

# Hour meters / timers, electromechanical

<b>Standard timers</b>	<b>999999.9 h / 99999.99 h without reset (AC+DC)</b>	<b>HB 27</b>
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The timers HB 27 without reset measure time ranges up to max. 999999.9 h or 99999.99 h.

These panel mount counters can be used in many different fields of application.

### Characteristics

- 7-digit hour meter without reset.
- High shock and impact resistance.
- Magnified large figures; height 4.5 mm.
- Data retention in case of power failure.
- Long service life.
- Plug-in versions.
- Counter without front bezel for mounting in front bezel F1B and F2B and for combination in 50 x 25 mm size with socket box 945.2.

### Benefits

- Can be combined with preset counters BVa and HVa, and with pulse counter B.
- Can be equipped with various sealing covers to protect the counter against dust, dirt and moisture.
- Tamper-proof.

### Applications

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

### Type series

Description	Type	Options
Plug-in for socket box 945.2 945.2 and front bezel F1B	<b>HB 27.00.3</b>	<ul style="list-style-type: none"> <li>• Different voltages / extended temperature range on request</li> <li>• Flat pin 0.8 x 6.3 mm [0.031 x 0.25"] without flat push on connectors: Art. no. 3.208.X11.XXX</li> <li>• Flat pin 0.8 x 2.8 mm [0.031 x 0.11"] with flat push on connectors: Art. no. 3.207.X01.XXX</li> <li>• Round pins ø 1.5 mm (tinned) with push on connectors Art. no. 3.205.X01.XX</li> </ul>
Screw mounting 56 x 40 mm [2.20 x 1.57"]	<b>HB 27.10</b>	
Clip mounting 53 x 28 mm [2.09 x 1.10"]	<b>HB 27.20</b>	

Accessories	Dimensions in mm [inch]	Order no.
<b>Front bezel, type F1B</b> plastic	For cut-out 54 x 49 [2.13 x 1.93], with screw mounting, for plug-in counters B1x.0x and HB2x.0x in socket box type 945.2	beige black <b>G007501</b> <b>G007502</b>
<b>Socket box, type 945.2</b>	For counters B1x.0x and HB2x.0x, can be used for plug-in connections in front bezel F1B	black <b>G008434</b>
<b>Sealing cover, type K1, IP65</b>	For front bezel 60 x 50 [2.36 x 1.97], with screw mounting, for electromechanical counters and via adapter front bezel N003001 for counters 48 x 24 [1.89 x 0.94]	transparent / grey transparent / black <b>G008300</b> <b>G008301</b>
<b>Transparent cover, lockable, IP65</b>	For cut-out 54 x 29 [2.13 x 1.14], with screw mounting to front bezel F1B or adapter front bezel N003001, for counters with cut-out 50 x 25 [1.97 x 0.98"] or 45 x 22.2 [1.77 x 0.87]	transparent / black <b>N003002</b>
<b>Blind enclosure, 53 x 28 [2.09 x 1.10]</b>	For cut-out 50 x 25 [1.97 x 0.98], for counters 53 x 28 [2.09 x 1.10]	black <b>T005753</b>
<b>Mounting frame</b> with cut-out 50 x 25 [1.97 x 1.97] via separate adapter also for 45 x 22.2 [1.77 x 0.87]	For snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 53 x 28 [2.09 x 1.10] and via separate adapter (T008180) for counters 48 x 24 [1.89 x 0.94]	chromated <b>G300004</b>
<b>Mounting rail frame SR</b>	For B and HB counters for snap-on mounting on 35 [1.38] top-hat DIN rail	SR 1 for 1x3 B counters SR 2 for 2x3 B counters <b>G300000</b> <b>G300001</b>

Suitable gaskets, other accessories and installation examples for optional accessories can be found in chapter accessories or in the accessories section under: [www.kuebler.com/accessories](http://www.kuebler.com/accessories).

