



## Electronic Multi-Function Relays

**SZT 92 - SM, SZT 92 M** for multi-voltage supply 24 to 240 V AC/DC

**4 functions: ON-delay (AV), OFF-delay (RV) with auxiliary supply, interval ON (EW), repeat cycle (TP) starting with OFF**

**1 setting range, divided into 4 time ranges**

**Contact equipment: SZT 92 - SM = 1 timed and 1 instantaneous changeover  
SZT 92 M = 2 timed changeover**

### SZT 92 - SM, ...



### Function

AV, RV, EW and TP (see page S 1/3).

The setting of the functions and time ranges is done on the timer's front by means of selector switches. Infinitely variable time setting within a range is carried out with the aid of a transparent rotary knob.

### Product Description

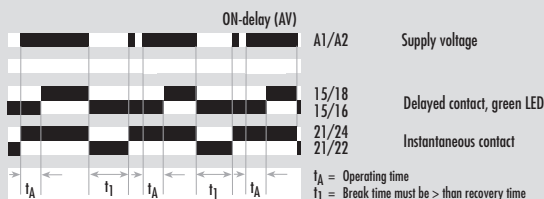
The electronic multi-function relays SZT 92... are available in 1 setting range, divided into 4 time ranges.

Setting Range	Time Range
<b>0,15 s to 400 s</b> divided into:	0,15 to 1,5 s
	0,6 to 6 s
	5 to 50 s
	40 to 400 s
or <b>1,5 s to 60 min</b> divided into:	1,5 to 15 s
	0,1 to 1 min
	0,8 to 8 min
	6 to 60 min

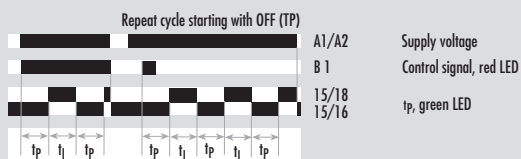
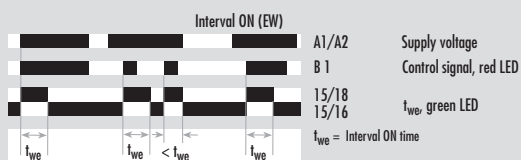
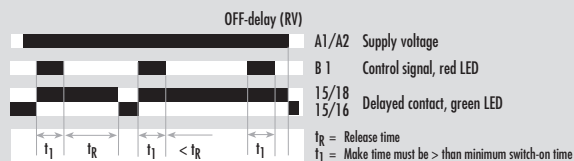
### Function Diagram

FD 0107/1-4

#### SZT 92-SM



The function diagram of the immediate changeover is the same for all selectable functions



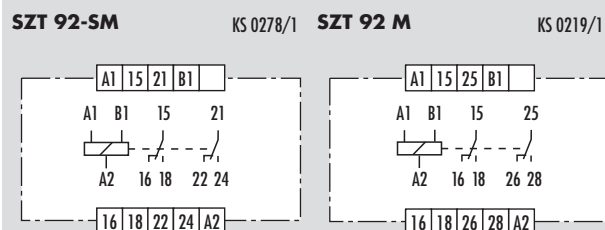
#### SZT 92 M

FD 0106/1-4

The function diagrams for the SZT 92 M are the same as above, except for the immediate changeover contact which is missing. This item has a 2nd. timed changeover instead (see connection diagram KS 0219/1).

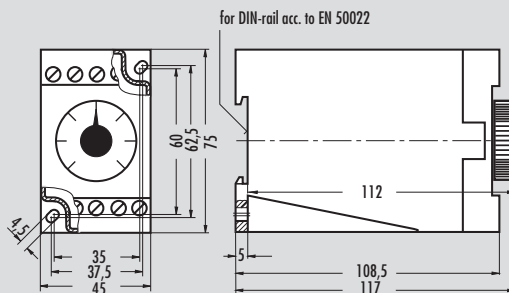
Type	Standard voltage	Special voltage	Price Code
SZT 92- SM 400 s SZT 92- SM 60 min	24 to 240 V AC/DC 50 to 60 Hz		<b>S 1/7.1</b>
SZT 92 M 400 s SZT 92 M 60 min	24 to 240 V AC/DC 50 to 60 Hz		<b>S 1/7.2</b>

