

type 3800, 3810, 3820, 3830, 3840, 3850, 3860, 3870, 3880, 3890



type 3801, 3811, 3821, 3831, 3841, 3851, 3861, 3871, 3881, 3891



type 3802, 3812, 3822, 3832, 3842, 3852, 3862, 3872, 3882, 3892

\* HC = hour counter PC = pulse counter

STC = service time counter,

SPC = service pulse counter

bg = background

# Time and pulse counters (single counter) for AC or DC or with Twin-technology as time, service or pulse counters (double counter) 7 mm digit height, 48 x 24 mm, 48 x 48 mm, ø 52 mm

Advanced BAUSER technology enables: Even without battery, your information remains registered in the EEPROM records. Further, the digital time- and pulse counters offer a smart design, high quality and reliability. Therefore, ideally suitable for the heavy applications in the industry and vehicles.

#### With the BAUSER counters, you can count on:

- LC-display with 7 digits, character height 7 mm
- protection class IP 65 (without reset button)
- plug- and terminal connection

The BAUSER-Twin (double counter) registers cost effectively two different counting values as digital indication in just one counter. So, we offer you two counters in one unit. You decide which value should be indicated permanently and which one in the background. We programme the BAUSER-Twin individually for you, according to your priorities and requirements of service intervals and prewarning times.

#### Order specifications:

counting type		using dimensio 48 x 48 mm	Ø 56 mm with glass ring	reset for the following counter	notes
HC*	3800	3801	3802		
PC*	3810	3811	3812		
HC with HC (bg)*	3820	3821	3822	HC	HC (bg) not resetable
PC with PC (bg)*	3830	3831	3832	PC	PC (bg) not resetable
HC with PC (bg)*	3840	3841	3842	HC + PC	both counters are resetable, even PC while appearing on the display (e.g. combination of power- on time and frequency)
PC with HC (bg)*	3850	3851	3852	PC + HC	both counters are resetable, even HC while appearing on the display (e.g. combination of power- on time and frequency)
HC with STC (bg)*	3860	3861	3862	STC	HC not resetable
PC with SPC (bg)*	3870	3871	3872	SPC	PC not resetable
STC with HC (bg)*	3880	3881	3882	STC	HC not resetable
SPC with PC (bg)*	3890	3891	3892	SPC	PC not resetable

#### Choose between the following software configurations

(The background counter appears for approx. 10 seconds every time you switch-on):

- time and service counter (fix values)
- pulse and service counter (fix values)
- periodical and totalising counter
- time and pulse counter

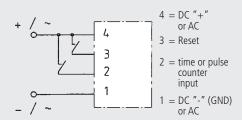
### Further specifications for your order selection 38XX.X.X.X.X.X 1 plug connection 6,3 mm x 0,8 mm/bent 90° connections 2 terminal connection 0 blank indication 1 1/100 h indication time counter 2 1/10 h indication max. counting 0 blank frequency 1 30 Hz at DC operation pulse counter 7 10 Hz at AC or AC/DC operation

**written fat** = preferred variants

input signal

reset type

#### wiring diagram (for positive signal inputs):



Pin 1 + 4 =voltage supply

#### Further order specifications:

#### 12 - 24 V DC, 24 - 48 V DC, 24 V AC/DC oder 110 - 240 V AC 50/60 Hz

Please indicate your desired service and prewarning times. i.e. The service should happen after 1.000 pulses with a prewarning after 900 pulses, maximum 4, minimum 1 digit values.

1 reset input pos./counting input pos.

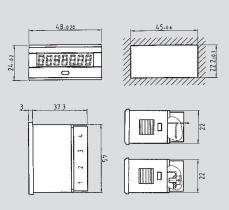
5 counting input pos.

1 without reset

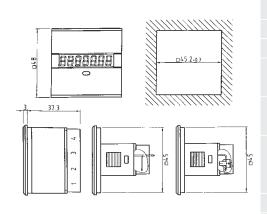
2 with electrical reset3 with el. and man. reset

accessories: additional sealing, rubber seal at additional costs.

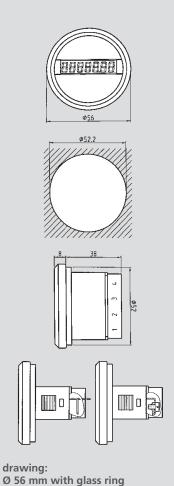
Our digital hour counters with signal output series 4000... are described on page 10 to 12.



drawing: 48 x 24 mm



drawing: 48 x 48 mm

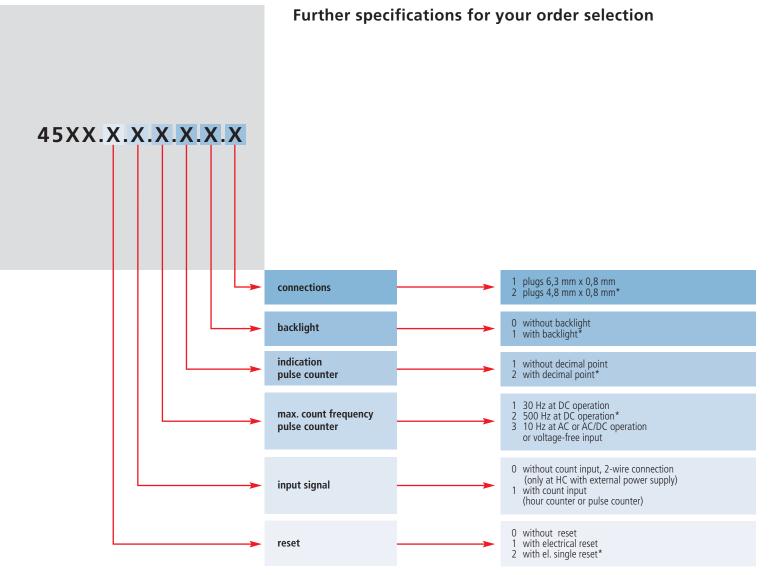


#### Technical specifications of the single and double counters

On this page you will find the complete technical specifications and drawings of the digital single and double counters.

