

## Counters with dual function – HC 77



- **Combination counter consists of hour meter and adding counter in one**
- Without reset
- High shock resistance
- Magnified figures
- Protection IP 52 front side
- Data retention if power is lost
- Long service life
- UL-approval

### Applications:

general counting,  
service interval for  
measurement systems  
(respiratory ventilators, oxygen  
machines, dialysis machines),  
small appliances, UV lamps,  
display panels in cars, lifts,  
burners for heating systems.

### Technical data:

Electrical connection:	Flat pin 0.8 x 6.3 mm [0.032 x 0.248"] with screw terminal tightening torque max. 0.8 Nm	
Power consumption:	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
Rated voltages:	100...130 V AC , 50 Hz:	approx. 1.43 VA
	187...264 V AC , 50 Hz:	approx. 3.0 VA
	20 ... 30/42 ... 48/100 ... 130/187 ... 264 V AC 50 or 60 Hz, 10 ... 30/36 ... 80/100 ... 130 V DC	
On time:	100 %	
Count mode:	adding	
Height of figures:	4 x 1.7 mm [0.158 x 0.067"]	
Colour of figures:	hour: white on black	
	decimal: red on black	
Operating indicator of the running time meter:		
AC:	Fast rotating wheel with red dashes: 99999.99 h	
DC:	1/100 h display turns continuously by 1 digit in 36 s: 999999.99 h	
Accuracy:	AC: Supply frequency + 30 ms	
	DC: < 0.003 % (24 h)	
Reset:	no	
Ambient temperature:	-15 ... +50 °C [5 ... 122 °F]	
Mounting position:	any	
Protection:	IP 52 (from front, when built in)	
Colour of housing:	black	
Weights:	HC 77	65 g [2.293 oz]
	plug in frame 55	8 g [0.282 oz]
	plug in frame 72	13 g [0.45 oz]

### Options:

1. Colour of housing: grey  
Art-No. 3.55X.400.XXX
2. Flat pin 0.8 x 6.3 mm [0.032 x 0.248"]  
Art-No.: 3.55X.40X.XXX.011
3. Separate connections for running time meter and adding counter. This model is available for AC or DC (not mixed)  
Adding counter max. 10 Imp/s  
Electrical connections:  
2 x cable 2 x 0.5 mm<sup>2</sup> [0.00077 square yards]  
NYFAZ, 0.5 m [0.547 yard] long  
(hour meter cable red/black,  
adding counter grey cable)  
Art-No. 3.55X.40X.XXX.060
4. Sealed window (IP 65 front) with:
  - Screw terminal:  
Art-No. 3.55X.40X.XXX.419
  - Flat pin 0.8 x 6.3 mm [0.032 x 0.248"]  
Art-No. 3.55X.40X.XXX.062
  - Separated connections (cable)  
Art-No. 3.55X.40X.XXX.061

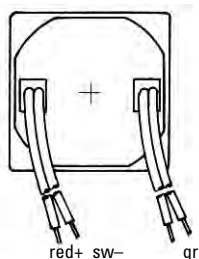
### Approvals:

UL for USA and Canada E128604

### Order information:

Art-No. (for special voltages etc. indicate exact model, voltage and frequency e.g. HC 77, 120 V AC, 60 Hz)

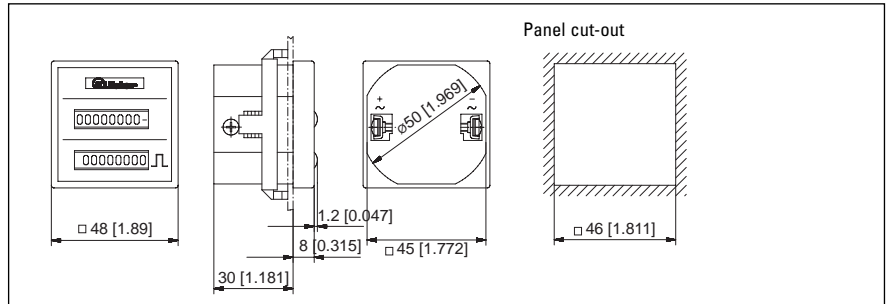
Meter with separate connections (rear view)



