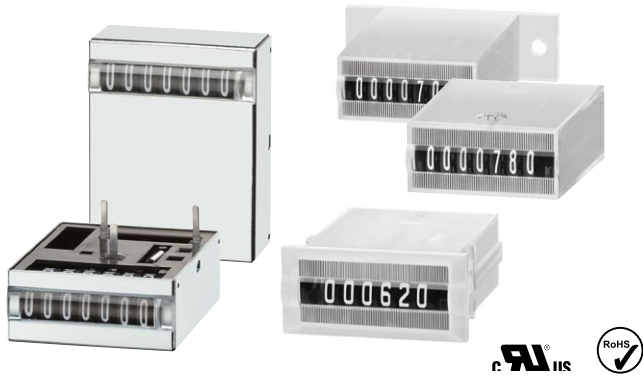


Pulse counters, electromechanical

Micro counters **High shock resistance (AC+DC)** **K04 ... K07 / AK07**



The micro adding counter families K04 to K07 and AK07 are available in a very wide variety of models and can be used in both DC as well as in AC applications. As panel mount, base mount and PCB mount counters with a very high level of shock resistance they can be used for numerous diverse application areas.



Characteristics

- Low power consumption; suitable for battery operation.
- Very compact size, large optical figures.
- Different viewing possibilities.
- Panel mount counter with moulded spring clips, base mount counter with screw fixing or PCB mount versions.
- Version with additional magnetic shielding thanks to sheet-steel enclosure (K0X.40 and K0X.50).

Benefits

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

Applications

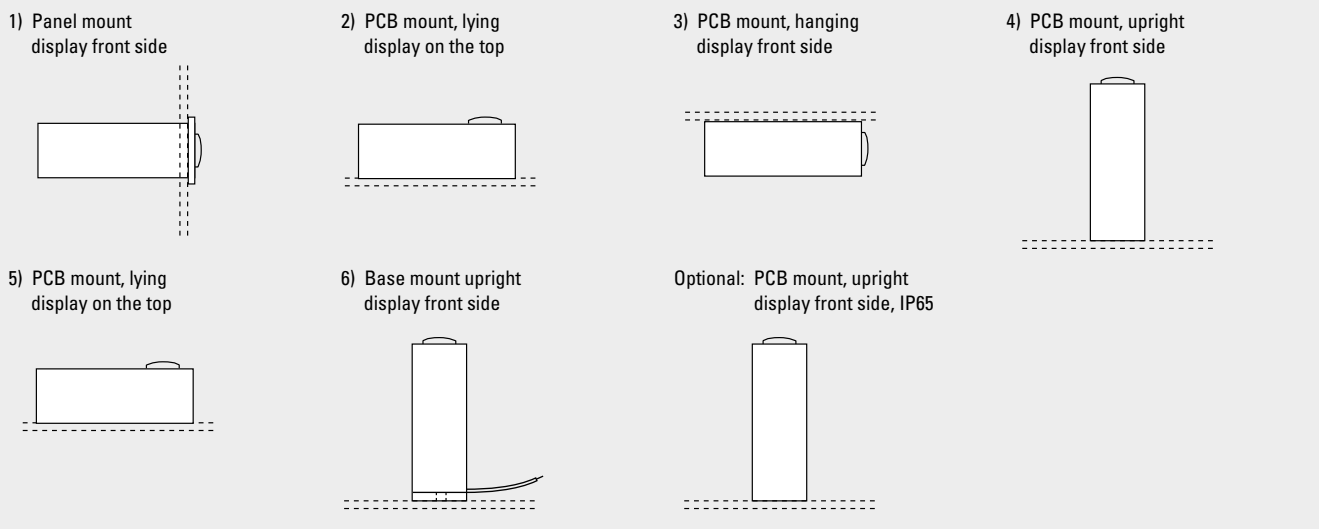
General quantity counting, alarm systems, coin-operated machines, electricity meters, vending and slot machines, photocopiers, medical equipment, car washes.

