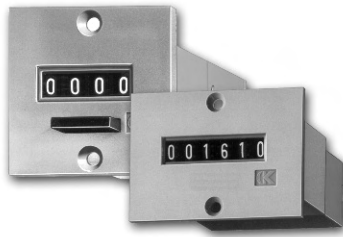


Standard Counters – Bk 14 / Bk 16



- BK 14, 4-digit totaliser with manual reset
- BK 16, 6-digit totaliser without reset
- Very high operating life (200 Mio. pulses)

Applications:

general counting, time, performance and rate measuring

Technical data:

Electrical connection:	tin plated round pins \varnothing 1.5 mm [0.059"] with push on connectors
Rated voltage:	type 0/1/a: 12/24/48/115/230 V DC \pm 10 % 24/48/115/230 V AC \pm 10 %
Colour of counter:	grey
Height of figures:	approx. 2 x 4 mm [0.079 x 0.158"]
Colour of figures:	white on black
Shaft:	stainless steel
Mounting position:	any
Operating life:	approx. 200 x 10 ⁶ pulses
Weight:	without reset 66 g [2.328 oz] with reset 70 g [2.469 oz]

Test voltage:	2000 V ~ effective, according to VDE 0435	
Shock resistance:	3 g at	10 Hz
	6 g at	15 Hz
	10 g	20 ... 300 Hz

Options:

- key-Locking zero-reset special key (Order code "vs", e.g. BK 14.11 vs)
- housing Colour black
- higher counting speed
- also with flying leads

Series:

6 digit without reset	4 digit with	Description
BK 16.10	BK 14.11	flush mount with 2 mounting holes
BK 16.20	BK 14.21	flush mount with spring clip

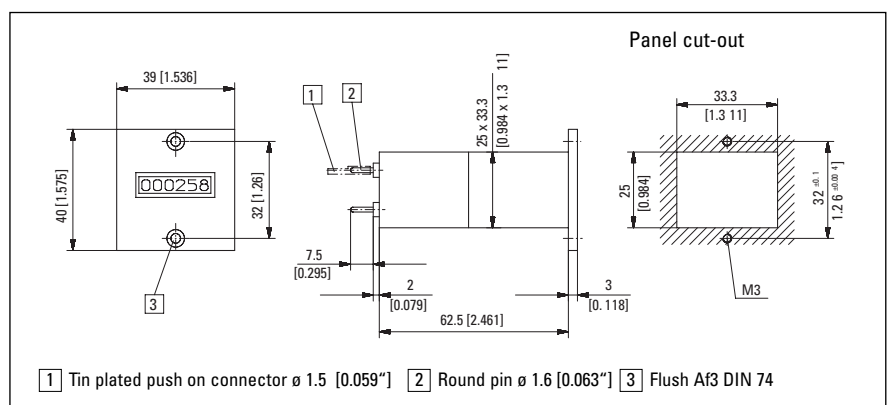
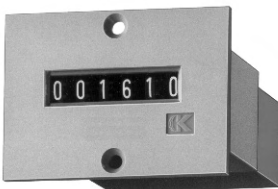
Order code:

- Article number
- At different voltages, please give type, voltage, kind of voltage and series e.g. BK 14.21, 12 V AC, type a.

Counting mechanism:

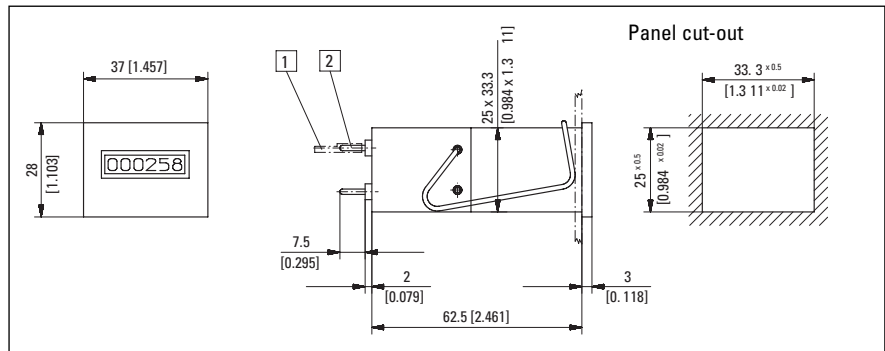
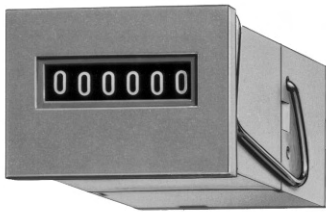
Voltage	Model	Max. pulse freq.	Min. pulse on time	Min. pulse interval	Pulse ratio	On-time	Power consumption	Max. ripple voltage	Ambient temperature °C [°F]
V DC	0	10/sec	60 ms	40 ms	3:2	100 %	approx. 1W	48 %	-10 ... [14 °F]
	1	25/sec	24 ms	16 ms	3:2	100 %	approx. 2W	48 %	+60 [140 °F]
V AC	a	18/sec	22.2 ms	33.3 ms	2:3	100%	approx. 2.9VA		-10 ... + 55 [14 ... 131 °F]

