

Pulse counters, electromechanical

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



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

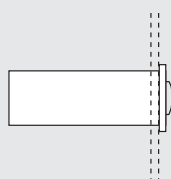
Fig.	Mounting options	Display	el. connection	IP protection	6 digits	7 digits
1)	Panel mount with latch	front side	flying leads	front side	K46.20	K47.20
2)	PCB mount, upright	front side	solder pins	front side/on rear	K46.80	K47.80
3)	PCB mount, lying	on the top	solder pins	front side/on rear	—	K47.90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

Order information

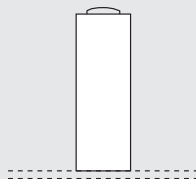
- Art. no. 1.7X0.XX0.0XX
- For options please give exact counter type, voltage and options e.g.:
K46.20 – 12 V DC/0 – temperature range -20 °C ... +70 °C [-4 °F ... +158 °F]

Mounting options and position of the display

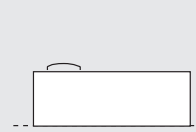
- 1) Panel mount
display front side



- 2) PCB mount, upright
display front side



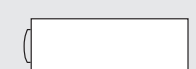
- 3) PCB mount, lying
display on the top



- 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	
Technical data					
Electrical connection	panel mout	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"]			
Power consumption	up to 12 V DC at 24 V DC	approx. 70 mW approx. 150 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 %				
Number of digits	6 (K46), 7 (K47)				
Counting system	adding				
Height of figures (optical)	K46	4 x 1.7 mm [0.16 x 0.067"]			
	K47	4 x 1.25 mm [0.16 x 0.049"]			
Color of figures	white on black				
Reset	no reset				
Operating temperature	-10 °C ... +60 °C [+14 °F ... +140 °F] (non-condensing)				
Mounting position	horizontal, other on request				
Operating life	> 50 x 10 ⁶ pulses				
Soldering temperature	max. 265 °C [+509 °F], 3 s				
Protection	IP65 (K46.20, K47.20: only front side)				
Housing	PC (Polycarbonate)				
Weight	12 ... 14 g [0.42 ... 0.49 oz]				

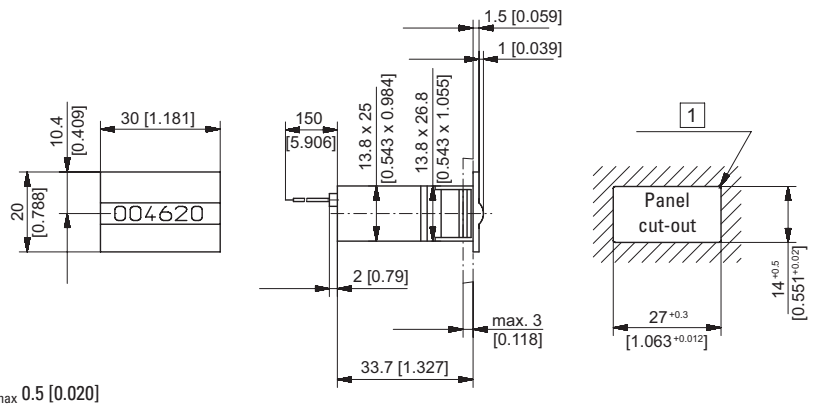
Options		
K46.20, K46.80, K47.20, K47.80		flat pin 0.8 x 2.8 mm [0.032 x 0.11"] and push on connectors
K46.20, K47.20		solder pins ø 0.64 mm [0.025"]
Further options		- different voltages - counting frequency > 10 Hz - differend color of figures - extended temperature range: -30 °C ... +85 °C [-22 °F ... +185 °F] or -20 °C ... +70 °C [-4 °F ... +158 °F]

Approvals		
UL compliant in accordance with		File no. E128604
CE compliant in accordance with		
	EMC Directive	2014/30/EU
	RoHS Directive	2011/65/EU
	Low Voltage Directive	2014/35/EU

