

**Standard counters**      **Adding, 5 digits (AC+DC)**      **BVa 15**



The electromechanical preset counters BVa 15 (with manual reset) boast a robust construction. They are ideal for use in harsh industrial environments as stand-alone counters or as plug-in variants in combination with additional B, BVa, HB or HVA counters.

Display shows actual count and preset value.

### Characteristics

- 5-digit adding preset counter with stationary preset value.
- Manual reset to zero.
- Potential free changeover contact (microswitch) on reaching the preset.
- Contact switches when preset value is reached and remains switched until reset to zero.
- Counters without front bezel fit into bezel F2B and can be combined in RM 50 x 50 mm.

### Benefits

- Can be combined with counters of the B, BVa, HB and HVA series using the socket boxes of the pluggable versions.
- Count value and preset constantly visible.
- Versions with transparent cover, sealing cover, zero reset key-lock.

### Applications


Piece counting, automation.

### Type series


Description	Type	Delivery specification
(Reset manual)		Counter complete with socket box
Without front bezel, plugs into socket box	<b>BVa 15.01</b>	
Front bezel 1, mounting holes	<b>BVa 15.11</b>	<i>Order information</i>
Mounting clip	<b>BVa 15.21</b>	- Art. no.
Front bezel 3, mounting holes	<b>BVa 15.31</b>	- For special voltages, please give type, voltage and series e.g.: BVa 15.31, 12 V DC ...

*Further versions, fully assembled (on request)*  
Counter with lockable reset


**BVa 15.21 vs**



**Dv BVa 15.31 lockable**



**Dvs BVa 15.31 key lockable**



Type / Counting mechanism									
Voltage	Type max.	Pulse frequency min.	Pulse on time min.	Pulse interval	Pulse ratio	On-time approx.	Power consump. ripple max.	Permi. residual (non-condensing)	Operating temp.
<b>V DC</b>	1	25 Hz	24 ms	16 ms	3 : 2	100 %	3 W	48 %	-10°C ... +60°C [+14°F ... +140°F]
<b>V AC</b>	a	18 Hz	27.7 ms	27.7 ms	1 : 1	100 %	3 VA	–	-10°C ... +55°C [+14°F ... +131°F]

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<b>Accessories</b>			
Dimensions in mm [inch]			
Order no.			
<b>Front bezel type F2B</b>	for cut-out 54 x 54 [2.13 x 2.13] , with screw mounting for plug-in counters BVa 15.0x in socket box type 946.1	beige black	<b>G007503</b> <b>G007504</b>
<b>Socket box type 946.1</b>	for counters BVa 15.01, can be used for plug-in connections, in front bezel F2B	black	<b>G008439</b>
<b>Sealing cover type K2, IP65</b>	for front bezel 75 x 60 [2.95 x 2.36] with screw mounting, for elektrom. counters and via adapter front bezel T008860 for counters 48 x 48 [1.89 x 1.89]	grey black	<b>G008302</b> <b>G008303</b>
<b>Mounting frame</b> with cut-out 50 x 50 [2.36 x 2.36] via separate adapter also for 45 x 45 [1.77 x 1.77]	for snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 48 x 48 [1.89 x 1.89], 53 x 53 [2.09 x 2.09] and 55 x 55 [2.17 x 2.17]	chromated	<b>G300003</b>
<b>DIN rail mount SR 3</b>	for snap-on mounting on 35 [1.38] top-hat DIN rail		<b>G300002</b>
<b>Replacement parts</b>			Order no.
<b>Transparent cover, IP65</b>	type 2 Dv, suitable for Dv BVa 15 and Dv HVa 15 type 2 Dvs, suitable for Dvs BVa 15 and Dvs HVa 15	lockable key lockable	<b>G008141</b> <b>G008151</b>
<b>Key for key-locking zero reset</b>			<b>G050265</b>

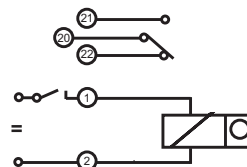
Suitable gaskets, other accessories and installation examples for optional accessories can be found in chapter Accessories or in the Accessories section under: [www.kuebler.com/accessories](http://www.kuebler.com/accessories).

