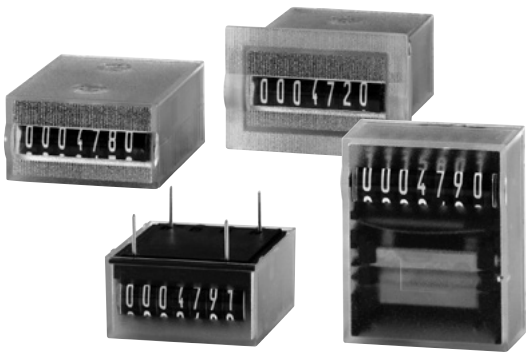


# Pulse counters, electromechanical

Micro counters

High shock resistance (DC)

K 46 / K 47



The micro adding counters K 46 and K 47 boast a very high level of shock resistance. As panel mount and PCB mount counters they can be used in a wide variety of applications.

The counters are non-resettable and are highly tamper-proof thanks to their sealed (potted) housings.

## Characteristics

- 6-digit (K 46) or 7-digit (K 47) micro adding counters.
- Economical.
- Low power consumption; suitable for battery operation.
- Small dimensions, large optical figures.
- Different viewing possibilities.
- Panel mount with spring clips or PCB mount versions.

## Benefits

- Machine solderable and washable.
- High shock resistance.
- Long service life.
- IP65 protection.
- Stores values if power fails.

## Applications

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

## Type series

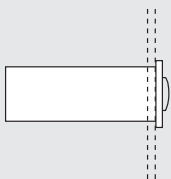
Fig.	Mounting options	Display	El. connection	IP protection	6 digits	7 digits
1)	Panel mount with latch	front side	flying leads	front side	<b>K 46.20</b>	<b>K 47.20</b>
2)	PCB mount, upright	front side	solder pins	front side/on rear	<b>K 46.80</b>	<b>K 47.80</b>
3)	PCB mount, lying	on the top	solder pins	front side/on rear	<b>K 46.90</b>	<b>K 47.90</b>
4)	PCB mount, hanging	front side	solder pins	front side/on rear	–	<b>K 47.91</b>
5)	PCB mount, lying	front side	solder pins	front side/on rear	<b>K 46.95</b>	–

### Order information

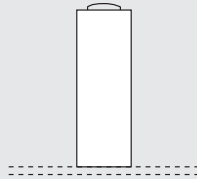
- Art.-No. 1.7X0.XX0.0XX
- For options please give exact counter type, voltage and options e.g.:  
K 46.20 – 12 V DC/0 – temperature range -20°C ... +70°C [-4°F ... +158°F]

## Mounting options and position of the display

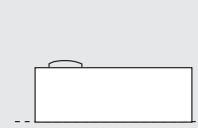
1) Panel mount / display front side



2) PCB mount, upright / display front side



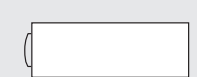
3) PCB mount, lying / display on the top



4) PCB mount, hanging / display front side



5) PCB mount, lying / display front side



Optional: PCB mount, lying / display at the bottom



# Pulse counters, electromechanical

<b>Micro counters</b>	<b>High shock resistance (DC)</b>	<b>K 46 / K 47</b>
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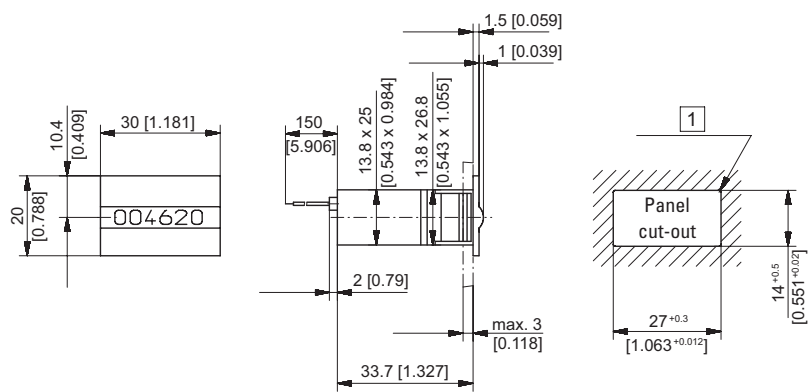
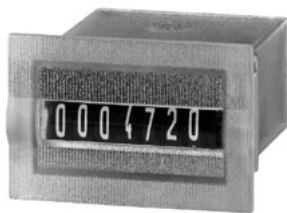
Technical data		
<b>Electrical connection</b>	panel mount	flying leads, AWG 22 approx. 150 mm [5.91"], 6 mm [0.24"] stripped wire ends, tinned
	PCB mount	solder pins $\varnothing$ 0.64 mm [0.025"]
<b>Power consumption</b>	up to 12 V DC	approx. 70 mW
	at 24 V DC	approx. 150 mW
<b>Rated voltage</b>	1.5 / 3 / 4.5 / 5 / 6 / 12 / 24 V DC, -10% / +20%	
<b>Counting frequency</b>	max. 10 Hz (type 0)	
<b>Pulse duration / pulse interval</b>	min. 50 ms / min. 50 ms	
<b>Cycle duration factor</b>	100 %	
<b>Number of digits</b>	6 (K 46), 7 (K 47)	
<b>Counting system</b>	adding	
<b>Height of figures (optical)</b>	K 46	4 x 1.7 mm [0.16 x 0.067"]
	K 47	4 x 1.25 mm [0.16 x 0.049"]
<b>Colour of figures</b>	white on black	
<b>Reset</b>	no reset	
<b>Operating temperature</b>	-10°C ... +60°C [+14°F ... +140°F] (non-condensing)	

