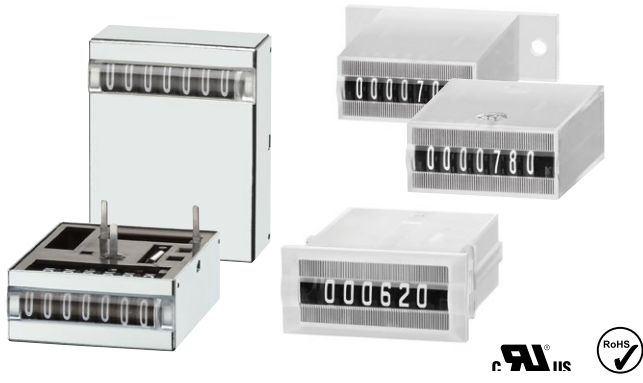


Pulse counters, electromechanical

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

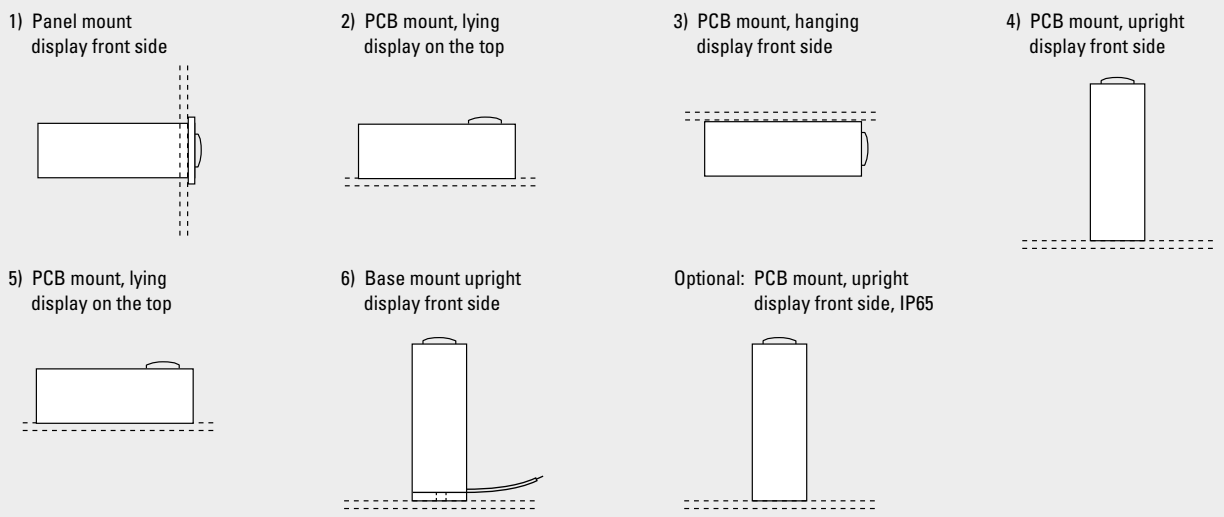
General quantity counting, alarm systems, coin-operated machines, electricity meters, vending and slot machines, photocopiers, medical equipment, car washes.

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
-----------------------	--------------------------------------	---------------------------

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	

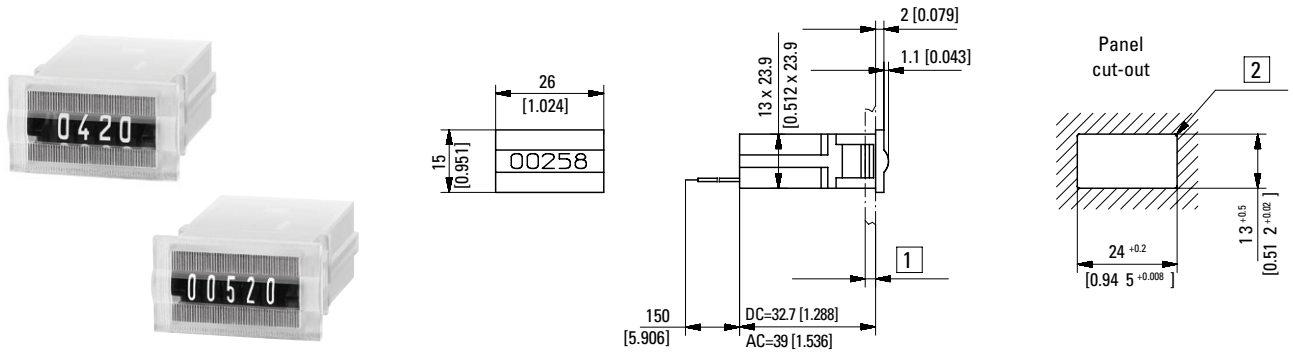
Options	
K0x.20	flat pin 0.5 x 2.8 mm [0.020 x 0.11"] Art. no.: 1.1X7.XX0.XXX flat pin 0.4 x 1.2 mm [0.016 x 0.047"] Art. no.: 1.1X9.XX0.XXX <ul style="list-style-type: none"> • different voltages • version not potted • different figure colors • different lengths of flying leads • different connections • 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**