Type Bk 16.10



BK 16.10 (6-digit)	12 V	24 V	115 V	230 V
DC (10 Imp/s)	Art. no. 1.190.100.012	Art. no. 1.190.100.013		
DC (25 Imp/s)	Art. no. 1.190.100.032	Art. no. 1.190.100.033		
AC (18 Imp/s)		Art. no. 1.190.100.061	Art. no. 1.190.100.064	Art. no. 1.190.100.066

Type Bk 16.20

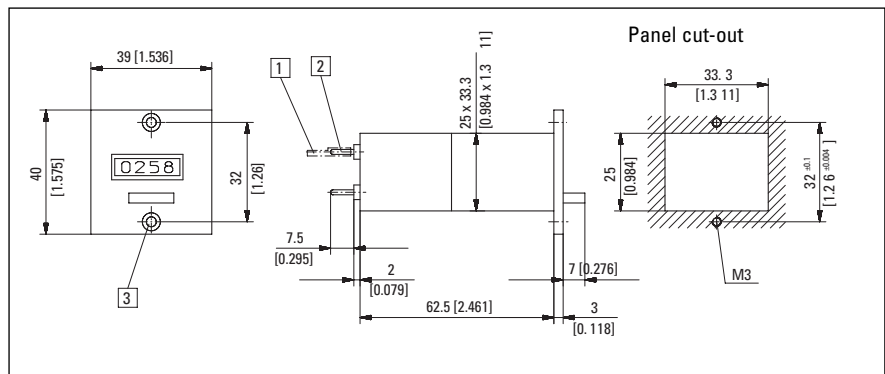
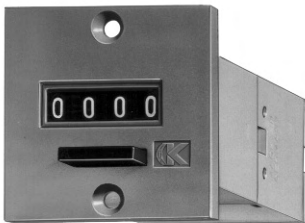


1 Tin plated push on connector \varnothing 1.6 [0.059"]

2 Round pin \varnothing 1.5 [0.059"] tin

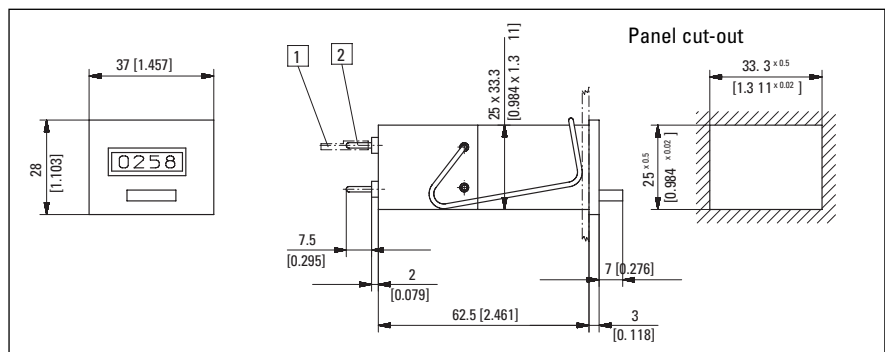
BK 16.20 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.190.200.012	1.190.200.013		
DC (25 Imp/s)	1.190.200.032	1.190.200.033		
AC (18 Imp/s)		1.190.200.061	1.190.200.064	1.190.200.066

Type Bk 14.11



BK 14.11 (4-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.180.110.012	1.180.110.013*		
DC (25 Imp/s)	1.180.110.032	1.180.110.033		
AC (18 Imp/s)		1.180.110.061	1.180.110.064	1.180.110.066