<b>Mounting position</b>	horizontal, other on request
<b>Operating life</b>	> 50 x 10 <sup>6</sup> pulses
<b>Soldering temperature</b>	max. 265°C [+509°F], 3 s
<b>Protection</b>	IP65 (K 46.20, K 47.20: only front side)
<b>Housing</b>	PC (Polycarbonate)
<b>Weight</b>	12 ... 14 g [0.42 ... 0.49 oz]

Options	
<b>K 46.20, K 46.80, K 47.20, K 47.80</b>	flat pin 0.8 x 2.8 mm [0.032 x 0.11"] and push on connectors
<b>K 46.20, K 47.20</b>	solder pins $\varnothing$ 0.64 mm [0.025"]
<b>Further options</b>	<ul style="list-style-type: none"> <li>- different voltages</li> <li>- counting frequency &gt; 10 Hz</li> <li>- different colour of figures</li> <li>- extended temperature range: -30°C ... +85°C [-22°F ... +185°F] or -20°C ... +70°C [-4°F ... +158°F]</li> </ul>

Pulse counters

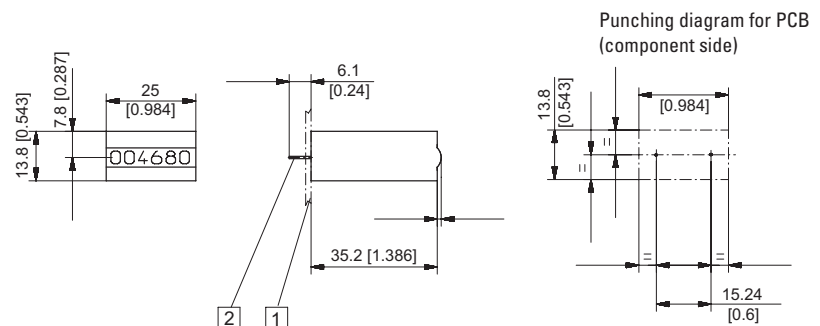
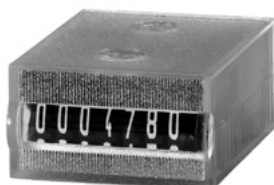
## Panel mount / display front side Type K 46.20 / K 47.20



1) R<sub>max</sub> 0.5 [0.020] 2) Coil connections

Type	Voltage	Display	Art.-No.						
			3 V	4.5 V	5 V	6 V	12 V	24 V	
K 46.20	DC (10 Hz) / 0	6 digits	on request	on request	on request	on request	1.700.200.012 <sup>1)</sup>	1.700.200.013 <sup>1)</sup>	
K 47.20	DC (10 Hz) / 0	7 digits	1.710.200.006	1.710.200.008	1.710.200.009	1.710.200.010	1.710.200.012 <sup>1)</sup>	1.710.200.013 <sup>1)</sup>	

## PCB mount, upright / display front side Type K 46.80 / K 47.80



1) PCB 2) Coil connections  $\varnothing$  0.64 [0.025]

Type	Voltage	Display	Art.-No.						
			3 V	4.5 V	5 V	6 V	12 V	24 V	
K 46.80	DC (10 Hz) / 0	6 digits	on request	on request	1.700.800.009	on request	1.700.800.012	1.700.800.013 <sup>1)</sup>	
K 47.80	DC (10 Hz) / 0	7 digits	1.710.800.006	1.710.800.008	1.710.800.009	1.710.800.010	1.710.800.012	1.710.800.013	

Dimensions in mm [inch]

