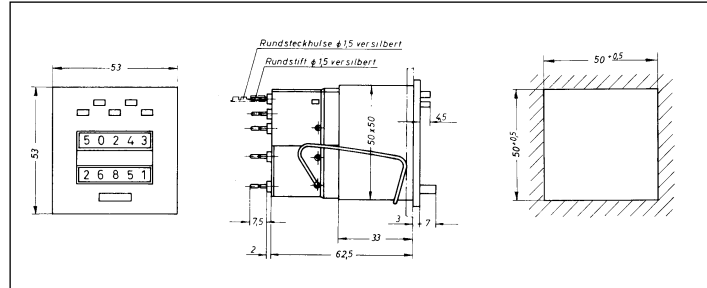


Preselection counters

CMM152



Manual resetting

CMM152	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	152M4S2N0V00	–	–	–
18 pulses/sec	–	152B4S4N0V00	152D1S4N0V00	152E1S4N0V00

Counter

Current type	Max. pulse duration	Min. pause between pulses	Pulse ratio	Operating factor	Consumption	Max. allowable residual ripple	Ambient temp. °C
DC	24 ms	16 ms	3:2	100 %	3 W	48 %	-10 +60
AC	27.7 ms	27.7 ms	1:1	100 %	3.0 VA		-10 +55

Technical features:

Electrical connection:
 round pins $\varnothing 1.6$ mm, silver-plated
 with mating connector: (counter)
 silver-plated flat pins 0.8 x 2.8 mm
 (mating connector)

Digits:

height appr. 4.5 mm - white, black background
 (counter)
 height appr. 4 mm - yellow, black background
 (preselection)

Mounting position: any

Counter colour: grey (standard)
 black (upon request)

Rated voltages:

counter:
 24 48 115 VDC $\pm 10\%$
 24 48 115 230 VAC $\pm 10\%$
 electrical resetting:
 24 48 115 VDC $\pm 10\%$
 24 48 115 230 VAC $\pm 10\%$

Testing voltage:

2000 VAC RMS according to VDE 0435

Switching contact:

1 reversing switch (microswitch)
 Resolution on the 2nd half-step for the preselection
 Max. load for AC : max. 250 V, max. 2 A

Load for DC :
 24 V max. 2 A
 60 V max. 0.7 A ohmic load
 115 V max. 0.4 A
 230 V max. 0.2 A

In case of an inductive load, provide a suitable spark extinction; the maximum value for the current must then be reduced to 60%.

Weight:

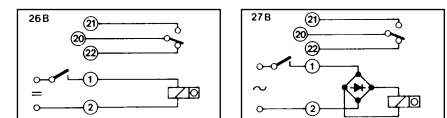
Counter with manual resetting appr. 130 g
 Counter with electrical resetting appr. 240 g

Scope of delivery:

complete counter with mating connectors

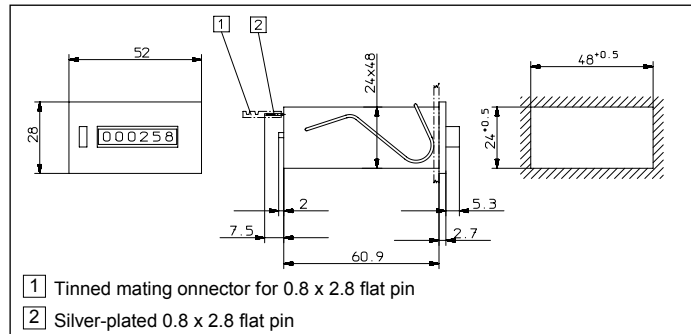
Connection diagram:

Manual resetting



Totalizing counters

CMM161



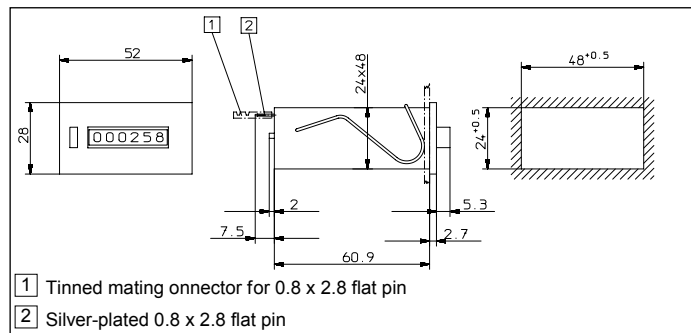
With manual resetting

CMM161	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	161M1N2N0S00	161M4N2N0S00	–	–	–
18 pulses/sec	–	–	161B4N4N0S00	161D1N4N0S00	161E1N4N0S00

Manual resetting by means of a key

CMM861	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	861M1N2N0S01	861M4N2N0S00	–	–	–
18 pulses/sec	–	–	861B4N4N0S00	861D1N4N0S00	861E1N4N0S00

CMM361



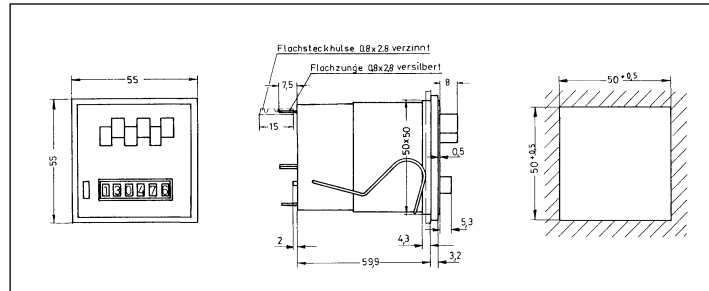
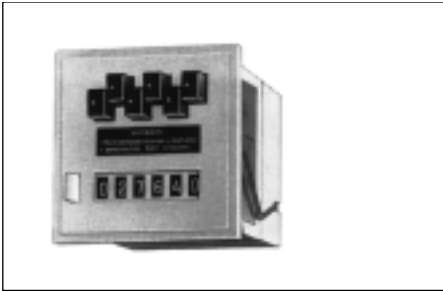
Electrical and manual resetting

CMM361	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	361M1N2N0S00	361M4N2N0S00	–	–	–
18 pulses/sec	–	–	361B4N4N0S00	361D1N4N0S00	361E1N4N0S00

Electrical and manual resetting by means of a key

CMM661	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	661M1N2N0S00	661M4N2N0S00	–	–	–
18 pulses/sec	–	–	661B4N4N0S00	661D1N4N0S00	661E1N4N0S00

CMM362



Electrical and manual resetting

CMM362	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	362M4S2N0V00	–	–	–
18 pulses/sec	–	362B4S4N0V00	362D1S4N0V00	362E1S4N0V00

Counter

Current type	Max. pulse frequency	Min. pulse duration	Min. pause between pulses	Pulse ratio	Operating factor	Consumption	Max. allowable residual ripple	Ambient temp. °C
DC	25/s ms	24 ms	16 ms	3:2	100 %	4 W	48 %	-10
AC	18/s ms	22.2 ms	33.3 ms	2:3	100 %	4.5 VA		+45

Technical features:

Electrical connection:
silver-plated flat pins 0.8 x 2.8 mm
with mating connector
silver-plated flat pins 0.8 x 2.8 mm
(mating connector)

Digits

height appr. 4 mm – white, black background
(counter)

Mounting position: any

Counter colour: grey (standard)

Rated voltages:

counter:
24 48 115 VDC ±10%
24 48 115 230 V AC ±10%
electrical resetting:
24 48 115 VDC ±10%
24 48 115 230 VAC ±10%

Testing voltage:

2000 VAC RMS according to VDE 0435

Switching contact:

1 reversing switch (microswitch)
Resolution on the 2nd half-step for zero
Max. load for AC: max. 250 V, max. 2 A

Load for DC:

24 V max. 2 A
60 V max. 0.7 A ohmic load
115 V max. 0.4 A
230 V max. 0.2 A

In case of an inductive load, provide a suitable spark extinction; the maximum value for the current must then be reduced to 60%.

