



Electronic Multi-Range Time Relay

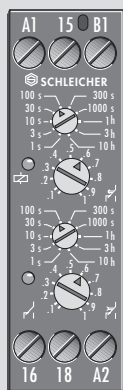
KZT 510 K for single voltage

2 functions: ON- and OFF-delay (ARV)

1 setting range, divided into 10 time ranges for each function

Contact equipment: 1 timed changeover

KZT 510 K



Function

ARV (see page K 2/3).

The setting of the time ranges and of the time within the preselected range is done on the timer's front for each single function. Different operating times can be selected for each function. If during the elapsing of the time (t_A) the supply of B1. The residual time will start elapsing again. The interruption of the elapsing of the time can be done so often as requested (time accumulation feature).

Product Description

The electronic multi-range time relay KZT 510 K, is available with 1 setting range, divided into 10 time ranges.

Setting Range	Time Range	
0,05 s to 10 h divided into :	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
	50	to 1000 s
	0,05	to 1 h
	0,15	to 3 h
	0,5	to 10 h

Type	Standard voltage	Special voltage	Price Code
KZT 510 K 10 h	24 V AC/DC 115 V AC 230 V AC 50 to 60 Hz	42 V AC/DC 50 to 60 Hz	K 2/36.1

Accessories

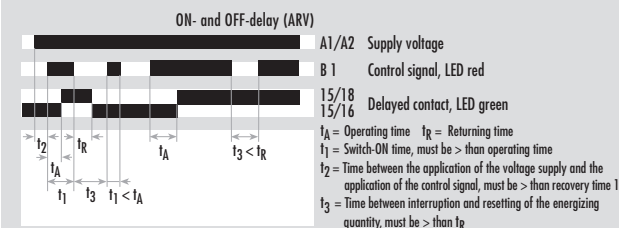
Cover Z 12 (sealable transparent cover)
 Adaptor Z 15 (to be fixed with 2 screws type M49)
 The housing can be snapped onto the adaptor.

Price code for accessories: see page K 2/71

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Function Diagram

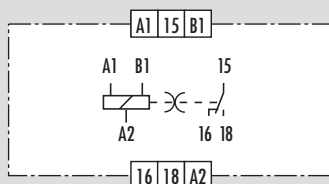
FD 0117



Connection Diagram

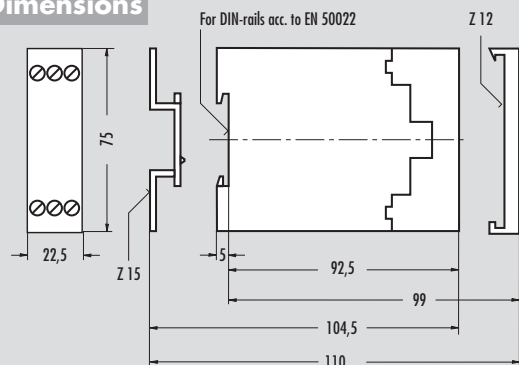
KS 0307/1

KZT 510 K



Dimensions

K 1-8





TECHNICAL DATA

FUNCTION according to DIN VDE 0435 Part 1 110:04.89 Point 3.12
Point 3.16

Function display
Function diagram

POWER SUPPLY

Rated voltage U_N	V AC/DC	24	42		
Rated voltage U_N	V AC			115	230
Rated consumption at 50 Hz and U_N (AC)	VA	2,0	1,6	8	9
Rated consumption at 50 Hz and U_N (AC)	W	1,8	1,4	1,6	2,2
Rated consumption (DC)	W	1,2	1,1		
Starting current inrush	A/ms	1,5/2	1,6	5/2	5/3
Rated frequency	Hz	50 to 60			
Operating voltage range		0,8 to 1,1 x U_N			
Rated current for the energizing quantity (control signal B1)	mA	ca. 13	ca. 7	ca. 3,5	ca. 2

TIME CIRCUIT

Time setting/Number of time ranges
Available time ranges

	s	0,05 to 1; 0,15 to 3;
	s	0,5 to 10; 1,5 to 30;
	s	5 to 100; 15 to 300;
	s	50 to 1000;
	h	0,05 to 1; 0,15 to 3;
	h	0,5 to 10
Recovery time 1/2	ms	ca. 50/-
Minimum switch-ON time	ms	-
Release value	% U_N	≥ 15
Permissible parallel load		yes
Internal rectifier		no
Average of the error		-
Dispersion	% + ± 10 ms	≤ ± 0,5
Influence of the energizing quantity or supply voltage	%/% ΔU_N	≤ 0,005
Influence of the ambient temperature	%/K	≤ 0,005

OUTPUT CIRCUIT

Contact equipment		1 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	3600
Mechanical service life	switching cycles	30 x 10 ⁶
Response time	ms	-
Release time	ms	-

GENERAL DATA

Creepage and clearance distances between circuits according to DIN VDE 0110-1:04.97: 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 0110-1, 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		K 1-8
Connection diagram		KS 0307/1
Weight	kg	0,12
Accessories		cover Z 12, adaptor Z 15
Approvals		page i.4

GENERAL TECHNICAL SPECIFICATIONS

KZT 510 K

ON-delay and
OFF-delay time relay with
supply voltage
1 LED green, 1 LED red
FD 0117

24	42		
		115	230
2,0	1,6	8	9
1,8	1,4	1,6	2,2
1,2	1,1		
1,5/2	1,6	5/2	5/3
50 to 60			
0,8 to 1,1 x U_N			
AC 24 V	42 V	115 V	230 V
DC 24 V	42 V		
ca. 13	ca. 7	ca. 3,5	ca. 2

analog/10
0,05 s to 10 h
divided into:
0,05 to 1; 0,15 to 3;
0,5 to 10; 1,5 to 30;
5 to 100; 15 to 300;
50 to 1000;
0,05 to 1; 0,15 to 3;
0,5 to 10
ca. 50/-
-
≥ 15
yes
no
-
≤ ± 0,5
≤ 0,005
≤ 0,005

1 timed changeover
Ag-alloy; gold-plated
230/230
5
AC-15 U_e 230 V AC, I_e 2 A
DC-13 U_e 24 V DC, I_e 2 A
3600
30 x 10 ⁶
-
-

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III
3 outside, 2 inside
250
2,21
IP 30/IP 20
EN 50081-1:03.93, -2:03.94
EN 50082-2:1995

-20 to + 60
K 1-8
KS 0307/1
0,12
cover Z 12, adaptor Z 15
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page i.5