Type series

Fig.	Mounting options	Display	Housing	IP protection	4 digits	5 digits	6 digits	7 digits
1)	Panel mount with latch	front side	plastic	front side	K04.20	K05.20	K06.20	K07.20
2)	PCB mount, lying	on the top	sheet steel	–	K04.40	–	–	K07.40
3)	PCB mount, hanging	front side	sheet steel	–	–	–	–	K07.50
4)	PCB mount, upright	front side	plastic	front side	–	–	K06.80	K07.80
5)	PCB mount, lying	on the top	plastic	front side/on rear	–	–	–	K07.90
6)	Base mount, upright	front side	plastic	front side	–	–	–	AK07.00

Order information
 - Art. no.
 - For options please give exact counter type, voltage and options e.g.:
 K06.20 – 9 V DC/0 – temperature range -20 °C ... +70 °C [-4 °F ... +158 °F]

Mounting options and position of the display



Pulse counters, electromechanical

Micro counters	High shock resistance (AC+DC)	K04 ... K07 / AK07
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Accessories				
		Type / size	Description	Order no.
Gasket counter		32 x 15 mm [1.26 x 0.59]	for cut-out 27 x 13 mm, suitable for K06.20 and K07.20	N511058

Technical data		
Electrical connection		
panel mount, base mount	flying leads, AWG 22	approx. 150 mm [5.91"], 6 mm [0.24"] stripped wire ends, tinned
PCB mount	solder pins \varnothing 0.4 x 1.2 mm [0.016 x 0.047"]	
Power consumption (at 20 °C [68 °F] and normal voltage)		
at 10 Hz (type 0)	approx. 50 mW	
at 25 Hz (type 1)	approx. 250 mW	
at 10 Hz (type a0)	approx. 800 mVA	
Rated voltage		
type 0	1.5/3/4.5/5/6/12 / 24 V DC, -10 %, +20 %	
type 1	3/4.5/5/6/12/24 V DC, \pm 10 %	
type a0	12/24/115/230 V AC, \pm 10 %	
Counting frequency max. 10 and 25 Hz		
Pulse duration		
at 10 Hz (type 0 and a0)	min. 50 ms	
at 25 Hz (type 1)	min. 20 ms	
Pulse interval		
at 10 Hz (type 0 a0)	min. 50 ms	
at 25 Hz (type 1)	min. 20 ms	
Cycle duration factor 100 %		
Number of digits 4, 5, 6 and 7		
Counting system adding		
Height of figures		
K04, K06, AK06	4 x 1.7 mm [0.16 x 0.067"]	optical
K05, K07, AK07	4 x 1.2 mm [0.16 x 0.047"]	optical
Color of figures white on black		
Reset no reset		
Operating temperature -10 °C ... +60 °C [+14 °F ... +140 °F] (non-condensing)		
Relative humidity at +30 °C [+86 °F] \leq 80 % (non-condensing)		
Altitude up to 2000 m [6562']		
Mounting position horizontal, other on request		
Soldering temperature 265 °C [+509 °F], 3 s		
Operating life $>$ 50 x 10 ⁶ pulses		
Solderable and wash proof types K0X.92, K06.90, K07.90		
Protection		
K0X.92, K0X.90	IP65	
AK0X.00, K0X.80, K0X.20	IP65 (only front side)	
other types	depending on kind of mounting	
Housing PC (Polycarbonate), transparent or sheet steel types (see table) with IP65 protection, fully sealed (potted)		
Weight 15 ... 18 g [0.53 ... 0.63 oz]		
Device safety		
designed to protection class	EN 61010 part 1	2
application area	pollution level 2	
Shock resistance following EN 60068-2-27 3000 m/s ² , 6 ms		
Vibration resistance acc to EN 60068-2-6 75 m/s ² , 5 ... 200 Hz		

