Timers - Multifunction

K3ZA20

KAPPA series

5 Functions

4 time ranges

Wide input range

2 change over contacts

Width 35mm

Installation design



Read and understand these instructions before installing, operating or maintaining the equipment.

Danger!
Never carry out work on live parts! Danger of fatal injury! The product must not be used in case of obvious damage. To be installed by an authorized person.

Technical data

1. Functions
The function has to be set before connecting the relay to the supply voltage.

E	ON delay
A	OFF delay without auxiliary voltage
nWa	Maintained single shot trailing edge
nWu	Maintained single shot leading edge
nWuWa	Maintained single shot leading and single shot trailing edge

2. Time ranges

Time range	Adjustment range	
1s	100ms	1s
10s	1s	10s
1min	6s	1min
3min	18s	3min

3. Indicators
Green LED U ON: indication of supply voltage

4. Mechanical design
Self-extinguishing plastic housing, IP rating IP40
Mounted on screw terminal socket 11-pols in accordance with IEC 60067-1-18a (type R11X or ES12)
Mounting position: any

5. Input circuit

Supply voltage:	24 to 240V a.c./d.c.
Pins:	S2(+)-S10 / A1(+)-A2
Tolerance:	a.c.: -15% to +10% d.c.: -10% to +10%
Rated consumption:	a.c.: 1VA (0.5W) d.c.: 0.7VA (0.7W)
Rated frequency:	a.c. 48 to 63Hz
Duty cycle:	100%
Reset time:	100ms
Residual ripple to d.c.:	10%
Drop-out voltage:	≥8V
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

6. Output circuit
2 potential free change over contacts

Rated voltage:	250V a.c.
Switching capacity:	2000VA (8A / 250V)
Fusing:	8A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000VA resistive load
Switching frequency:	max. 6/min at 1000VA resistive load (in accordance with IEC 60947-5-1)
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

7. Accuracy

Base accuracy:	±1% of maximum scale value ≤10% for time range 1s
Adjustment accuracy:	<5% of maximum scale value
Repetition accuracy:	1% or 100ms
Voltage influence:	-
Temperature influence:	≤0.02% / °C

8. Ambient conditions

Ambient temperature:	-25 to +55°C
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (in accordance with IEC 60721-3-3 class 3K3)
Pollution degree:	2 (in accordance with IEC 60664-1)

Note:

After transport the output relay maybe in any position. The correct operation will be given after the first cycle.

Functions

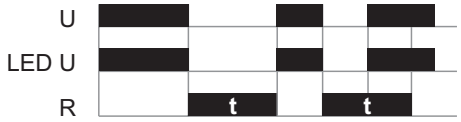
ON delay (E)
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the supply voltage is interrupted.
If the supply voltage is interrupted before the expiry of the interval t, the interval already expired is erased and is restarted when the supply voltage is next applied.



OFF-Delay without auxiliary voltage (A)
When the supply voltage U is supplied, the output relay R swiches into on-position (green LED U illuminated). If the supply voltage is interrupted (green LED U not illuminated), the set interval t begins. After the set interval t has expired the output relay R switches into off-position.
If the supply voltage is reconnected before the interval t has expired the interval already is erased and is restarted with the next cycle.



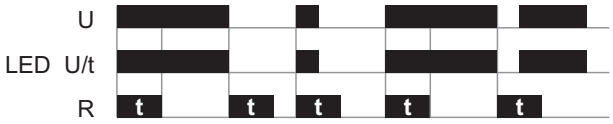
Maintained single shot trailing edge (nWa)
When the supply voltage U is supplied, the output relay R remains into off-position (green LED U illuminated). As soon as the supply voltage is interrupted the output relay switches into on-position and the set interval t begins (green LED not illuminated). After the set interval t has expired the output relay switches into off-position.
When the supply voltage is reconnected before the interval t has expired, the unit continue to perform the actual single shot.



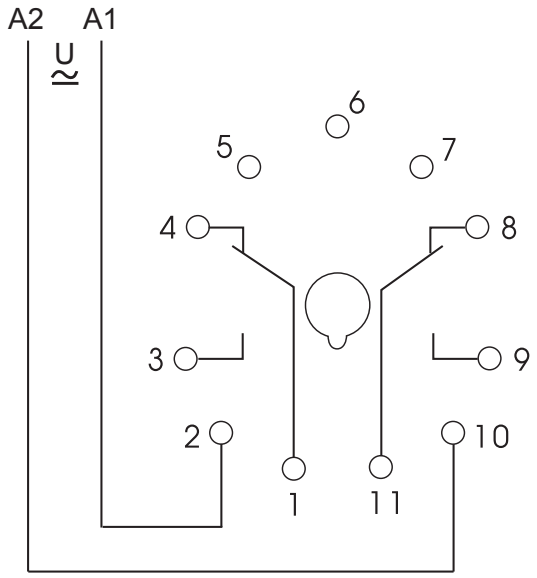
Maintained single shot leading edge (nWu)
When the supply voltage U is applied (green LED U illuminated), the output relay R switches into on-position and the set interval t begins (green LED U/t flashes). After the interval t has expired the output relay switches into off-position. This status remains until the supply voltage is interrupted. If the supply voltage is reconnected before the interval t has expired, the unit continue to perform the actual single shot.



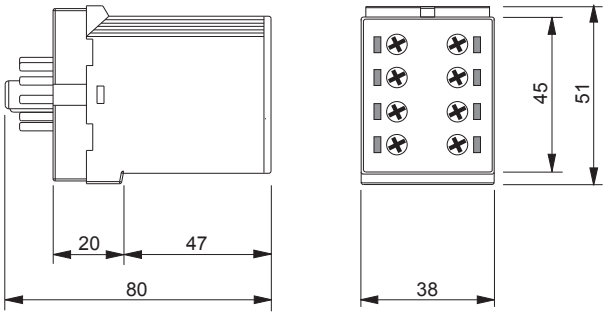
Maintained single shot leading and trailing edge (nWuWa)
When the supply voltage U is applied, the output relay R switches into on-position and the set interval t begins (green LED U illuminated). After the interval t has expired the output relay switches into off-position.
As soon as the supply voltage is interrupted the output relay switches into on-position again and the set interval t begins (green LED not illuminated). After the set interval t has expired the output relay switches into off-position.
If the supply voltage is interrupted (nWu) or reconnected (nWa) before the interval t has expired the unit continue to perform the actual single shot.



Connections



Dimensions



Ordering information

Type	Functions	Supply Voltage	Part. No.
K3ZA20 3min 24-240V AC/DC	E, A, nWa, nWu, nWuWa	24-240V a.c./d.c.	135400