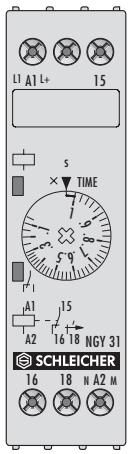


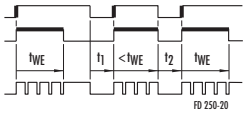
NGY 31

Interval ON single-range relay

- Multi-voltage for AC/DC 24 to 240 V
- 1 function, interval ON
- 13 time ranges available
- 1 changeover contact
- 2 LEDs for function display

Functions

Function code 21 = interval ON

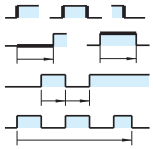


A1-A2 Energizing quantity
15-18 Delayed contact
15-16 LED green

LED green Energizing quantity

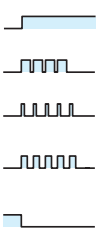
t_{WE} = Interval ON time
t_1 = Break time, must be > recovery time 1
t_2 = Break time, must be > recovery time 2

Legend



Control signal for energizing quantity
Settable time
Fixed time
Settable cycletime

LED green excitation — 5-fold function



Time not running
Energizing quantity ON

Time running
Delayed contact in operated condition

Time running
Delayed contact in normal condition

Time running
Delayed contact in normal or operated condition

Time not running
Energizing quantity OFF

Time ranges

Available time ranges:

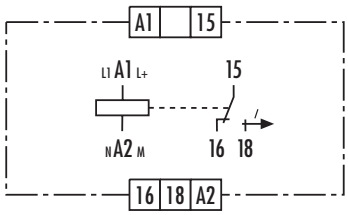
≤ 0.1	to	1	s	0.5	to	10	min
0.15	to	3	s	1.5	to	30	min
0.5	to	10	s	3	to	60	min
1.5	to	30	s	0.5	to	10	h
5	to	100	s	1.5	to	30	h
15	to	300	s	5	to	100	h
50	to	1000	s				

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



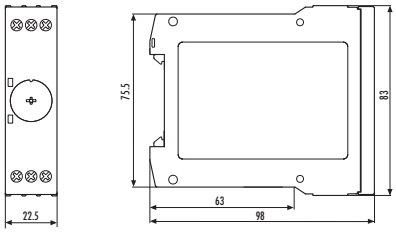
KS 250-13

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.

Dimensions



K 3-1

Ordering designation

NGY 31 plus time range

Price code: 60.1

Technical data

Device type	**NGY 31**
Product norm (Time relays)	EN 61812-1:1999-08
Relay function according to IEC 60050	445-01-08
Function diagram	FD 250 - 20
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 ± 5 %
Release value of input voltage (line capacitance approx. 150 pF/m)	≥ AC/DC 10 V; permissible line capacitance 0.2 µF
Parallel load permitted	A1 - A2 yes
Internal one-way rectifier	A1 - A2 no
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: ≤ 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 1000 s
Recovery time 1/2	≤ 50/ ≤ 50 ms
Minimum ON time 1/2	- / - ms
Setting tolerance	≤ ± 5 %
Repeatability (to set value)	≤ ± 0.01 % + ± 10 ms
Influence of temperature (within range)	≤ ± 0.002 %
Influence of voltage (within range)	≤ ± 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	≥ AC/DC 5 V/≥ 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	≤ 3600 switching cycles/h
Mechanical service life	30 x 10^6 switching cycles
Electrical service life	
20/2 A, AC 250 V, cos φ = 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 - 13
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 mm² 1 x 0,4 to 4 or 2 x 0,2 to 1,5 mm²
Weight	0.1 kg
General Technical Specification	NGG Catalogue