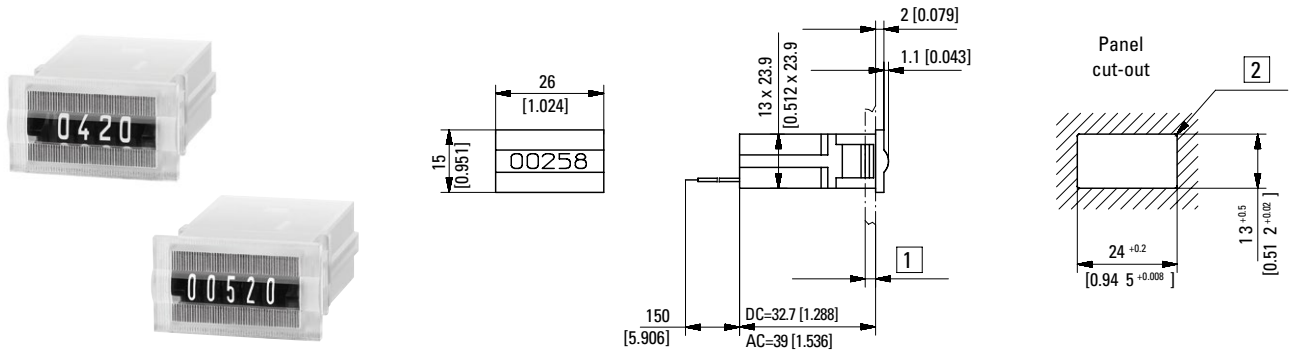
Options	
K0x.20	flat pin 0.5 x 2.8 mm [0.020 x 0.11"] Art. no.: 1.1X7.XX0.XXX flat pin 0.4 x 1.2 mm [0.016 x 0.047"] Art. no.: 1.1X9.XX0.XXX
	<ul style="list-style-type: none"> • different voltages • version not potted • different figure colors • different lengths of flying leads • different connections • different temperature range, depends on version -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 (AC+DC)** **K04 ... K07 / AK07**

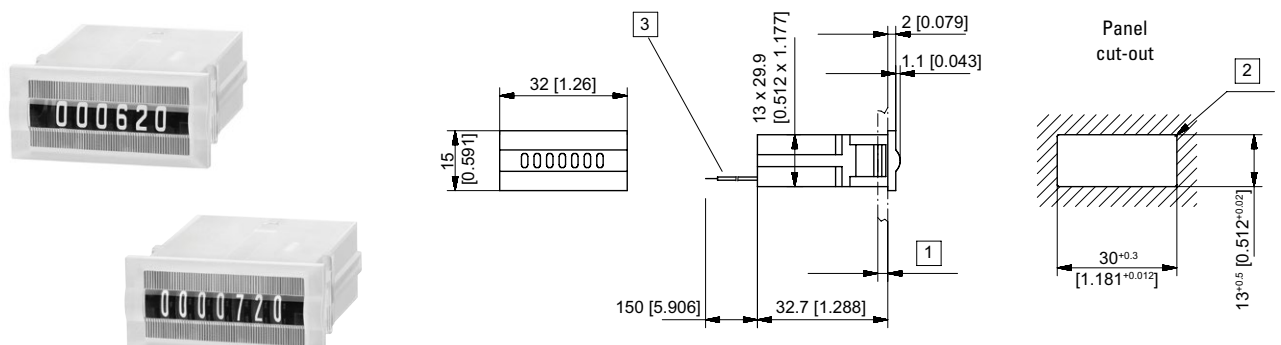
Panel mount counter
4- and 5-digit display front side
Type K04.20 / K05.20



1) 1.2 ... 3 [0.047 x 0.12] 2) R_{max} 0.5 [0.020]

Type	Voltage	Display	Art. no.							
			3 V	4.5 V	12 V	24 V	115 V	230 V		
K04.20	DC (10 Hz) / 0	4 digits	1.100.200.006	1.100.200.008	on request	on request	1.100.200.054	1.100.200.056		
	DC (25 Hz) / 1								1.100.200.032	1.100.200.033
	AC (10 Hz) / a0								1.100.200.051	1.100.200.055
K05.20	DC (10 Hz) / 0	5 digits	1.110.200.006	1.110.200.008	on request	1.110.200.013	1.110.200.054	1.110.200.056		
	DC (25 Hz) / 1								1.110.200.032	1.110.200.033
	AC (10 Hz) / a0								1.110.200.051	1.110.200.055

