

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.

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	BVa 15.01	
Front bezel 1, mounting holes	BVa 15.11	<i>Order information</i>
Mounting clip	BVa 15.21	- Art. no.
Front bezel 3, mounting holes	BVa 15.31	- 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



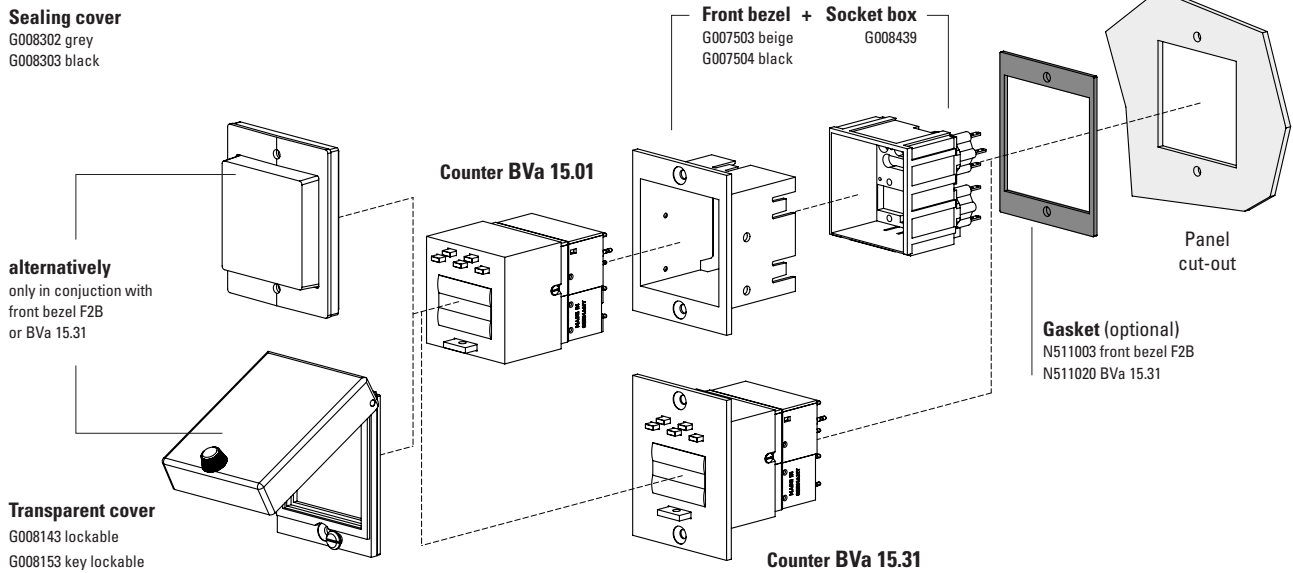
Type / Counting mechanism

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 / Mounting examples



		Type / size	Description		Order no.	suitable gasket
Front bezel		F2B	for counter BVa 15.01 for cut-out 54 x 49 mm (only in conjunction with socket box G008439)	beige black	G007503 G007504	N511003
Socket box		946.1	for plug-in connection in front bezel F2B	black	G008439	–
Sealing cover IP65		K2	for counter BVa 15.31 or for counter BVa 15.01 in conjunction with front bezel F2B	transp. /grau transp. /black	G008302 G008303	–
Transparent cover IP65 with gasket		2 Dv	cover lockable for counter BVa 15.31 or for counter BVa 15.01 in conjunction with front bezel F2B	transp. /black	G008143	–
		2 Dvs	cover key lockable for counter BVa 15.31 or for counter BVa 15.01 in conjunction with front bezel F2B	transp. /black	G008153	–
Gasket counter			58 x 58 mm [2.28 x 2.28"] 60 x 75 mm [2.36 x 2.95"]	BVa 15.21 BVa 15.31	N511004 N511020	
Mounting frame		cut-out 50 x 25 mm [1.97 x 0.98"]	for snap-on mounting on 35 mm [1.38"] top-hat DIN rail, for BVa 15.21	chromated	G300003	
DIN rail mount		SR 3	for snap-on mounting on 35 mm [1.38"] top-hat DIN rail		G300002	
Key for key-locking zero reset					G050265	

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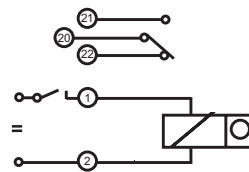
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Technical data		
Electrical connection	counter	tinned tabs ø 1.6 mm [0.063"] with push-on connectors
	socket box	tinned plated tabs 0.8 x 2.8 mm [0.032 x 0.11"]
Rated voltages	counting mechanism	12 / 24 / 48 / 115 V DC ±10 % 24 / 48 / 115 / 230 V AC ±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	EN 61010 part 1
	protection class application area	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 %		

