



## 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 at  $U_N$  (DC) W  
Starting current inrush A/ms  
Rated frequency Hz  
Operating voltage range

### TIME CIRCUIT

Time setting/Number of time ranges  
Available time ranges  
Recovery time 1/2  
Minimum switch-ON time  
Release value  
Permissible parallel load  
Internal rectifier  
Average of the error  
Dispersion  
Influence of the energizing quantity or supply voltage  
Influence of the ambient temperature

### 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 III  
Contamination level 3 outside, 2 inside  
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 EN 50081-1:03.93, -2:03.94  
Noise immunity EN 50082-2:1995

Ambient temperature, working range °C  
Dimensions  
Connection diagram  
Weight kg  
Accessories  
Approvals

### GENERAL TECHNICAL SPECIFICATIONS

## KZD 31 K

ON-delay time relay  
with digital time setting  
for single voltage  
1 LED green, 1 LED red  
FD 0026

	24	42	48	60	110-127	230
Rated consumption at 50 Hz and $U_N$ (AC) VA	1,9	2,2	2,1	1,7	2,3	5,0
Rated consumption at 50 Hz and $U_N$ (AC) W	1,8	1,8	1,7	1,4	1,2	1,6
Rated consumption at $U_N$ (DC) W	1,3	1,3	1,4	1,1		
Starting current inrush A/ms	1,5/2	,7/1	,6/1	,7/5	,6/5	,5/5
Rated frequency Hz	50 to 60					
Operating voltage range	0,8 to 1,1 x $U_N$					

digital/1  
0,01 to 9,99; 0,1 to 99,9;  
0,01 to 9,99; 0,1 to 99,9;  
0,01 to 9,99; 0,1 to 99,9;  
0,01 to 99,99; 0,1 to 999,9;  
1 to 9999;  
0,01 to 99,99; 0,1 to 999,9;  
1 to 9999  
ca. 40/ca.80  
-  
≥ 15  
yes  
no  
≤ ± 0,5  
≤ ± 0,5  
≤ 0,02  
≤ 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 10<sup>6</sup>  
-  
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 0080/2  
0,12  
cover Z 12, adaptor Z 15  
page i.4

page i.5





## Electronic Time Relay

**KZTH 11 for multi-voltage 24 to 110 or 60 to 230 V AC/DC**

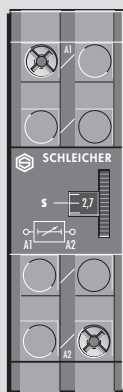
**Function: ON-delay (AV)**

**1 time range**

**Contact equipment: 1 semi-conductor output**

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### KZTH 11



### Function

AV (see page K 2/3).

Infinitely variable time setting is carried out with the aid of a thumbwheel disc. Scale values are absolute related to the selected time factor.

### Product Description

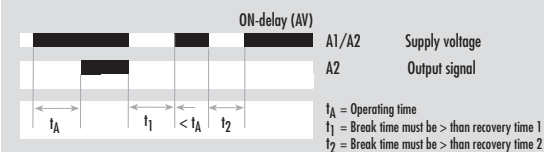
The digital time relay KZTH 11 is a single range item and is available in the following time ranges:

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

### Function Diagram

FD 0034

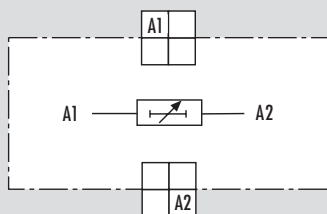
#### KZTH 11



### Connection Diagram

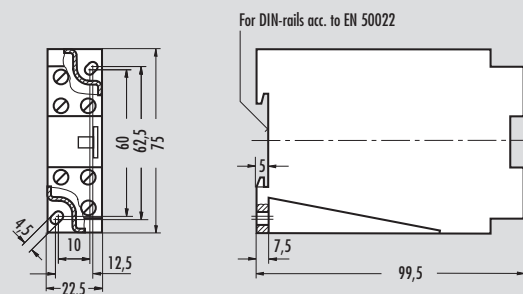
KS 0164/2

#### KZTH 11

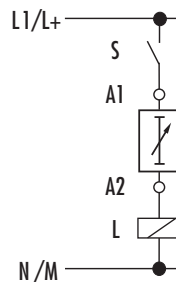


### Dimensions

K 1-7



### Application Example



When the control contact S is closed, the KZTH 11 is energized through the load L and the timing period starts (see Function Diagram). After the timing period has elapsed, the KZTH 11 connects the load L. The load L must be chosen so that even by lower supply voltage, the minimum withstand current will not fall under  $10 \text{ mA}_{\text{eff}}$  and the max. load current is  $\leq 0,8 A_{\text{eff}}$ . In case of max. load current value, a voltage drop  $\leq 3,5 V_{\text{eff}}$  must be considered due to the KZTH.