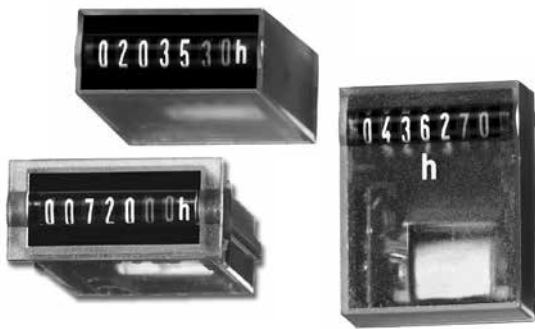


# Hour meters / timers, electromechanical

|                     |   |                       |
|---------------------|---|-----------------------|
| <b>Micro timers</b> | <b>Many different installation options (DC)</b> | <b>HK 07 / AHK 07</b> |
|---------------------|---|-----------------------|



The micro timers of the HK 07 and AHK 07 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

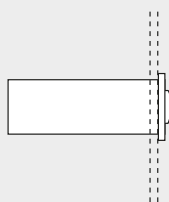
Hour meters /  
Timers

### Type series

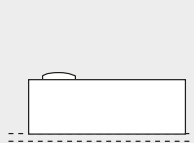
| Fig. | Mounting options       | Display    | Protection               | El. connection | Housing | Height of fig. | Type             |
|------|------------------------|------------|--------------------------|----------------|---------|----------------|------------------|
| 1)   | Panel mount with latch | front side | IP65, front side         | flying leads   | plastic | 4 mm [0.16"]   | <b>HK 07.20</b>  |
| 2)   | PCB mount, lying       | on the top | IP65, front side/on rear | solder pins    | plastic | 4 mm [0.16"]   | <b>HK 07.90</b>  |
| 3)   | PCB mount, upright     | front side | IP65, front side/on rear | solder pins    | plastic | 4 mm [0.16"]   | <b>HK 07.92</b>  |
| 4)   | Base mount, upright    | front side | IP40                     | flying leads   | plastic | 4 mm [0.16"]   | <b>AHK 07.00</b> |

### Mounting options and position of the display

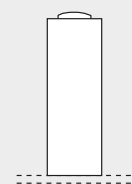
1) Panel mount / display front side



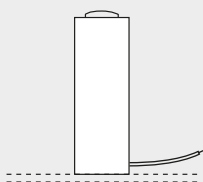
2) PCB mount, lying / display on the top



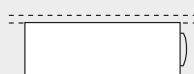
3) PCB mount, upright / display front side



4) Base mount, upright / display front side



Optional: PCB mount, hanging / display front side



# Hour meters / timers, electromechanical

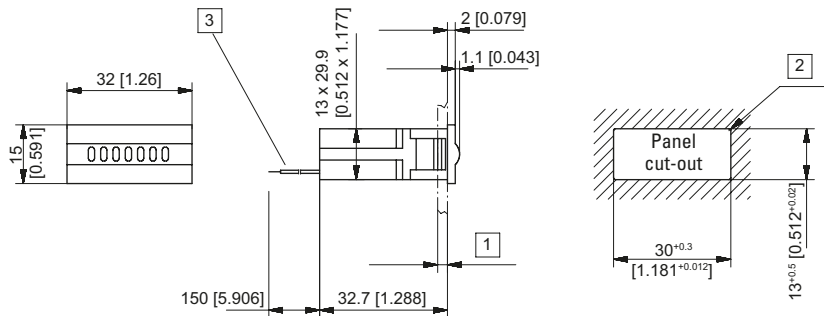
|                     |   |                       |
|---------------------|---|-----------------------|
| <b>Micro timers</b> | <b>Many different installation options (DC)</b> | <b>HK 07 / AHK 07</b> |
|---------------------|---|-----------------------|

| Technical data  |   |   |
|---|---|---|
| <b>Electrical connection</b>  | panel mount   | flying leads, AWG 22 (red +, black -) approx. 150 mm [5.91"], 6 mm [0.24"] stripped wire ends, tinned |
|   | PCB mount   | solder pins 0.4 x 1.2 mm [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 $U_B = 24\text{ V DC}$   | 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>Colour 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> | HK 07.90, HK 07.91, HK 07.92                           |                  |
| <b>Soldering temperature</b>             | 265°C [+509°F], 3 s                                    |                  |
| <b>Protection</b>                        | up to IP65<br>depending on kind of type                |                  |
| <b>EMC</b>                               | Emitted interference                                   | EN 55011 class B |
|  | Immunity to interference                               | EN 61000-6-2     |
| <b>Housing</b>                           | plastic PC (Polycarbonate)                             |                  |
| <b>Weight</b>                            | 15 ... 18 g [0.53 ... 0.63 oz]                         |                  |

| Options   |  |
|---|--|
| HK 07.20 flat pin 0.8 x 2.8 mm [0.031 x 0.11"] (other on request) |  |

