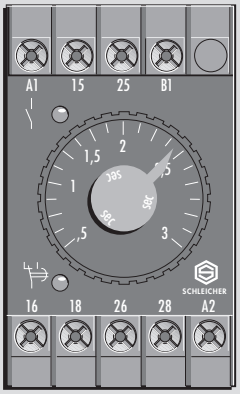
Electronic Time Relays

SZT 320 for single voltage
SZT 420 for single voltage

Function: OFF-delay (RV) with auxiliary supply
1 time range
Contact equipment: SZT 320 = 2 timed changeover
SZT 420 = 2 timed changeover

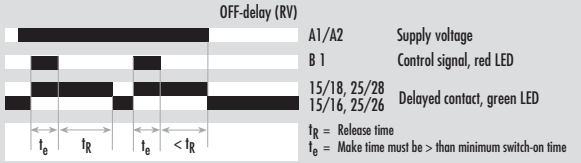
SZT 320, ...



Function Diagram

FD 0037

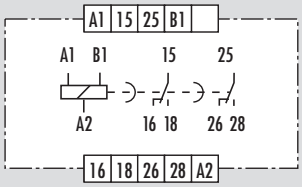
SZT 320, ...



Connection Diagram

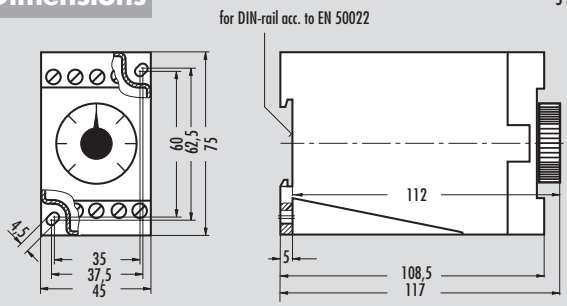
KS 0121/3

SZT 320, ...



Dimensions

S 3-9



Function

RV (see page S 1/3).

Infinitely variable time setting within a range is carried out with the aid of a transparent rotary knob.

Product Description

The electronic time relays SZT 320, SZT 420 are designed for a single range and are available in the following time ranges:

Time Range			
0,05	to	1	s
0,15	to	3	s
0,5	to	10	s
1,5	to	30	s
5	to	100	s
15	to	300	s
0,5	to	10	min
1,5	to	30	min

Type		Standard voltage	Special voltage	Price Code
SZT 320	1 s	24 V AC/DC	42 V AC/DC	**S 1/27.1**
SZT 320	3 s	110 to 120 V AC	48 V AC/DC	
SZT 320	10 s	220 to 240 V AC	60 V AC/DC	
SZT 320	30 s	50 to 60 Hz	50 to 60 Hz	
SZT 320	100 s			
SZT 320	300 s			
SZT 320	10 min			
SZT 320	30 min			
SZT 420	1 s	110 V DC		**S 1/27.2**
SZT 420	3 s	220 V DC		
SZT 420	10 s			
SZT 420	30 s			
SZT 420	100 s			
SZT 420	300 s			
SZT 420	10 min			
SZT 420	30 min			

Accessories

Cover Z 29 (sealable transparent cover)

Price code for accessories (see page S 1/72).

1

TECHNICAL DATA

		SZT 320	SZT 420
FUNCTION according to DIN VDE 0435 Part 110:04.89		Electronic, single voltage time relay	Electronic, single voltage time relay
	Point 3.16	OFF-delay time relay with auxiliary supply	OFF-delay time relay with auxiliary supply
Function display		1 LED green, 1 LED red	1 LED green, 1 LED red
Function diagram		FD 0037	FD 0037
POWER SUPPLY			
Rated voltage U_N	V AC/DC	**24 / 42 / 48 / 60 / 110-120 / 220-240**	
Rated voltage U_N	V AC		**110 / 220**
Rated voltage U_N	V DC		
Rated consumption at 50 Hz and U_N (AC)	VA	2,5 / 2,8 / 3,3 / 2,5 / 4,5 / 8,2	
Rated consumption at 50 Hz and U_N (AC)	W	1,4 / 1,7 / 2,1 / 1,4 / 1,6 / 2,0	
Rated consumption at U_N (DC)	W	1,2 / 1,3 / 1,7 / 1,7	2,1 / 2,4
Starting current inrush	A/ms	1,5/2 / ,7/2 / ,6/3 / ,7/3 / ,6/1 / ,5/,5	0,1/2 / 0,1/10
Rated frequency	Hz	50 to 60	50 to 60
Operating voltage range		0,8 to 1,1 x U_N	0,8 to 1,1 x U_N
Rated current for the energizing quantity at (B1)	mA	≤ 3	≤ 1,5
TIME CIRCUIT			
Time setting/Number of time ranges		analog/1	analog/1
Setting range available	s	0,05 to 1; 0,15 to 3;	0,05 to 1; 0,15 to 3;
	s	0,5 to 10; 1,5 to 30;	0,5 to 10; 1,5 to 30;
	s	5 to 100; 15 to 300;	5 to 100; 15 to 300;
	min	0,5 to 10; 1,5 to 30	0,5 to 10; 1,5 to 30
Recovery time 1/2	ms	3000/–	3000/–
Minimum switch-ON time	ms	20	20
Release value	% U_N	≥ 15	≥ 15
Repeat cycle starting with		–	–
Permissible parallel load		yes	yes
Internal rectifier		yes	yes
Average of the error		diagram 3, page i.5	diagram 3, page i.5
Dispersion	% + ± 10 ms	≤ ± 0,5	≤ ± 0,5
Influence of the energizing quantity or supply voltage	%/% Δ U_N	≤ 0,02	≤ 0,02
Influence of the ambient temperature	%/K	≤ 0,025	≤ 0,025
OUTPUT CIRCUIT			
Contact equipment		2 timed changeover	2 timed changeover
Contact material		Ag–alloy; gold-plated	Ag–alloy; gold-plated
Switching voltage U_n	V AC/DC	230/230	230/230
Maximum continuous current I_n	A	5	5
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	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	switching cycles/h	6000	6000
Mechanical service life	switching cycles	30 x 10^6	30 x 10^6
Response time	ms	ca. 25	ca. 15
Release time	ms	ca. 70	ca. 35
GENERAL DATA			
Creepage and clearance distances between circuits according to DIN VDE 0110-1:04.97: rated surge voltage	kV	4	4
Over voltage category		III	III
Contamination level		3 outside, 2 inside	3 outside, 2 inside
Design voltage	V AC	250	250
Test voltage U_{eff} 50 Hz acc. to DIN VDE 0110-1, Table A.1	kV	2,21	2,21
Protection class housing/terminals acc. to DIN VDE 0470 Sec. 1:11.92		IP 30/IP 20	IP 30/IP 20
Radiated noise		EN 50081–1:03.93, –2:03.94	EN 50081–1:03.93, –2:03.94
Noise immunity		EN 50082–2:1995	EN 50082–2:1995
Ambient temperature, working range	°C	-20 to + 60	-20 to + 60
Dimensions		S 3–9	S 3–9
Connection diagram		KS 0121/3	KS 0121/3
Weight	kg	0,17	0,17
Accessories		cover Z 29	cover Z 29
Approvals		page i.4	page i.4
GENERAL TECHNICAL SPECIFICATIONS		page i.5	page i.5