Panel mount counter
6- and 7-digit display front side
Type K06.20 / K07.20



1) 1.2 ... 3 [0.047 x 0.12] 2) R_{max} 0.5 [0.020]

Type	Voltage	Display	Art. no.							
			3 V	4.5 V	12 V	24 V	115 V	230 V		
K06.20	DC (10 Hz) / 0	6 digits	1.120.200.006	1.120.200.008	on request	1.120.200.013	1.120.200.054	1.120.200.056		
	DC (25 Hz) / 1								1.120.200.032	1.120.200.033
	AC (10 Hz) / a0								1.120.200.051	1.120.200.055
K07.20	DC (10 Hz) / 0	7 digits	1.130.200.006	1.130.200.008	1.130.200.012 ¹⁾	1.130.200.013	1.130.200.054	1.130.200.056		
	DC (25 Hz) / 1								1.130.200.032 ¹⁾	1.130.200.033 ¹⁾
	AC (10 Hz) / a0								1.130.200.051	1.130.200.055
Further stock types:			1.130.200.418 ¹⁾							

Pulse counters, electromechanical

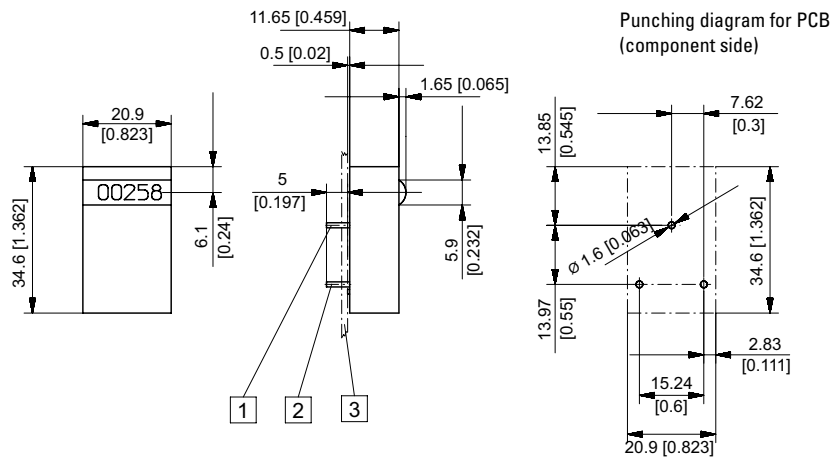
Micro counters

High shock resistance (AC+DC)

K04 ... K07 / AK07

PCB mount, lying
4- digit display on the top
Type K04.40

Color of housing blue (zinc-plated)



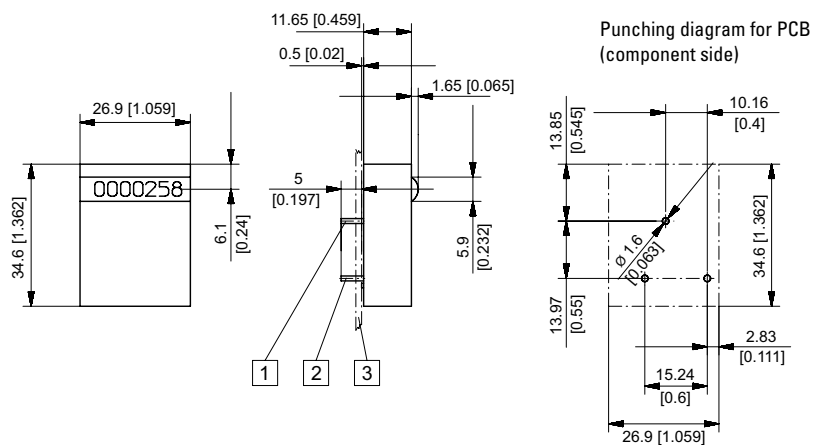
1 Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]

