



Electronic Time Relays

Electronic Multi-Function Relays

KZT 51 KM for multi-voltage 24 to 240 V AC/DC

KZT 51 KD for dual-voltage 24 V AC/DC and 230 V AC, voltage selection by means of a DIP-switch

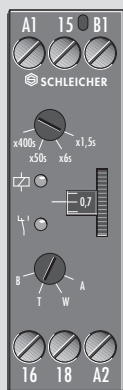
KZT 51 K for single voltage

4 functions: ON-delay (AV), interval ON (EW), repeat cycle (TI) starting with ON,
repeat cycle (TP) starting with OFF

1 setting range, divided into 4 time ranges

Contact equipment: 1 timed changeover

KZT 51 KM, ...



Function

AV, EW, TI and TP (see page K 2/3).

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

On the KZT 51 KD the voltage can be selected with the DIP-switch situated on the rear of the item (factory preset at 220 V AC).

Product Description

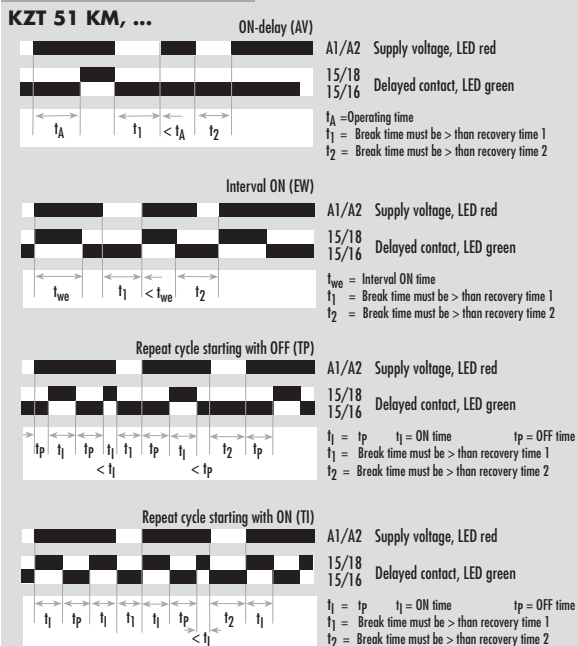
The electronic multi-function relays KZT 51... are available in 1 setting range, divided into 4 time ranges.

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

Type	Standard voltage	Special voltage	Price Code
KZT 51 KM 400 s KZT 51 KM 60 min	24 to 240 V AC/DC 50 to 60 Hz		K 2/16.1
KZT 51 KD 400 s KZT 51 KD 60 min	24 V AC/DC and 220 to 240 V AC 50 to 60 Hz		K 2/16.2
KZT 51 K 400 s KZT 51 K 60 min	24 V AC/DC 110 to 127 V AC 220 to 240 V AC 50 to 60 Hz	42 V AC/DC 48 V AC/DC 60 V AC/DC 50 to 60 Hz	K 2/16.3

Function Diagram

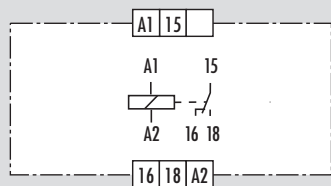
FD 0083/1- 4



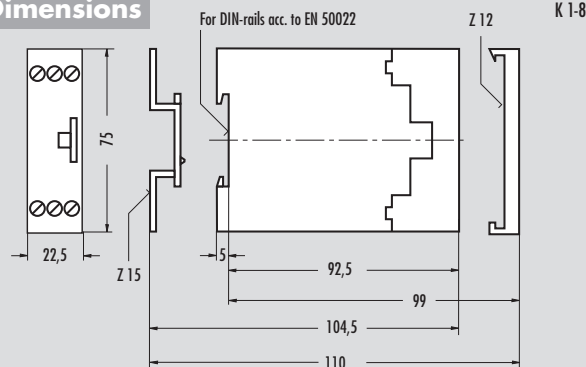
Connection Diagram

KS 0248/1

KZT 51 KM, ...



Dimensions





TECHNICAL DATA

FUNCTION according to DIN VDE 0435 Part 1 110:04.89

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

POWER SUPPLY

Rated voltage U_N	V AC/DC
Rated voltage U_N	V AC
Rated consumption at 50 Hz and U_N (AC)	VA
Rated consumption at 50 Hz and U_N (AC)	W
Rated consumption DC	W
Starting current inrush	A/ms
Rated frequency	Hz
Operating voltage range	

TIME CIRCUIT

Time setting/Number of time ranges	
2 setting ranges available	
	s
	s
	s/min
	min
Recovery time 1/2	ms
Minimum switch-ON time	ms
Release value	% U_N
Repeat cycle starting with	
Permissible parallel load	
Internal rectifier	
Average of the error	%
Dispersion	% ± 10 ms
Influence of the energizing quantity or supply voltage	%/% ΔU_N
Influence of the ambient temperature	%/K