Type Bk 14.21



BK 14.21 (4-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.180.210.012	1.180.210.013*		
DC (25 Imp/s)	1.180.210.032	1.180.210.033		
AC (18 Imp/s)		1.180.210.061	1.180.210.064	1.180.210.066*

1 Tin plated push on connector \varnothing 1.6 [0.063"]

2 Round pin \varnothing 1.5 [0.059"]

*standard stock model

Standard Counters B 15 / B 16 / B 18, with and without reset



- B 15..1 and B 16..1, 5 resp. 6-digit totaliser with manual reset
- B 15..0, B 16..0 and B 18..0, 5, 6 and 8-digit totaliser without reset
- Counters without front panel fit into front frames F1B and F2B. The latter can accommodate combination of count with dimensions of 50 x 50 mm [1.969 x 1.969"]
- Can be combined with preset counter of Type series BVa and HVa.
- Very high operating life (200 Mio. pulses)

Applications:

counting number of pieces, events, periods

Technical data:

Electrical connection:	pin \varnothing 1.6 mm [0.063] with push on connector (count mechanism) for flying leads 0.5 ... 1.0 mm ² [322.58 x 645.16 square inch] flat pin 0.8x2.8 mm [0.315 x 0.11"] (socket box)		
Rated voltage:	type 0/1/a: 12/24/48/115/230 V DC \pm 10 % 24/48/115/230 V AC \pm 10 %		
Colour of counter:	grey		
Height of figures:	B 15	2.4 x 4.5 mm [0.094 x 0.177"]	
	B 16	2 x 4.5 mm [0.079 x 0.177"]	
	B 18	2 x 4 mm [0.079 x 0.158"]	
Colour of figures:	white on black		
Shaft:	stainless steel		
Mounting position:	any		
Operating life:	approx. 200 x 10 ⁶ pulses		
Weight:	without reset	81 g [2.857 oz]	
	with reset	83 g [2.928 oz]	
	socket box	14 g [0.494 oz]	
Test voltage:	2 000 V ~ effective, according to VDE 0435		
Accessories:			
Transparent cover:	Protection IP 55 according to DIN 400050 from front side when cover is closed. Gasket: oil and gasoline resistant synthetic rubber especially suitable for acids and electrolytes, good resistance to ageing		

Options:

– Colour of housing: black (For Art. no. ref. to type)
– Electr. connection at counter: flat pins 0.8 x 2.8 mm [0.315 x 1.102"] with push on connectors Art. no. 1.2X7.XXX.XXX
– Screw terminal 1.2.XXX.XXX.023
– Connection with flying leads
– Extended temperature range
– Key locking zero reset
– Reset only from backside Art. no. 1.2XX.XXX.XXX.024
– Knob locking with transparent cover
a.) Counter with front bezel size No. 3 Art. no. 1.2X0.7XX.XXX
b.) Counter with front frame F 1 Art. no. 1.2X1.7XX.XXX
– Knob locking with transparent cover
a.) Counter with front bezel size No. 3 Art. no. 1.2X0.8XX.XXX.XXX
– Flexible sealing cover K 1 (IP 54)
a.) Counter with front bezel size No. 3 Art. no. 1.2X0.6XX.XXX
– Key for reset: G050 265

Series:

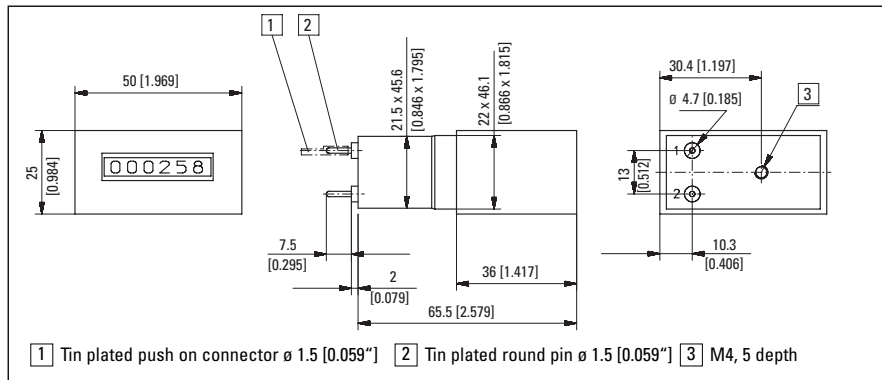
without reset		with reset		Description:
6-digit	8-digit	5-digit	6-digit	
16.00	B 18.00	–	B 16.01	without front bezel, rear mounting plugs into socket box 945.2
B 16.10	B 18.10	B 15.11	B 16.11	panel mount front bezel size No. 1, 2 mounting holes
B 16.20	B 18.20	B 15.21	B 16.21	panel mount with spring clip fastening
B 16.30	B 18.30	–	B 16.31	panel mount front bezel size No. 3, 2 mounting holes
F1 B 16.00	F1 B 18.00	–	F1 B 16.01	panel mount, plugs into frame F1 with socket box 945.2
			Dv B 16.31	panel mount front bezel size No. 3, knob locking transparent cover
			F1 Dv B 16.01	panel mount front frame F1, knob locking transparent cover
			Dvs B 16.31	panel mount, front bezel size No. 3, key locking with transparent cover
			F1 Dvs B 16.01	panel mount front frame F1, key locking transparent cover
			K1 B 16.31	panel mount, front bezel size No. 3, flexible sealing cover K1

Count mechanism:

Voltage	Model	Max. pulse freq.	Min. pulse on time	Min. pulse interval	Pulse ratio	On time	Power consumption	Max. perm ripple voltage	Ambient temperature °C*	Order code:
V DC	0	10/sec	60 ms	40 ms	3:2	100 %	approx. 1W	48 %	-10 [14 °F]	– Article number
	1	25/sec	24 ms	16 ms	3:2	100 %	approx. 2W	48 %	+60 [140 °F]	– For special voltages, please give type, voltage, kind of voltage and series e.g. B 16.31, 4.5 V DC, 0.
V AC	a	18/sec	22.2 ms	33.3 ms	2:3	100%	approx. 29VA		-10 ... + 55 [14 ... 131°F]	

*non-condensing

Type B 16.00

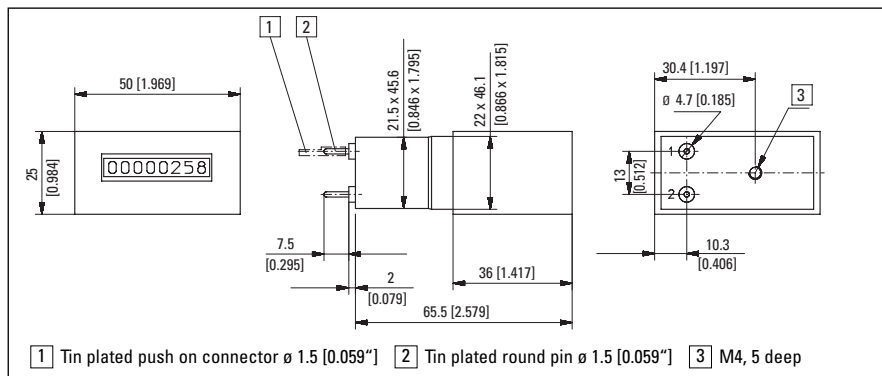


B 16.00 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.002.012	1.230.002.013		
DC (25 Imp/s)	1.230.002.032	1.230.002.033		
AC (18 Imp/s)		1.230.002.061	1.230.002.064	1.230.002.066

Standard colour: beige

Colour of housing black:
Art. no. 1.230.001.XXX

Type B 18.00



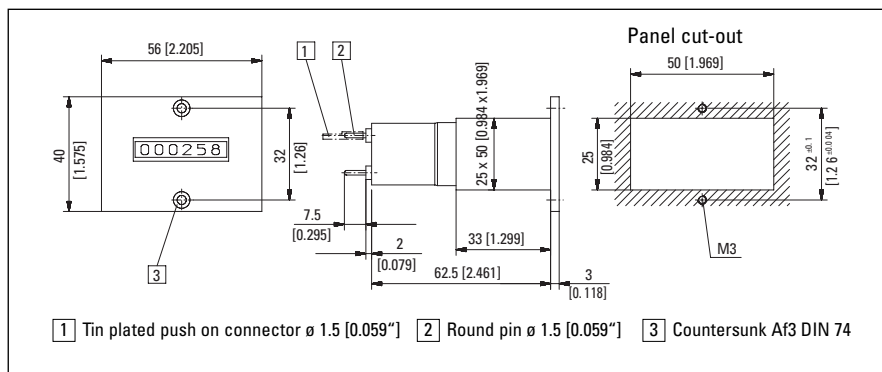
B 18.00 (8-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.260.002.012	1.260.002.013*		
DC (25 Imp/s)	1.260.002.032	1.260.002.033*		
AC (18 Imp/s)		1.260.002.061	1.260.002.064	1.260.002.066

