

# Pulse counters, electromechanical

<b>Micro counters</b>	<b>High shock resistance (DC)</b>	<b>K46 / K47</b>
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The micro adding counters K46 and K47 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 (K46) or 7-digit (K47) 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

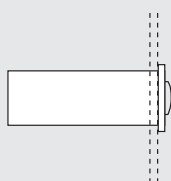
Fig.	Mounting options	Display	el. connection	IP protection	6 digits	7 digits
1)	Panel mount with latch	front side	flying leads	front side	<b>K46.20</b>	<b>K47.20</b>
2)	PCB mount, upright	front side	solder pins	front side/on rear	<b>K46.80</b>	<b>K47.80</b>
3)	PCB mount, lying	on the top	solder pins	front side/on rear	–	<b>K47.90</b>
4)	PCB mount, hanging	front side	solder pins	front side/on rear	–	<b>K47.91</b>
5)	PCB mount, lying	front side	solder pins	front side/on rear	<b>K46.95</b>	–

#### Order information

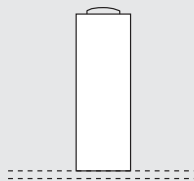
- Art. no. 1.7X0.XX0.0XX
- For options please give exact counter type, voltage and options e.g.:  
K46.20 – 12 V DC/0 – temperature range -20 °C ... +70 °C [-4 °F ... +158 °F]

### Mounting options and position of the display

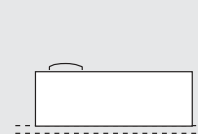
1) Panel mount  
display front side



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



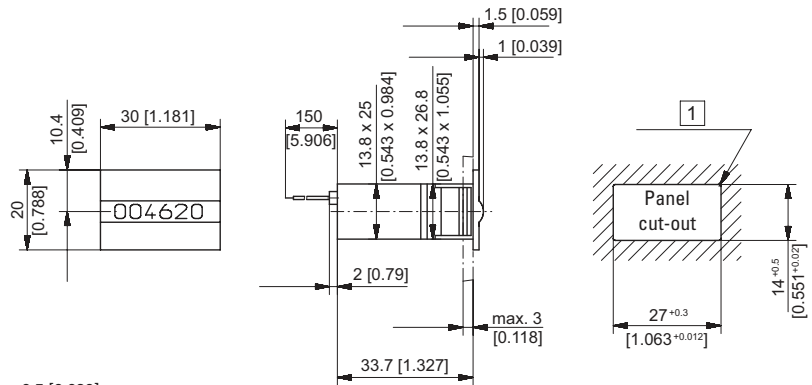
# Pulse counters, electromechanical

Micro counters		High shock resistance (DC)	K46 / K47
<b>Technical data</b>			
<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 ø 0.64 mm [0.025"]	
<b>Power consumption</b>	up to 12 V DC at 24 V DC	approx. 70 mW 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 (K46), 7 (K47)	
<b>Counting system</b>		adding	
<b>Height of figures (optical)</b>	K46	4 x 1.7 mm [0.16 x 0.067"]	
	K47	4 x 1.25 mm [0.16 x 0.049"]	
<b>Color 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 (K46.20, K47.20: only front side)	
<b>Housing</b>		PC (Polycarbonate)	
<b>Weight</b>		12 ... 14 g [0.42 ... 0.49 oz]	
<b>Options</b>			
<b>K46.20, K46.80, K47.20, K47.80</b>		flat pin 0.8 x 2.8 mm [0.032 x 0.11"] and push on connectors	
<b>K46.20, K47.20</b>		solder pins ø 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 color 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>	
<b>Approvals</b>			
<b>UL compliant</b> in accordance with		File no. E128604	
<b>CE compliant</b> in accordance with			
	EMC Directive	2014/30/EU	
	RoHS Directive	2011/65/EU	
	Low Voltage Directive	2014/35/EU	
<b>UKCA compliant</b> in accordance with			
	EMC Regulations	S.I. 2016/1091	
	RoHS Regulations	S.I. 2012/3032	
	Low Voltage Regulations	S.I. 2016/1101	

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**Micro counters**      **High shock resistance (DC)**      **K46 / K47**