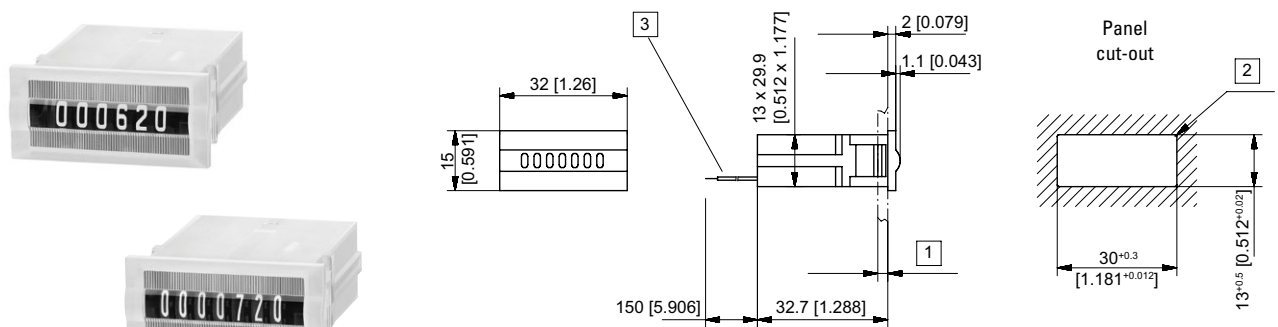
Panel mount counter
4- and 5-digit display front side
Type K04.20 / K05.20



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

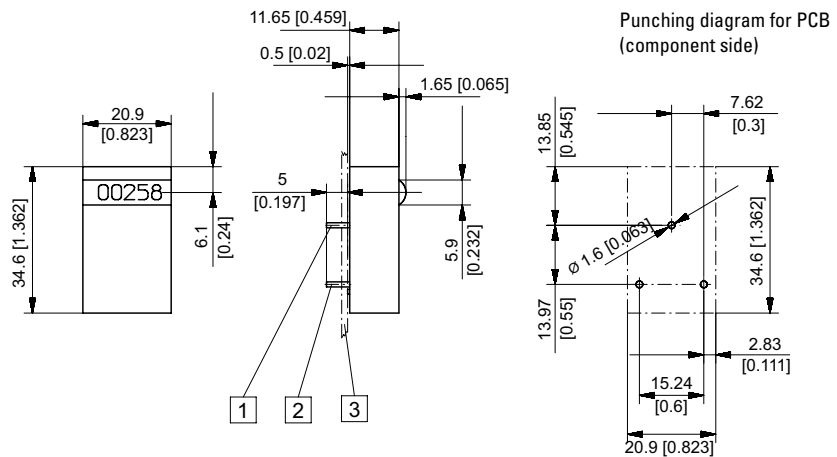
Micro counters

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)



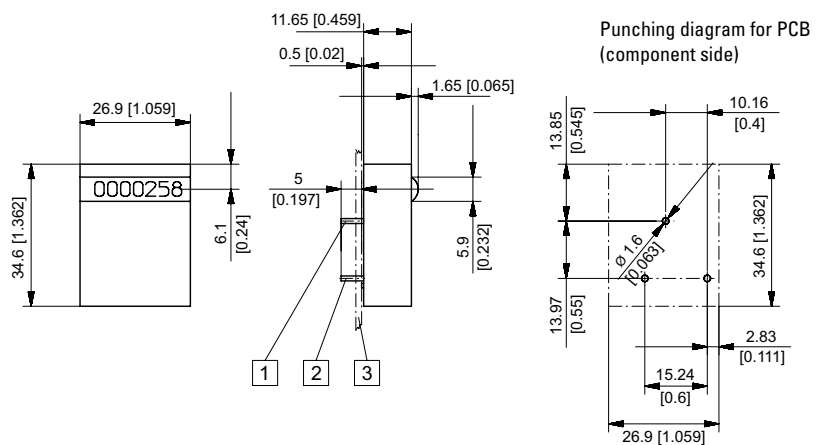
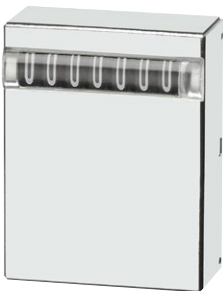
1 Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]

