

# Hour meters / timers, electromechanical

<b>Dual function counters</b>	<b>Pulse + time / 2 x time (AC+DC)</b>	<b>HC77</b>
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The counter combinations HC77 and HC77.55 comprise an hour meter and a totalizer. They can be controlled both simultaneously and separately.

These panel mount counters have a reduced mounting depth. They can be used in many different fields of application.

Optionally with 2 hour meters on request.

## Characteristics

- Hour meter and totalizer in one single device.
- Without reset.
- High shock resistance.
- Magnified large figures.
- Protection IP52 front side (optional IP65).
- Data retention in case of power failure.
- UL-approved.

## Benefits

- Long service life.
- Optional: counters controlled separately.

## Applications

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

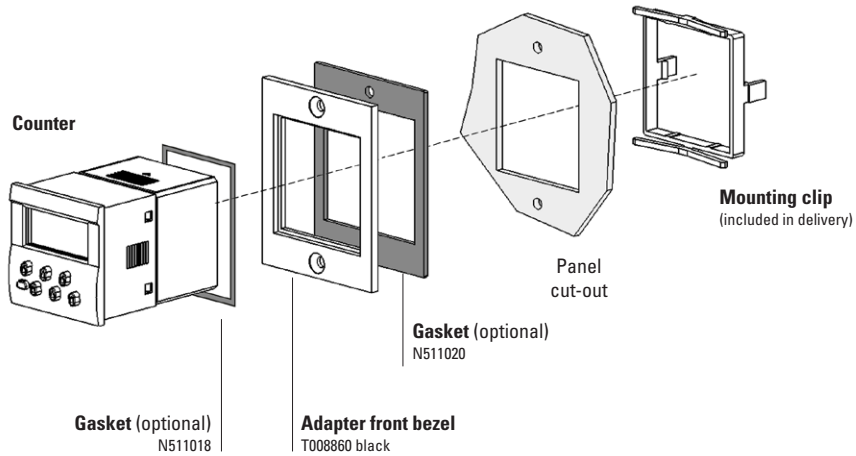
## Type series

Description	Type	Options
Dual function counter 48 x 48 mm [1.89 x 1.89"]	<b>HC77</b>	<ul style="list-style-type: none"> <li>• Housing color: grey Art. no. 3.55X.400.XXX</li> <li>• Flat pin 0.8 x 6.3 mm [0.031 x 0.25"] Art.-No.: 3.55X.40X.XXX.011</li> </ul>
With adapter front bezel 55 x 55 mm [2.17 x 2.17"]	<b>HC77.55</b>	<ul style="list-style-type: none"> <li>• Separate connections for running time meter and adding counter. This model is available for AC or DC (not mixed) Adding counter max. 10 Hz Electrical connection: 2 x cable 2 x 0.5 mm<sup>2</sup> [AWG20], NYFAZ, 0.5 m [1.64'] (hour meter cable red/black, adding counter grey cable) Art. no. 3.55X.40X.XXX.060</li> <li>• Sealed window (IP65 front side) with: <ul style="list-style-type: none"> <li>- Screw terminal Art. no. 3.55X.40X.XXX.419</li> <li>- Flat pin 0.8 x 6.3 mm [0.031 x 0.25"] Art. no. 3.55X.40X.XXX.062</li> <li>- Separated connections (cable) Art. no. 3.55X.40X.XXX.061</li> </ul> </li> <li>• Counter combination with 2 hour meters 10 ... 30 V DC <ul style="list-style-type: none"> <li>- 2 x cable 2 x 0.5 mm<sup>2</sup> [AWG20] Art. no. 3.554.401.351.060</li> <li>- Spring-type terminal on request</li> </ul> </li> </ul>
Order information: Art. no. (for special voltages etc. indicate exact model, voltage and frequency e.g. HC77, 120 V AC, 60 Hz)		

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**Accessories / Mounting examples**



