Hour meters / timers, electromechanical

Dual function counters | **Pulse + time for DIN rail (AC+DC)** | **SHC77**



The counter combinations SHC77 comprise an hour meter and a totalizer. They can be controlled both simultaneously and separately.

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

Characteristics

- Hour meter and totalizer in one single device optional: counters controlled separately.
- Without reset.
- High shock resistance.
- Magnified large figures.
- Protection IP52 (on the front side).
- Data retention in case of power failure.
- Long service life.
- UL-approved.

Applications

General counting, alarm systems, pay stations, electricity meters, vending and gaming machines, copying machines, medical equipment, car washes, lifts, heating burners.

Type series

Description	*Type*
Dual function counter, common connections	**SHC77**
Dual function counter, separate connections	**SHC77.60**

Order information: Art. no. (for special voltages etc. indicate exact counter types, voltage and frequency e.g. SHC77, 120 V AC, 60 Hz)

Options

SHC77: 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.

SHC77.60: Hour meter and adding counter have two separate connections. This version is available for either AC or DC version (not mixed).

General technical data

Operating indicator of the hour meter	AC	fast rotating wheels with red dashes: 99999.99 h
	DC	1/100 h display turns continuously by 1 digit per 36 s: 999999.99 h
Height of figures		4 x 1.7 mm [0.16 x 0.067"] optical
Color of figures	hour meter	hours: white figures on black
	1/10 u. 1/100 h	red figures on black
	adding counter	white figures on black
Operating temperature		-15 °C ... +50 °C [+5 °F ... +122 °F] (non-condensing)
Relative humidity at +30 °C [+86 °F]		≤ 80 % (non-condensing)
Altitude		up to 2000 m [6562']
Mounting position		any

Electrical characteristics

Electrical connection	SHC77	screw terminal (tightening torque max. 0.8 Nm)
	SHC77.60	2 x cable – 2 x 0.5 mm² [AWG20] NYFAZ, 0.5 m [1.64'] 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	AC (50 or 60 Hz)	20 ... 30/42 ... 48/100 ... 130/187 ... 264 V
	DC	10 ... 30/36 ... 80/100 ... 130 V
On time		100 %
Count mode		adding
Accuracy	AC	supply frequency + 30 ms
	DC	< 0.003 % (at 24 h)
Reset		no reset
Test voltage		2500 V AC, 50 Hz
Device safety	designed to	EN 61010 part 1
	protection class	2
	application area	pollution level 2

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Dual function counters | Pulse + time for DIN rail (AC+DC) | SHC77

Mechanical characteristics

Protection		IP52 (front side) when built-in
Housing color		black (standard)
Weight	SHC77	85 g [3.00 oz]
	SHC77.60	105 g [3.70 oz]

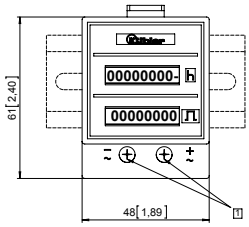
Approvals

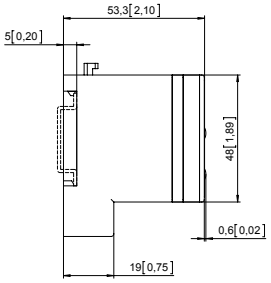
UL compliant in accordance with	File no. E128604
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU
UKCA compliant in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032
Low Voltage Regulations	S.I. 2016/1101

Dual function counter with common connections

Type SHC77







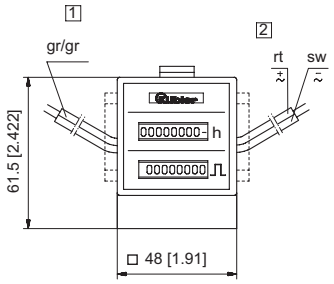
1 screw terminal

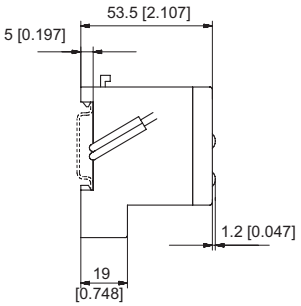
Type	Display	Voltage	Art. no. 10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V
SHC77	7/8 digits	AC (50 Hz)		**3.553.401.071**		**3.553.401.072**	**3.553.401.074**	**3.553.401.075**
	7/8 digits	AC (60 Hz)		**3.553.401.081**		**3.553.401.082**	**3.553.401.084**	**3.553.401.085**
	7/8 digits	DC	**3.553.401.351**		**3.553.401.353**		**3.553.401.381**	

Dual function counter with separate connections

Type SHC77.60







1 adding counter 2 hour meter

Type	Display	Voltage	Art. no. 10 ... 30 V	20 ... 30 V	36 ... 80 V	42 ... 48 V	100 ... 130 V	187 ... 264 V
SHC77.60	7/8 digits	AC (50 Hz)		**3.553.401.071.060**		**3.553.401.072.060**	**3.553.401.074.060**	**3.553.401.075.060**
	7/8 digits	AC (60 Hz)		**3.553.401.081.060**		**3.553.401.082.060**	**3.553.401.084.060**	**3.553.401.085.060**
	7/8 digits	DC	**3.553.401.351.060**		**on request**		**3.553.401.381.060**	

Dimensions in mm [inch]

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