

# Preset counters, electromechanical

<b>Standard counters</b>	<b>Subtracting, 2 or 3 digits (AC+DC)</b>	<b>MVs13</b>
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The electromechanical preset counters MVs13 (with manual and manual/electrical reset) boast a robust construction with very small dimensions.

They are ideal for use in harsh industrial environments. The subtracting counters are set to a value via the front keys, the signal occurs when the count value reaches 0.

### Characteristics

- 2- or 3-digit subtracting preset counter.
- Manual or manual and electrical reset.
- Potential free changeover contact (microswitch) on reaching zero.
- Contact switches for "0" count position and remains unswitched until reset to zero.

### Benefits

- Delivery complete with push-on connectors.
- Very small dimensions.
- Versions with sealing cover on request.

### Applications

Piece counting, batch quantities and automation.

### Type series

	3 digits manual reset	3 digits manual and electr. reset	2 digits manual reset	2 digits manual and electr. reset
Front bezel with mounting holes	<b>MVs13.11</b>	<b>MVs13.13</b>	<b>MVs13.11/2</b>	<b>MVs13.13/2</b>
Front bezel with mounting clip	<b>MVs13.21</b>	<b>MVs13.23</b>	<b>MVs13.21/2</b>	<b>MVs13.23/2</b>

### 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)
<b>V DC</b>	1	25 Hz	24 ms	16 ms	3 : 2	100 %	4 W	48 %	-10°C ... +45°C [+14°F ... +113°F]
<b>V AC</b>	a	18 Hz	22.2 ms	33.3 ms	2 : 3	100 %	4.5 VA	–	-10°C ... +45°C [+14°F ... +113°F]

### Accessories

	Type / size	Description	Order no.
<b>Sealing cover IP65</b>		Screw mounting	transp. /grey
			transp. /black
	<b>KV3</b>		<b>G008310</b> <b>G008311</b>

# Preset counters, electromechanical

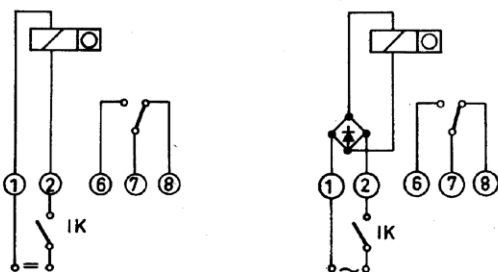
<b>Standard counters</b>	<b>Subtracting, 2 or 3 digits (AC+DC)</b>	<b>MVs13</b>
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Technical data	
<b>Electrical connection</b>	tinned flat pins 0.8 x 2.8 mm [0.032 x 0.11"] (with push on connectors)
<b>Rated voltages</b>	count mechanism 12 / 24 / 48 / 115 / 230 V DC $\pm 10\%$ 24 / 48 / 115 / 230 V AC $\pm 10\%$ reset magnet 24 / 48 / 115 / 230 V DC $\pm 10\%$ 24 / 48 / 115 / 230 V AC $\pm 10\%$
<b>Height of figures</b>	4 mm [0.16"]
<b>Color of housing</b>	similar to RAL 7001
<b>Color of figures</b>	white on black
<b>Counting mechanism shaft</b>	stainless steel
<b>Mounting position</b>	any
<b>Service life</b>	approx. $100 \times 10^6$ pulses
<b>Protection</b>	IP40 (front side)
<b>Weight</b>	with electrical reset approx. 150 g [5.29 oz], approx. 190 g [6.70 oz]
<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 exactly at zero
<b>Load (max.)</b>	AC 250 V AC 2.0 A (with resistive load) 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
With inductive load: suitable spark quenching is required on inductive load, reducing the max. current to approx. 60 %	
<b>Electrical reset</b>	on time 10 % max. 40 seconds minimum pulse time 0.25 sec. power consumption 12 W at DC, 14 VA at AC