#### **Technical specifications:**

housing:	black plastic				
indication:	LC-display with 7 digits (only active while connected)				
character height:	7 mm				
operating voltages:	12 - 24 V DC / ±25 %				
	110 - 240 V AC 50/60 Hz / ±10 %				
special voltages	24 - 48 V DC / ±25 %				
(at additional cost):	24 V AC/DC / ±10 %				
current consumption:	12 - 24 V DC and 24 - 48 V DC / < 5 mA				
	24 V AC / DC / < 10 mA				
	110 - 240 V AC 50/60 Hz / < 15 mA				
ambient temperature:	-30 ° C to +70° C				
stocking temperature:	-40 ° C to +80° C				
electrical connection:	plug connection 6,3 x 0,8 mm /90° bent or terminal connection				
reset:	without, manual or electrical				
protection:	without reset button IP 65, with reset button IP 54				
vibration resistance:	20 g according to SAEJ1378, 1 g (10500 Hz) according to EN 60068-2-34				
shock resistance:	55 g according to SAEJ1378, 30 g (18 ms) according to EN 60068-2-27				
	25 g (6 ms) according to EN 60068-2-29				
EMC:	EN 55011, EN 61000-6-2				
industrial norm:	EN 61010, protection class II				
approval:	<b>( €</b> , UL, cUL				
counting frequency /	30 or 200 Hz = DC-counter				
pulse counter:	10 Hz = AC-counter				
data storage:	EEPROM (min. 25 years)				
fixing:	retaining clip				
weight:	39, 42 or 57 g.				



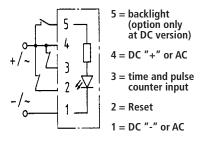
<sup>\* =</sup> no standard version - available on request!

#### **Technical specifications:**

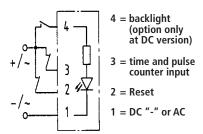
housing:		black plastic						
indication:		LC-Display, 7 digits, at battery-operated version permanent indication						
character he	ight:	5 mm						
reset:		without or electrical						
data storage	e:	EEPROM (min. 25 years) or battery (min. 10 years)						
ambient ten	ıp.:	-40 °C to +85 °C, -40 °C to +70 °C at battery supply						
storage tem	p:	-40 °C to +90 °C, -40 °C to +70 °C at battery supply						
electr. conne	ection:	plugs 6.3 x 0.8 mm optionally 4.8 x 0.8 mm						
vibration res	sistance:	20 g according to SAEJ1378, 1 g (10500 Hz) according to EN60068-2-34						
shock resista	ance:	55 g according to SAEJ1378, 30 g (18 ms) according to EN60068-2-27						
		25 g (6 ms) according to EN60068-2-29						
counting fre	quency (PC):	maximum 30 Hz or 500 Hz at DC operation / maximum 10 Hz for AC or AC/DC variant						
operating vo	oltage :	12 V DC - 150 V DC and 24 V AC - 240 V AC ±10 %						
current cons	umption:	100 μA - 3 mA						
input resista	nce:	approx. 120 kOhm (count, reset)						
life time of l	oattery:	Min. 10 years under the following conditions:						
		• 10 Mio. switching cycles of count and reset at 23 °C						
		• mean duty cycle at count and reset: 12 h/day						
		• min. signal rise time at count and reset: 5 ms						
		$\bullet$ signal voltage at count and reset: Ub $\pm 25$ %, off: < 0,75V or floating						
option back	light:	operating voltage:	12 V DC $\pm$ 25 %	24 V DC ±25 %	36 V DC ±25 % - 48 V D	C ±25 %		
		current consumption:	ca. 30 mA	ca. 15 mA	ca. 5 mA - 8 mA			
EMC:		EN 55011, EN 61000-6-2						
industrial no	orm:	EN 61010, protection class II						
approval:		<b>(€</b> , UL, cUL						
protection:		IP66, pins IP00						
fixing:		retaining clip or front	fixing					

#### Drawings and wiring diagrams

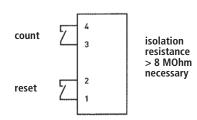
### wiring diagram (external power supply):



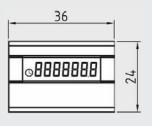
### wiring diagram (battery-operated version):

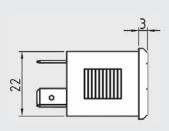


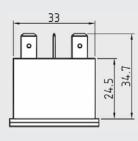
### wiring diagram (battery version voltage-free):



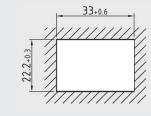




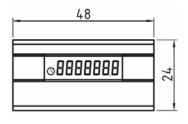


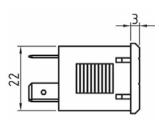


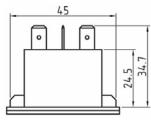


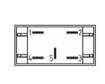


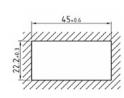
#### drawing: 48 x 24 mm



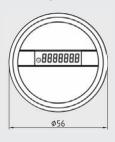


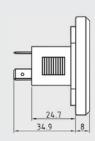


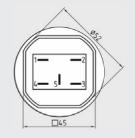


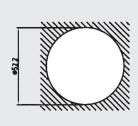


#### drawing: ø 56 mm









#### drawing: front fixing

