



# **NGZ 320**

OFF-delay single-range time relay with auxiliary supply

- Multi-voltage for AC/DC 24 to 240 V
- 1 function, OFF-delay
- 13 time ranges available
- 2 changeover contacts
- 2 LEDs for function display

## **Time ranges**

Availabl	e tir	ne ran	ges:				
<u>&lt;</u> 0.1	to	1	S	0.5	to	10	min
0.15	to	3	S	1.5	to	30	min
0.5	to	10	S	3	to	60	min
1.5	to	30	S	0.5	to	10	h
5	to	100	S	1.5	to	30	h
15	to	300	s	5	to	100	h
50	to	100	Эs				

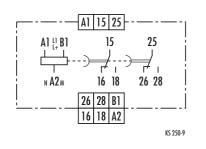
### **Features**

### Setting the time delay

The required delay time is set with a setting wheel. You can adjust it with a screwdriver.

LEDs show the state of the excitation input and the position of the contacts. You can monitor the countdown on a flashing LED.

# **Connection diagram**



**Dimensions** 

# Note

The device is designed for multi-voltage. Connect phase L1 or L + to terminal A1 and B1 and neutral N and/or M to terminal A2.

You can change the function or the delay time during operation. The change is effective immediately.

#### Function code 12 = OFF-delay, with auxiliary supply A1-A2 Auxiliary supply - B1-A2 Energizing quantity 15-18, 25-28 Delayed contact 15-16, 25-26 LED green ſ E Г < t<sub>R</sub> t<sub>1</sub> < t<sub>R</sub> tη t<sub>R</sub> t2 t1 LED green Energizing quantity juuni j Returning time $t_1 = Make time, must be > minimum ON time 1$ t2 = Break time, must be > recovery time 2 t3 = Time between switching on auxiliary supply and energizing quantity, must be > recovery time 1 Legend Control signal for energizing quantity Settable time Fixed time Settable cycletime 5-fold function LED green excitation Time not running Г Energizing quantity ON Time running Delayed contact in operated condition 0 0 0 0 0 Time running Delayed contact in normal condition \_\_\_\_\_\_ Time running Delayed contact in normal or operated condition

**Functions** 

t3

Time not running Energizing quantity OFF

**Ordering designation** 

61.2

K 3-3

NGZ 320 plus time range

Price code: 76.1

888

22.5

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	Relais und Automatisierungssyste			
Technic	al data			
Device type	NGZ 320			
Product norm (Time relays)	EN 61812-1:1999-08			
Relay function	445 01 04 445 02 02			
according to IEC 60050 Function diagram	445-01-04 + 445-03-02 FD 250-11			
Function display	2 LEDs green			
Ambient operating temperature range	-25 to + 60 °C			
Input circuit				
Rated voltage A1 - A2, B1 - A2	AC/DC 24 to 240 V			
Rated power AC Rated power DC	3.5 VA/1.7 W 1.6 W			
Rated voltage limits	70 to 110 %			
Rated frequency f <sub>n</sub>	50 to 60 Hz $\pm$ 5 %			
Release value of input voltage	≥ AC/DC 10 V; permissible line			
(line capacitance approx. 150 pF/m)	capacitance 0.2 μF			
Rated current on control connection (B1 - A2)	1 mA			
Rated power on control connection (B1 - A2)	< 0.25 W			
Parallel load permitted	A1-A2 yes/B1-A2 yes			
Internal one-way rectifier	A1 - A2 no/B1 - A2 yes			
Time circuit				
Time setting / number of time ranges	analog/1			
Setting ranges for time delay	from ≤ 0.1 s to 100 h, available in ranges:			
<i>. . ,</i>	≤ 0.1 to 1 s 0.5 to 10 mir			
	0.15 to 3 s 1.5 to 30 mir			
	0.5 to 10 s 3 to 60 mir			
	1.5 to 30 s 0.5 to 10 h			
	5 to 100 s 1.5 to 30 h			
	15 to 300 s 5 to 100 h			
	50 to 1000 s 0/0 ms			
Recovery time 1/2 Minimum ON time 1/2	$\leq 25/-ms$			
Setting tolerance	< + 5 %			
Repeatability (to set value)	$\leq \pm 0.01 \% + \pm 10 \text{ ms}$			
Influence of temperature (within range)	$\leq$ ± 0.002 %			
Influence of voltage (within range)	≤±0.002 %			
Output circuit				
Contact equipment	2 changeover contacts			
Contact material	AgNi 90/10			
Rated operating voltage	AC/DC 24 to 240 V			
Rated value for limiting continuous current I <sub>th</sub>	5 A			
Minimum contact load Utilization category according to	$\geq$ AC/DC 5 V/ $\geq$ 10 mA			
IEC 60947-5-1	AC–15 U <sub>e</sub> AC 230 V, I <sub>e</sub> 3 A DC–13 U <sub>e</sub> DC 24 V, I <sub>e</sub> 2 A			
Permissible switching frequency	$\leq 3600$ switching cycles/h			
Mechanical service life	$30 \times 10^6$ switching cycles			
Electrical service life				
$20/2$ A, AC 250 V, cos $\phi = 0.3$	0.12 x 10 <sup>6</sup> switching cycles AC–15			
Operate time / release time for excitation A1 - A2 Operate time / release time for excitation B1 - A2	40 ms 20 ms			
Other data				
Clearance/creepage distances to IEC 60664 - 1 Contamination level	3 outside, 2 inside			
Overvoltage category				
Rated voltage	AC/DC 275 V			
Protection class housing / terminals acc. to	IP 40/IP 20			
IEC 60529	-			
Interference immunity acc. to IEC 61000-4	Test level 3			
Dimensions (housing)	К 3-3			
Terminal connection diagram	KS 250 - 9			
Connection cross sections single or fine wire	1 x 0,2 to 6 or 2 x 0,2 to 2,5 mm <sup>2</sup>			
fine wire with connector sleeve Weight	1 x 0,4 to 4 or 2 x 0,2 to 1,5 mm <sup>2</sup>			
, teiðin	0.13 kg			
General Technical Specifications	NGG Catalogue			