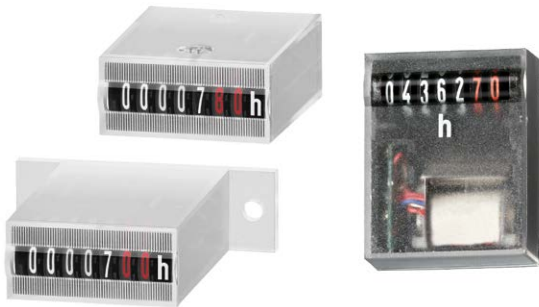


# Hour meters / timers, electromechanical

**Micro timers**      **Many different installation options (DC)**      **HK07 / AHK07**



The micro timers of the HK07 and AHK07 families offer a particularly large number of variants and can be used in many different applications thanks to their wide voltage range from 4.5 to 35 V DC.

Available as panel, base and PCB mount versions, they can be used in many different fields of application. Thanks to their encapsulated housing, these non-resettable counters are extremely tamper-proof.

### Characteristics

- 7-digit micro hour meter.
- High shock and impact resistance.
- Low power consumption; suitable for battery operation.
- Small dimensions – magnified large figures.
- Panel-mount counter with integrated spring clip.
- PCB-mount counter.
- Machine-solderable and wash-proof.
- Protection IP65.

### Benefits

- Wide voltage range 4.5 ... 35 V DC.
- Count retention in case of power failure.
- Long service life.

### Applications

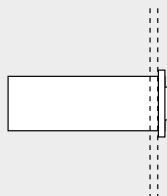
General time measurement, maintenance intervals for measuring instruments (respiration units, oxygen, dialysis), small appliances, UV lamps, display panels in vehicles.

### Type series

| Fig. | Mounting options       | Display    | Protection               | El. connection | Housing | Height of fig. | Type            |
|------|------------------------|------------|--------------------------|----------------|---------|----------------|-----------------|
| 1)   | Panel mount with latch | front side | IP65, front side         | flying leads   | plastic | 4 mm [0.16"]   | <b>HK07.20</b>  |
| 2)   | PCB mount, lying       | on the top | IP65, front side/on rear | solder pins    | plastic | 4 mm [0.16"]   | <b>HK07.90</b>  |
| 4)   | PCB mount, upright     | front side | IP65, front side/on rear | solder pins    | plastic | 4 mm [0.16"]   | <b>HK07.92</b>  |
| 5)   | Base mount, upright    | front side | IP40                     | flying leads   | plastic | 4 mm [0.16"]   | <b>AHK07.00</b> |

### Mounting options and position of the display

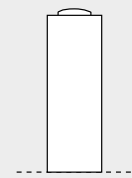
1) Panel mount  
display front side



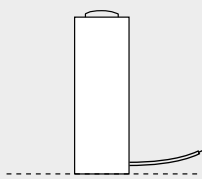
2) PCB mount, lying  
display on the top



3) PCB mount, upright  
display front side



4) Base mount, upright  
display front side



Optional: PCB mount, hanging  
display front side



# Hour meters / timers, electromechanical

|                     |   |                     |
|---------------------|---|---------------------|
| <b>Micro timers</b> | <b>Many different installation options (DC)</b> | <b>HK07 / AHK07</b> |
|---------------------|---|---------------------|

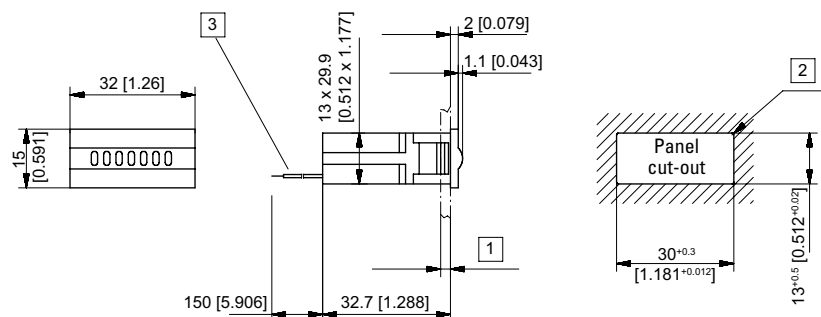
| Accessories    |  |  |   |                |
|----------------|--|--|---|----------------|
|                |  | Type / size                            | Description                                     | Order no.      |
| Gasket counter |  | <b>32 x 15</b><br><b>[1.26 x 0.59]</b> | for cut-out 27 x 13 mm,<br>suitable for HK07.20 | <b>N511058</b> |

