

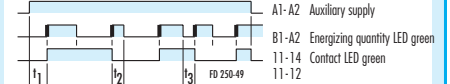
NGF 31

Notching relay with auxiliary supply

- Multi-voltage for AC/DC 24 to 240 V
- 1 function, notching
- 1 changeover contact
- 2 LEDs for function display

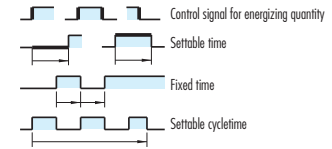
Functions

Function code 98 = notching ON-OFF, with auxiliary supply



t₁ = Time between switching on auxiliary supply and energizing quantity, must be > recovery time 1
 t₂ = Make time, must be > minimum ON time 1
 t₃ = Break time, must be > recovery time 2

Legend

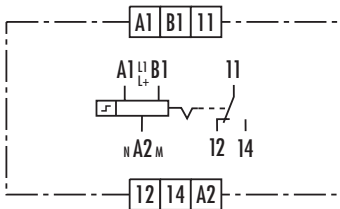


Time ranges

Features

After the auxiliary supply (A1 - A2) has been switched on, the notching relay switches the changeover contact to operated condition with the rising edge of the energizing quantity (B1 - A2). The changeover contact is returned to normal condition with the next rising edge of the energizing quantity. This occurs alternately when the energizing quantity is switched on. When the auxiliary supply is switched off the changeover contact switches to normal condition.

Connection diagram



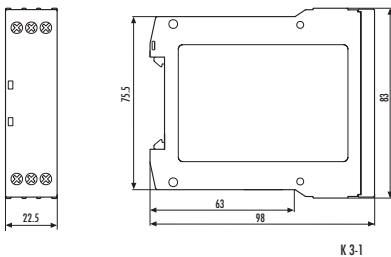
KS 250-24

LEDs show the state of the excitation input and the position of the contacts.

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.

Dimensions



Ordering designation

NGF 31

Price code: 88.1

Technical data

Device type	NGF 31
Product norm (Time relays)	EN 61812-1:1999-08
Relay function according to IEC 60050 (445)	Notching relay with auxiliary supply
Function diagram	FD 250 - 49
Function display	2 LEDs green
Ambient operating temperature range	-25 to + 60 °C
Input circuit	
Rated voltage A1 - A2, A1 - B1	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
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
Internal one-way rectifier	A1 - A2 no
Function times	
Recovery time 1/2	0/ \leq 25 ms
Minimum ON time 1/2	\leq 25/- ms
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 - 24
Connection cross sections single or fine wire	1 x 0,2 to 6 or 2 x 0,2 to 2,5 mm ²
fine wire with connector sleeve	1 x 0,4 to 4 or 2 x 0,2 to 1,5 mm ²
Weight	0.1 kg
General Technical Specification	NGG Catalogue