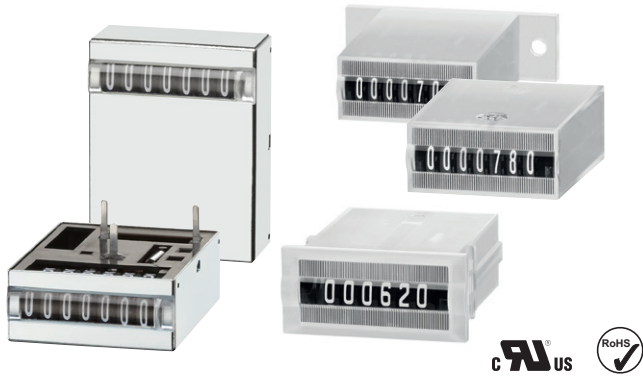


Pulse counters, electromechanical

Micro counters	High shock resistance (AC+DC)	K 04 ... K 07 / AK 07
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The micro adding counter families K 04 to K 07 and AK 07 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.



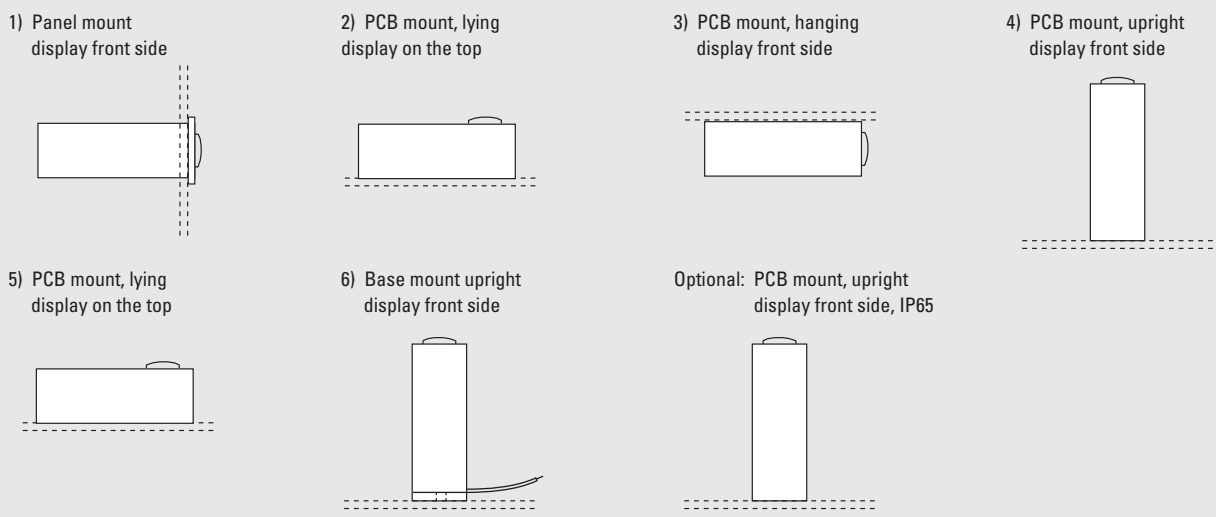
<h3>Characteristics</h3> <ul style="list-style-type: none"> • Low power consumption; suitable for battery operation. • Very compact size, large optical figures. • Different viewing possibilities. • Panel mount counter with moulded spring clips, base mount counter with screw fixing or PCB mount versions. • Version with additional magnetic shielding thanks to sheet-steel enclosure (K 0X.40 and K 0X.50). 	<h3>Benefits</h3> <ul style="list-style-type: none"> • Machine solderable and washable. • Stores values if power fails. • High shock resistance, long service life, IP65 protection. 	<h3>Applications</h3> <p>General quantity counting, alarm systems, coin-operated machines, electricity meters, vending and slot machines, photocopiers, medical equipment, car washes.</p>
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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	K 04.20	K 05.20	K 06.20	K 07.20
2)	PCB mount, lying	on the top	sheet steel	–	K 04.40	–	–	K 07.40
3)	PCB mount, hanging	front side	sheet steel	–	–	–	–	K 07.50
4)	PCB mount, upright	front side	plastic	front side	–	–	K 06.80	K 07.80
5)	PCB mount, lying	on the top	plastic	front side/on rear	–	–	–	K 07.90
6)	Base mount, upright	front side	plastic	front side	–	–	–	AK 07.00

Order information
 - Art. no.
 - For options please give exact counter type, voltage and options e.g.:
 K 06.20 – 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)	K 04 ... K 07 / AK 07
Accessories	Dimensions in mm [inch]	Order no.
Gasket 32 x 15 [1.26 x 0.59]	for cut-out 27 x 13 [1.06 x 0.51], suitable for K 06.20 and K 07.20	N511058