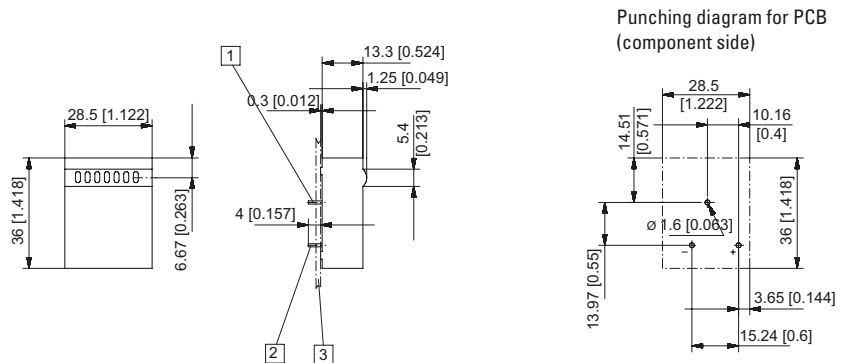
## Panel mount with latch / display front side Type HK 07.20



1) 1.2 ... 3 [0.047 x 0.12"] 2) R<sub>max</sub> 0.5 3) Flying leads (red+ / black-)

| Type                              | Display  | Art.-No.                           |
|-----------------------------------|----------|------------------------------------|
|                                   |          | 4.5 ... 35 V DC                    |
| <b>HK 07.20</b>                   | 7 digits | <b>3.100.200.383</b> <sup>1)</sup> |
| <b>HK 07.20.35</b> with flat pins | 7 digits | <b>3.107.200.383</b> <sup>1)</sup> |

## PCB mount, lying / display on the top Type HK 07.90



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

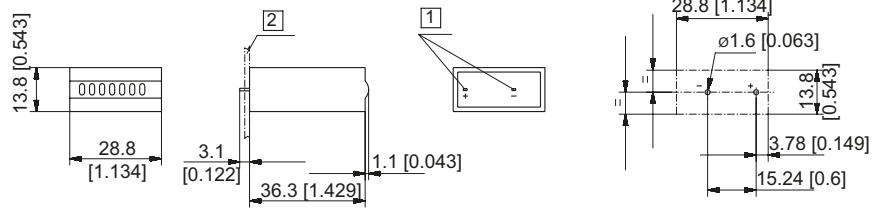
| Type            | Display  | Art.-No.             |
|-----------------|----------|----------------------|
|                 |          | 4.5 ... 35 V DC      |
| <b>HK 07.90</b> | 7 digits | <b>3.100.900.383</b> |

# Hour meters / timers, electromechanical

**Micro timers**      **Many different installation options (DC)**      **HK 07 / AHK 07**

**PCB mount, upright / display front side**  
**Type HK 07.92**

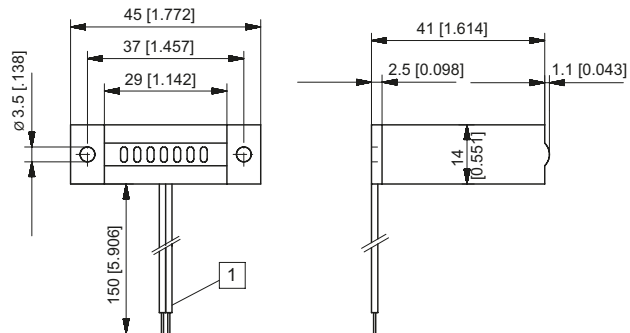
Punching diagram for PCB  
(component side)



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

| Type     | Display  | Art.-No.                         |
|----------|----------|----------------------------------|
| HK 07.92 | 7 digits | 4.5 ... 35 V DC<br>3.100.920.383 |

**Base mount, upright / display front side**  
**Type AHK 07.00**



1 Flying leads (red+ / black-)

| Type      | Display  | Art.-No.                         |
|-----------|----------|----------------------------------|
| AHK 07.00 | 7 digits | 4.5 ... 35 V DC<br>3.100.000.383 |