		Type / size	Description		Order no.	suitable gasket
<b>Adapter front bezel</b>		<b>55 x 55 mm</b> <b>[2.17 x 2.17]</b>	for cut-out 50 x 50 mm [1.97 x 1.97"] or ø 50,5 mm [1.99"] to cut-out 45 x 45 mm [1.77 x 1.77"]	grey black	<b>T008170</b> <b>T008171</b>	<b>N511017</b>
		<b>55 x 55 mm</b> <b>[2.17 x 2.17]</b>	for cut-out 50 x 50 mm [1.97 x 1.97"] to cut-out 45 x 45 mm [1.77 x 1.77"]	black	<b>T008853</b>	<b>N511004</b>
		<b>60 x 75 mm</b> <b>[2.36 x 2.95]</b>	for cut-out 50 x 50 mm [1.97 x 1.97"] to cut-out 45 x 45 mm [1.77 x 1.77"]	black	<b>T008860</b>	<b>N511020</b>
		<b>72 x 72 mm</b> <b>[2.83 x 2.83]</b>	for cut-out 68 x 68 mm [2.68 x 2.68"] to cut-out 45 x 45 mm [1.77 x 1.77"]	grey black Mating clip	<b>T008176</b> <b>T008177</b> <b>T009420</b>	<b>N511016</b>
		<b>ø 72 mm</b> <b>[2.83]</b>	for cut-out ø 60 mm [2.36"] to cut-out 45 x 45 mm [1.77 x 1.77"]	black	<b>N510226</b>	–
<b>Gasket counter</b>			48 x 48 mm (for installation in adapter front bezel)		<b>N511018</b>	

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## Technical data

Electrical characteristics															
<b>Electrical connection</b>	screw terminal (tightening torque max. 0.8 Nm)														
<b>Power consumption</b>	<table border="0"> <tr> <td>10 ... 30 V DC</td> <td>approx. 1 W</td> </tr> <tr> <td>36 ... 80 V DC</td> <td>approx. 1.65 W</td> </tr> <tr> <td>100 ... 130 V DC</td> <td>approx. 1.75 W</td> </tr> <tr> <td>20 ... 30 V AC, 50 Hz</td> <td>approx. 0.53 VA</td> </tr> <tr> <td>42 ... 48 V AC, 50 Hz</td> <td>approx. 0.53 VA</td> </tr> <tr> <td>100 ... 130 V AC, 50 Hz</td> <td>approx. 1.43 VA</td> </tr> <tr> <td>187 ... 264 V AC, 50 Hz</td> <td>approx. 3.0 VA</td> </tr> </table>	10 ... 30 V DC	approx. 1 W	36 ... 80 V DC	approx. 1.65 W	100 ... 130 V DC	approx. 1.75 W	20 ... 30 V AC, 50 Hz	approx. 0.53 VA	42 ... 48 V AC, 50 Hz	approx. 0.53 VA	100 ... 130 V AC, 50 Hz	approx. 1.43 VA	187 ... 264 V AC, 50 Hz	approx. 3.0 VA
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<b>Rated voltages</b>	<table border="0"> <tr> <td>AC (50 or 60 Hz)</td> <td>20 ... 30/42 ... 48/100 ... 130/187 ... 264 V</td> </tr> <tr> <td>DC</td> <td>10 ... 30/36 ... 80/100 ... 130 V</td> </tr> </table>	AC (50 or 60 Hz)	20 ... 30/42 ... 48/100 ... 130/187 ... 264 V	DC	10 ... 30/36 ... 80/100 ... 130 V										
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DC	10 ... 30/36 ... 80/100 ... 130 V														
<b>On time</b>	100 %														
<b>Count mode</b>	adding														
<b>Accuracy</b>	<table border="0"> <tr> <td>AC</td> <td>supply frequency + 30 ms</td> </tr> <tr> <td>DC</td> <td>&lt; 0.003 % (at 24 h)</td> </tr> </table>	AC	supply frequency + 30 ms	DC	< 0.003 % (at 24 h)										
AC	supply frequency + 30 ms														
DC	< 0.003 % (at 24 h)														
<b>Reset</b>	no reset														
<b>Device safety</b>	<table border="0"> <tr> <td>designed to protection class</td> <td>EN 61010 part 1</td> </tr> <tr> <td>application area</td> <td>2 pollution level 2</td> </tr> </table>	designed to protection class	EN 61010 part 1	application area	2 pollution level 2										
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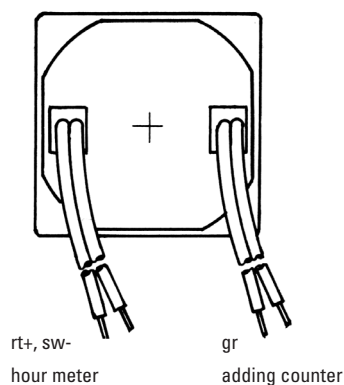
Mechanical characteristics							
<b>Protection</b>	IP52 (front side) when built in						
<b>Housing color</b>	black (standard)						
<b>Weight</b>	<table border="0"> <tr> <td>HC77</td> <td>65 g [2.29 oz]</td> </tr> <tr> <td>plug in frame 55</td> <td>8 g [0.28 oz]</td> </tr> <tr> <td>plug in frame 72</td> <td>13 g [0.46 oz]</td> </tr> </table>	HC77	65 g [2.29 oz]	plug in frame 55	8 g [0.28 oz]	plug in frame 72	13 g [0.46 oz]
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Approvals	
<b>UL compliant</b> in accordance with	File no. E128604
<b>CE compliant</b> in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU
<b>UKCA compliant</b> in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032
Low Voltage Regulations	S.I. 2016/1101

