

design 48 x 48mm

pulse and elapsed-time counter

- ✓ multi-function counter
- ✓ counter on quartz time base
- ✓ LED-display, 4-digit, 7mm high
- ✓ 1 preset, 1 relay (1 pnp-output 24V DC, 150mA optional)
- ✓ count up to preset value
- ✓ external reset
- ✓ auxiliary voltage 24V DC in AC-operation
- ✓ 8 programmable time ranges from 0.001sec to 9999min
- ✓ 5 years data memory



**pulse and elapsed-time counter
preset counter with relay output**

description

The **CM034400** is an electronic multi-function counter which is both simple to set up and which offers a wide variety of possibilities.

For example, the following can be programmed: pulse counters, time counters with switch on/off delay, memories, inversion of the relay and the control input as well as the positive or negative counting edge.

Programming takes place via DIP switches which are laterally mounted in the housing.

When supplying the counter with 230V AC current on the 7 pin terminal strip (contact 1/2 and 6/7) it provides a 24V

DC auxiliary voltage (contact 1/2 and 5/6) on the 6 pin terminal strip for connecting the corresponding sensors.

application examples

- ▶ reproducible pre-set lengths for automatic trimming devices
- ▶ reliable wear and tear/maintenance counter
- ▶ process visualization in mechanical engineering and plant construction
- ▶ frequency counter with a tachometer function
- ▶ pulse counters with a position display

TECHNICAL DATA

display	LED, 4 decades, 7mm high	
time ranges	0.001 ... 9.999sec/min	0.01 ... 99.99sec/min
	0.1 ... 999.9sec/min	1 ... 9999sec/min
repeat accuracy	< 0.5%	
recovery time	< 10msec (control contact)	< 40msec (UB)
counting mode	count up to preset value	
operating voltage	230V AC or 24V DC, +5% -10%	
power consumption	< 5VA	
auxiliary voltage	24V DC, 50mA	
output	1 relay (change-over contact 250V/3A), 1x pnp 24V DC, 150mA optional	
data storage	5 years	
continuous duty	100% CD	
system of protection (EN 60529)	IP40 (terminals IP20)	
ambient temperature	-20°C ... +70°C	
sampling frequency	20Hz	

fig. 1

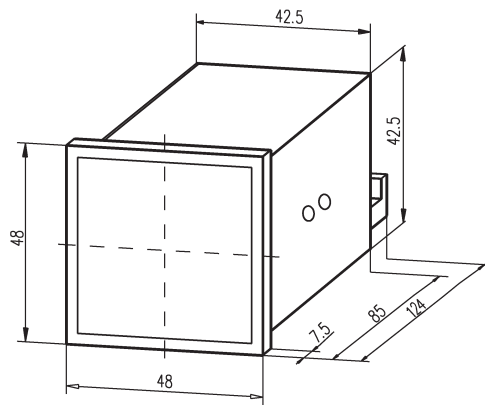
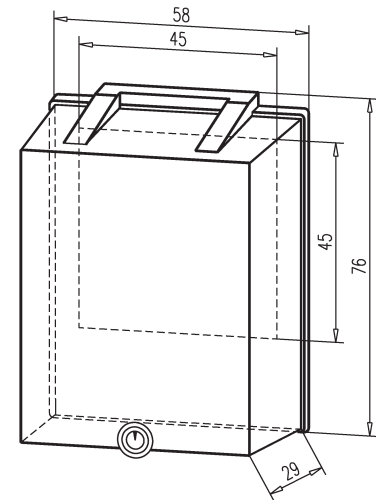


fig. 2



CONNECTION

terminal strip 7-pin*

terminal 1+2	operating voltage (UB) 230V	(terminals bridged)
terminal 3	relay1 make contact	(optional external auxiliary voltage +10 ... 30V DC)
terminal 4	relay1 break contact	(optional external auxiliary voltage 0V DC)
terminal 5	relay1 central contact	(optional pnp-output 24V DC, 150mA)
terminal 6+7	operating voltage (UB) 230V AC	(terminals bridged)

terminal strip 6-pin

terminal 1+2	auxiliary voltage +24V DC, 50mA	terminal 1+2 / 6+7 assigned	*7-pin
	UB +24V DC	terminal 1+2 / 6+7 not assigned	*7-pin
terminal 3	count input pnp		
terminal 4	reset pnp		
terminal 5+6	0V DC (minus for auxiliary voltage)	terminal 1+2 / 6+7 assigned	*7-pin
	UB 0V DC (minus)	terminal 1+2 / 6+7 not assigned	*7-pin

PROGRAMMING OF THE DIP SWITCHES

	s1	s2	s3	s4	s5
on	x 0.001	x 0.01	x 0.1	x 1	minutes
off	–	–	–	–	seconds

	s6	s7	s8
on	elapsed time counter	counting / de-energizing edge	counting 24V DC, reset 0V
off	pulse counter	counting / energizing edge	counting 0V, reset 24V DC

	s9	s10
on	relay de-energizes by preset value	storage by loss of operating voltage
off	relay energizes by preset value	reset by loss of the operating voltage

DIP switches s1 to s5 are active during the time count only (time range switch-over switch).
 The counting of time starts when the supply voltage is applied. In so doing, the counter input does not have a function! Reset in accordance with DIP switch "s8"!

article-no.	design	description	notes	voltage	output	current	display	fig.
CM034400	48x48x124	multi-function	20Hz/0.001s...9999min	230V AC / 24V DC	1preset, 1relay	3A	LED, 4-digit	1
AV000002	48x48	accessory	coverage	lockable				2

Warning: Never use these devices in applications where the safety of a person depends on their functionality!

notes

export division

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