

Preset counters, electromechanical

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

Preset counters

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

(Reset manual)

Without front bezel, plugs into socket box

Front bezel 1, mounting holes

Mounting clip

Front bezel 3, mounting holes

Type

BVa 15.01

BVa 15.11

BVa 15.21

BVa 15.31

Delivery specification

Counter complete with socket box

Order information

- Art. no.

- 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



Counter with transparent cover

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.
V DC	1	25 Hz	24 ms	16 ms	3 : 2	100 %	3 W	48 %	-10°C ... +60°C [+14°F ... +140°F]
V AC	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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Accessories			
Dimensions in mm [inch]			
Order no.			
Front bezel type F2B	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	G007503 G007504
Socket box type 946.1	for counters BVa 15.01, can be used for plug-in connections, in front bezel F2B	black	G008439
Sealing cover type K2, IP65	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	G008302 G008303
Mounting frame 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	G300003
DIN rail mount SR 3	for snap-on mounting on 35 [1.38] top-hat DIN rail		G300002
Replacement parts			Order no.
Transparent cover, IP65	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	G008141 G008151
Key for key-locking zero reset			G050265

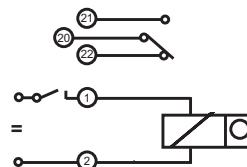
Suitable gaskets, other accessories and installation examples for optional accessories can be found in chapter Accessories or in the Accessories section under: www.kuebler.com/accessories.

Technical data		
Electrical connection	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"]
Rated voltages	counting mechanism	12 / 24 / 48 / 115 V DC ±10 % 24 / 48 / 115 / 230 V AC ±10 %
Height of figures	counter	4.5 mm [0.18"]
	preset	4 mm [0.16"]
Color of housing	grey	Art. no. x.xxx.xx0.xxx
	black	Art. no. x.xxx.xx1.xxx
Color of figures	counter	white on black
	preset	yellow on black
Counting mechanism shaft		stainless steel
Mounting position		any
Service life		approx. 100 x 10 ⁶ pulses
Protection		IP40 (front side)
Weight		approx. 130 g [4.59 oz]
EMC standards		EN 55011 class B, EN 61000-6-2, EN 61000-6-3,
Device safety	designed to protection class application area	EN 61010 part 1 2 pollution level 2
Test voltage		2000 V, effective
Switching contact		1 change over contact (micro switch), release in 2nd half-step on the preset number
Loading (max) (with resistive Load.)	AC	250 V AC 2.0 A
	DC	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 %		

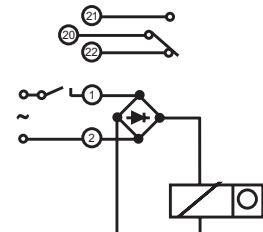
Options	
Key-locking zero reset	housing grey Art. no.: 2.1X0.XX6.XXX housing black Art. no.: 2.1X0.XX7.XXX
Lockable transparent cover (IP65)	Dv BVa counter with front bezel 3 Art. no.: 2.1X0.7XX.XXX
Key lockable transparent cover (IP65)	Dvs BVa counter with front bezel 3 Art. no.: 2.1X0.8XX.XXX
Flexible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

Connection diagrams

DC



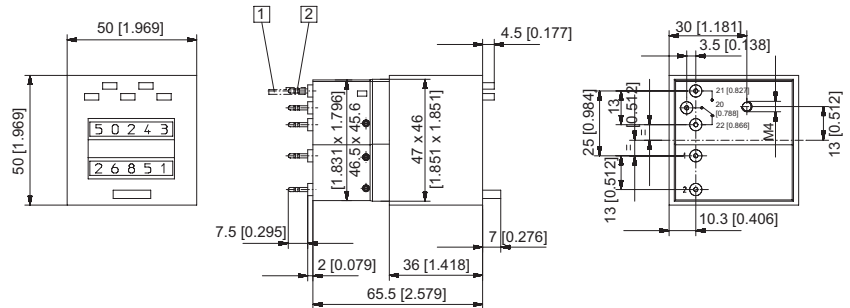
AC



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

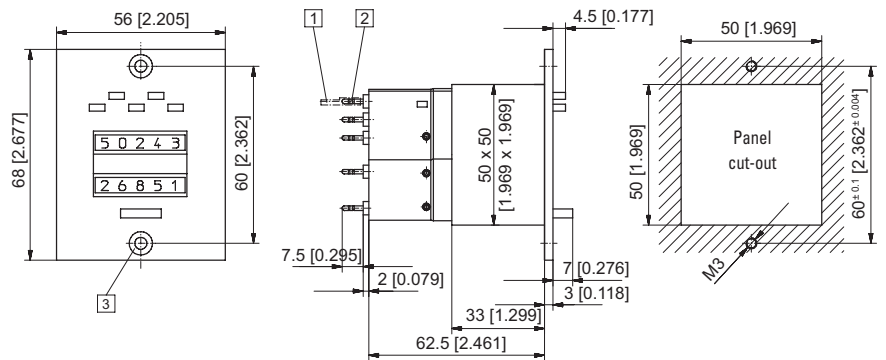


1 Push-on connector \varnothing 1.5 [0.059] tinned 2 Round pin \varnothing 1.6 [0.063] tinned
Color of housing grey (standard)

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)