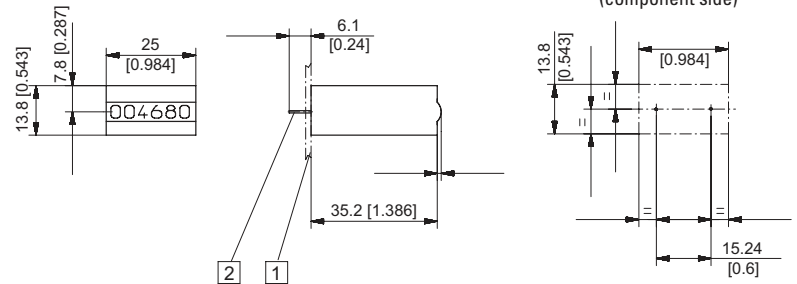
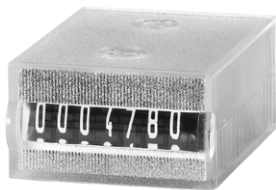
**Panel mount  
display front side  
Type K46.20 / K47.20**



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

Type	Voltage	Display	Art. no.							
			3 V	4.5 V	5 V	6 V	12 V	24 V		
K46.20	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>		
K47.20	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>		

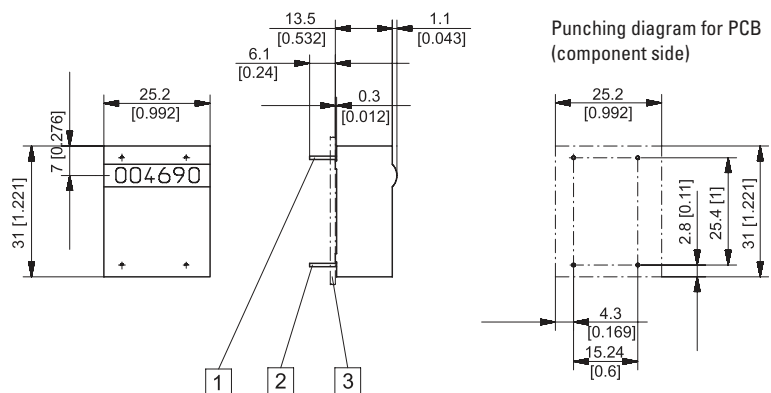
**PCB mount, upright  
display front side  
Type K46.80 / K47.80**



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		
K46.80	DC (10 Hz) / 0	6 digits	on request	on request	on request	on request	1.700.800.012	1.700.800.013 <sup>1)</sup>		
K47.80	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		

**PCB mount, lying  
display on the top  
Type K47.90**



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		
K47.90	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		

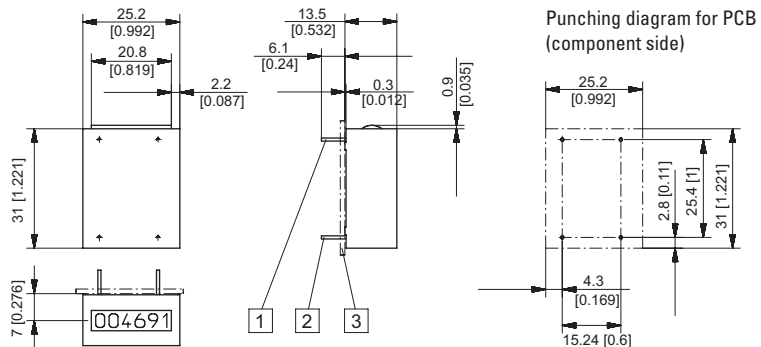
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**Micro counters**

**High shock resistance (DC)**

**K46 / K47**

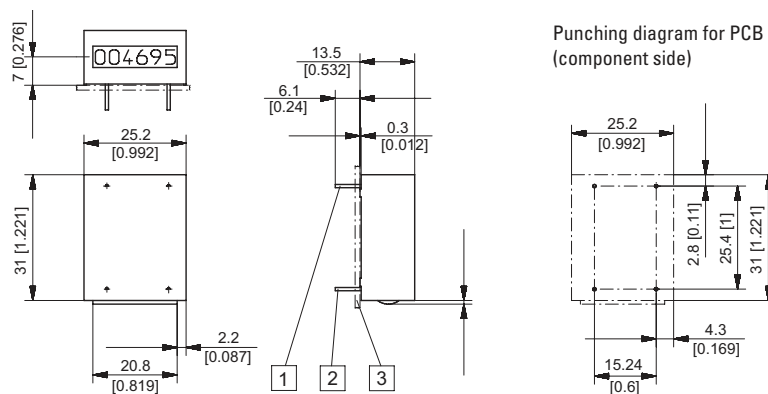
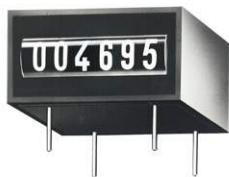
**PCB mount, hanging  
display front side  
Type K47.91**



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	
K47.91	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 K46.95**



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	
K46.95	DC (10 Hz) / 0	6 digits	on request	on request	1.700.950.009	on request	1.700.950.012	1.700.950.013	