

## Miniature pulse counter W 16/W 17



- 6 or 7 digit miniature pulse counter, without reset
- Power consumption min. 50 mW
- Power consumption at version 05 and 50 ms pulse length 2,5 mWs/Pulse
- Long operating life
- For all DC and AC voltages
- Types to DIN dimension 24 x 48 and many other dimensions e.g. PCB mount
- Protection IP 41

### Applications

Self powered device, battery operation  
Vending machines, automatic message systems general counting systems

### Technical data:

Electrical Connection:	Panel and-surface mount model PCB mounting	Flying leads AWG 22, appr. 150 mm round pin $\varnothing$ 1.6 mm
Rated voltage:	type 05: 1.5/3/4,5/5/6/12 V DC $\pm 15\%$ -5 % type 0: 12/24/48/115/185 V DC $\pm 10\%$ type a0: 24/48/115/230 V AC $\pm 10\%$	
Cycle duration factor:	100 %	
Height of figures	appr. 1.7 x 4 mm	
Colour of figures	white on black	
Shaft:	stainless steel	
Ambient temperature:	-10 ... +50 °C	
Mounting position	any	
Operating life:	> 50 x 10 <sup>6</sup> pulses	
Colour of housing:	<b>black</b>	<b>grey</b>
	W16.50, W17.50	W16.00, W16.20
	W16.60, W17.60	W16.20.10, W16.20.31
	W16.70,	W16.90, W16.80
	AW16.00	W17.80
Weight	appr. 50 g	

### Options:

- Electrical Connection: counter with pins  $\varnothing$  1.6 mm and push on connectors  
Art.-No.: 1.161.XXX.XXX  
with Flat pin 0.8 x 2.8 mm and push on connectors  
Art.-No.: 1.169.XXX.XXX  
...with Flat pin 0.8 x 6.3 and push on connectors  
...Art.-No.: 1.165.XXX.XXX  
...with screw terminal  
... Art.-No.: 1.164.XXX.XXX
- extended temperature range
- with lens or digit height 5 or 6.3 mm on request

### Type series

Type	Housing	Display	Description
W 16.00	Plastic	Small side	Counter without front bezel, rear mounting
W 16.20	Plastic	Small side	Flush mount counter with spring clip, dimension 31 x 20 mm
W 16.20.10	Plastic	Small side	Flush mount counter with spring clip, panel cut-out 33 x 24 mm
W 16.20.31	Plastic	Small side	Flush mount counter with spring clip, panel cut-out 32 x 23 mm
W 16.40	Plastic	Small side	2 two holes at front side
W 16.50	Plastic	Small side	DIN housing 24 x 48, Built in dimension 22 x 45 mm
W 16.60	Steel	Large side	PCB counter
W 16.70	Steel	Small side	PCB counter
W 16.80	Plastic	Small side	PCB counter
W 16.90	Plastic	Small side	Flush mount counter with spring, dimension 37.5 x 23.5
AW 16.00	Plastic	Small side	Base mount counter
AW 16.80	Plastic	Small side	Base mount counter
AW 16.81	Plastic	Small side	Base mount counter
W 17.50	Plastic	Small side	DIN housing with spring 24 x 48, Panel cut-out 22 x 45 mm
W 17.80	Plastic	Small side	PCB counter
W 17.90	Plastic	Small side	Panel counter with spring, Panel cut-out 37,5 x 23,5 mm

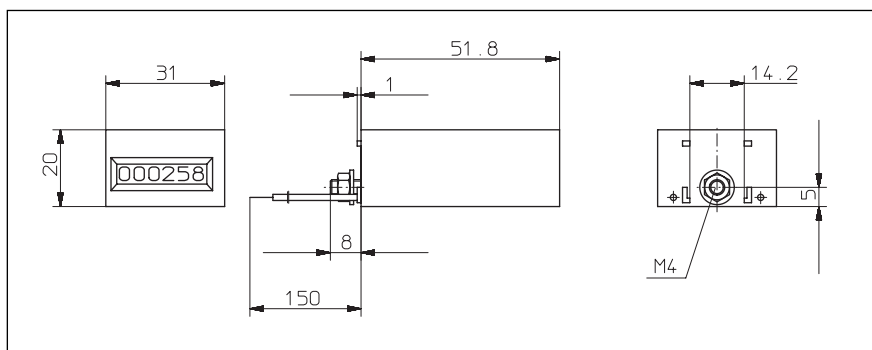
### Counting mechanism

Voltage	Model	max. Pulse-speed	Pulse on time	Pulse interval min.	Power consumption app.	Residual ripple voltage max.
DC	05	8	50 ms	75 ms	50 mW	5 %
	0	10	50 ms	50 ms	0,5 W ( $\leq$ 115 V) 1 W (185 V)	48 %
AC	a0	10	50 ms	50 ms	0,75 VA ( $\leq$ 115 V) 1,5 VA (230 V)	

### Ordering information

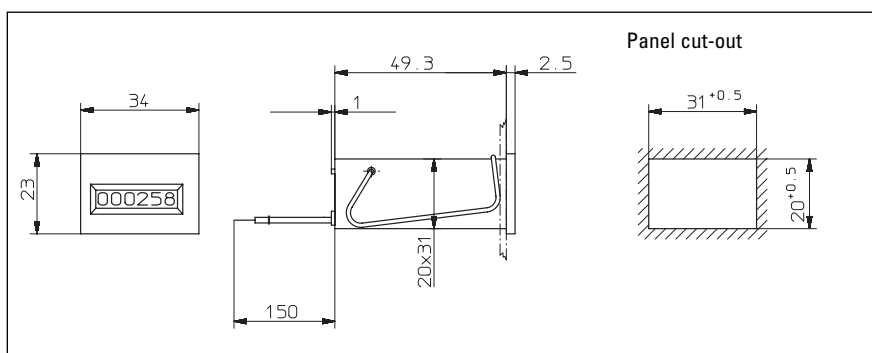
- Article number
- For special voltages, please give type, voltage, kind of voltage and series e.g. W 16.20, 9 V DC, 05, black.

## Type W 16.00



W 16.00 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.160.000.049	1.160.000.050		
DC (10 Imp/s)	1.160.000.012	1.160.000.013		
AC (10 Imp/s)		1.160.000.051	1.160.000.054	1.160.000.056

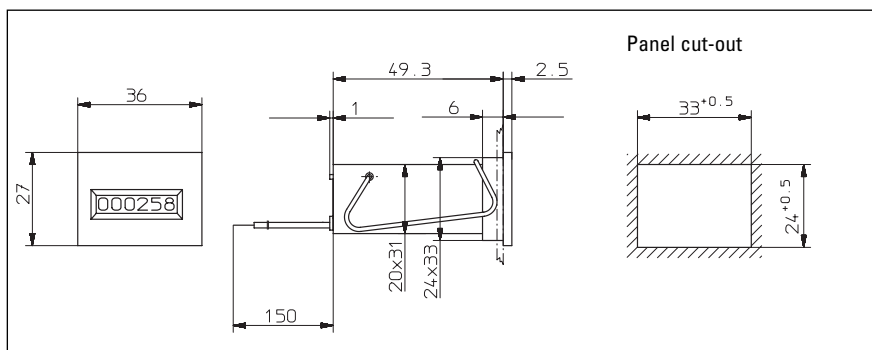
## Type W 16.20



W 16.20 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.160.200.049	1.160.200.050		
DC (10 Imp/s)	1.160.200.012	1.160.200.013		
AC (10 Imp/s)		1.160.200.051	1.160.200.054	1.160.200.056

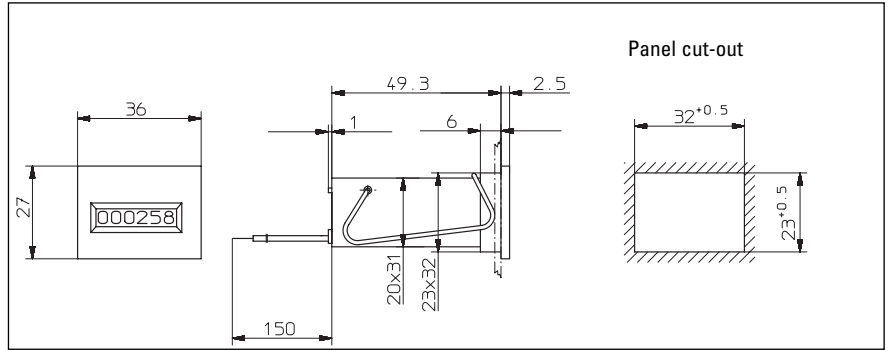
Colour of housing black:  
Art.-No. 1.160.201.XXX

## Type W 16.20.10



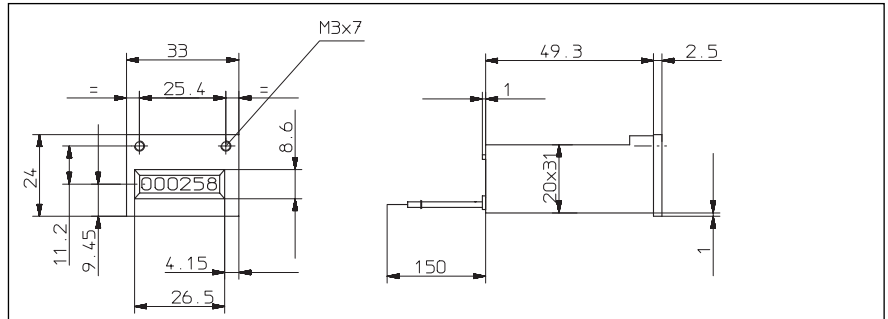
W 16.20.10 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.168.250.049	1.168.250.050		
DC (10 Imp/s)	1.168.250.012	1.168.250.013		
AC (10 Imp/s)		1.168.250.051	1.168.250.054	1.168.250.056

## Type W 16.20.31



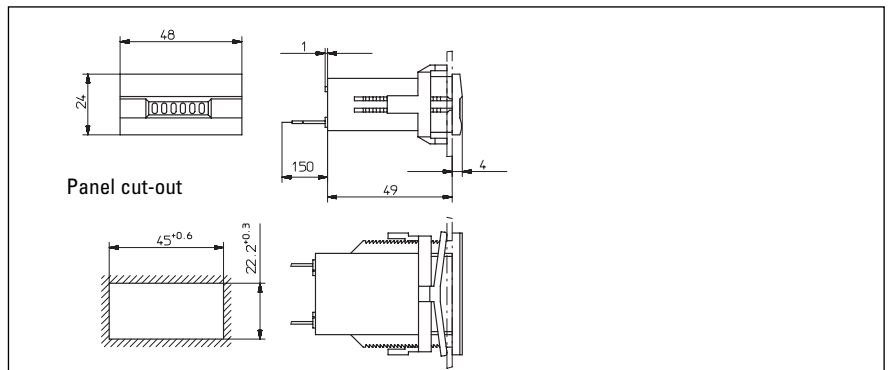
W 16.20.31 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.168.260.049	1.168.260.050		
DC (10 Imp/s)	1.168.260.012	1.168.260.013		
AC (10 Imp/s)		1.168.260.051	1.168.260.054	1.168.260.056

## Type W 16.40



W 16.40 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.160.400.049	1.160.400.050		
DC (10 Imp/s)	1.160.400.012	1.160.400.013		
AC (10 Imp/s)		1.160.400.051	1.160.400.054	1.160.400.056

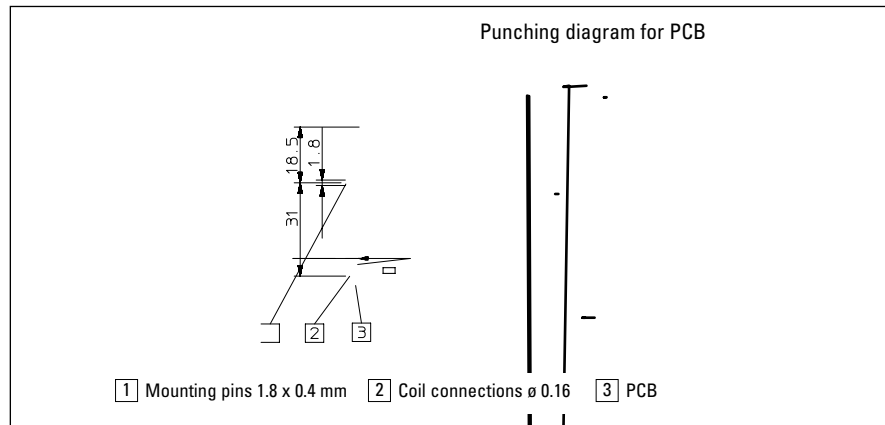
## Type W 16.50/W17.50



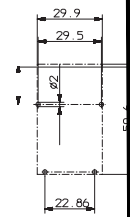
W 16.50 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.160.500.049.550	1.160.500.050.550		
DC (10 Imp/s)	1.160.500.012.550	1.160.500.013.550		
AC (10 Imp/s)		1.160.500.051.550	1.160.500.054.550	1.160.500.056.550

W 17.50 (7 digit)	12 V Art.-No.	24 V Art.-No.	115 V Art.-No.	230 V Art.-No.
DC (8 Imp/s)	1.740.500.049.550	1.740.500.050.550		
DC (10 Imp/s)	1.740.500.012.550	1.740.500.013.550		
AC (10 Imp/s)		1.740.500.051.550	1.740.500.054.550	1.740.500.056.550

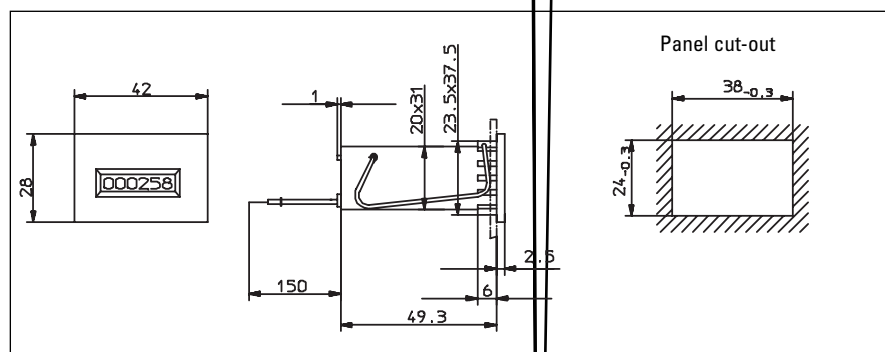
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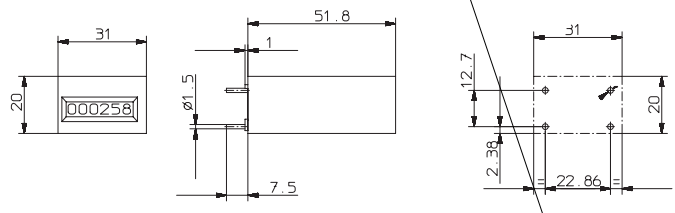
W 16.60 (6 digit)	12 V Art.-No.	24 V Art.-No.
DC (8 Imp/s)	1.160.601.049	1.160.601.050
DC (10 Imp/s)	1.160.601.012	1.160.601.013



## Type W 16.90/W 17.90



W 16.90 (6 digit)	12 V Art.-No.	24 V Art.-No.	115 V	230 V
DC (8 Imp/s)	1.160.701.049	1.160.701.050	-	-
DC (10 Imp/s)	1.160.701.012	1.160.701.013	-	-
AC (10 IMP/s)	-	-	1.160.900.054	1.160.900.056
W 17.90 (7 digit)	12 V Art.-No.	24 V Art.-No.	115 V	230 V
DC (8 Imp/s)	1.740.701.049	1.740.701.050		
DC (10 Imp/s)	1.740.701.012	1.740.701.013		
AC (10 IMP/s)			1.740.900.054	1.740.900.056



Display counter