Electrical resetting:

Consumption: appr. 10 W for DC
appr. 12 VA for AC
Min. pulse duration: 0.25 s (no counting pulse is allowed for this period + 50 ms)
Operating factor: 20%, max. 1 minute

Weight:

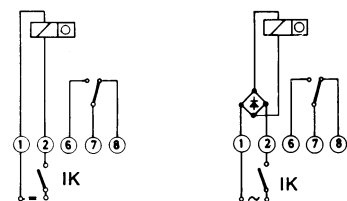
Counter with manual resetting appr. 170 g
Counter with electrical resetting appr. 210 g

Scope of delivery:

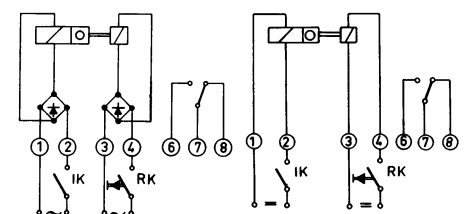
complete counter with mating connectors

Connection diagram:

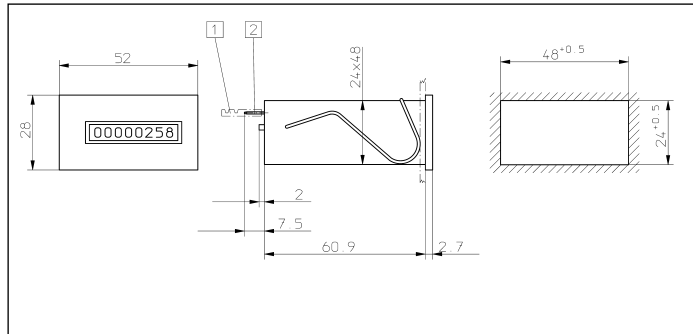
Manual resetting



Electrical resetting



CMM081



Without resetting

CMM081	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC
25 pulses/sec	081M1N2N0S00	081M4N2N0S00	–	–	–
18 pulses/sec	–	–	081B4N4N0S00	081D1N4N0S00	081E1N4N0S00

Counter

Current type	Max. pulse frequency	Min. pulse duration	Min. pause between pulses	Pulse ratio	Operating factor	Consumption	Max. allowable residual ripple	Ambient temp. °C
DC	25/s ms	24 ms	16 ms	3:2	100 %	appr. 2 W	48 %	+45
AC	18/s ms	22.2 ms	33.3 ms	2:3	100 %	appr. 2.9 VA		-10/+45

Technical features:

Counter:

Electrical connection by flat connector: silver-plated flat pins 0.8 x 2.8 mm with mating connectors.

Digits:

height 4 mm – white, black background

Mounting position: any

Housing:

Makrolon, similar to RAL 7001

Testing voltage: 2000 V RMS

Counter shafts: stainless steel

Influence of the acceleration:

3 g up to 10 Hz
6 g up to 15 Hz
10 g 20 ... 300 Hz, for any position

Lifetime: appr. 200 x 10⁶ pulses

Weight :

appr. 80 g ... 140 g

Resetting magnet:

Consumption:
appr. 9 W for DC
appr. 12 VA for AC

Rated voltages: ±10%

24 48 60 1 15 230 V DC ±10%
24 48 60 1 15 230 V AC ±10%

Allowable residual ripple: max. 48%

Min. pulse duration: 0.25 sec, no counting pulse is allowed for 0.3 sec.

Operating factor:

15%, max. 1.0 minute for CMM 161

Options:

1. Housing: black (Art. no.: refer to the corresponding type)
2. Counting speed 50 pulses/sec for DC
3. Digits magnification to 5 mm thanks to a magnifying glass
4. Electrical connection with wires
5. Extended temperature range

Art. nos: refer to the table.

Connection diagrams:

