

Pulse counters, electromechanical

Micro counters **Magnetic field resistant and high shock resistance (DC)** **K 66 / K 67**



The micro adding counters K 66 (6-digit) and K 67 (7-digit) boast a very high level of shock resistance and, as a result of the patented ACR counting system, are not affected by magnetic fields.

They can be used as either panel mount or as PCB mount devices in a wide variety of application areas, where a high level of resistance against tampering is required.

Pulse counters

Characteristics

- Not affected by magnetic fields, as moving parts are made of plastic or non-ferrous metal (patented system)
- Maximum shock resistance, as a counter-rotating movement is required for counting, ACR system (Air Coil Reverse, patented)
- Low power consumption; suitable for battery operation
- Very compact size, large figures
- Different viewing possibilities

Benefits

- Machine solderable and washable
- IP65 protection
- Long service life
- Stores values if power fails

Applications

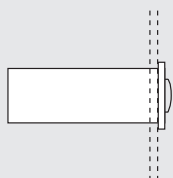
General quantity counting, photocopiers, electricity meters, vending and slot machines, coin-operated machines, car washes, alarm systems, medical equipment, heat quantity measurement

Type series

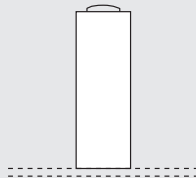
| Fig. | Mounting options | Display | El. connection | IP protection | 6 digits | 7 digits | Order information - Art.-No. 1.680.9X0.0XX - For options please give exact counter type, voltage and options e.g.: K 67.20 9 V DC/0 temperature range -20°C ... +70°C |
|------|------------------------|------------|----------------|--------------------|----------------|----------------|--|
| 1) | Panel mount with latch | front side | flying leads | front side | — | K 67.20 | |
| 2) | PCB mount, upright | front side | solder pins | front side/on rear | — | K 67.80 | |
| 3) | PCB mount, lying | on the top | solder pins | front side/on rear | — | K 67.90 | |
| 4) | PCB mount, hanging | front side | solder pins | front side/on rear | K 66.91 | K 67.91 | |
| 5) | PCB mount, lying | front side | solder pins | front side/on rear | K 66.95 | K 67.95 | |

Mounting options and position of the display

1) Panel mount / display front side



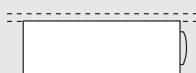
2) PCB mount, upright / display front side



3) PCB mount, lying / display on the top



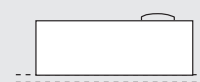
4) PCB mount, hanging / display front side



5) PCB mount, lying / display front side



Optional: PCB mount, lying / display at the bottom



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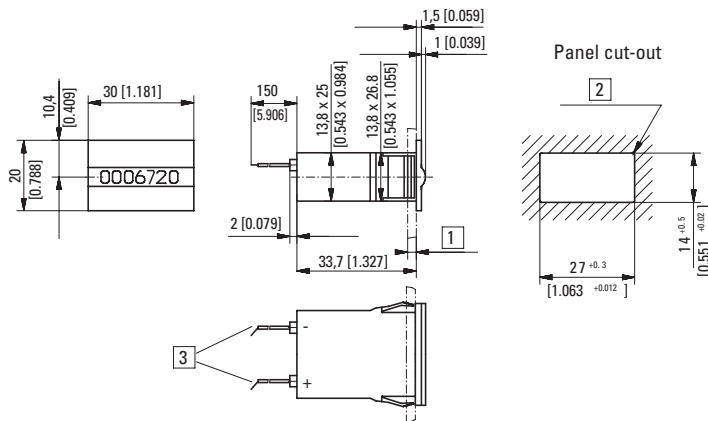
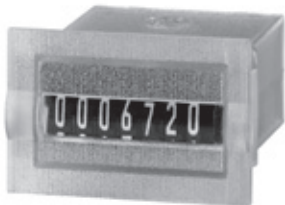
| | | |
|-----------------------|--|--------------------|
| Micro counters | Magnetic field resistant and high shock resistance (DC) | K 66 / K 67 |
|-----------------------|--|--------------------|

| Technical data | | |
|--|---|--|
| Electrical connection | panel mount PCB mount | flying leads AWG 22, approx. 150 mm, 6 mm stripped wire ends, tinned solder pins \varnothing 0.64 mm |
| Power consumption: (at 20°C) | up to 6 V DC up to 12 V DC at 24 V DC | approx. 70 mW approx. 120 mW approx. 500 mW |
| Rated voltage | 1.5 / 3 / 4.5 / 5 / 6 / 12 / 24 V DC, -10% / +20% | |
| Counting frequency | max. 10 Hz (type 0) | |
| Pulse duration / pulse interval | min. 50 ms / min. 50 ms | |
| Cycle duration factor | 100 % | |
| Counting system | adding | |
| Height of figures (optical) | 4 x 1.7 mm (K 66), 4 x 1.25 mm (K 67) | |
| Colour of figures | white on black | |
| Reset | no reset | |
| Operating temperature | -10°C ... +60°C (non-condensing) | |
| Mounting position | horizontal, other on request | |
| Operating life | > 50 x 10 ⁶ pulses | |

| | |
|------------------------------|---|
| Soldering temperature | max. 265°C, 3 s |
| Protection | IP65 (K 66.20, K 67.20: only front side) |
| Housing | PC (Polycarbonate), transparent types with protection IP65 are sealed |
| Weight | 9 ... 11 g |

| Options | |
|---|--|
| K 66.20, K 66.80, K 67.20, K 67.80 | flat pin 0.8 x 2.8 mm and push on connectors X.XX7.XXX.XXX |
| K 66.20, K 67.20 | solder pins \varnothing 0.64 mm X.XX1.XXX.XXX |
| K 66.80, K 67.80 | flying leads AWG 22, approx. 150 mm |
| Further options | <ul style="list-style-type: none"> - different voltages - counting frequency > 10 Hz - different colour of figures - extended temperature range -30°C ... +85°C or -20°C ... +70°C - solderable and washable version |

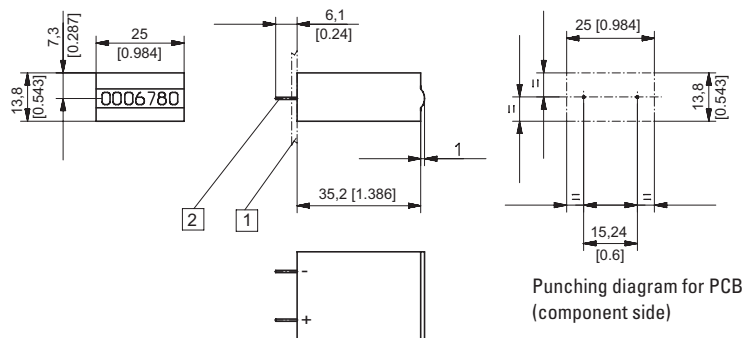
Panel mount with latch / display front side Type K 67.20



1) 1.2 ... 3 mm 2) R_{max} 0.5 3) Coil connections

| Type | Voltage | Display | Art.-No. | | | | | |
|---------|----------------|----------|---------------|---------------|-----------------------------|---------------|-----------------------------|-----------------------------|
| | | | 3 V | 4.5 V | 5 V | 6 V | 12 V | 24 V |
| K 67.20 | DC (10 Hz) / 0 | 7 digits | 1.660.200.006 | 1.660.200.008 | 1.660.200.009 ¹⁾ | 1.660.200.010 | 1.660.200.012 ¹⁾ | 1.660.200.013 ¹⁾ |

PCB mount upright / display front side Type K 67.80



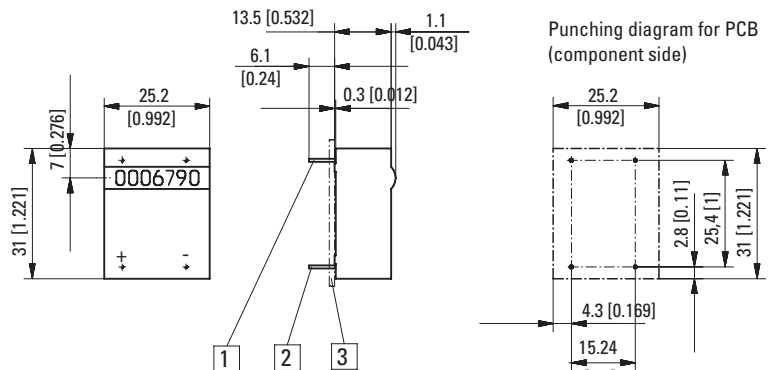
1) PCB 2) Coil connections \varnothing 0.64

| Type | Voltage | Display | Art.-No. | | | | | |
|---------|----------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | 3 V | 4.5 V | 5 V | 6 V | 12 V | 24 V |
| K 67.80 | DC (10 Hz) / 0 | 7 digits | 1.660.800.006 | 1.660.800.008 | 1.660.800.009 | 1.660.800.010 | 1.660.800.012 | 1.660.800.013 |