Standard colour: beige

Colour of housing black:
Art. no. 1.260.001.XXX

Further stock models: 1.260.001.013

Type B 16.10

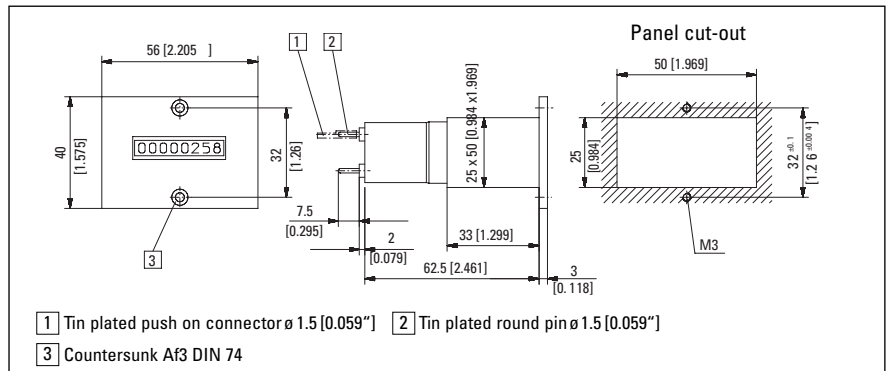
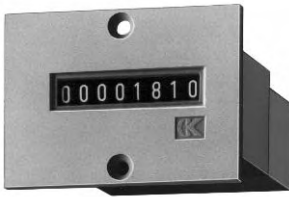


B 16.10 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.100.012	1.230.100.013		
DC (25 Imp/s)	1.230.100.032	1.230.100.033		
AC (18 Imp/s)		1.230.100.061	1.230.100.064	1.230.100.066

Standard colour: grey

*standard stock model

Type B 18.10

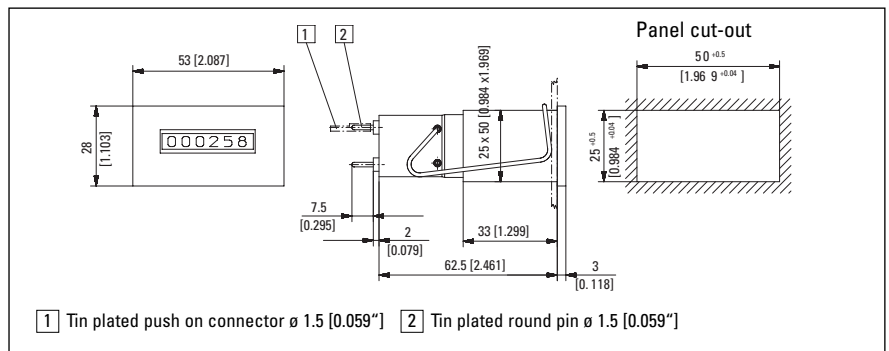


B 18.10	12 V	24 V	115 V	230 V
(8-digit)	Art. no.	Art. no.	Art. no.	Art. no.
DC (10 Imp/s)	1.260.100.012	1.260.100.013*		
DC (25 Imp/s)	1.260.100.032	1.260.100.033*		
AC (18 Imp/s)		1.260.100.061	1.260.100.064	1.260.100.066