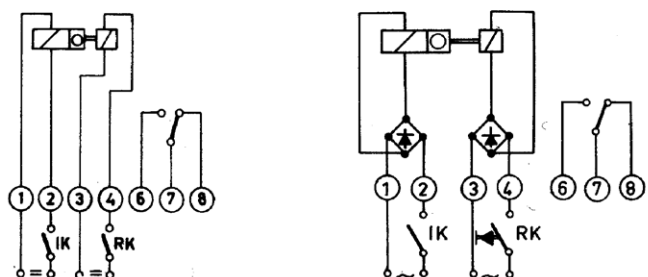
Options	
<b>Electrical reset only</b>	
Approvals	
<b>CE compliant</b> in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU

## Connection diagrams

### Manual reset



### Manual and electrical reset

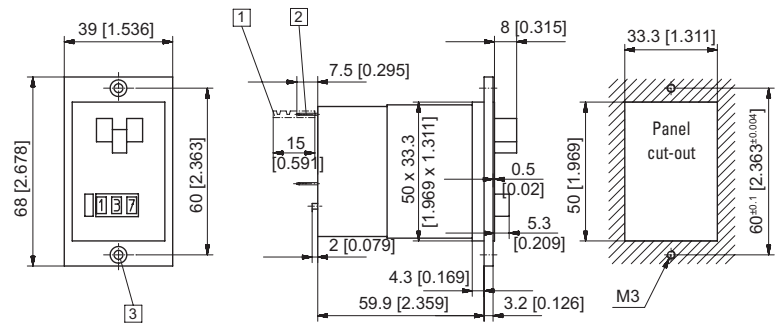


# Preset counters, electromechanical

**Standard counters**      **Subtracting, 2 or 3 digits (AC+DC)**      **MVs13**

Front bezel with mounting holes,  
manual reset

Type MVs13.11, MVs13.11/2

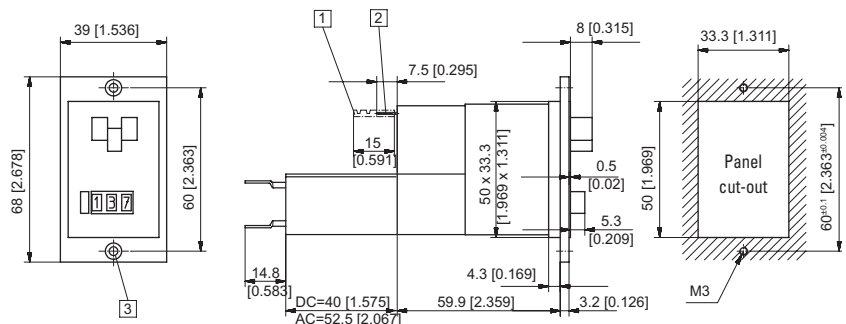


- 1 Push-on connector 0.8 x 2.8 [0.032 x 0.11] tinned
  - 2 Flat pin 0.8 x 2.8 [0.032 x 0.11] tinned
  - 3 Countersinking Af3 DIN 74
- Color of housing grey (standard)

Voltage	Type / Art. no.	MVs13.11 (display 3 digits)			MVs13.11/2 (display 2 digits)		
		24 V	115 V	230 V	24 V	115 V	230 V
DC (25 Hz)		2.300.110.033	–	–	2.310.110.033	–	–
AC (18 Hz)		2.300.110.061	2.300.110.064	2.300.110.066	2.310.110.061	2.310.110.064	2.310.110.066

Front bezel with mounting holes,  
manual and electrical reset

Type MVs13.13, MVs13.13/2



- 1 Push-on connector 0.8 x 2.8 [0.032 x 0.11] tinned
  - 2 Flat pin 0.8 x 2.8 [0.032 x 0.11] tinned
  - 3 Countersinking Af3 DIN 74
- Color of housing grey (standard)

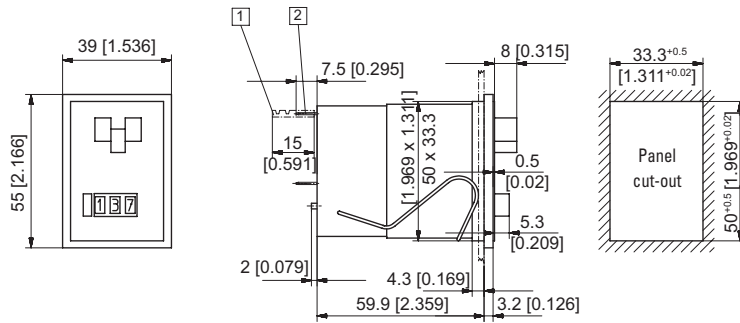
Voltage	Type / Art. no.	MVs13.13 (display 3 digits)			MVs13.13/2 (display 2 digits)		
		24 V	115 V	230 V	24 V	115 V	230 V
DC (25 Hz)		2.300.130.033	–	–	2.310.130.033	–	–
AC (18 Hz)		2.300.130.061	2.300.130.064	2.300.130.066	2.310.130.061	2.310.130.064	2.310.130.066

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**Standard counters**      **Subtracting, 2 or 3 digits (AC+DC)**      **MVs13**

Front bezel with clip mounting,  
manual reset

Type **MVs13.21**, **MVs13.21/2**

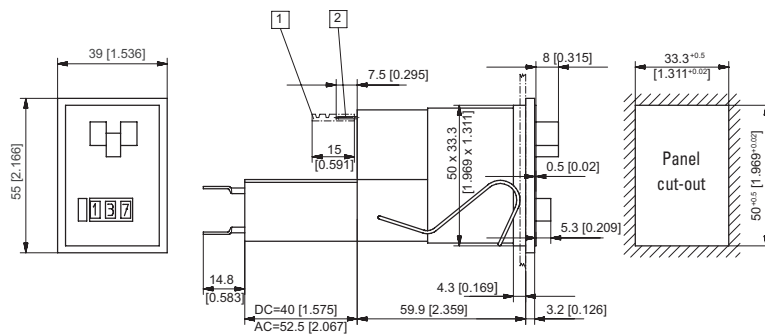


1 Push-on connector 0.8 x 2.8 [0.032 x 0.11] tinned    2 Flat pin 0.8 x 2.8 [0.032 x 0.11] tinned  
Color of housing grey (standard)

Voltage	Type / Art. no.	MV <sub>s</sub> 13.21 (display 3 digits)			MV <sub>s</sub> 13.21/2 (display 2 digits)		
		24 V	115 V	230 V	24 V	115 V	230 V
DC (25 Hz)		<b>2.300.210.033</b>	–	–	<b>2.310.210.033</b>	–	–
AC (18 Hz)		<b>2.300.210.061</b>	<b>2.300.210.064</b>	<b>2.300.210.066</b>	<b>2.310.210.061</b>	<b>2.310.210.064</b>	<b>2.310.210.066</b>
Color of housing black: Art. no. 2.3X0.211.XXX							

Front bezel with clip mounting,  
manual and electrical reset

Type **MVs13.23**, **MVs13.23/2**



1 Push-on connector 0.8 x 2.8 [0.032 x 0.11] tinned    2 Flat pin 0.8 x 2.8 [0.032 x 0.11] tinned  
Color of housing grey (standard)

Voltage	Type / Art. no.	MV <sub>s</sub> 13.23 (display 3 digits)			MV <sub>s</sub> 13.23/2 (display 2 digits)		
		24 V	115 V	230 V	24 V	115 V	230 V
DC (25 Hz)		<b>2.300.230.033</b>	–	–	<b>2.310.230.033</b>	–	–
AC (18 Hz)		<b>2.300.230.061</b>	<b>2.300.230.064</b>	<b>2.300.230.066</b>	<b>2.310.230.061</b>	<b>2.310.230.064</b>	<b>2.310.230.066</b>
Color of housing black: Art. no. 2.3X0.231.XXX							