



Electronic Time Relay

KZT 31 for single voltage

Function: ON-delay (AV)

1 time range with remote potentiometer connection

Contact equipment: 1 timed changeover

KZT 31



Function

AV (see page K 2/3).

Infinitely variable time setting is carried out with the aid of a thumbwheel disc. The time can be set remotely by means of a remote potentiometer P 10 k or FP 10 k (not supplied with the item).

Product Description

The electronic time relay KZT 31 is a single range item and is available in the following time ranges:

Time Range

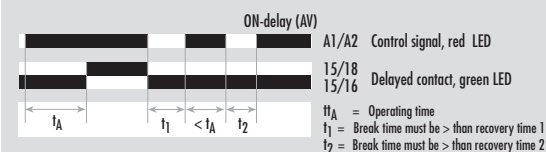
0,05	to	1 s
0,15	to	3 s
0,5	to	10 s
1,5	to	30 s
5	to	100 s
15	to	300 s
0,5	to	10 min
1,5	to	30 min

Type	Standard voltage	Special voltage	Price Code
KZT 31 1 s	24 V AC/DC	42 V AC/DC	K 2/30.1
KZT 31 3 s	110 to 127 V AC	48 V AC/DC	
KZT 31 10 s	220 to 240 V AC	60 V AC/DC	
KZT 31 30 s	50 to 60 Hz	50 to 60 Hz	
KZT 31 100 s			
KZT 31 300 s			
KZT 31 10 min			
KZT 31 30 min			
Remote potentiometer P 10 k			K 2/71.1
Remote potentiometer FP 10 k			K 2/71.2

Function Diagram

FD 0026

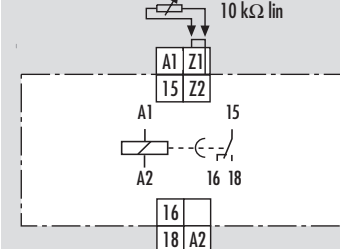
KZT 31



Connection Diagram

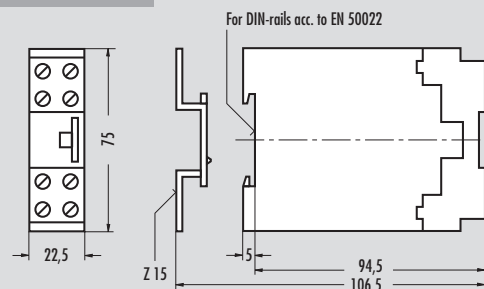
KS 0093/7

KZT 31



Dimensions

K 1-12



Accessories

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

Note

Remote time setting

The time setting at the device KZT 31 can also be carried out with a remote potentiometer. The remote potentiometer must be connected to the terminals with the reference (Z1/Z2). The time setting at the device must be set at the dead stop, under the lowest mark. The connection terminals for the remote potentiometer are factory prejumped in the standard versions. This jumper must be removed before connecting the remote potentiometer.

The remote potentiometer P 10 k and FP 10 k can be used to select all time ranges available on the item. They are designed with their own relative scale unrelated to the item's time range. The setting precision data refer to the item, under consideration of the built-in variable resistors. Possible deviations in the remote potentiometer precision are due to its resistance tolerances.

The current for the time remote setting is constant, so that the time resistance (line length) does not influence the time precision.

The connections of the time remote setting are not electrically isolated from the rated supply.



TECHNICAL DATA

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

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	
Remote time setting	s
Available time ranges	s
	min
Recovery time 1/2	ms
Minimum switch-ON time	ms
Release value	% U_N
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 0110-1:04.97: rated surge voltage	kV
Over voltage category	
Contamination level	
Design voltage	V AC
Test voltage U_{eff} 50 Hz acc. to DIN VDE 0110-1, 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 31

ON-delay time relay with remote potentiometer connection for single voltage
1 LED green, 1 LED red
FD 0026

24	42	48	60	110-127	220-240
1,8	1,6	1,9	2,1	3,0	5,7
1,5	1,4	1,7	1,9	1,4	1,6
1,2	1,2	1,4	1,3		
1,5/7	7/7	1,6/7	1,6/7	5/4	5/5
50 to 60					
0,8 to 1,1 x U_N					

analog/1
10 k Ω lin (see accessories)
0,05 to 1; 0,15 to 3; 0,5 to 10;
1,5 to 30; 5 to 100; 15 to 300;
0,5 to 10; 1,5 to 30
ca. 30/ca. 60
-
 ≥ 15
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. 15

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 1-12
KS 0093/7
0,13
adaptor Z 15, remote potentiometer
P10k or remote potentiometer FP10k
page i.4

page i.5