### Connection Diagram



### Dimensions

S 3-9





## TECHNICAL DATA

**FUNCTION** according to DIN VDE 0435 Part 1 110:04.89

Point 3.12  
Point 3.16  
  
Point 3.4  
Point 3.9  
  
Function display  
Function diagram

### POWER SUPPLY

Rated voltage $U_N$	V AC/DC	<b>24 to 240</b>
Rated consumption at 50 Hz and $U_N$ (AC)	VA	11
Rated consumption at 50 Hz and $U_N$ (AC)	W	3
Rated consumption at $U_N$ (DC)	W	3
Starting current inrush	A/ms	-
Rated frequency	Hz	50 to 60
Operating voltage range		0,8 to 1,1 x $U_N$
Rated current for the energizing quantity at (B1)	mA	≤ 1

### TIME CIRCUIT

Time setting/Number of time ranges		analog/4
2 setting ranges available		1. setting range 0,15 to 400 s divided into: 0,15 to 1,5; 0,6 to 6; 5 to 50; 40 to 400
	s	
	s	
	s/min	2. setting range 1,5 s to 60 min divided into: 1,5 s to 15 s/0,1 min to 1 min; 0,8 to 8; 6 to 60
Recovery time 1/2	ms	ca. 50/ca. 50
Minimum switch-ON time	ms	20
Release value	% $U_N$	≥ 10; perm. line inductivity 0,2 μF pause (OFF)
Repeat cycle starting with		yes; B1 no
Permissible parallel load		no
Internal rectifier		no
Average of the error		diagram 4, page i.5
Dispersion	% ± 10 ms	≤ ± 0,5
Influence of the energizing quantity or supply voltage	%/% Δ $U_N$	≤ 0,02
Influence of the ambient temperature	%/K	≤ 0,025

### OUTPUT CIRCUIT

Contact equipment		1 timed and 1 instant. changeover
Contact material		Ag-alloy; gold-plated
Switching voltage $U_n$	V AC/DC	230/230
Maximum continuous current $I_n$	A	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
Permissible switching frequency	switching cycles/h	6000
Mechanical service life	switching cycles	30 x 10 <sup>6</sup>
Response time	ms	ca. 20
Release time for timed changeover/immediate changeover	ms	ca. 25/ca. 20

### GENERAL DATA

Creepage and clearance distances between circuits according to DIN VDE 01 10-1:04.97: rated surge voltage	kV	4
Over voltage category		III
Contamination level		3 outside, 2 inside
Design voltage	V AC	250
Test voltage $U_{eff}$ 50 Hz acc. to DIN VDE 01 10-1, Table A.1	kV	2,21
Protection class housing/terminals acc. to DIN VDE 0470 Sec. 1:11.92		IP 30/IP 20
Radiated noise		EN 50081-1:03.93, -2:03.94
Noise immunity		EN 50082-2:1995
Ambient temperature, working range	°C	-20 to + 60
Dimensions		S 3-9
Connection diagram		KS 0278/1
Weight	kg	0,18
Accessories		cover Z 29
Approvals		page i.4

### GENERAL TECHNICAL SPECIFICATIONS

page i.5

## SZT 92-SM

Multi-function and multi-voltage relay with immediate contact

ON-delay time relay  
OFF-delay time relay with auxiliary supply voltage  
Interval ON relay  
Repeat cycle timer  
1 LED green, 1 LED red  
FD 0107/1 to 4

### 24 to 240

Rated consumption at 50 Hz and $U_N$ (AC)	VA	11
Rated consumption at 50 Hz and $U_N$ (AC)	W	3
Rated consumption at $U_N$ (DC)	W	3
Starting current inrush	A/ms	-
Rated frequency	Hz	50 to 60
Operating voltage range		0,8 to 1,1 x $U_N$
Rated current for the energizing quantity at (B1)	mA	≤ 1