Hour meter                      adding counter

## Counters with dual function – HC 77

### HC 77

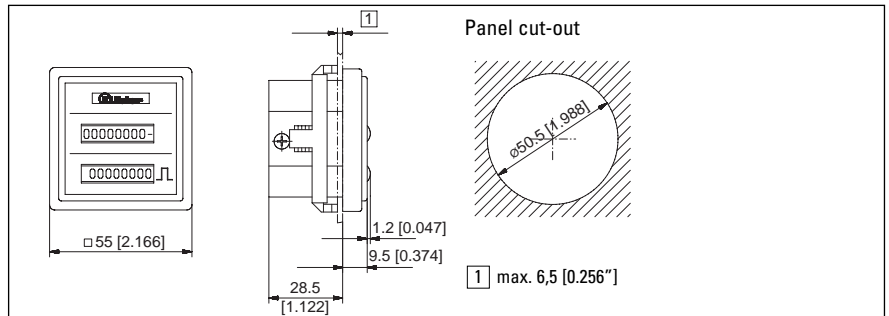


Voltage	Art-No. (AC), 50 Hz	Art-No. (AC), 60 Hz	Art-No. (V DC)
10 ... 30			3.550.401.351*
20 ... 30	3.550.401.071*	3.550.401.081	
42 ... 48	3.550.401.072	3.550.401.082	
100 ... 130	3.550.401.074*	3.550.401.084	3.550.401.381
187 ... 264	3.550.401.075*	3.550.401.085	

Further stock models with separate connections: 3.550.401.351.060

Colour of housing grey: Art. no.3.550.400.XXX

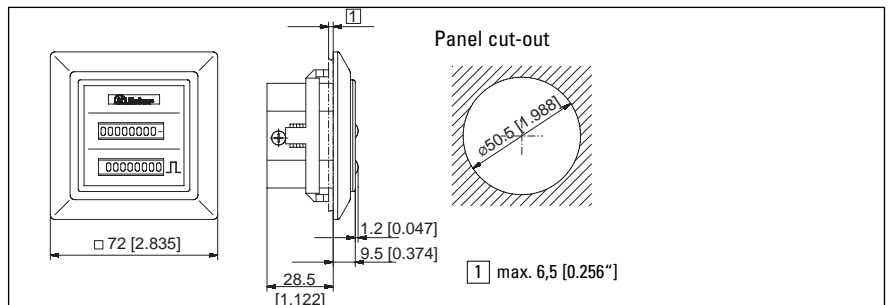
### HC 77.55



Voltage	Art-No. (AC), 50 Hz	Art-No. (AC), 60 Hz	Art-No. (V DC)
10 ... 30			3.551.401.351
20 ... 30	3.551.401.071	3.551.401.081	
42 ... 48	3.551.401.072	3.551.401.082	
100 ... 130	3.551.401.074	3.551.401.084	3.551.401.381
187 ... 264	3.551.401.075	3.551.401.085	

Colour of housing grey: Art. no. 3.551.400.XXX

### HC 77.72

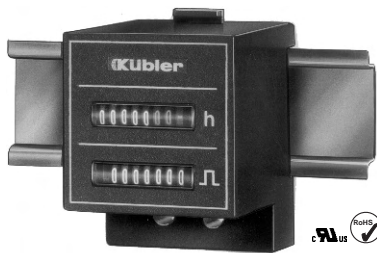


Voltage	Art-No. (AC), 50 Hz	Art-No. (AC), 60 Hz	Art-No. (V DC)
10 ... 30			3.552.401.351
20 ... 30	3.552.401.071	3.552.401.081	
36 ... 80			3.552.401.353
42 ... 48	3.552.401.072	3.552.401.082	
100 ... 130	3.552.401.074	3.552.401.084	3.552.401.381
187 ... 264	3.552.401.075	3.552.401.085	

For panel cut-outs 66 x 66 mm [2.599 x 2.599"] and 68 x 68 mm [2.678 x 2.678"] adapters are available as accessories.  
 Adapter 66 x 66 mm [2.599 x 2.599"]:  
 Art. no. T.009.423  
 Adapter 68 x 68 mm [2.678 x 2.678"]:  
 Art. no. T.009.420

Colour of housing grey: 3.552.400.XXX

## Counters with dual function – SHC 77



- **Combination counter consists of time meter and totalising counter in one**
- Without reset
- Competitively priced
- High shock resistance
- Magnified figures
- Protection IP 52 front side
- Data retention if power is lost
- Long service life
- UL-approval

### Applications:

general counting, alarm systems, slot machines, pay stations, electricity meters, copying machines, medical equipment, car washes.