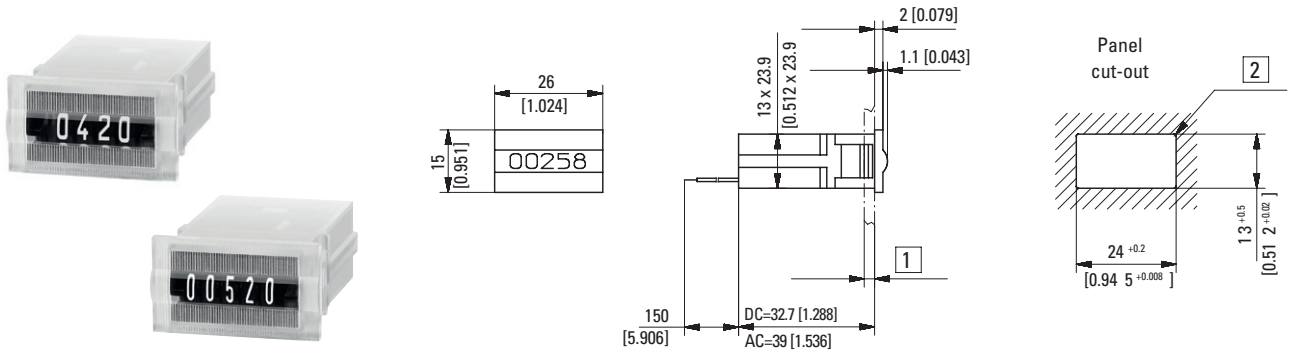
Technical data	
Electrical connection	
panel mount, base mount	flying leads, AWG 22 approx. 150 mm [5.91"], 6 mm [0.24"] stripped wire ends, tinned
PCB mount	solder pins \varnothing 0.4 x 1.2 mm [0.016 x 0.047"]
Power consumption (at 20°C [68°F] and normal voltage))	
at 10 Hz (type 0)	approx. 50 mW
at 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	
K 04, K 06, AK 06	4 x 1.7 mm [0.16 x 0.067"] optical
K 05, K 07, AK 07	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	K 0X.92, K 06.90, K 07.90
Protection	
K 0X.92, K 0X.90	IP65
AK 0X.00, K 0X.80, K 0X.20	IP65 (only front side)
other types	depending on kind of mounting
UL approval	file E128604
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]
EMC standards	EN 55011 class B EN 61000-6-2, EN 61000-6-3
Device safety	
designed to protection class	EN 61010 part 1 2
application area	pollution level 2
UL approval	file E128604

Options	
K 0x.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]

Pulse counters, electromechanical

Micro counters **High shock resistance (AC+DC)** **K 04 ... K 07 / AK 07**

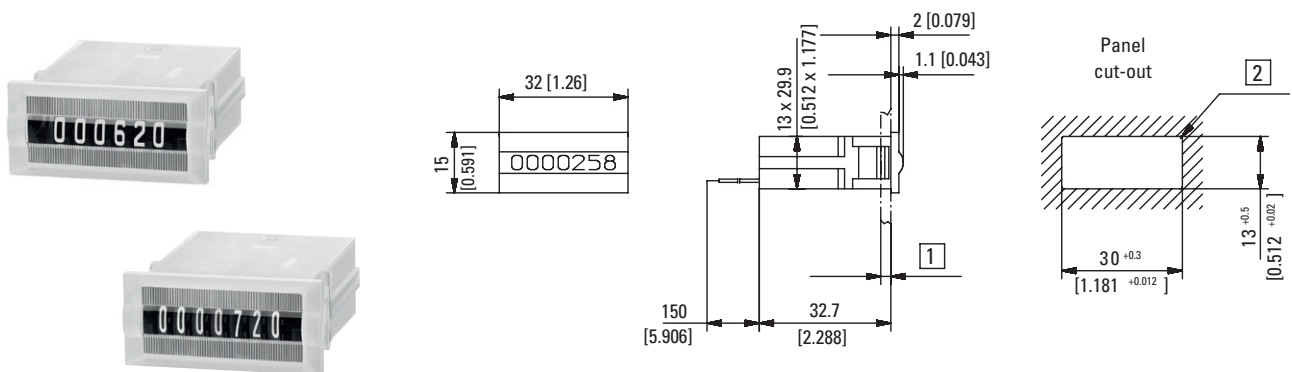
Panel mount counter
4- and 5-digit display front side
Type K 04.20 / K 05.20



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		
K 04.20	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
K 05.20	DC (10 Hz) / 0	5 digits	1.110.200.006	1.110.200.008	on request	1.110.200.013 ¹⁾	1.110.200.054	1.110.200.056 ¹⁾		
	DC (25 Hz) / 1								1.110.200.032	1.110.200.033
	AC (10 Hz) / a0								1.110.200.051	1.110.200.055 ¹⁾