Time setting/Number of time ranges		analog/4
2 setting ranges available		1. setting range 0,15 to 400 s divided into: 0,15 to 1,5; 0,6 to 6; 5 to 50; 40 to 400
	s	
	s	
	s/min	2. setting range 1,5 s to 60 min divided into: 1,5 s to 15 s/0,1 min to 1 min; 0,8 to 8; 6 to 60
Recovery time 1/2	ms	ca. 50/ca. 50
Minimum switch-ON time	ms	20
Release value	% $U_N$	≥ 10; perm. line inductivity 0,2 μF pause (OFF)
Repeat cycle starting with		yes; B1 no
Permissible parallel load		no
Internal rectifier		no
Average of the error		diagram 4, page i.5
Dispersion	% ± 10 ms	≤ ± 0,5
Influence of the energizing quantity or supply voltage	%/% Δ $U_N$	≤ 0,02
Influence of the ambient temperature	%/K	≤ 0,025

Contact equipment		1 timed and 1 instant. changeover
Contact material		Ag-alloy; gold-plated
Switching voltage $U_n$	V AC/DC	230/230
Maximum continuous current $I_n$	A	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
Permissible switching frequency	switching cycles/h	6000
Mechanical service life	switching cycles	30 x 10 <sup>6</sup>
Response time	ms	ca. 20
Release time for timed changeover/immediate changeover	ms	ca. 25/ca. 20

Creepage and clearance distances between circuits according to DIN VDE 01 10-1:04.97: rated surge voltage	kV	4
Over voltage category		III
Contamination level		3 outside, 2 inside
Design voltage	V AC	250
Test voltage $U_{eff}$ 50 Hz acc. to DIN VDE 01 10-1, Table A.1	kV	2,21
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Ambient temperature, working range	°C	-20 to + 60
Dimensions		S 3-9
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## SZT 92 M

Multi-function and multi-voltage relay

ON-delay time relay  
OFF-delay time relay with auxiliary supply voltage  
Interval ON relay  
Repeat cycle timer  
1 LED green, 1 LED red  
FD 0107/1 to 4

### 24 to 240

Rated consumption at 50 Hz and $U_N$ (AC)	VA	8
Rated consumption at 50 Hz and $U_N$ (AC)	W	2
Rated consumption at $U_N$ (DC)	W	2
Starting current inrush	A/ms	-
Rated frequency	Hz	50 to 60
Operating voltage range		0,8 to 1,1 x $U_N$
Rated current for the energizing quantity at (B1)	mA	≤ 1

Time setting/Number of time ranges		analog/4
2 setting ranges available		1. setting range 0,15 to 400 s divided into: 0,15 to 1,5; 0,6 to 6; 5 to 50; 40 to 400
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	s/min	2. setting range 1,5 s to 60 min divided into: 1,5 s to 15 s/0,1 min to 1 min; 0,8 to 8; 6 to 60
Recovery time 1/2	ms	ca. 50/ca. 50
Minimum switch-ON time	ms	20
Release value	% $U_N$	≥ 10; perm. line inductivity 0,2 μF pause (OFF)
Repeat cycle starting with		yes; B1 no
Permissible parallel load		no
Internal rectifier		no
Average of the error		diagram 4, page i.5
Dispersion	% ± 10 ms	≤ ± 0,5
Influence of the energizing quantity or supply voltage	%/% Δ $U_N$	≤ 0,02
Influence of the ambient temperature	%/K	≤ 0,025

Contact equipment		2 timed changeover
Contact material		Ag-alloy; gold-plated
Switching voltage $U_n$	V AC/DC	230/230
Maximum continuous current $I_n$	A	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
Permissible switching frequency	switching cycles/h	6000
Mechanical service life	switching cycles	30 x 10 <sup>6</sup>
Response time	ms	ca. 20
Release time for timed changeover/immediate changeover	ms	ca. 25/-

Creepage and clearance distances between circuits according to DIN VDE 01 10-1:04.97: rated surge voltage	kV	4
Over voltage category		III
Contamination level		3 outside, 2 inside
Design voltage	V AC	250
Test voltage $U_{eff}$ 50 Hz acc. to DIN VDE 01 10-1, Table A.1	kV	2,21
Protection class housing/terminals acc. to DIN VDE 0470 Sec. 1:11.92		IP 30/IP 20
Radiated noise		EN 50081-1:03.93, -2:03.94
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