OUTPUT CIRCUIT

Contact equipment	
Contact material	
Switching voltage U_n	V AC/DC
Maximum continuous current I_n	A
Application category according to EN 60947-5-1:1991	
Permissible switching frequency	switching cycles/h
Mechanical service life	switching cycles
Response time	ms
Release time	ms

GENERAL DATA

Creepage and clearance distances between circuits according to DIN VDE 01 10-1:04.97: Rated surge voltage	kV
Over voltage category	
Contamination level	
Design voltage	V AC
Test voltage U_{eff} 50 Hz acc. to DIN VDE 01 10-1, Table A.1	kV
Protection class housing/terminals acc. to DIN VDE 0470 Sec. 1:11.92	
Radiated noise	
Noise immunity	
Ambient temperature, working range	°C
Dimensions	
Connection diagram	
Weight	kg
Accessories	

Approvals

GENERAL TECHNICAL SPECIFICATIONS

KZT 51 KM

Multi-function relay for multi-voltage

ON-delay time relay
Interval ON
Repeat cycle starting with ON
Repeat cycle starting with OFF
1 LED green, 1 LED red
FD 0083/1 to 4

24 to 240

	7,5
	1,9
	1,9
	-
	50 to 60
	0,8 to 1,1 x U_N

analog/4
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 or
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
ca. 50/ca. 50
ca. 20
 ≥ 10 ; permiss. line inductivity 0,2 μ F
OFF or ON
yes
no
diagram 4, page i.5
 $\leq \pm 0,5$
 $\leq 0,02$
 $\leq 0,025$

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
20 x 10⁶
ca. 20
ca. 25

4
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 0248/1
0,12
cover Z 12, seal Z 13,
adaptor Z 15
page i.4

page i.5

KZT 51 KD

Multi-function relay for dual-voltage with switchable supply voltages

ON-delay time relay
Interval ON
Repeat cycle starting with ON
Repeat cycle starting with OFF
1 LED green, 1 LED red
FD 0083/1 to 4

24

220 to 240

	1,8	8,4
	1,5	1,1
	1,0	
	1,5/2	0,7/0,5
	50 to 60	
	0,8 to 1,1 x U_N	

analog/4
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 or
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
ca. 60/ca. 70
-
 ≥ 15
OFF or ON
yes
no
diagram 4, page i.5
 $\leq \pm 0,5$
 $\leq 0,02$
 $\leq 0,025$

1 timed changeover
Ag-alloy; gold-plated
230/230
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AC-15 U_e 230 V AC, I_e 2 A
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EN 50081-1:03.93, -2:03.94
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-20 to + 60
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KS 0248/1
0,12
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page i.5



TECHNICAL DATA

FUNCTION according to DIN VDE 0435 Part 1 110:04.89

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

POWER SUPPLY

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Rated voltage U_N	V AC
Rated consumption at 50 Hz and U_N (AC)	VA
Rated consumption at 50 Hz and U_N (AC)	W
Rated consumption DC	W
Starting current inrush	A/ms
Rated frequency	Hz
Operating voltage range	

TIME CIRCUIT

Time setting/Number of time ranges	
2 setting ranges available	
	s
	s
	s/min
	min
	ms
Recovery time 1/2	ms
Minimum switch-ON time	ms
Release value	% U_N
Repeat cycle starting with	
Permissible parallel load	
Internal rectifier	
Average of the error	%
Dispersion	% \pm 10 ms
Influence of the energizing quantity or supply voltage	%/% ΔU_N
Influence of the ambient temperature	%/K

OUTPUT CIRCUIT

Contact equipment	
Contact material	
Switching voltage U_n	V AC/DC
Maximum continuous current I_n	A
Application category according to EN 60947-5-1:1991	
Permissible switching frequency	switching cycles/h
Mechanical service life	switching cycles
Response time	ms
Release time	ms

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Creepage and clearance distances between circuits acc. to DIN VDE 0110-1:04.97: Rated surge voltage	kV
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Radiated noise	
Noise immunity	
Ambient temperature, working range	°C
Dimensions	
Connection diagram	
Weight	kg
Accessories	

Approvals

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Multi-function relay for single voltage

ON-delay time relay
Interval ON
Repeat cycle starting with ON
Repeat cycle starting with OFF
1 LED green, 1 LED red
FD 0083/1 to 4

	24	42	48	60	110-127	220-240
	1,8	1,7	1,8	1,8	5,3	8,4
	1,5	1,6	1,6	1,5	1,7	1,1
	1,0	1,4	1,5	1,2		
	1,5/2	3/1	2/1	3/5	0,5/0,5	0,7/0,5
	50 to 60					
	0,8 to 1,1 x U_N					

analog/4
1. setting range 0,15 to 400 s
divided into:
0,15 to 1,5; 0,6 to 6; 5 to 50;
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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
ca. 60/ca. 70
-
 \geq 15
OFF or ON
yes
no
diagram 4, page i.5
 $\leq \pm 0,5$
 $\leq 0,02$
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