Hour meters / timers, electromechanical

Micro timers | **High shock resistance (DC)** | **HK47**



The micro timers HK47 have a very high shock resistance.

Available as panel 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.
- Low cost.
- High shock resistance.
- Small dimensions.
- Magnified large figures.
- Different reading possibilities.
- Panel-mount counter with integrated spring clip (HK47.20).
- PCB mount counter (HK47.80).

Benefits

- Low power consumption; suitable for battery operation.
- Solderable and wash-proof (HK47.80).
- Data retention in case of power failure.
- Long service life.

Applications

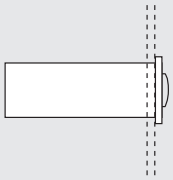
Time registration, maintenance intervals for measuring instruments (respiration units, oxygen, dialysis), small appliances, UV lamps, display panels.

Type series

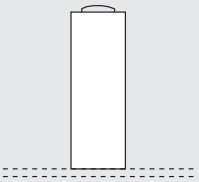
Fig.	*Mounting options*	*Display*	*Protection*	*El. connection*	*Type*
1)	Panel mount with latch	front side	IP65, front side	flying leads	**HK47.20**
2)	PCB mount, upright	front side	IP65, front side/on rear	solder pins	**HK47.80**

Mounting options and position of the display

1) Panel mount
display front side



2) PCB mount, upright
display front side



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Micro timers | High shock resistance (DC) | HK47

Technical data

Drive		pulse-driven, precision crystal controller via electronic divider circuit
Pulse duration		32 ms; every 36 s = 0.01 h power on times < 36 s are not counted
Electrical connection	HK47.20	flying leads AWG 22, approx. 150 mm [5.91“] long (red +, black -)
	HK47.80	solder pins ø 0.64 mm [0.025“]
Display		99999.99 h
Counting drum		figures white on black, decimal place red on black
Rated Voltage		4.5 ... 35 V DC
Residual ripple		< 1 %
Current consumption		< 1.5 mA (average)
Power consumption (count pulses every 36 s with a pulse duration of 32 ms)		
	at U_B = 5 V DC	typ. 82 mW
	at U_B = 12 V DC	typ. 135 mW
	at U_B = 24 V DC	typ. 135 mW max. 170 mW
Accuracy		22.5 ppm at 25 °C [77 °F]
Height of figures		4 x 1.25 mm [0.16 x 0.049“]
Reset		no reset
Operating temperature		-10 °C ... +60 °C [+14 °F ... +140 °F] (non-condensing)
Storage temperature		-20 °C ... +70 °C [-4 °F ... +158 °F]
Mounting position		horizontal (other on request)
Solderable and wash proof version		HK47.80
Soldering temperature		265 °C [+509 °F], 3 s
Protection (acc. to EN 60529)	HK47.80	IP65
	HK47.20	IP65 (front side)
Housing		PC transparent; HK47.80 fully sealed (potted)
Weight		13 ... 15 g [0.46 ... 0.53 oz]

Options

HK47.20, HK47.80	flat pin 0.8 x 2.8 mm [0.031 x 0.11“] and push-on connectors
HK47.20	solder pins ø 0.64 x 1.2 mm [0.025 x 0.047“]
HK47.80	flying leads AWG 22 approx. 150 mm [5.91“] long

Approvals

CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
UKCA compliant in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032

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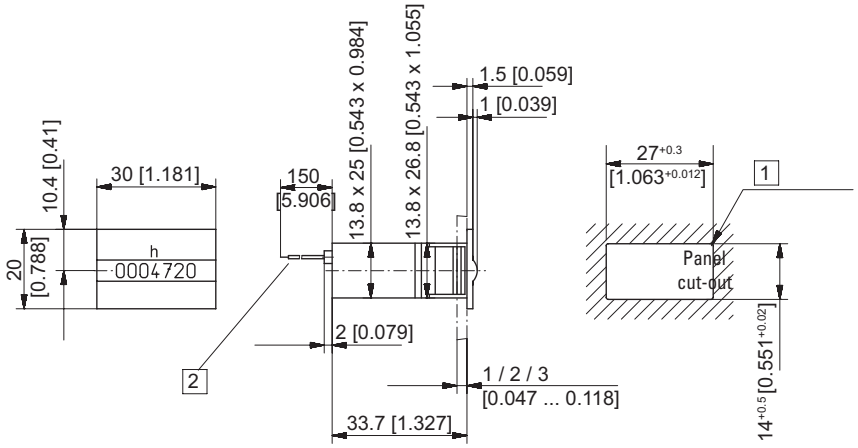
Panel mount
with injection-moulded spring-clips
Type HK47.20



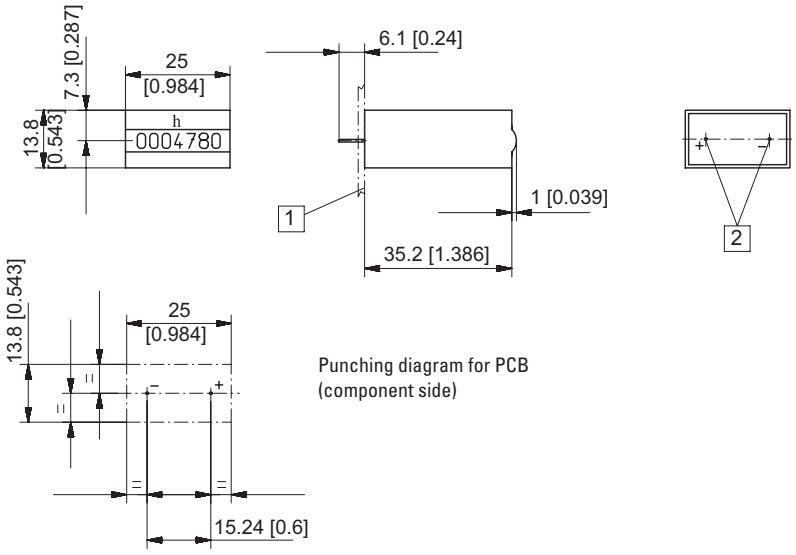


1 R_{max} 0.5 2 Flying leads AWG 22 (red+ / black–)

Type	Display	Art. no. 4.5 ... 35 V DC
HK47.20	99999.99 h	**3.060.200.383** 1)

PCB mount
Type HK47.80





Punching diagram for PCB (component side)

1 PCB 2 Solder pins ø 0.64 [0.025]

Type	Display	Art. no. 4.5 ... 35 V DC
HK47.80	99999.99 h	**3.060.800.383**

Dimensions in mm [inch]

1) Stock types

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