design   **48 x 48 x 108mm**

pulse counter
elapsed-time counter

✓ **multi-function counter 48x48mm**

✓ **backlit 6-digit LED display**

✓ **simultaneous display of count and preset value**

✓ **supression of predecimal places**

✓ **up/down count programmable to 1kHz**

✓ **different programmable counting modes**

✓ **scale factor adjustable from 0.0001 to 9999.99**

✓ **counter with 1 or 2 presets**

✓ **integrated totalizing counter**

✓ **floating relay outputs**

✓ **data memory > 10 years via EEPROM**

counter with 1 or 2 presets values
floating relay outputs

description

The programmable counters of the **CM03** series, featuring an LED display, can be used in all applications where pulses have to be counted or times have to be detected. One and/or two programmable presets control the relay outputs.
The counters can either be supplied for DC or AC voltages. Thanks to the illumination, which comes as standard, it is easy to read the LCD display.
The main counter has 6 decades, and the 7 segment displays are 7mm high. The decimal point can be set on an individual basis.
A second display with a 4mm number height can be used both as a totalizing counter and as a display for preset values. In addition, symbols provide information about the status of the relay outputs. Furthermore, various units can be displayed.
With the counters in this series, use as a time counter and/or time relay is also possible. The user can select between four different counting ranges.
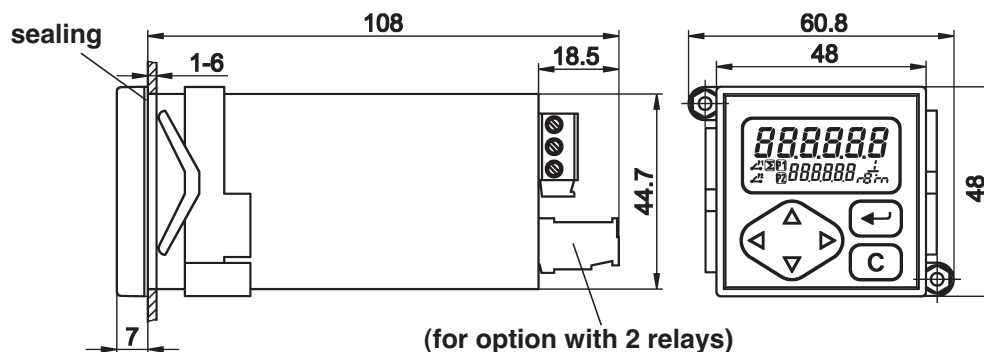The control voltage for the counter and/or reset pulses depends on the operating voltage. It may fall between 12 and 260V AC/DC.
The programming is carried out via the membrane keyboard. For example, the position of the decimal point, the length of the timed output for the switching outputs and the function of the reset button can all be programmed. All set parameters are stored in an EEPROM for at least 10 years.

application examples

▶ reliable wear and tear/maintenance counter
▶ process visualization in mechanical engineering and plant construction
▶ sum counter
▶ time delay relay function

article-no.	CM035150	CM034950	CM035152	CM034952
operating voltage	10 ... 30V AC/DC	85 ... 265V AC	10 ... 30V AC/DC	85 ... 265V AC
output	1 relay	1 relay	2 relays	2 relays
preset	1 preset	1 preset	2 presets	2 presets

sealing

108   18.5   60.8   48

1-6

44.7

48

7

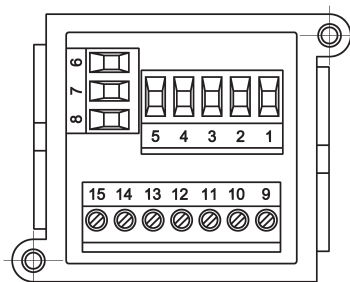**(for option with 2 relays)**

TECHNICAL DATA

output signal	relay, change-over contact, 1A, 150VA / 30W
voltage level of the signal inputs	12 ... 260V AC / DC
counting range	0 ... 999.999
timed output	0.01 ... 99.99sec programmable
scale factor	0.0001 ... 9,999.99 programmable
operating voltage	see above
current consumption	1.5VA (2W)
frequeny of count	25kHz (1kHz for DC-triggering)
display counter reading	LCD, 6 decades, 7mm high
display preset value and/or total sum	LCD, 6 decades, 7mm high
counting mode	up/down
elapsed-time count	up/down
data storage	> 10 years via EEPROM
measuring units in the display	m, dm, cm, mm, L, h, min, sec programmable
design	48x48x108mm
housing material	polycarbonate
operating temperature	0 ... +50°C
system of protection (EN 60529)	IP65 (front side)
connection	pluggable screw terminals
mounting	front panel installation, mounting via collar style panel latch
mounting accessories	adapter plate **AC000028**

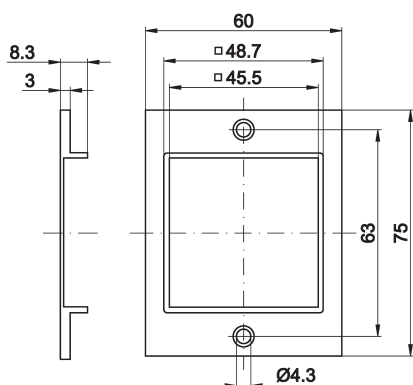| connection	terminal
operating voltage (see list of articles)	1
operating voltage (see list of articles)	2
COM pulse voltage	3
counting pulse (12 ... 260V AC/DC)	4
reset pulse (12 ... 260V AC/DC)	5
primary preset, make contact	6
primary preset, central contact	7
primary preset, break contact	8
key lock *	9
key lock *	10
secondary preset, make contact *	13
secondary preset, central contact*	14
secondary preset, break contact *	15

The key lock is active, when a contact is made between terminals 9 and 10 (e.g. using a key switch).
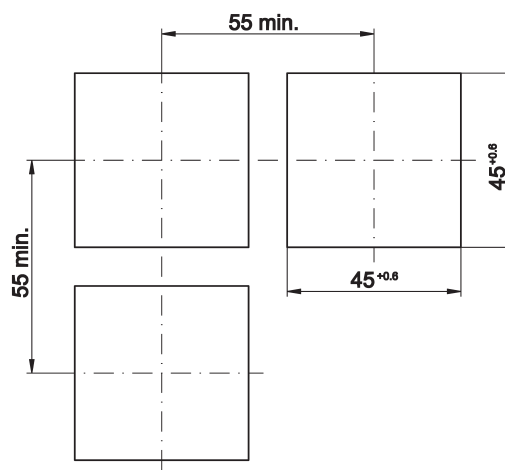
Note:
The counters are delivered with operating instructions, which explain the functions and programming of the devices in detail.

* only for devices with 2 presets!

adapter plate AC000028

port

This data sheet contains the standard versions only. Kindly request the availability of other output- and connection functions.

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

notes

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