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## Technical data

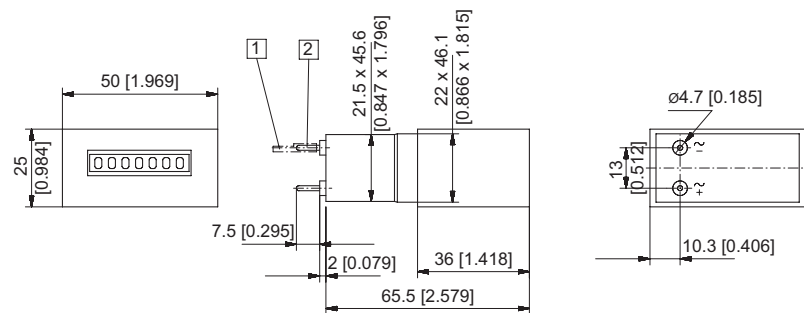
General technical data		
<b>Display</b>	number of digits	7, DC: 99999.99 h, AC: 999999.9 h
<b>Height of figures</b>		4.5 mm [0.17"]
<b>Color of figures</b>		white and red on black
<b>Operating temperature</b>		-15°C ... +50°C [+5°F ... +122°F] (non-condensing)
<b>Mounting position</b>		any

Mechanical characteristics		
<b>Protection</b>		up to IP51 (front side)
	with sealing cover K1	IP54 (front side)
	with transparent cover Dv, Dvs	IP55 (front side)
<b>Housing</b>		plastic PC (Polycarbonate)
<b>Weight</b>		approx. 45 g [1.59 oz]

Electrical characteristics		
<b>Electrical connection</b>	cable	2 x 0.5 mm <sup>2</sup> [AWG20], NYFAZ, 0.5 m [1.64'] long AC: grey/grey DC: red +, black -
	type HB 27.00.3	round pins ø 1.6 mm [0.063"] (plugs into socket box type 945.2)
<b>Test voltage</b>		2000 V AC, 50 Hz for AC counters
<b>Power consumption</b>	10 ... 30 V DC	approx. 500 mW
	36 ... 80 V DC	approx. 900 mW
	100 ... 130 V DC	approx. 750 mW
	20 ... 30 V AC	approx. 0.3 VA
	42 ... 48 V AC	approx. 0.25 VA
	100 ... 130 V AC	approx. 0.6 VA
<b>Rated voltages</b>	AC (50 or 60 Hz)	20 ... 30 / 42 ... 48 / 100 ... 130 / 187 ... 264 / 360 ... 440 V AC
	DC	10 ... 30 / 36 ... 80 / 100 ... 130 V DC
<b>Accuracy</b>	AC	supply frequency + 30 ms
	DC	< 0.003 % (at 24 h)
<b>EMC standards</b>		EN 55011 class B EN 61000-6-2, EN 61000-6-3
<b>Device safety</b>	designed to protection class	EN 61010 part 1 2
	application area	pollution level 2

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### Plug-in for socket box 945.2 and front bezel F1B Type HB 27.00.3



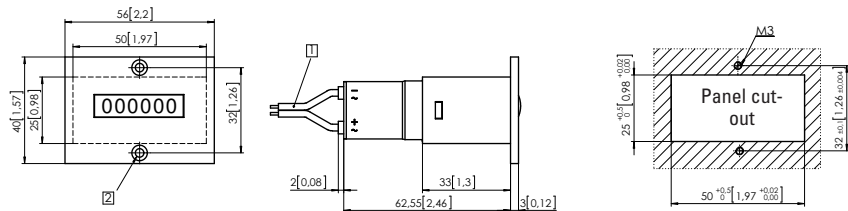
1 Push on connector ø 1.5 [0.059] tinned    2 Round pin ø 1.6 [0.063] tinned

Type	Display	Voltage	Art. no.						
			10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V	360 ... 440 V
HB 27.00.3	7 digits	AC (50 Hz)		3.205.001.071		3.205.001.072	3.205.001.074	3.205.001.075	3.205.001.079
	7 digits	AC (60 Hz)		3.205.001.081		3.205.001.082	3.205.001.084	3.205.001.085	3.205.001.089
	7 digits	DC	3.205.001.351		3.205.001.353		3.205.001.381		

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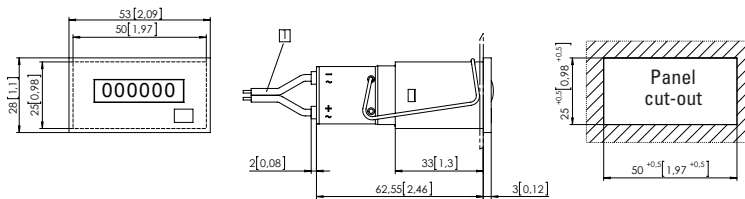
**Screw mounting 56 x 40 [2.20 x 1.57]**  
**Type HB 27.10**



1) Connection cable, 2 x 0.5 mm<sup>2</sup> [AWG20], NYFAZ, 0.5 m [1.64'] long    2) Countersinking Af3, DIN 74

Type	Display	Voltage	Art. no.						
			10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V	360 ... 440 V
HB 27.10	7 digits	AC (50 Hz)		3.200.101.071		3.200.101.072	3.200.101.074	3.200.101.075	3.200.101.079
	7 digits	AC (60 Hz)		3.200.101.081		3.200.101.082	3.200.101.084	3.200.101.085	3.200.101.089
	7 digits	DC	3.200.101.351		3.200.101.353	3.200.101.381			

**Clip mounting 53 x 28 [2.09 x 1.10]**  
**Type HB 27.20**



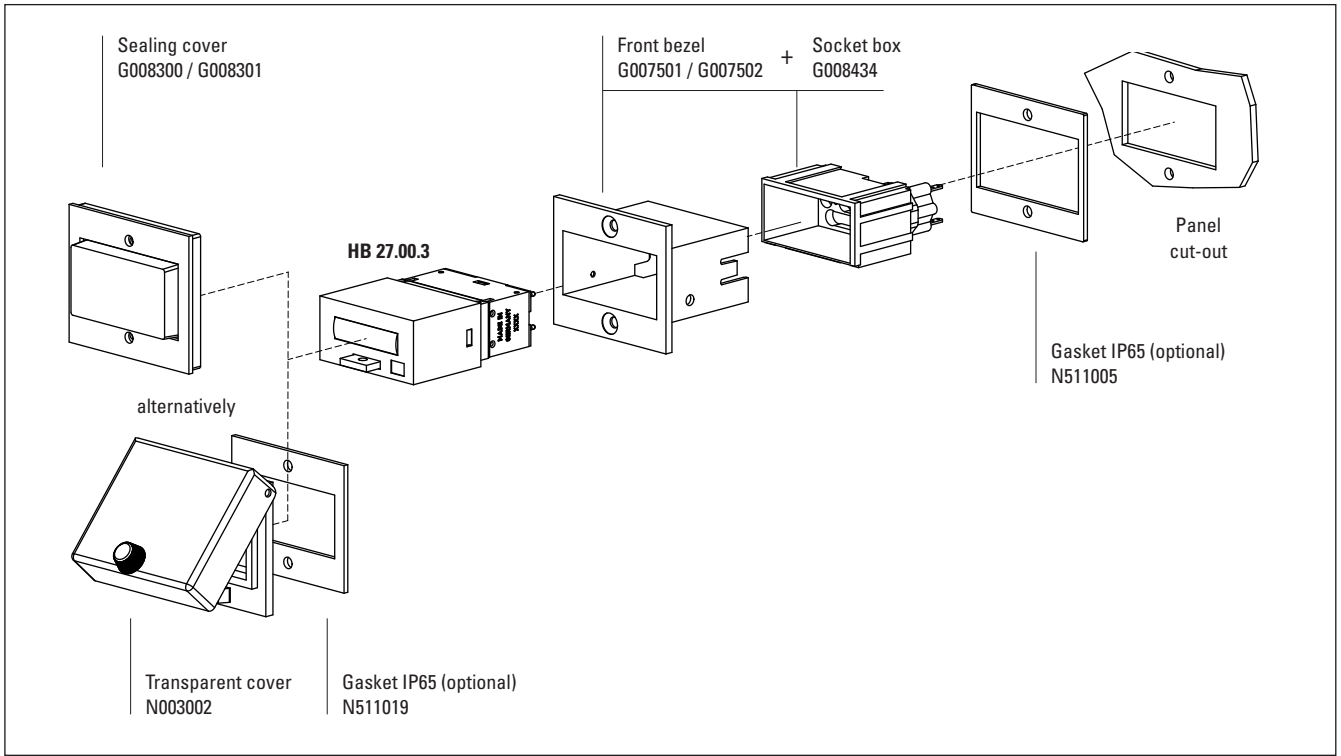
1) Connection cable, 2 x 0.5 mm<sup>2</sup> [AWG20], NYFAZ, 0.5 m [1.64'] long

Type	Display	Voltage	Art. no.						
			10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V	360 ... 440 V
HB 27.20	7 digits	AC (50 Hz)		3.200.201.071		3.200.201.072	3.200.201.074	3.200.201.075	3.200.201.079
	7 digits	AC (60 Hz)		3.200.201.081		3.200.201.082	3.200.201.084	3.200.201.085	3.200.201.089
	7 digits	DC	3.200.201.351		3.200.201.353	3.200.201.381			
Further stock types:			187... 264 V AC, flat pin 0.8 x 2.8 mm [0.031 x 0.11"]				3.207.201.075		

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## Mounting examples for optional accessories



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