

NGZ 71

ON-delay multi-range time relay

- Multi-voltage for AC/DC 24 to 240 V
- 1 function, ON-delay
- Setting range from 0.1 s to 300 h divided into 16 switchable time ranges
- 1 changeover contact
- 2 LEDs for function display

Time ranges

Setting range from 0.1 s to 300 h divided into:

≤ 0.1 s	1 s	1.5 min	30 min
0.15 s	3 s	3 min	60 min
0.5 s	10 s	5 min	100 min
1.5 s	30 s	0.15 h	3 h
5 s	100 s	0.5 min	10 h
15 s	300 s	1.5 min	30 h
0.5 min	10 min	5 min	100 h
50 s	1000 s	15 min	300 h

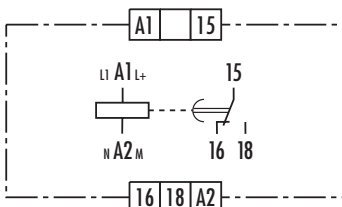
Features

Setting the time delay

The time range is set with the RANGE selector switch and displayed in the window next to it. The required delay time is set with a setting wheel.

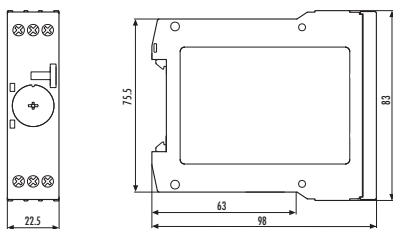
LEDs show the state of the excitation input and the position of the contacts. You can monitor the countdown on a flashing LED.

Connection diagram



KS 250-1

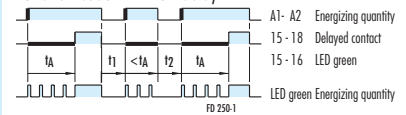
Dimensions



K 3-1

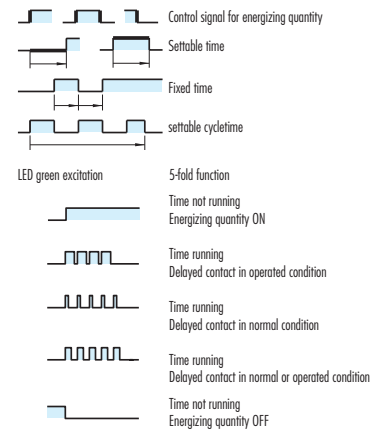
Functions

Function code 11 = ON-delay



t_A = Operating time
 t_1 = Break time, must be > recovery time 1
 t_2 = Break time, must be > recovery time 2

Legend



Note

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

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

Ordering designation

NGZ 71

Price code: 38.1

Technical data

Device type	NGZ 71																								
Product norm (Time relays)	EN 61812 - 1:1999 - 08																								
Relay function according to IEC 60050	445 - 01 - 02																								
Function diagram	FD 250 - 1																								
Function display	2 LEDs green																								
Ambient operating temperature range	-25 to + 60 °C																								
Input circuit																									
Rated voltage A1 - A2	AC/DC 24 to 240 V																								
Rated power AC	3.5 VA/1.7 W																								
Rated power DC	1.6 W																								
Rated voltage limits	70 to 110 %																								
Rated frequency f_n	50 to 60 Hz \pm 5 %																								
Release value of input voltage (line capacitance approx. 150 pF/m)	\geq AC/DC 10 V; permissible line capacitance 0.2 μ F																								
Parallel load permitted	A1 - A2 yes																								
Internal one-way rectifier	A1 - A2 no																								
Time circuit																									
Time setting / number of time ranges	analog/16																								
Setting ranges for time delay	from \leq 0.1 s to 300 h divided into:																								
	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">\leq 0.1 to 1 s</td> <td style="width: 33%;">1.5 to 30 min</td> <td style="width: 33%;"></td> </tr> <tr> <td>0.15 to 3 s</td> <td>3 to 60 min</td> <td></td> </tr> <tr> <td>0.5 to 10 s</td> <td>5 to 100 min</td> <td></td> </tr> <tr> <td>1.5 to 30 s</td> <td>0.15 to 3 h</td> <td></td> </tr> <tr> <td>5 to 100 s</td> <td>0.5 to 10 h</td> <td></td> </tr> <tr> <td>15 to 300 s</td> <td>1.5 to 30 h</td> <td></td> </tr> <tr> <td>0.5 to 10 min</td> <td>5 to 100 h</td> <td></td> </tr> <tr> <td>50 to 1000 s</td> <td>15 to 300 h</td> <td></td> </tr> </table>	\leq 0.1 to 1 s	1.5 to 30 min		0.15 to 3 s	3 to 60 min		0.5 to 10 s	5 to 100 min		1.5 to 30 s	0.15 to 3 h		5 to 100 s	0.5 to 10 h		15 to 300 s	1.5 to 30 h		0.5 to 10 min	5 to 100 h		50 to 1000 s	15 to 300 h	
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Recovery time 1/2	\leq 50/ \leq 50 ms																								
Minimum ON time 1/2	- / - ms																								
Setting tolerance	\leq \pm 5 %																								
Repeatability (to set value)	\leq \pm 0.01 % + \pm 10 ms																								
Influence of temperature (within range)	\leq \pm 0.002 %																								
Influence of voltage (within range)	\leq \pm 0.002 %																								
Output circuit																									
Contact equipment	1 changeover contact																								
Contact material	AgNi 90/10																								
Rated operating voltage	AC/DC 24 to 240 V																								
Rated value for limiting continuous current I_{th}	5 A																								
Minimum contact load	\geq AC/DC 5 V/ \geq 10 mA																								
Utilization category according to IEC 60947 - 5 - 1	AC-15 U_e AC 230 V, I_e 3 A DC-13 U_e DC 24 V, I_e 2 A																								
Permissible switching frequency	\leq 3600 switching cycles/h																								
Mechanical service life	30 x 10 ⁶ switching cycles																								
Electrical service life 20/2 A, AC 250 V, $\cos \varphi = 0.3$	0.12 x 10 ⁶ switching cycles AC-15																								
Operate time / release time for excitation A1 - A2	40 ms																								
Other data																									
Clearance/creepage distances to IEC 60664 - 1																									
Contamination level	3 outside, 2 inside																								
Overvoltage category	III																								
Rated voltage	AC/DC 275 V																								
Protection class housing / terminals acc. to IEC 60529	IP 40/IP 20																								
Interference immunity acc. to IEC 61000 - 4	Test level 3																								
Dimensions (housing)	K 3 -1																								
Terminal connection diagram	KS 250 -1																								
Connection cross sections single or fine wire fine wire with connector sleeve	1 x 0,2 to 6 or 2 x 0,2 to 2,5 mm ² 1 x 0,4 to 4 or 2 x 0,2 to 1,5 mm ²																								
Weight	0.1 kg																								
General Technical Specifications	NGG Catalogue																								