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

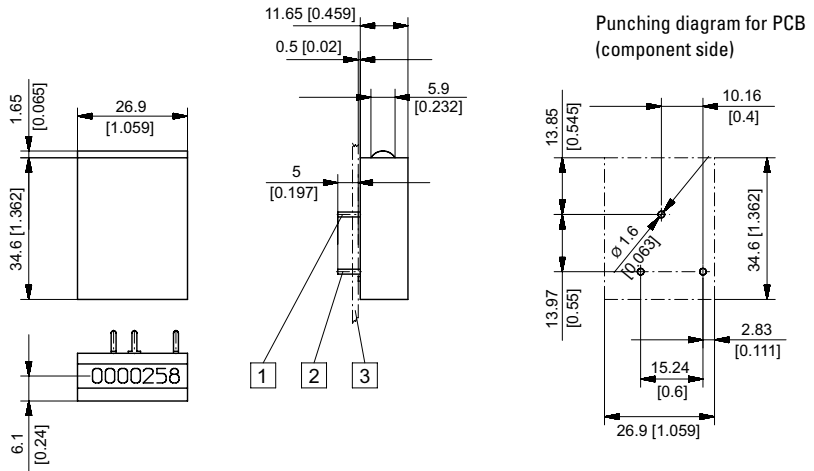
Type	Voltage	Display	Art. no.			
			3 V	4.5 V	12 V	24 V
K07.40	DC (10 Hz) / 0	7 digits	1.130.401.006	1.130.401.008	on request	on request
	DC (25 Hz) / 1				1.130.401.032	1.130.401.033

Pulse counters, electromechanical

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

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

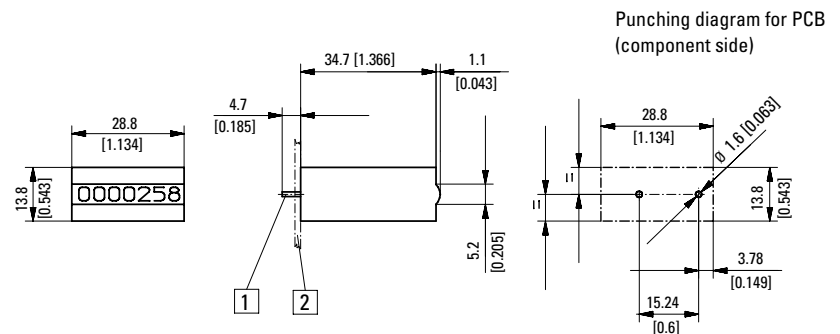
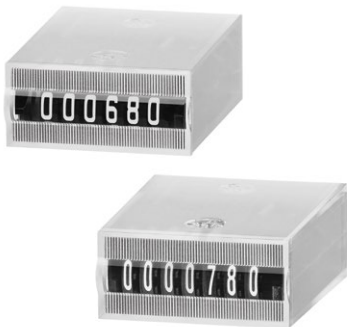
Color of housing blue (zinc-plated)



- 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					1.120.800.051	1.120.800.054	1.120.800.056		
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					1.130.800.051	1.130.800.054	1.130.800.056		

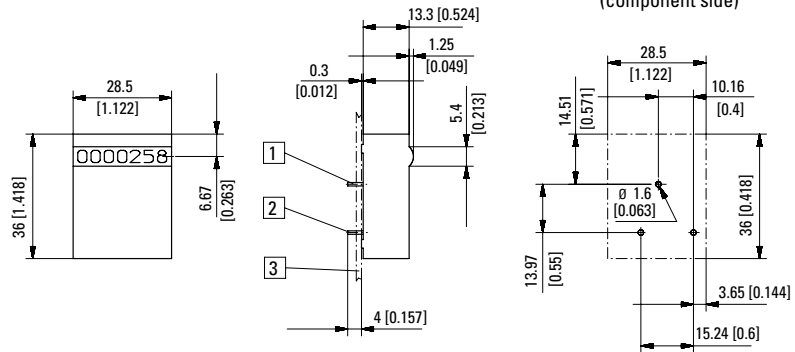
Pulse counters, electromechanical

Micro counters

High shock resistance (AC+DC)

K04 ... K07 / AK07

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

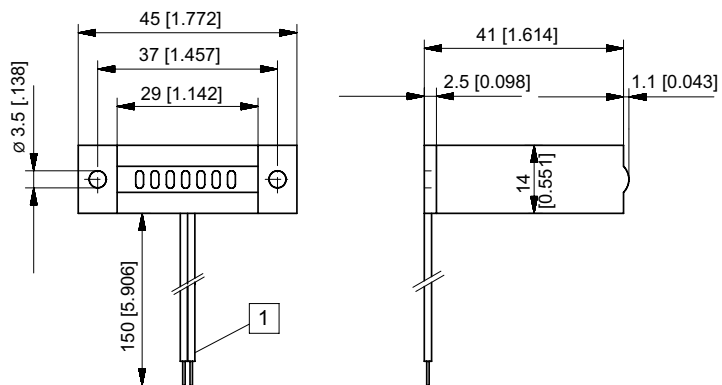


1) Mounting pin without el. function 0.4 x 1.2 [0.016 x 0.047]

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									
	AC (10 Hz) / a0									

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									
	AC (10 Hz) / a0									