

# Pulse counters, electromechanical

<b>Standard counters</b>	<b>4 digits with reset (AC+DC)</b>	<b>Bk14</b>
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The standard totalizers Bk14 (with manual reset) boast a robust construction despite their small size.

They are ideal for use in harsh industrial environments.

## Characteristics

- 4-digit totalizer with manual reset.

## Benefits

- Very long service life (200 million pulses).

## Applications

General quantity counting, time, charge and performance metering.

## Type series

Description	Type	Order information
Panel mount with 2 mounting holes	4 digits with reset	· Art. no.
Panel mount for clip mounting	4 digits with reset	· At different voltages, please give type, voltage, kind of voltage and series e.g.: Bk14.21, 12 V AC, type a

Technical data	
<b>Electrical connection</b>	tinned round pins $\varnothing$ 1.6 mm [0.063"] with push on connectors
<b>Rated voltage</b>	type 0/I/a 12 / 24 / 48 / 115 / 230 V DC $\pm$ 10 % 24 / 48 / 115 / 230 V AC $\pm$ 10 %
<b>Color of counter</b>	grey
<b>Height of figures</b>	approx. 2 x 4 mm [0.079 x 0.16"]
<b>Color of figures</b>	white on black
<b>Counting mechanism shaft</b>	stainless steel
<b>Relative humidity</b> at +30 °C [+86 °F]	$\leq$ 80 % (non-condensing)
<b>Altitude</b>	up to 2000 m [6562']
<b>Mounting position</b>	any
<b>Operating life</b>	approx. 200 x 10 <sup>6</sup> pulses
<b>Protection</b>	IP40 (front side)
<b>Weight</b>	70 g [2.47 oz]
<b>Test voltage</b>	2000 V ~ effective, acc. to VDE 0435
<b>Vibration resistance</b>	3 g up to 10 Hz 6 g up to 15 Hz independent of position 10 g 20 - 300 Hz
<b>Device safety</b>	designed to EN 61010 part 1 protection class 2 application area pollution level 2

## Options

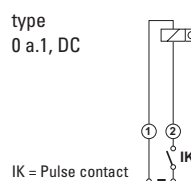
- key locking reset special key (order code "vs", e.g. Bk14.11 vs)
- housing color black
- higher counting speed
- also with flying leads

## Approvals

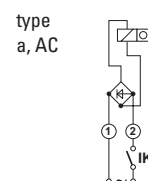
CE compliant in accordance with		
EMC Directive	2014/30/EU	
RoHS Directive	2011/65/EU	
Low Voltage Directive	2014/35/EU	

## Connection diagram

type  
0 a.1, DC



type  
a, AC



IK = Pulse contact

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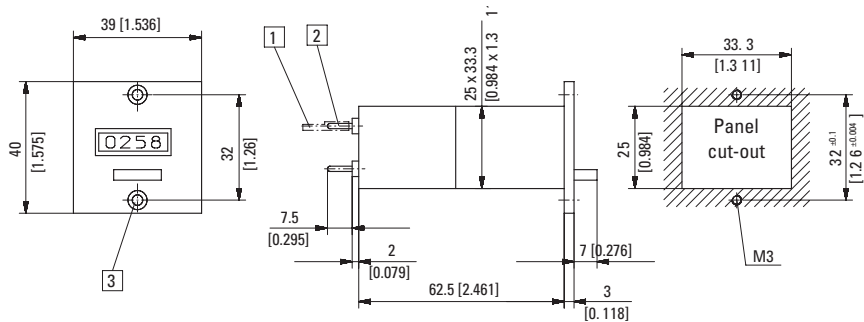
<b>Standard counters</b>	<b>4 digits with reset (AC+DC)</b>	<b>Bk14</b>
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Type / Counting mechanism									
Voltage	Type	Pulse frequency max.	Pulse on time min.	Pulse interval min.	Pulse ratio	On-time	Power consump. approx.	Permi. residual ripple max.	Operating temp. (non-condensing)
V DC	0	10 Hz	60 ms	40 ms	3 : 2	100 %	1 W	48 %	-10 °C ... +60 °C [+14 °F ... +140 °F]
V DC	1	25 Hz	24 ms	16 ms	3 : 2	100 %	2 W	48 %	-10 °C ... +60 °C [+14 °F ... +140 °F]
V AC	a	18 Hz	22.2 ms	33.3 ms	2 : 3	100 %	2.9 VA	–	-10 °C ... +55 °C [+14 °F ... +131 °F]

### Panel mount with 2 mounting holes

4 digits, with reset

#### Type Bk14.11



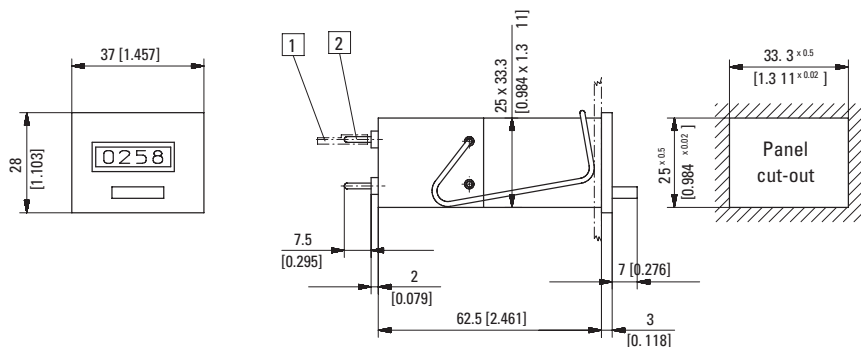
1 Push on connector  $\varnothing$  1.5 [0.059], tinned    2 Round pin  $\varnothing$  1.6 [0.063], tinned    3 Countersinking Af3 DIN 74

Type	Voltage	Display	Art. no.			
			12 V	24 V	115 V	230 V
<b>Bk14.11</b>	DC (10 Hz) / 0	4 digits	<b>1.180.110.012</b>	<b>1.180.110.013</b>		
	DC (25 Hz) / 1		<b>1.180.110.032</b>	<b>1.180.110.033</b>		
	AC (18 Hz) / a			<b>1.180.110.061</b>	<b>1.180.110.064</b>	<b>1.180.110.066</b>

### Panel mount for clip mounting

4 digits, with reset

#### Type Bk14.21



1 Push on connector  $\varnothing$  1.5 [0.059], tinned    2 Round pin  $\varnothing$  1.6 [0.063], tinned

Type	Voltage	Display	Art. no.			
			12 V	24 V	115 V	230 V
<b>Bk14.21</b>	DC (10 Hz) / 0	4 digits	<b>1.180.210.012</b>	<b>1.180.210.013</b>		
	DC (25 Hz) / 1		<b>1.180.210.032</b>	<b>1.180.210.033</b>		
	AC (18 Hz) / a			<b>1.180.210.061</b>	<b>1.180.210.064</b>	<b>1.180.210.066</b>