1) Stock types

# Pulse counters, electromechanical

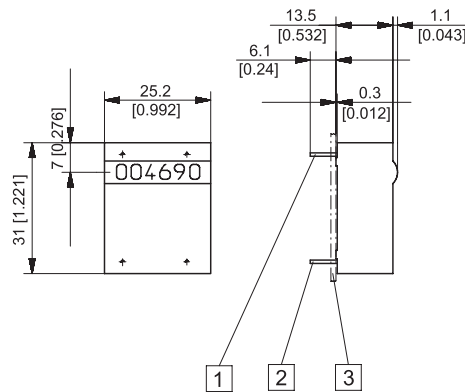
**Micro counters**

**High shock resistance (DC)**

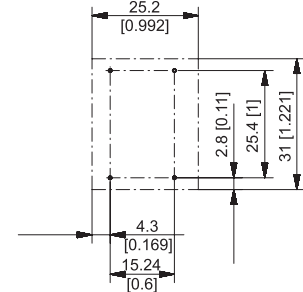
**K 46 / K 47**

**PCB mount, lying / display front side**

**Type K 46.90 / K 47.90**



**Punching diagram for PCB (component side)**

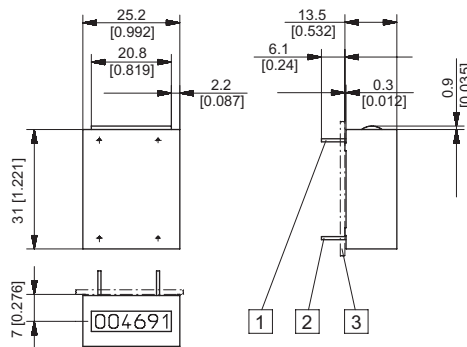


1) Mounting pin without el. function  $\varnothing$  0.64 [0.025] 2) Coil connections  $\varnothing$  0.64 [0.025] 3) PCB

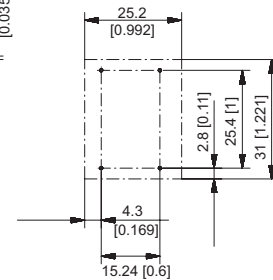
Type	Voltage	Display	Art.-No.						
			3 V	4.5 V	5 V	6 V	12 V	24 V	
K 46.90	DC (10 Hz) / 0	6 digits	on request	on request	1.700.900.009	on request	1.700.900.012	1.700.900.013 <sup>1)</sup>	
K 47.90	DC (10 Hz) / 0	7 digits	1.710.900.006	1.710.900.008	1.710.900.009	1.710.900.010	1.710.900.012	1.710.900.013	

**PCB mount, hanging / display front side**

**Type K 47.91**



**Punching diagram for PCB (component side)**

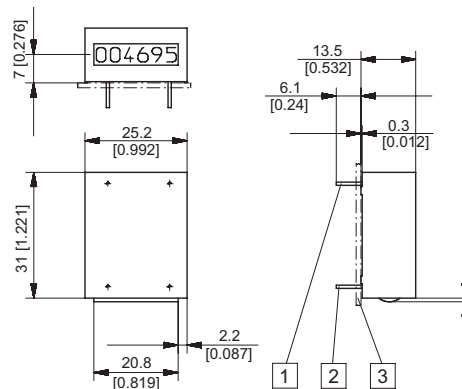
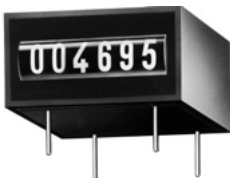


1) Mounting pin without el. function  $\varnothing$  0.64 [0.025] 2) Coil connections  $\varnothing$  0.64 [0.025] 3) PCB

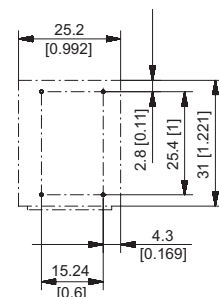
Type	Voltage	Display	Art.-No.						
			3 V	4.5 V	5 V	6 V	12 V	24 V	
K 47.91	DC (10 Hz) / 0	7 digits	1.710.910.006	1.710.910.008	1.710.910.009	1.710.910.010	1.710.910.012	1.710.910.013	

**PCB mount, lying / display front side**

**Type K 46.95**



**Punching diagram for PCB (component side)**



1) Mounting pin without el. function  $\varnothing$  0.64 [0.025] 2) Coil connections  $\varnothing$  0.64 [0.025] 3) PCB

Type	Voltage	Display	Art.-No.						
			3 V	4.5 V	5 V	6 V	12 V	24 V	
K 46.95	DC (10 Hz) / 0	6 digits	on request	on request	1.700.950.009	on request	1.700.950.012	1.700.950.013	