| Technical data  |                           |   |
|---|---------------------------|---|
| <b>Electrical connection</b>  | panel mount               | flying leads, AWG 22 (red +, black -)<br>approx. 150 mm [5.91"], 6 mm [0.24"]<br>stripped wire ends, tinned |
|   | PCB mount                 | solder pins 0.4 x 1.2 mm<br>[0.016 x 0.047"], tinned  |
| <b>Power consumption</b><br>(every 36 s with a pulse length of 32 ms) |                           |   |
|   | at $U_B = 5\text{ V DC}$  | typ. 82 mW  |
|   | at $U_B = 12\text{ V DC}$ | typ. 135 mW   |
|   | at $U_B = 24\text{ V DC}$ | typ. 135 mW<br>max. 170 mW  |
| <b>Rated voltage</b>  |                           | 4.5 ... 35 V DC   |
| <b>Residual ripple</b>  |                           | < 1 %   |
| <b>Current consumption</b>  |                           | < 1.5 mA (average)  |
| <b>On time</b>  |                           | 100 %   |
| <b>Pulse duration</b>   |                           | 32 ms; every 36 s = 0.01 h<br>On-times < 36 s will not be counted   |
| <b>Number of digits</b>   |                           | 7: 99999.99 h   |
| <b>Accuracy</b>   |                           | 22.5 ppm at 25 °C [77 °F]   |
| <b>Height of figures</b>  |                           | 1.2 x 4.0 mm [0.047 x 0.16"]  |
| <b>Color of figures</b>   |                           | white and red on black  |
| <b>Reset</b>  |                           | no reset  |
| <b>Operating temperature</b>  |                           | -10 °C ... +60 °C [+14 °F ... +140 °F]<br>(non-condensing)  |
| <b>Mounting position</b>  |                           | horizontal, other on request  |
| <b>Solderable and washproof versions</b>                              |                           | HK07.90, HK07.91, HK07.92   |
| <b>Soldering temperature</b>  |                           | 265 °C [+509 °F], 3 s   |
| <b>Protection</b>   |                           | up to IP65, depending on kind of type   |
| <b>Housing</b>  |                           | plastic PC (Polycarbonate)  |
| <b>Weight</b>   |                           | 15 ... 18 g [0.53 ... 0.63 oz]  |

| Options   |
|---|
| HK07.20 flat pin 0.8 x 2.8 mm [0.031 x 0.11"] (others on request) |

| Approvals                              |
|--|
| <b>CE compliant</b> in accordance with |
| EMC Directive    2014/30/EU            |
| RoHS Directive    2011/65/EU           |

## Panel mount with latch / display front side Type HK07.20



1) 1.2 ... 3 [0.047 x 0.12"]    2)  $R_{max} 0.5$     3) Flying leads (red+ / black-)

| Type                         | Display  | Art. no.  |
|------------------------------|----------|---|
| HK07.20                      | 7 digits | 4.5 ... 35 V DC<br><b>3.100.200.383</b> <sup>1)</sup> |
| HK07.20.35    with flat pins | 7 digits | <b>3.107.200.383</b> <sup>1)</sup>                    |

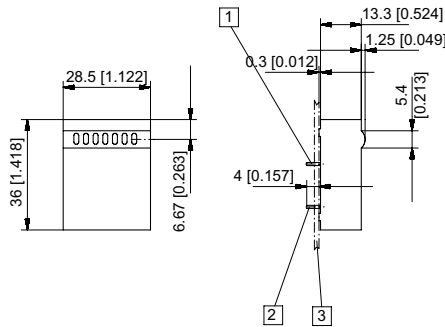
Dimensions in mm [inch]

1) Stock types

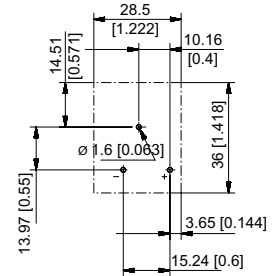
# Hour meters / timers, electromechanical

**Micro timers**      **Many different installation options (DC)**      **HK07 / AHK07**

PCB mount, lying / display on the top  
Type HK07.90



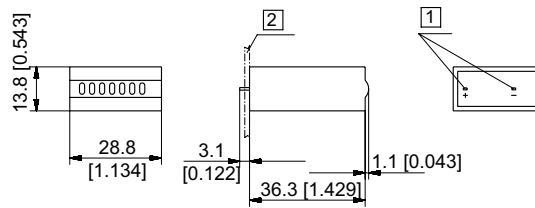
Punching diagram for PCB  
(component side)



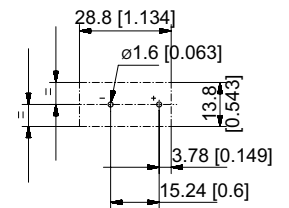
- 1 Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]
- 2 Electrical connection 0.4 x 1.2 [0.016 x 0.047]
- 3 PCB

| Type    | Display  | Art. no.                         |
|---------|----------|----------------------------------|
| HK07.90 | 7 digits | 4.5 ... 35 V DC<br>3.100.900.383 |

PCB mount, upright / display front side  
Type HK07.92



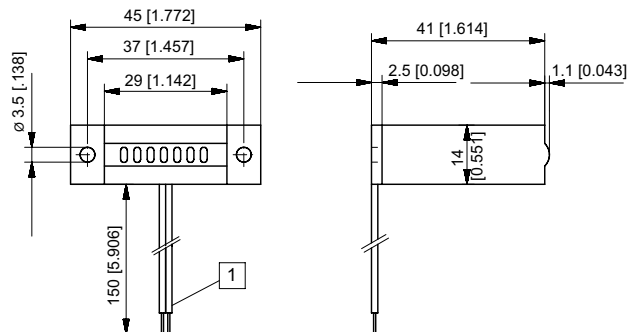
Punching diagram for PCB  
(component side)



- 1 Electrical connection 0.4 x 1.2 [0.016 x 0.047]
- 2 PCB

| Type    | Display  | Art. no.                         |
|---------|----------|----------------------------------|
| HK07.92 | 7 digits | 4.5 ... 35 V DC<br>3.100.920.383 |

Base mount, upright / display front side  
Type AHK07.00



- 1 Flying leads (red+ / black-)

| Type     | Display  | Art. no.                         |
|----------|----------|----------------------------------|
| AHK07.00 | 7 digits | 4.5 ... 35 V DC<br>3.100.000.383 |