### Timers

**NGZP 32**

**ON-delay single-range timer relay with remote potentiometer connection**

- Multi voltage for AC/DC 24 to 240 V
- 1 function: ON-delay (AV)
- 13 time ranges available from 0.1 s to 100 h
- Remote potentiometer connection
- 2 change-over contact
- 2 LEDs for function display

#### Circuit diagram

![Circuit diagram](image)

#### Time ranges

<table>
<thead>
<tr>
<th>Available time ranges:</th>
<th>0.1 ... 1 s</th>
<th>5 ... 100 s</th>
<th>0.5 ... 10 min</th>
<th>0.5 ... 10 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 ... 3 s</td>
<td>15 ... 300 s</td>
<td>1.5 ... 30 min</td>
<td>1.5 ... 30 h</td>
<td></td>
</tr>
<tr>
<td>0.5 ... 10 s</td>
<td>50 ... 1000 s</td>
<td>3 ... 60 min</td>
<td>5 ... 100 h</td>
<td></td>
</tr>
</tbody>
</table>

#### Function

**Setting the time delay**

The desired delay time is set with a selecting wheel. It can be set using a screwdriver.

Connecting a remote potentiometer allows you to set parameters at greater distances. When a remote potentiometer is used, the time selecting wheel is to be set to the right-hand stop above the largest value. Operation without remote potentiometer does not require a jumper on the device.

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

#### Notes

The device is designed for multi-voltage. Phase L1 or L+ must be connected to terminal A1; neutral conductor N or M must be connected to terminal A2.

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

#### Dimension diagram

![Dimension diagram](image)

### Accessories

Accessories: Remote potentiometer FP 10 k
### Technical data

<table>
<thead>
<tr>
<th>Product standard (timer relays)</th>
<th>EN 61812-1:1999-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function type of the relay according to IEC 60050</td>
<td>445-01-02</td>
</tr>
<tr>
<td>Function display</td>
<td>2 LEDs green</td>
</tr>
<tr>
<td>Function diagrams</td>
<td>FD 250-2</td>
</tr>
</tbody>
</table>

#### Input circuit

- **Rated voltage A1-A2:** AC/DC 24 – 240 V
- **Rated consumption AC:** 3.5 VA / 1.7 W
- **Rated consumption DC:** 1.6 W
- **Rated voltage limits:** 70 – 110 %
- **Rated frequency f₀:** 50 – 60 Hz ± 5 %
- **Release value of the input voltage (power capacity approx. 150 pF/m):** ≥ AC/DC 10 V; permissible line capacity 0.2 µF
- **Rated current on control connection (A1):** 1 mA
- **Rated consumption on control connection (A1):** < 0.25 W
- **Parallel loads permissible:** A1-A2 yes
- **Internal half-wave rectification:** A1-A2 no

#### Time circuit

- **Time setting / number of time ranges:** analog (intern + extern) / 1
- **Setting ranges for time delay:** See table “Time ranges”
- **Recovery time 1/2:** ≤ 50 / ≤ 50 ms
- **Minimum ON time 1/2:** - / -
- **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 assignment:** 2 change-over contacts
- **Contact material:** AgNi 90/10
- **Rated operating voltage:** AC/DC 24 – 240 V
- **Rated value for limiting continuous current Iₘ:** 5 A
- **Minimum contact load:** ≥ AC/DC 5 V / ≥ 10 mA
- **Application category according to IEC 60947-5-1:**
  - AC-15 Uₑ AC 230 V, Iₑ 3 A
  - DC-13 Uₑ DC 24 V, Iₑ 2 A
- **Permissible switching frequency:** ≤ 3600 switching cycles/h
- **Mechanical life:** 30 x 10⁶ switching cycles
- **Electrical life 20/2 A, AC 250 V, cos φ = 0.3:** 0.12 x 10⁶ switching cycles AC-15
- **Response time / release time at excitation of A1-A2:** 40 ms

#### Other data

- **Creepage distances and clearances:** according to IEC 60664-1
  - Degree of pollution: 3 outside, 2 inside
  - Rated voltage: AC/DC 275 V
  - Degree of protection according to IEC 60529 housing/terminals: IP 40 / IP 20
  - Noise immunity according to IEC 61000-4: Test severity 3
  - Ambient temperature, operating range: -25 – +60 °C
  - Dimension diagram (housing): K 3-3
  - Circuit diagram of the terminals: KS 250-4
  - Wire ranges: stranded or solid stranded with ferrules
  - 1 x 0.2 – 6 or 2 x 0.2 to 2.5 mm²
  - 1 x 0.4 – 4 or 2 x 0.2 to 1.5 mm²
  - Weight: 0.14 kg
  - Accessories: Remote potentiometer FP 10 k

### Overview of devices / Part numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated voltage</th>
<th>ON-delay time</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGZP 32</td>
<td>AC/DC 24-240 V 50-60 Hz</td>
<td>≤ 0.1 ... 1 s</td>
<td>R2.064.0619.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.15 ... 3 s</td>
<td>R2.064.0669.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 ... 10 s</td>
<td>R2.064.0609.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 ... 30 s</td>
<td>R2.064.0659.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 ... 100 s</td>
<td>R2.064.0579.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 ... 300 s</td>
<td>R2.064.0629.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 ... 1000 s</td>
<td>R2.064.0559.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 ... 10 min</td>
<td>R2.064.0599.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 ... 30 min</td>
<td>R2.064.0649.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 ... 60 min</td>
<td>R2.064.0679.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 ... 10 h</td>
<td>R2.064.0589.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 ... 30 h</td>
<td>R2.064.0639.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 ... 100 h</td>
<td>R2.064.0569.0</td>
</tr>
</tbody>
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