Pulse counters, electromechanical

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

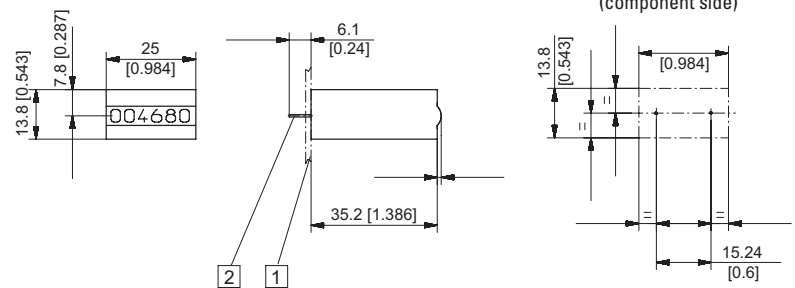
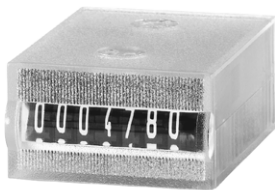
Panel mount
display front side
Type K46.20 / K47.20



1) $R_{max} 0.5 [0.020]$

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	on request	1.700.200.012 ¹⁾	1.700.200.013 ¹⁾
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 ¹⁾	1.710.200.013 ¹⁾	

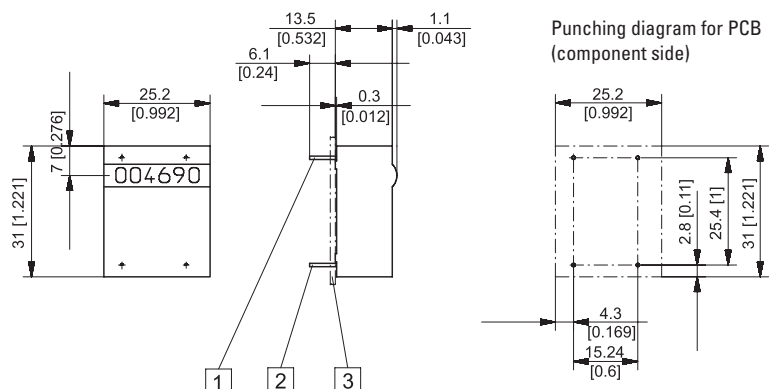
PCB mount, upright
display front side
Type K46.80 / K47.80



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	on request	1.700.800.012	1.700.800.013 ¹⁾
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



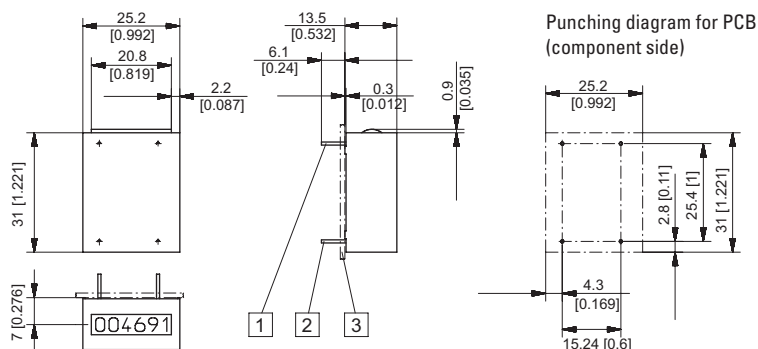
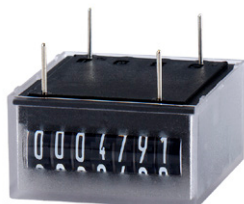
1) Mounting pin without el. function $\varnothing 0.64 [0.025]$ 2) Coil connections $\varnothing 0.64 [0.025]$ 3) PCB

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	

Pulse counters, electromechanical

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

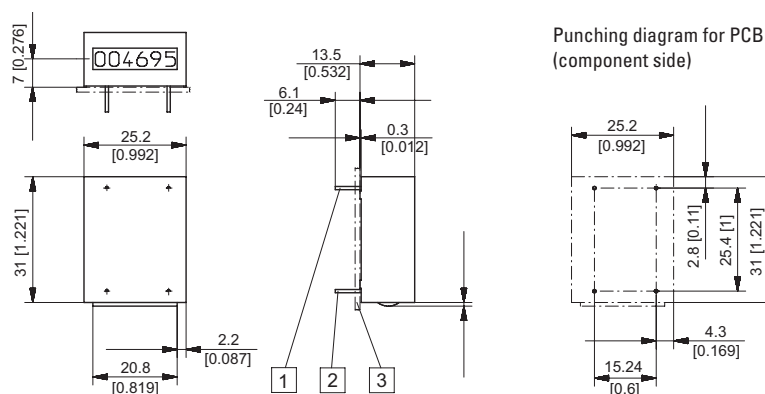
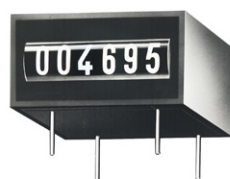
PCB mount, hanging
display front side
Type K47.91



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	