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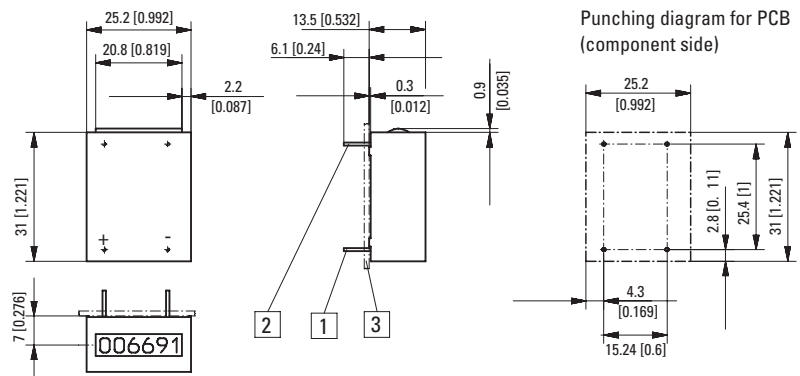
PCB mount, lying / display on the top
Type K 67.90



1 Mounting pin without el. function \varnothing 0.64 2 Coil connections \varnothing 0.64 3 PCB

| Type | Voltage | Display | Art.-No. | | | | | |
|---------|----------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | 3 V | 4.5 V | 5 V | 6 V | 12 V | 24 V |
| K 67.90 | DC (10 Hz) / 0 | 7 digits | 1.660.900.006 | 1.660.900.008 | 1.660.900.009 | 1.660.900.010 | 1.660.900.012 | 1.660.900.013 |

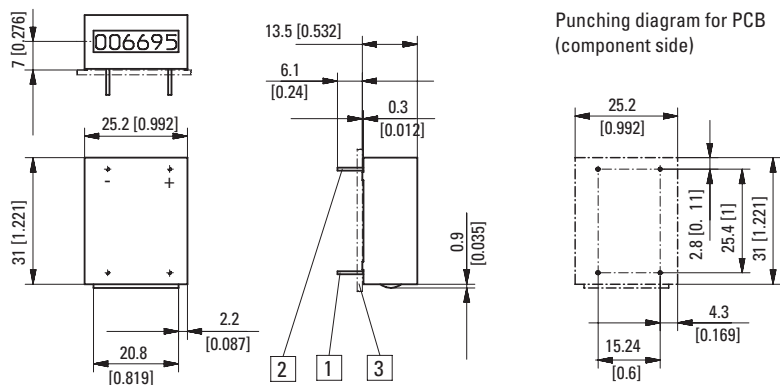
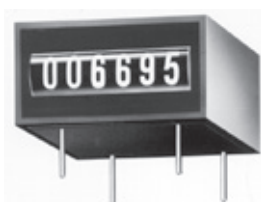
PCB mount, hanging / display front side
Type K 66.91 / K 67.91



1 Mounting pin without el. function \varnothing 0.64 2 Coil connections \varnothing 0.64 3 PCB

| Type | Voltage | Display | Art.-No. | | | | | |
|---------|----------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | 3 V | 4.5 V | 5 V | 6 V | 12 V | 24 V |
| K 66.91 | DC (10 Hz) / 0 | 6 digits | on request | on request | 1.650.910.009 | on request | 1.650.910.012 | 1.650.910.013 |
| K 67.91 | DC (10 Hz) / 0 | 7 digits | 1.660.910.006 | 1.660.910.008 | 1.660.910.009 | 1.660.910.010 | 1.660.910.012 | 1.660.910.013 |

PCB mount lying / display front side
Type K 66.95 / K 67.95



1 Mounting pin without el. function \varnothing 0.64 2 Coil connections \varnothing 0.64 3 PCB

| Type | Voltage | Display | Art.-No. | | | | | |
|---------|----------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | 3 V | 4.5 V | 5 V | 6 V | 12 V | 24 V |
| K 66.95 | DC (10 Hz) / 0 | 6 digits | on request | on request | 1.650.950.009 | on request | 1.650.950.012 | 1.650.950.013 |
| K 67.95 | DC (10 Hz) / 0 | 7 digits | 1.660.950.006 | 1.660.950.008 | 1.660.950.009 | 1.660.950.010 | 1.660.950.012 | 1.660.950.013 |

Dimensions in mm [inch]

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