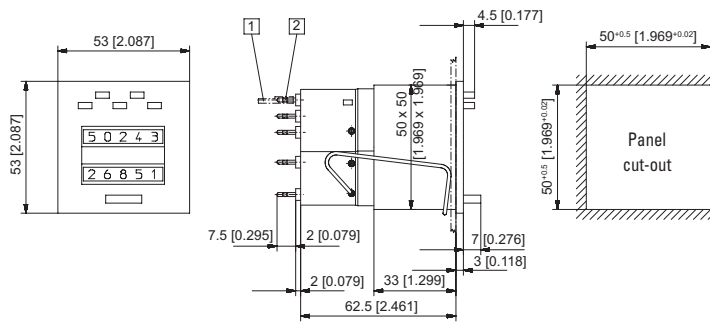
Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
BVa 15.11	DC (25 Hz)	5 digits	2.100.110.033	–	–
	AC (18 Hz)		2.100.110.061	2.100.110.064	2.100.110.066

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

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

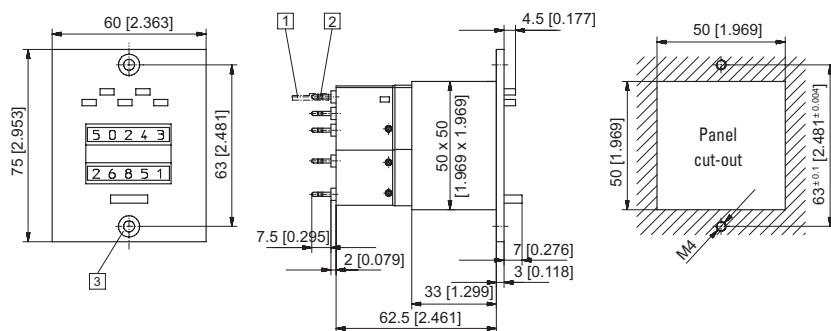
With mounting clips
Type BVa 15.21



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
BVa 15.21	DC (25 Hz)	5 digits	2.100.210.033 ¹⁾	–	–
	AC (18 Hz)		2.100.210.061	2.100.210.064	2.100.210.066 ¹⁾
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



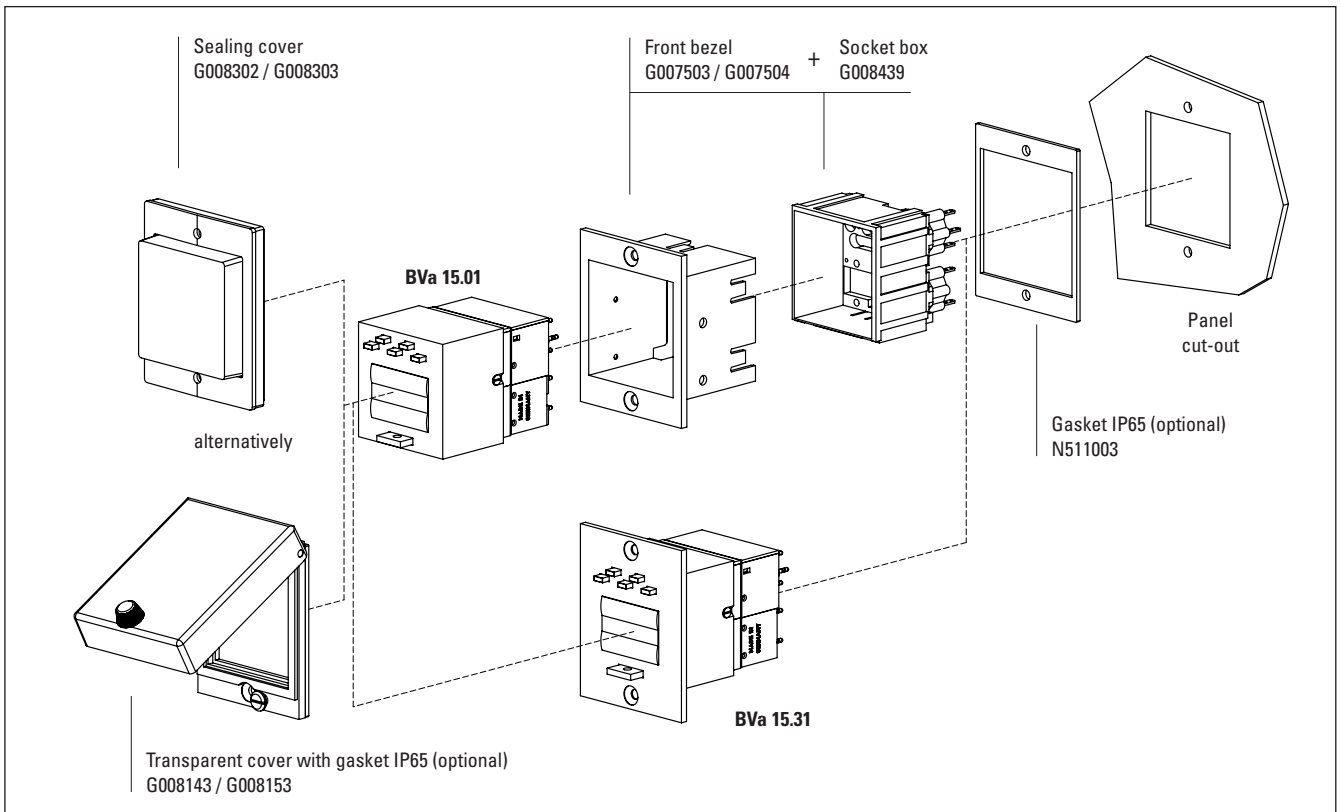
1 Push-on connector \varnothing 1.5 [0.059] tinned 2 Round pin \varnothing 1.6 [0.063] tinned 3 Countersinking Af3 DIN 74
Color of housing grey (standard)

Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
BVa 15.31	DC (25 Hz)	5 digits	2.100.310.033	–	–
	AC (18 Hz)		2.100.310.061	2.100.310.064	2.100.310.066
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



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