Panel mount counter
6- and 7-digit display front side
Type K 06.20 / K 07.20



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		
K 06.20	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
K 07.20	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⁾	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 ¹⁾

Pulse counters, electromechanical

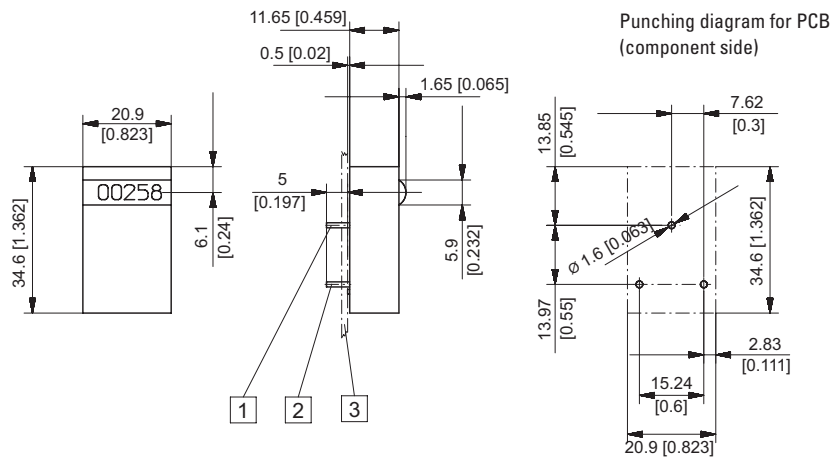
Micro counters

High shock resistance (AC+DC)

K 04 ... K 07 / AK 07

PCB mount, lying
4-digit display on the top
Type K 04.40

Color of housing blue (zinc-plated)



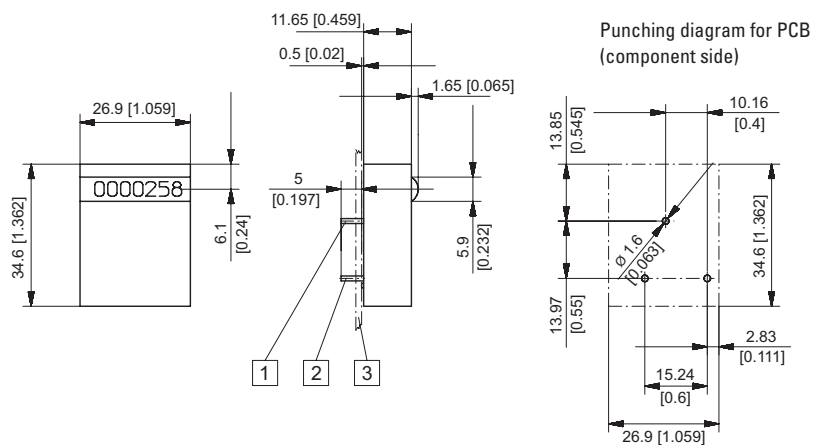
1) Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]

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
K 04.40	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 K 07.40

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

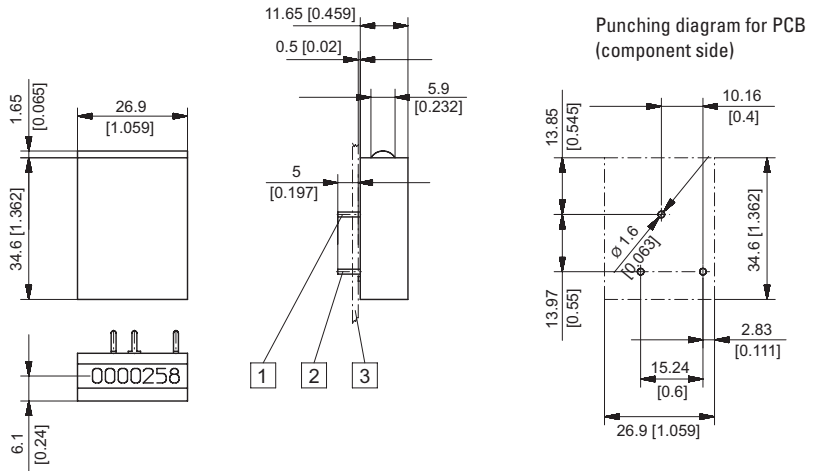
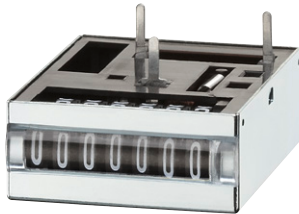
Type	Voltage	Display	Art. no.			
			3 V	4.5 V	12 V	24 V
K 07.40	DC (10 Hz) / 0	7 digits	1.130.401.006	1.130.401.008 ¹⁾	on request	on request
	DC (25 Hz) / 1				1.130.401.032	1.130.401.033

