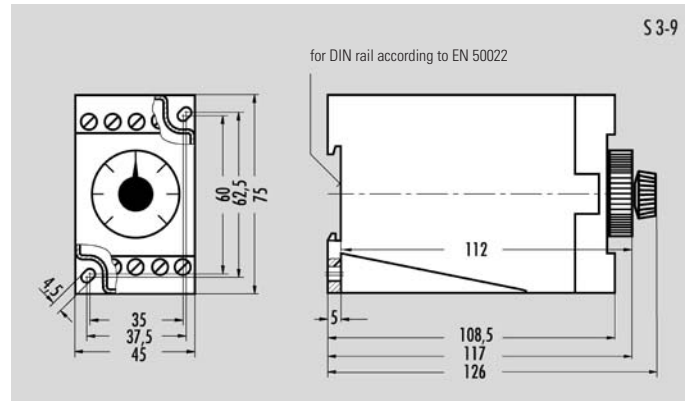
Function diagram

SZA 521

FD 0012



Dimension diagram



Accessories

Cover Z 29 sealable transparent cover

Overview of the devices/Part numbers

Type	Setting range	Rated voltage	Part No.	Std. Pack
SZA 521	0.1 s ... 1000 s	AC 24 V 50/60 Hz	R2.026.0210.0	1
		AC 110 – 115 V 50/60 Hz	R2.026.0110.0	1
		AC 230 V 50/60 Hz	R2.026.0230.0	1
	0.1 s ... 30 h	AC 24 V 50/60 Hz	R2.026.0280.0	1
		AC 110 – 115 V 50/60 Hz	R2.026.0240.0	1
		AC 230 V 50/60 Hz	R2.026.0320.0	1
	0.2 s ... 60 h	AC 24 V 50/60 Hz	R2.026.0140.0	1
		AC 42 V 50/60 Hz	R2.026.0190.0	1
		AC 110 – 115 V 50/60 Hz	R2.026.0120.0	1
		AC 230 V 50/60 Hz	R2.026.0040.0	1

Timer and switching relays

OFF-delay SZA 521

interface

Technical data	SZA 521
Function type according to DIN VDE 0435 sec. 110:04.89	Electromechanical timer relay for single voltage Item 3.17: OFF-delay timer relay
Function display	Pointer for operating time
Function diagram	FD 0012
Power supply circuit	
Rated voltage U_N	See "Overview of devices"
Rated consumption: motor at 50 Hz and UN (AC)	ca. 1.3 VA/ca. 1.1 W
Rated consumption: coil at 50 Hz and UN (AC)	ca. 1.0 VA/ca. 0.9 W
Rated frequency	50 and 60 Hz selectable on the device
Operating voltage range	0.8 – 1.1 x U_N
Time circuit	
Time setting / number of time ranges	analog/6
Available time ranges	s. Tabelle „Time ranges“
Recovery time	–
Minimum ON time	150 ms
Release value	$\geq 15\% U_N$
Parallel loads permissible	yes
Internal half-wave rectification	yes
Error (average related to the full scale value)	during standard operation: Setting range 6 s; $\pm 1.5\%$ Setting range 6 s; $\pm 2\%$ Setting range 3 s; $\pm 3\%$
Dispersion	Standard operation Rapid start
Setting range 0.3 – 6 s	± 0.06 s ± 0.03 s
Setting range 3 – 60 s	± 0.22 s ± 0.19 s
Max. operating time ≥ 60 s	$\pm 0.3\%$ related to the full scale value
Output circuit	
Contact assignment	1 timed and 1 instantaneous change-over contact
Contact material	Ag Cu
Rated operating voltage U_n	AC/DC 230 V
Max. continuous current I_n	5 A
Application category according to EN 60947-5-1:1991	AC-15: U_e 230 V AC, I_e 2 A DC-13: U_e 24 V DC, I_e 2 A
Permissible switching frequency	≤ 3600 switching cycles/h
Mechanical life	3×10^6 switching cycles or 10^4 motor operation hours
Response time	≤ 25 ms
Release time	≤ 60 ms
General information	
Creepage distances and clearances between the circuits	according to DIN VDE 0110-1:04.97
Rated impulse voltage	4 kV
overvoltage category	III
Degree of pollution	3 outside 2 inside
Rated voltage	AC 250 V
Test voltage U_{eff} 50 Hz according to DIN VDE 0110-1, table A.1	2.21 kV
Protection degree housing/terminals according to DIN VDE 0470 sec. 1:11.92	IP 30/IP 20
Emitted interference	EN 50081-1:03.93, -2:03.94
Noise immunity	EN 50082-2:1995
Ambient temperature, operating range	-10 – +55 °C
Dimension diagram	S 3-9
Circuit diagram	KS 5125/3
Weight	0.35 kg
Accessories	B 5, B 7, BT 421, DA 1, V 4, Z 1
Approvals	