

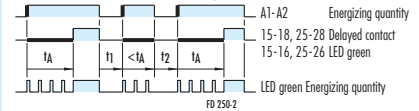
NGZP 32

ON-delay single-range time relay

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

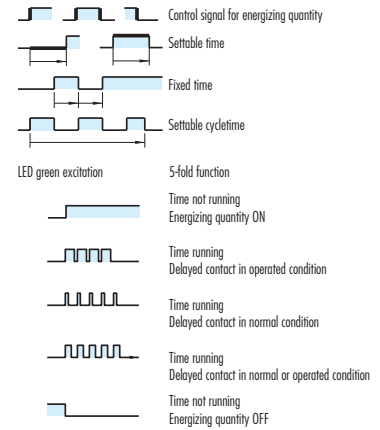
Functions

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



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 | |

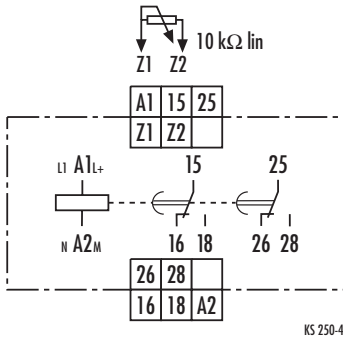
Features

Setting the time delay

The required delay time is set with a setting wheel.

Connecting a remote potentiometer allows you to set parameters from further away. When a remote potentiometer is used, set the time setting wheel to the right-hand stop above the largest value. Operation without remote potentiometer does not require a jumper on the device.

Connection diagram



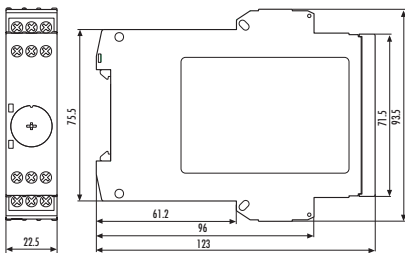
KS 250-4

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

Note

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

Dimensions



K 3-3

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

Ordering designation

NGZP 32 plus time range

Price code: 80.1

Accessories

Remote potentiometer FP 10 k

Price code: 98.1

Technical data

| | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------------|---------------|--|-------------|---------------|--|-------------|-------------|--|-------------|-------------|--|------------|-------------|--|-------------|------------|--|--------------|--|--|
| Device type | NGZP 32 | | | | | | | | | | | | | | | | | | | | | |
| Product norm (Time relays) | EN 61812-1:1999-08 | | | | | | | | | | | | | | | | | | | | | |
| Relay function according to IEC 60050 | 445-01-02 | | | | | | | | | | | | | | | | | | | | | |
| Function diagram | FD 250-2 | | | | | | | | | | | | | | | | | | | | | |
| 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 (internal + external)/1 | | | | | | | | | | | | | | | | | | | | | |
| Setting ranges for time delay | from \leq 0.1 s to 100 h, available in ranges: | | | | | | | | | | | | | | | | | | | | | |
| | <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">\leq -0.1 to 1 s</td> <td style="width: 33%;">0.5 to 10 min</td> <td style="width: 33%;"></td> </tr> <tr> <td>0.15 to 3 s</td> <td>1.5 to 30 min</td> <td></td> </tr> <tr> <td>0.5 to 10 s</td> <td>3 to 60 min</td> <td></td> </tr> <tr> <td>1.5 to 30 s</td> <td>0.5 to 10 h</td> <td></td> </tr> <tr> <td>5 to 100 s</td> <td>1.5 to 30 h</td> <td></td> </tr> <tr> <td>15 to 300 s</td> <td>5 to 100 h</td> <td></td> </tr> <tr> <td>50 to 1000 s</td> <td></td> <td></td> </tr> </table> | \leq -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 | | |
| \leq -0.1 to 1 s | 0.5 to 10 min | | | | | | | | | | | | | | | | | | | | | |
| 0.15 to 3 s | 1.5 to 30 min | | | | | | | | | | | | | | | | | | | | | |
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| 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 | \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 | 2 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 3-3 | | | | | | | | | | | | | | | | | | | | | |
| Terminal connection diagram | KS 250-4 | | | | | | | | | | | | | | | | | | | | | |
| 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 | 0.14 kg | | | | | | | | | | | | | | | | | | | | | |
| Accessories | Remote potentiometer FP 10 k | | | | | | | | | | | | | | | | | | | | | |
| General Technical Specification | NGG Catalogue | | | | | | | | | | | | | | | | | | | | | |