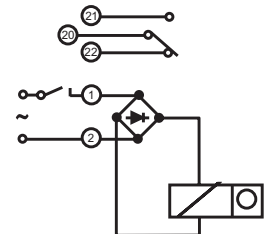
Options		
Key-locking zero reset	housing grey	Art. no.: 2.1X0.XX6.XXX
	housing black	Art. no.: 2.1X0.XX7.XXX
Lockable transparent cover (IP65)		Dv BVa counter with front bezel 3 Art. no.: 2.1X0.7XX.XXX
Key lockable transparent cover (IP65)		Dvs BVa counter with front bezel 3 Art. no.: 2.1X0.8XX.XXX
Flexible 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



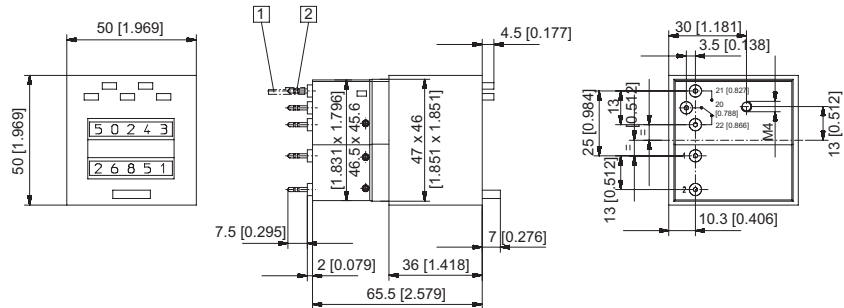
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BVa 15

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

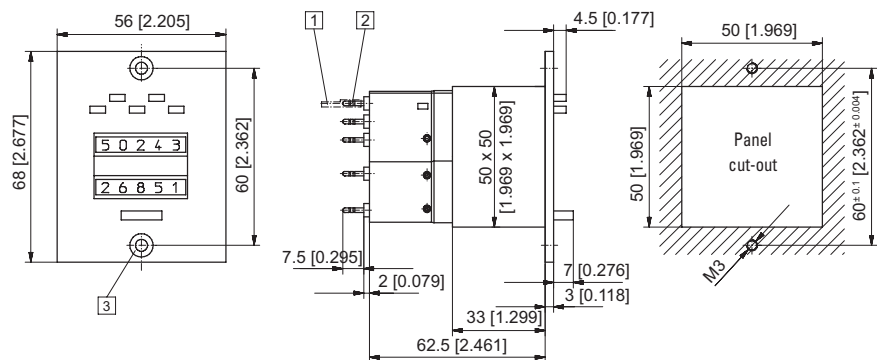


1 Push-on connector \varnothing 1.5 [0.059] tinned 2 Round pin \varnothing 1.6 [0.063] tinned
Color of housing grey (standard)

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)

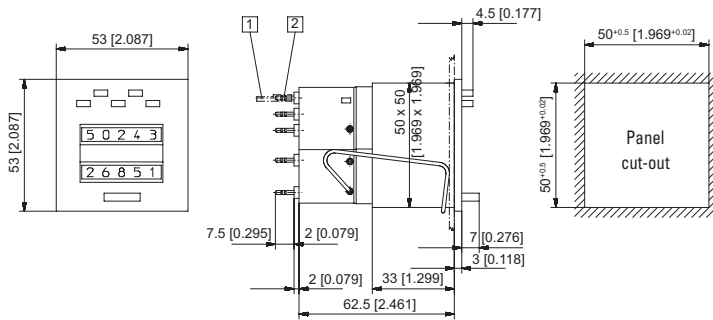
Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
BVa 15.11	DC (25 Hz)	5 digits	2.100.110.033	–	–
	AC (18 Hz)		2.100.110.061	2.100.110.064	2.100.110.066

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

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With mounting clips
Type BVa 15.21

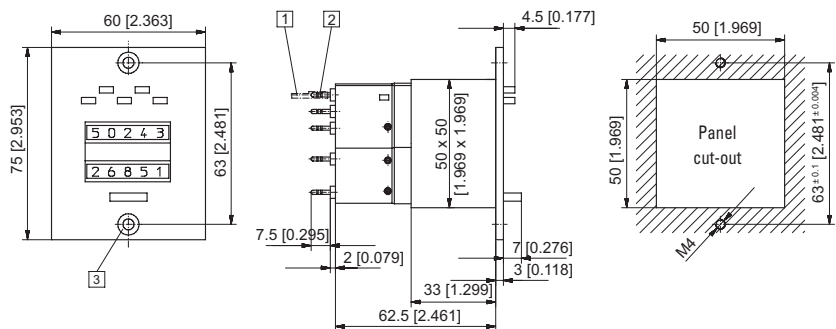


1) Push-on connector \varnothing 1.5 [0.059] tinned 2) Round pin \varnothing 1.6 [0.063] tinned
 Color of housing grey (standard)

Type	Voltage	Display	Art. no.		
			24 V	115 V	230 V
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