2 Coil connections 0.4 x 1.2 [0.016 x 0.047] 3 PCB

Type	Voltage	Display	Art. no.			
			3 V	4.5 V	12 V	24 V
K04.40	DC (10 Hz) / 0	4 digits	1.100.401.006	1.100.401.008	on request	on request
	DC (25 Hz) / 1				1.100.401.032	1.100.401.033

PCB mount, lying
7-digit display on the top
Type K07.40

Color of housing blue (zinc-plated)



1 Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]

2 Coil connections 0.4 x 1.2 [0.016 x 0.047] 3 PCB

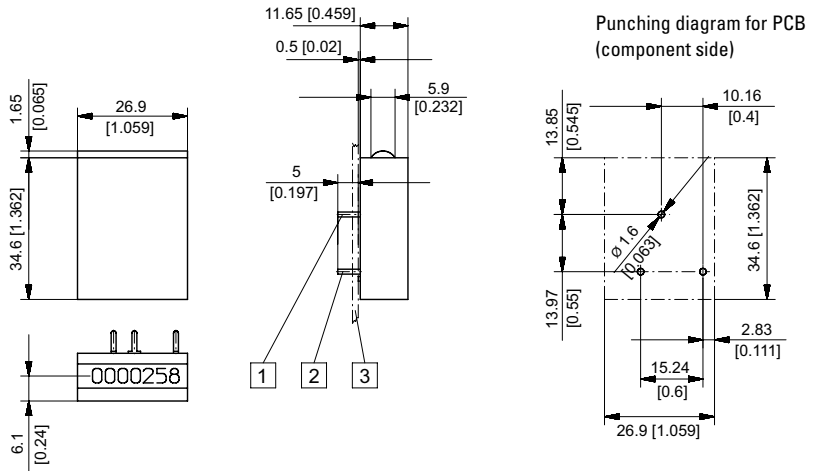
Type	Voltage	Display	Art. no.			
			3 V	4.5 V	12 V	24 V
K07.40	DC (10 Hz) / 0	7 digits	1.130.401.006	1.130.401.008	on request	on request
	DC (25 Hz) / 1				1.130.401.032	1.130.401.033

Pulse counters, electromechanical

Micro counters **High shock resistance (AC+DC)** **K04 ... K07 / AK07**

PCB mount, hanging
7-digit display front side
Type K07.50

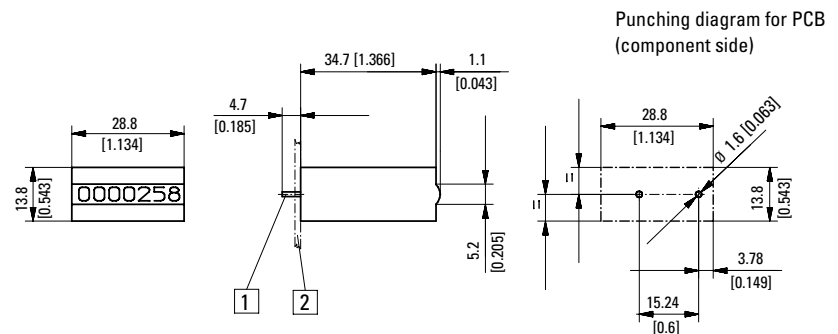
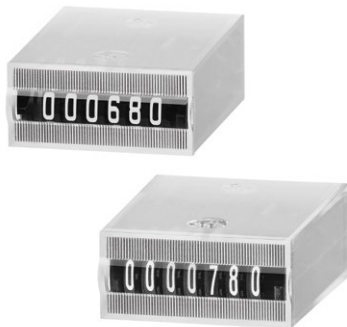
Color of housing blue (zinc-plated)



- 1 Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]
- 2 Coil connections 0.4 x 1.2 [0.016 x 0.047]
- 3 PCB

Type	Voltage	Display	Art. no.			
			3 V	4.5 V	12 V	24 V
K07.50	DC (10 Hz) / 0	7 digits	1.130.501.006	1.130.501.008	on request	on request
	DC (25 Hz) / 1				1.130.501.032	1.130.501.033