Pulse counters, electromechanical

Micro counters **High shock resistance (AC+DC)** **K 04 ... K 07 / AK 07**

PCB mount, hanging
7-digit display front side
Type K 07.50

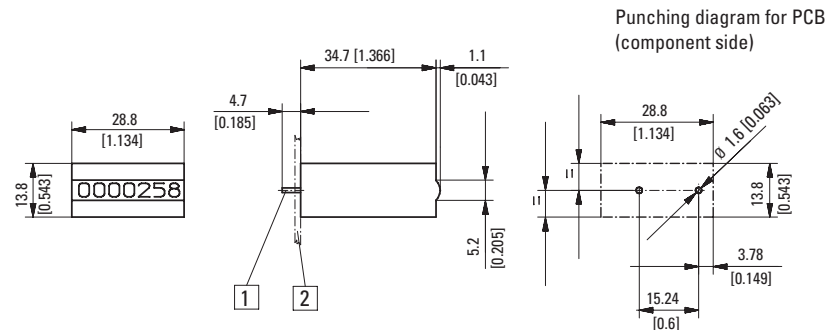
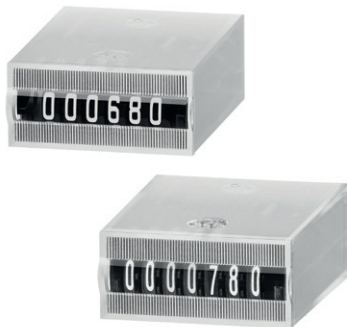
Color of housing blue (zinc-plated)



- 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
K 07.50	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 K 06.80 / K 07.80



- 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		
K 06.80	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					1.120.800.051	1.120.800.054	1.120.800.056		
K 07.80	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⁾	1.130.800.033				
	AC (10 Hz) / a0					1.130.800.051	1.130.800.054	1.130.800.056		

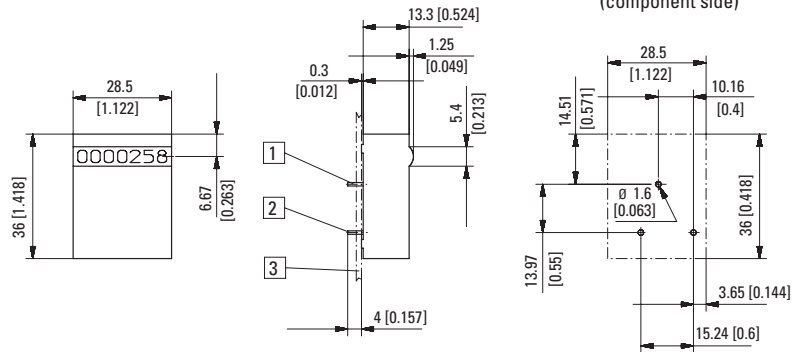
Pulse counters, electromechanical

Micro counters

High shock resistance (AC+DC)

K 04 ... K 07 / AK 07

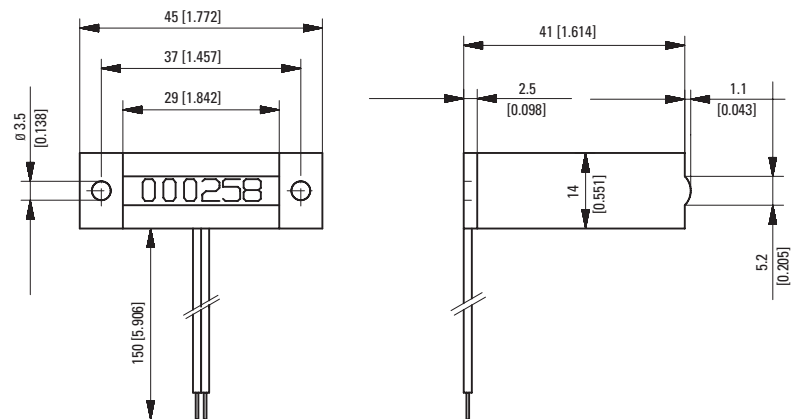
PCB mount, lying
7-digit display on the top
Type K 07.90



- 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	
K 07.90	DC (10 Hz) / 0	7 digits	1.130.900.006	1.130.900.008	1.130.900.012 ¹⁾	on request			
	DC (25 Hz) / 1								1.130.900.033
	AC (10 Hz) / a0								1.130.900.051

Base mount, upright
7-digit display front side
Type AK 07.00



Type	Voltage	Display	Art. no.						
			3 V	4.5 V	12 V	24 V	115 V	230 V	
AK 07.00	DC (10 Hz) / 0	7 digits	1.130.000.006	1.130.000.008	1.130.000.012	1.130.000.013			
	DC (25 Hz) / 1								1.130.000.033
	AC (10 Hz) / a0								1.130.000.051