General technical data					
<b>Operating indicator of the running time meter</b>	<table border="0"> <tr> <td>AC</td> <td>fast rotating wheel with red dashes: 99999.99 h</td> </tr> <tr> <td>DC</td> <td>1/100 h display turns continuously by 1 digit in 36 s: 99999.99 h</td> </tr> </table>	AC	fast rotating wheel with red dashes: 99999.99 h	DC	1/100 h display turns continuously by 1 digit in 36 s: 99999.99 h
AC	fast rotating wheel with red dashes: 99999.99 h				
DC	1/100 h display turns continuously by 1 digit in 36 s: 99999.99 h				
<b>Height of figures</b>	4 x 1.7 mm [0.16 x 0.067"] optical				
<b>Color of figures</b>	<table border="0"> <tr> <td>hour meter</td> <td>hour: white on black decimal: red on black</td> </tr> <tr> <td>pulse counter</td> <td>white on black</td> </tr> </table>	hour meter	hour: white on black decimal: red on black	pulse counter	white on black
hour meter	hour: white on black decimal: red on black				
pulse counter	white on black				
<b>Operating temperature</b>	-15 °C ... +50 °C [+5 °F ... +122 °F] (non-condensing)				
<b>Relative humidity</b> at +30 °C [+86 °F]	≤ 80 % (non-condensing)				
<b>Altitude</b>	up to 2000 m [6562']				
<b>Mounting position</b>	any				