PCB mount, upright
6- and 7-digit display front side
Type K06.80 / K07.80



- 1 Coil connections 0.4 x 1.2 [0.016 x 0.047]
- 2 PCB

Type	Voltage	Display	Art. no.							
			3 V	4.5 V	12 V	24 V	115 V	230 V		
K06.80	DC (10 Hz) / 0	6 digits	1.120.800.006	1.120.800.008	on request	on request				
	DC (25 Hz) / 1				1.120.800.032	1.120.800.033				
	AC (10 Hz) / a0						on request	on request		
K07.80	DC (10 Hz) / 0	7 digits	1.130.800.006	1.130.800.008	on request	on request				
	DC (25 Hz) / 1				1.130.800.032	1.130.800.033				
	AC (10 Hz) / a0						on request	on request		

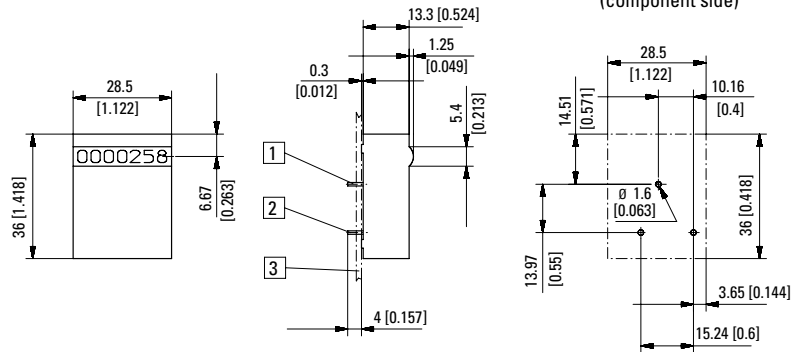
Pulse counters, electromechanical

Micro counters

High shock resistance (AC+DC)

K04 ... K07 / AK07

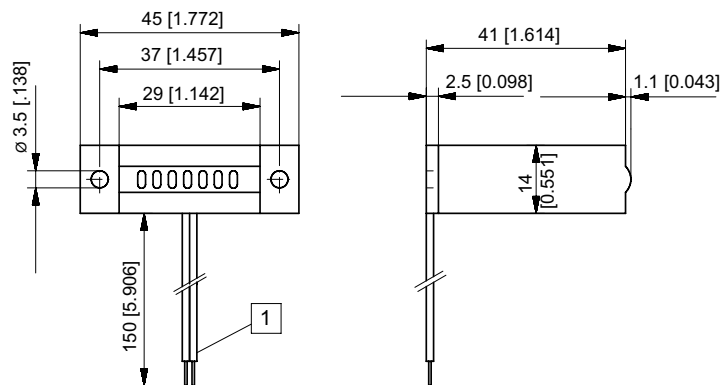
PCB mount, lying
7-digit display on the top
Type K07.90



- 1) Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]
 2) Coil connections 0.4 x 1.2 [0.016 x 0.047] 3) PCB

Type	Voltage	Display	Art. no.									
			3 V	4.5 V	12 V	24 V	115 V	230 V				
K07.90	DC (10 Hz) / 0	7 digits	1.130.900.006	1.130.900.008	1.130.900.012	on request	1.130.900.033	1.130.900.051	1.130.900.054	1.130.900.056		
	DC (25 Hz) / 1										1.130.900.032	1.130.900.033
	AC (10 Hz) / a0										1.130.900.032	1.130.900.033

Base mount, upright
7-digit display front side
Type AK07.00



- 1) Flying leads (red+ / black-)

Type	Voltage	Display	Art. no.									
			3 V	4.5 V	12 V	24 V	115 V	230 V				
AK07.00	DC (10 Hz) / 0	7 digits	1.130.000.006	1.130.000.008	1.130.000.012 ¹⁾	1.130.000.013	1.130.000.033 ¹⁾	1.130.000.051	1.130.000.054	1.130.000.056		
	DC (25 Hz) / 1										1.130.000.032	1.130.000.033 ¹⁾
	AC (10 Hz) / a0										1.130.000.032	1.130.000.033 ¹⁾