

# CMM081/ 161/ 361

## Electromechanical display counters

- 8-digit display counter without reset
- 6-digit display counter with manual or manual and electrical reset
- 12/24 VDC
- 24/115/230 VAC



From left to right: CMM361, CMM161

		CMM081		CMM161			CMM361		
Mounting	Surface mounting for DIN rail								
	Flush mounting	•	•	•	•	•	•	•	
	Machine solderable and washable, plugable on circuit board								
Reset	Without reset	•	•						
	With reset			•	•	•	•		
	Manual and electrical reset						•	•	
	Down counting, manual and electrical reset								
Counting capacity	99 999								
	999 999			•	•	•	•	•	
	9 999 999								
	99 999 999	•	•						
	99 999.99 h, decimal places in red DC 999 999.99 h / AC 99 999.99 h decimal places res								
Counting frequency	max. 18 pulses/s	•		•	•	•	•	•	
	max. 25 pulses/s		•				•	•	
Connections	Stranded wire 150 mm								
	Fast-on connectors 2.8 × 0.8 mm	•	•	•	•	•	•	•	
	Connection terminals 2 × 2.5 mm <sup>2</sup>								
	Solder pins 0.4 × 1.2 mm								
	Round pins 1.5 mm								
Operating voltage	12 VDC								
	24 VDC		•				•	•	
	24 VAC			•					
	115 VAC				•				
	230 VAC	•				•		•	
Order no.		CMM081E1N4N0S00	CMM081M4N2N0S00	CMM161B4N4N0S00	CMM161D1N4N0S00	CMM161E1N4N0S00	CMM161M4N2N0S00	CMM361E1N4N0S00	CMM361M4N2N0S00

## Applications

- Quantity counting
- Event counting

## Settings



CMM161

## Technical data

	<b>CMM081</b>	<b>CMM161</b>	<b>CMM361</b>
Counting capacity	Without reset 99999999	With manual reset 999999	Manual and electrical reset 999999
Counting direction	Up		
Counting frequency	Max. 25 i/s (DC) or 18 i/s (AC)		
Display	Dials, white figures on black background, approx. 4 mm		
Operating voltage	24 VDC $\pm$ 10%, max. residual ripple 48% 24 VAC, 115 VAC, 230 VAC, $\pm$ 10%		
Power consumption	Counting: 2 W (DC) or 3 VA (AC); electrical reset: 9 W (DC) or 12 AC		
Duty cycle	Counting: 100%; electrical reset: 15%, max. 1 min		
Pulse generator	Contacts, electronic sensors NPN/PNP (AC)		
Service life	200 million. counting pulses		
EMC/immunity to interference	DIN IEC 61 000-6-2		
EMC/noise emission	DIN IEC 61 000-6-3		
Protection class	Front IP 40		
Ambient temperature	-10 °C to +45 °C, no condensation		
Mounting position	Any		
Housing colour	Makrolon, similar to RAL 7001		
Dimensions	Front dimensions and switchboard section see dimension diagram		
Connections	Flat pin 0.8 $\times$ 2.8 mm with plug-on connector		



CMM081



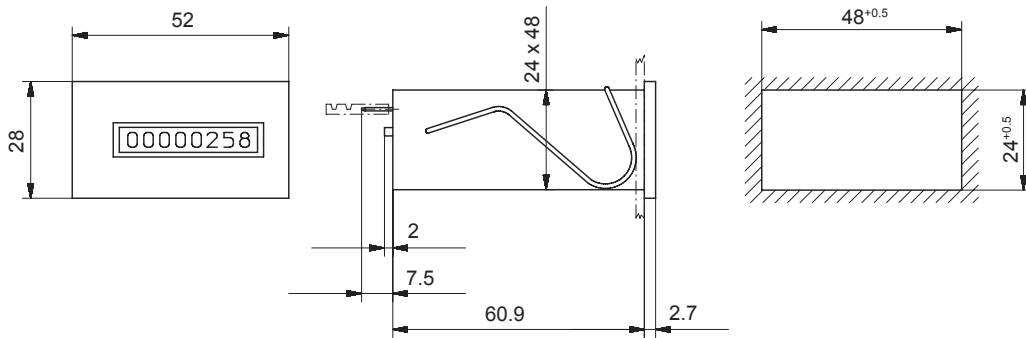
CMM161



CMM361

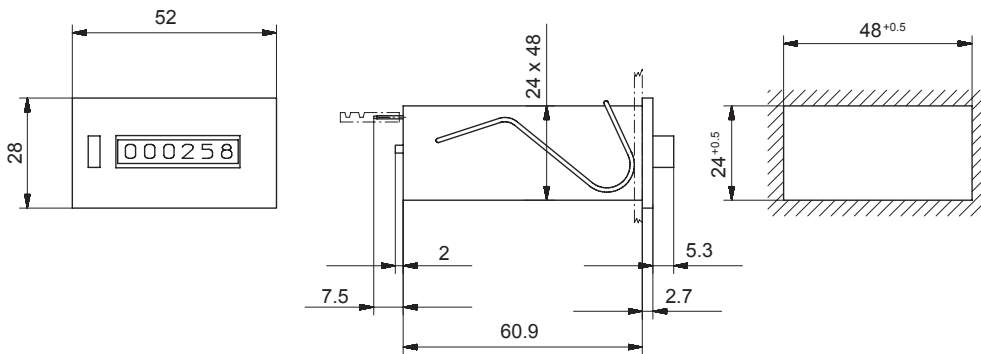
## Dimension diagrams

CMM081, flush mounting, without reset, flat pin 0.8 × 2.8 mm

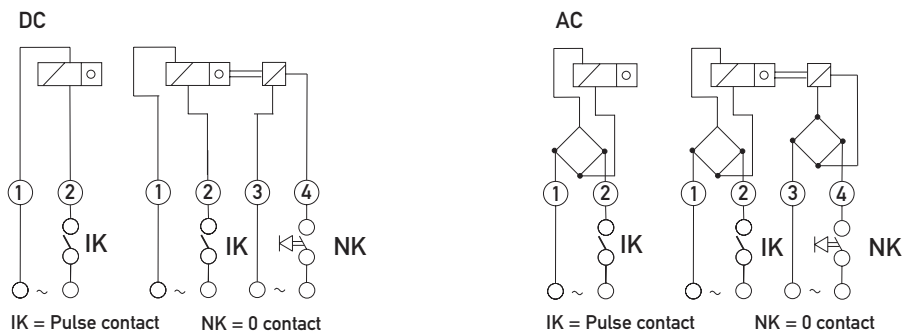


CMM161, flush mounting, manual reset, flat pin 0.8 × 2.8 mm

CMM361, flush mounting, manual and electrical reset, flat pin 0.8 × 2.8 mm



## Connection diagram



## Scope of delivery

- display counter
- tension spring