## Terminal assignment

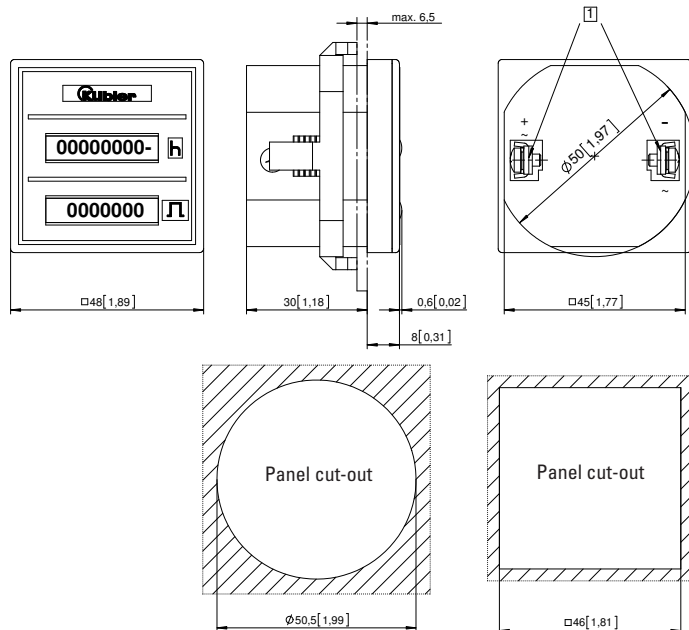
Counter with separate connections (rear view)



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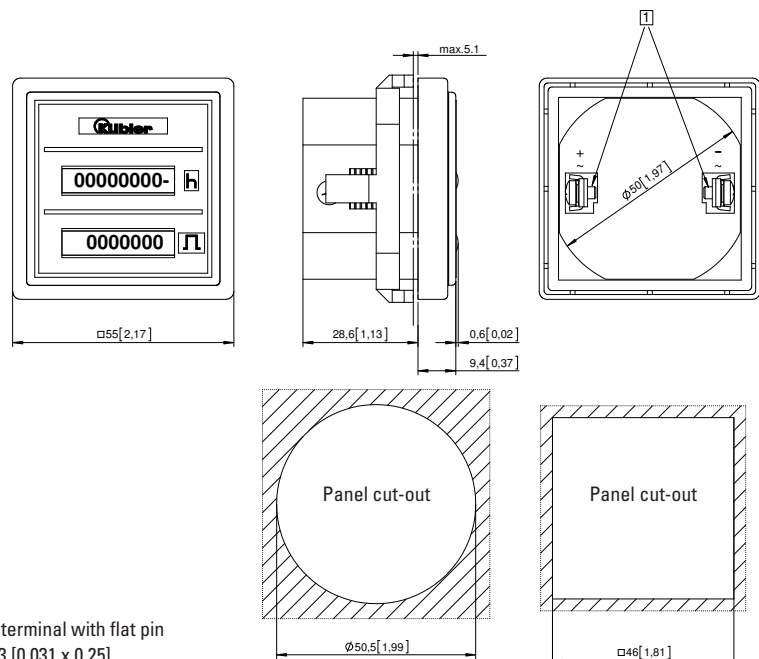
Dual function counter 48 x 48 [1.89 x 1.89"]  
Type HC77



1) Screw terminal with flat pin  
0.8 x 6.3 [0.031 x 0.25]

Type	Display	Voltage	Art. no.					
			10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V
HC77	7/8 digits	AC (50 Hz)		3.550.401.071		3.550.401.072	3.550.401.074 <sup>1)</sup>	3.550.401.075 <sup>1)</sup>
	7/8 digits	AC (60 Hz)		3.550.401.081		3.550.401.082	3.550.401.084	3.550.401.085
	7/8 digits	DC	3.550.401.351 <sup>1)</sup>		3.550.401.353		3.550.401.381	
Color of housing grey:			Art. no.		3.550.400.XXX			

Dual function counter 48 x 48 [1.89 x 1.89"]  
with adapter front bezel 55 x 55 [2.17 x 2.17"]  
Type HC77.55



1) Screw terminal with flat pin  
0.8 x 6.3 [0.031 x 0.25]

Type	Display	Voltage	Art. no.					
			10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V
HC77.55	7-/8 digits	AC (50 Hz)		3.551.401.071		3.551.401.072	3.551.401.074	3.551.401.075
	7/8 digits	AC (60 Hz)		3.551.401.081		3.551.401.082	3.551.401.084	3.551.401.085
	7/8 digits	DC	3.551.401.351		on request		3.551.401.381	
Color of housing grey:			Art. no.		3.551.400.XXX			