Timer, electronic

- Multi voltage, multi functional and multi timer, for front panel mounting and for socket mounting
- DIN dimensions 48 x 48 mm
- 24...230 VDC/VAC
- 1 changeover contact, 2-pole

**Functions**

<table>
<thead>
<tr>
<th>Function</th>
<th>KOP.F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed operation</td>
<td>✗</td>
</tr>
<tr>
<td>Delayed operation with pulse control</td>
<td></td>
</tr>
<tr>
<td>Fleeting-on delay timer</td>
<td>✗</td>
</tr>
<tr>
<td>Pulse converter</td>
<td></td>
</tr>
<tr>
<td>Flasher relay with interval starting and with reset</td>
<td>✗</td>
</tr>
<tr>
<td>Delayed release</td>
<td></td>
</tr>
</tbody>
</table>

**Time ranges**

0.01 s...100 h

**Operating voltage**

24...230 VDC/VAC

**Number of contacts**

1 changeover contact, 2-pole

**Order no.**

KOP260F0MWVAN00

**Settings**

- **Time scale factor switch**
  0.5, 1, 5, 10

- **Time range switch**
  s, min, h

- **Setting the function**
  Here you can set the function of the relay, e.g.:
  B - fleeting-on delay timer (21)
## Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multi time ranges</strong></td>
<td>0.01…0.5 s, 0.02…1 s, 0.1…5 s, 0.2…10 s</td>
</tr>
<tr>
<td></td>
<td>0.01…0.5 min, 0.02…1 min, 0.1…5 min, 0.2…10 min</td>
</tr>
<tr>
<td>Time range, time unit and function can be selected on the front of the relay, using a screwdriver.</td>
<td></td>
</tr>
<tr>
<td><strong>Setting accuracy</strong></td>
<td>± 1% of the time range final value ($t_{\text{max}}$)</td>
</tr>
<tr>
<td><strong>Repeat accuracy</strong></td>
<td>± 1% of the time range final value ($t_{\text{max}}$)</td>
</tr>
<tr>
<td><strong>Reset time</strong></td>
<td>100 ms with pulse control</td>
</tr>
<tr>
<td></td>
<td>300 ms when controlling operating voltage</td>
</tr>
<tr>
<td><strong>Operating voltage</strong></td>
<td>24…230 VDC/VAC, ±15%, 50/60 Hz</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>1.5 W with DC, 2.5 VA with AC</td>
</tr>
<tr>
<td><strong>Duty cycle</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Pulse control</strong></td>
<td>Operating voltage duration, duration of the control pulse &gt;50 ms</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>1 changeover contact, 2-pole, green LED remains lit during timing</td>
</tr>
<tr>
<td><strong>Switching capacity</strong></td>
<td>U = 250 VAC, $I_{\text{th}}$ = 5 A, $P$ = 1250 VA</td>
</tr>
<tr>
<td></td>
<td>2.5 A/250 VAC (AC14), 5 A/24 VDC</td>
</tr>
<tr>
<td><strong>Insulation characteristics</strong></td>
<td>2 kVAC/50 Hz test voltage in accordance with VDE 0435 and 4 kV/12/50 µs surge voltage in accordance with EN 60947-5-1 between all outputs and inputs</td>
</tr>
<tr>
<td><strong>EMC/immunity to interference</strong></td>
<td>Surge capacity in accordance with IEC61000-4-5, Burst in accordance with IEC61000-4-4ESD in accordance with IEC61000-4-2</td>
</tr>
<tr>
<td><strong>EMC/emissions</strong></td>
<td>electromagnetic fields in accordance with EN 55022, class B</td>
</tr>
<tr>
<td><strong>Protection class</strong></td>
<td>IP40</td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td>UL, C-UL</td>
</tr>
<tr>
<td><strong>Ambient temperature</strong></td>
<td>–10 °C to +55 °C</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Flush mounting with plastic spring clip or surface mounting with 11-pole socket (accessories) for screw mounting with 2 M3 screws or snap-on mounting on 35 mm rail according to EN60715TH35, any mounting position</td>
</tr>
</tbody>
</table>

## Accessories

- **11-pole socket (47 × 47 × 20 mm) for flush mounting, connection with screw terminals**
  - Order no. CJ211

- **11-pole socket (46.8 × 46.8 × 20.0 mm) for screw mounting or snap-on mounting on 35 mm rail according to EN60715TH35, Connection with screw terminals**
  - Order no. CJ250

![CJ211](image)

![CJ250](image)

## Dimension diagram

 ![Dimension diagram](image)  
Panel section  
45 × 45 mm
Time diagram and connection diagram

With external Start

Switched phase

Without external Start

Switched neutral

Function A: ON delay

Function B: ON pulse

Switched phase

Switched neutral

S = Start contact
St = Stop contact
R = Reset contact

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow

Output

LED red
LED yellow
Function C: Symmetrical recycler

Function E: Fixed pulse delayed

Function D: OFF delay at release of START command

Function F: Signal ON and OFF delay