Technical data			
<b>Electrical connection</b>	counter	tinned tabs ø 1.6 mm [0.063"] with push-on connectors	
	socket box	tinned plated tabs 0.8 x 2.8 mm [0.032 x 0.11"]	
<b>Rated voltages</b>	counting mechanism	12 / 24 / 48 / 115 V DC ±10 % 24 / 48 / 115 / 230 V AC ±10 %	
<b>Height of figures</b>	counter	4.5 mm [0.18"]	
	preset	4 mm [0.16"]	
<b>Color of housing</b>	grey	Art. no. x.xxx.xx0.xxx	
	black	Art. no. x.xxx.xx1.xxx	
<b>Color of figures</b>	counter	white on black	
	preset	yellow on black	
<b>Counting mechanism shaft</b>		stainless steel	
<b>Mounting position</b>		any	
<b>Service life</b>		approx. 100 x 10 <sup>6</sup> pulses	
<b>Protection</b>		IP40 (front side)	
<b>Weight</b>		approx. 130 g [4.59 oz]	
<b>EMC standards</b>		EN 55011 class B, EN 61000-6-2, EN 61000-6-3,	
<b>Device safety</b>	designed to	EN 61010 part 1	
	protection class	2	
	application area	pollution level 2	
<b>Test voltage</b>		2000 V, effective	
<b>Switching contact</b>		1 change over contact (micro switch), release in 2nd half-step on the preset number	
<b>Loading (max)</b> (with resistive Load.)	<b>AC</b>	250 V AC	2.0 A
	<b>DC</b>	24 V DC	2.0 A
		60 V DC	0.7 A
		115 V DC	0.4 A
		230 V DC	0.2 A
Suitable spark quenching is required with inductive load, reducing the max. current to 60 %			

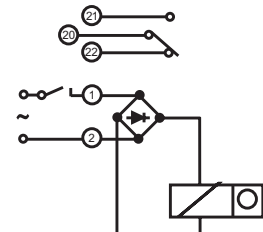
Options		
<b>Key-locking zero reset</b>	housing grey	Art. no.: 2.1X0.XX6.XXX
	housing black	Art. no.: 2.1X0.XX7.XXX
<b>Lockable transparent cover (IP65)</b>	Dv BVa counter with front bezel 3	Art. no.: 2.1X0.7XX.XXX
<b>Key lockable transparent cover (IP65)</b>	Dvs BVa counter with front bezel 3	Art. no.: 2.1X0.8XX.XXX
<b>Flexible sealing cover K2 (IP54)</b>	K2 BVa counter with front bezel 3	Art. no.: 2.1X0.6XX.XXX
<b>Screw terminal connection</b>		Art. no.: 2.XXX.XXX.XXX.023
<b>Flat pin connection 2.8 x 0.8 mm (on request)</b>		Art. no.: 2.XX7.XXX.XXX

## Connection diagrams

DC



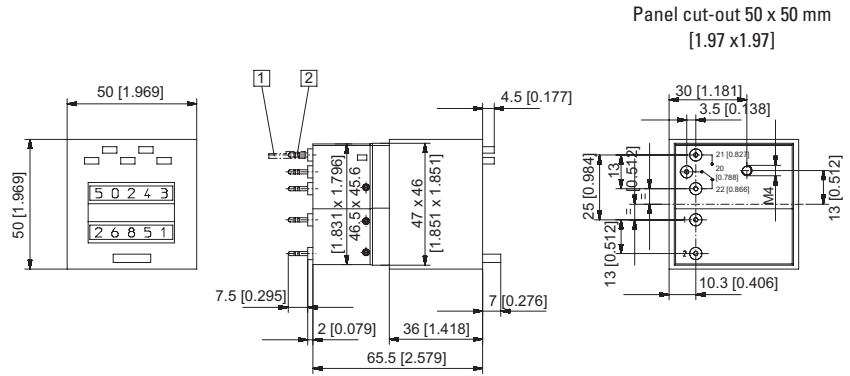
AC



# Preset counters, electromechanical

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Without front bezel,  
plugs into socket box type 946.1  
Type BVa 15.01

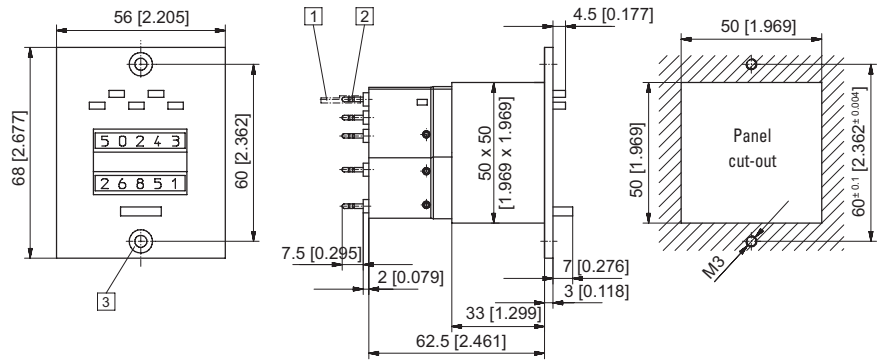


1 Push-on connector  $\varnothing$  1.5 [0.059] tinned    2 Round pin  $\varnothing$  1.6 [0.063] tinned  
Color of housing grey (standard)

Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
BVa 15.01	DC (25 Hz)	5 digits	2.100.010.033	–	–
	AC (18 Hz)		2.100.010.061	2.100.010.064	2.100.010.066

Color of housing black: Art. no. 2.1X0.011.XXX

Front bezel 1,  
with mounting holes  
Type BVa 15.11



1 Push-on connector  $\varnothing$  1.5 [0.059] tinned    2 Round pin  $\varnothing$  1.6 [0.063] tinned    3 Countersinking Af3 DIN 74  
Color of housing grey (standard)

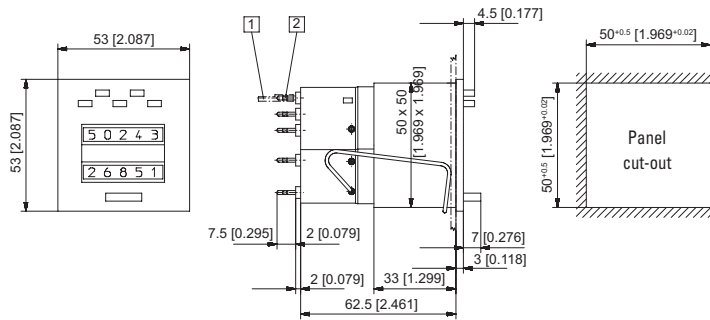
Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
BVa 15.11	DC (25 Hz)	5 digits	2.100.110.033	–	–
	AC (18 Hz)		2.100.110.061	2.100.110.064	2.100.110.066

Color of housing black: Art. no. 2.1X0.111.XXX

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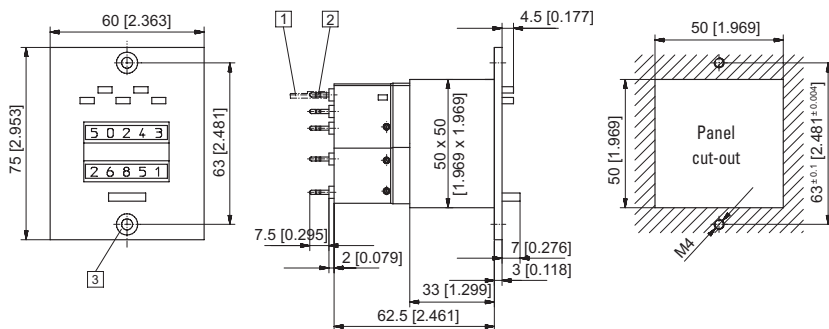
**With mounting clips**  
**Type BVa 15.21**



1) Push-on connector  $\varnothing$  1.5 [0.059] tinned    2) Round pin  $\varnothing$  1.6 [0.063] tinned  
 Color of housing grey (standard)

Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
<b>BVa 15.21</b>	DC (25 Hz)	5 digits	<b>2.100.210.033</b> <sup>1)</sup>	–	–
	AC (18 Hz)		<b>2.100.210.061</b>	<b>2.100.210.064</b>	<b>2.100.210.066</b> <sup>1)</sup>
Color of housing black: Art. no. 2.1X0.211.XXX			Further stock types: Art. no. 2.100.211.033		

**Front bezel 3, with mounting holes**  
**Type BVa 15.31**



1) Push-on connector  $\varnothing$  1.5 [0.059] tinned    2) Round pin  $\varnothing$  1.6 [0.063] tinned    3) Countersinking Af3 DIN 74  
 Color of housing grey (standard)

Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
<b>BVa 15.31</b>	DC (25 Hz)	5 digits	<b>2.100.310.033</b>	–	–
	AC (18 Hz)		<b>2.100.310.061</b>	<b>2.100.310.064</b>	<b>2.100.310.066</b>
Color of housing black: Art. no. 2.1X0.311.XXX			Further stock types: BVa 15.31.4sw 24 V DC / Art. no. 2.107.311.013		

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## Mounting examples for optional accessories