### Technical data:

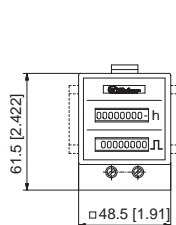
Electrical connection:	SHC 77:	screw terminal tightening torque max. 0,8 Nm
	SHC 77.60:	2 x cable 2 x 0.5 mm <sup>2</sup> NYFAZ, 0.5 m [0.547 square yards] long hour meter red/black adding counter grey
Power consumption:	10 ... 30 V DC:	approx. 1 W
	36 ... 80 V DC:	approx. 1.65 W
	100 ... 130 V DC:	approx. 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
Rated voltages:	20 ... 30/42 ... 48/100 ... 130/187 ... 264 V AC 50 or 60 Hz, 10 ... 30/36 ... 80/100 ... 130 V DC	
On time:	100 %	
Count mode:	adding	
Height of figures:	4 x 1.7 mm [0.158 x 0.067"]	
Colour of figures:	hour meter: Hours: white figures on black 1/10 and 1/100 h: red figures on black adding counter: white figures on black	
Operating indicator of the hour meter:	AC: fast rotating wheels with red dashes: 99999.9 h DC: 1/100 h display turns continuously by 1 digit per 36 s: 999999.9 h	

Accuracy:	AC: Supply frequency + 30 ms DC: < 0.003 % (24 h)	
Reset:	no	
Ambient temperature:	-15 ... +50 °C [5 ... 122 °F]	
Mounting position:	any	
Protection:	IP 52 (from front, when built-in)	
Colour of housing:	black	
Weights:	SHC 77	85 g [2.998 oz]
	SHC 77.60	105 g [3.704 oz]
Options:	SHC 77	The two meters are connected in parallel, this means, that the adding counter registers the total number of events and the time meter the total operating time of the device.
	SHC 77.60	Hour meter and adding counter have two separate connections. This version is available for either AC or DC version (not mixed)
Applications:	switch cabinets, distribution boxes etc.	
Test voltage:	2500V AC, 50 Hz	
Order information:	Art. no. (for special voltages etc. exact type, voltage, frequency e.g. SHC 77, 120 V AC, 60 Hz)	
Approvals:	UL for USA and Canada E128604	

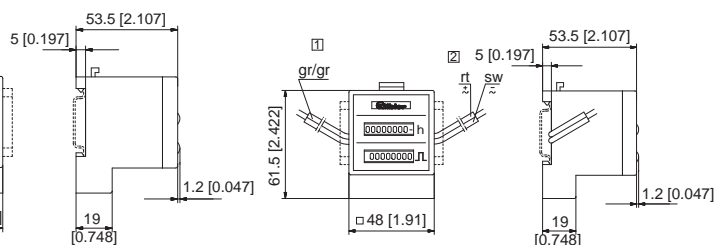
Figure.: SHC 77



SHC 77



SHC 77.60



1 Totalising counter 2 Hour meter

### SHC 77

Voltage	Art-No. (AC), 50 Hz	Art-No. (AC), 60 Hz	Art-No. (V DC)
10 ... 30			3.553.401.351
20 ... 30	3.553.401.071	3.553.401.081	
42 ... 48	3.553.401.072	3.553.401.082	
100 ... 130	3.553.401.074	3.553.401.084	3.553.401.381
187 ... 264	3.553.401.075	3.553.401.085	

### SHC 77.60 (separate connections)

Voltage	Art-No. (AC), 50 Hz	Art-No. (AC), 60 Hz	Art-No. (V DC)
10 ... 30			3.553.401.351.060
20 ... 30	3.553.401.071.060	3.553.401.081.060	
42 ... 48	3.553.401.072.060	3.553.401.082.060	
100 ... 130	3.553.401.074.060	3.553.401.084.060	3.553.401.381.060
187 ... 264	3.553.401.075.060	3.553.401.085.060	