Standard colour: grey

Colour of housing black:
Art. no. 1.260.101.XXX

Type B 16.20



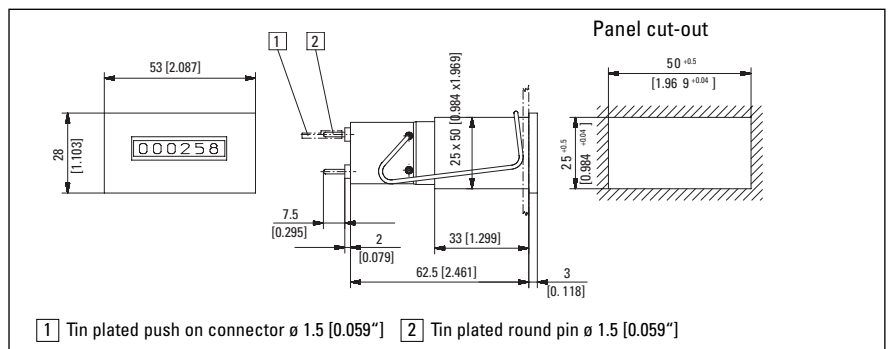
B 16.20	12 V	24 V	115 V	230 V
(6-digit)	Art. no.	Art. no.	Art. no.	Art. no.
DC (10 Imp/s)	1.230.200.012	1.230.200.013*		
DC (25 Imp/s)	1.230.200.032	1.230.200.033*		
AC (18 Imp/s)		1.230.200.061	1.230.200.064	1.230.200.066

Standard colour: grey

Colour of housing black:
Art. no. 1.230.201.XXX

Further stock models
1.237.201.066 230 V AC/a flat pins

Type B 18.20



B 18.20	12 V	24 V	115 V	230 V
(8-digit)	Art. no.	Art. no.	Art. no.	Art. no.
DC (10 Imp/s)	1.260.200.012	1.260.200.013*		
DC (25 Imp/s)	1.260.200.032	1.260.200.033*		
AC (18 Imp/s)		1.260.200.061	1.260.200.064	1.260.200.066*

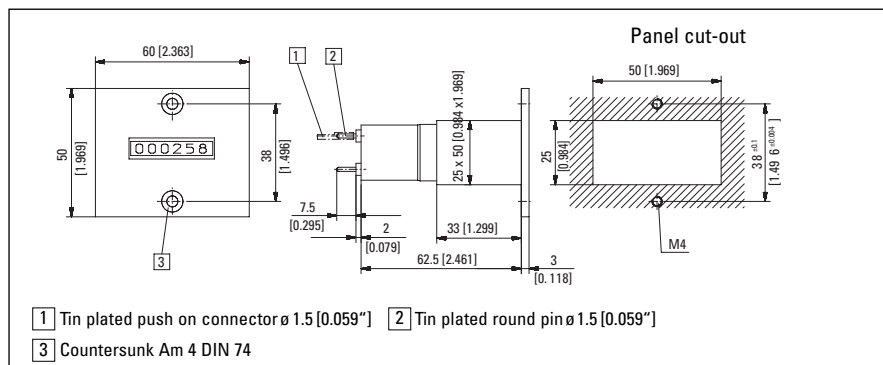
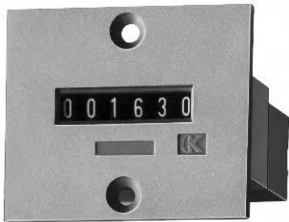
Standard colour: grey

Colour of housing black:
Art. no. 1.260.201.XXX

Further stock models
1.260.201.013, 1.260.201.066

*standard stock model

Type B 16.30

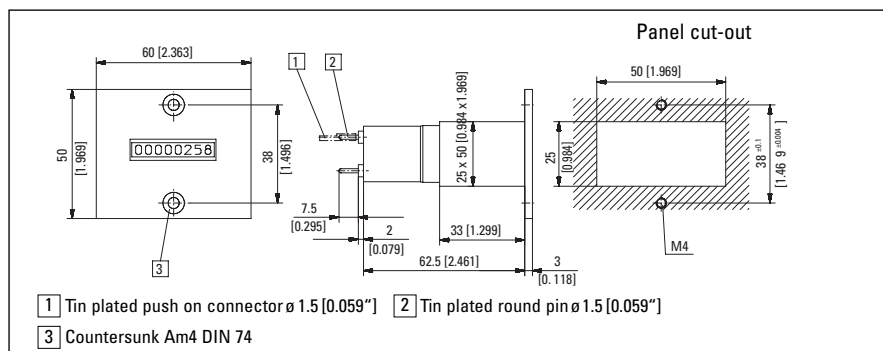


B 16.30 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.300.012	1.230.300.013		
DC (25 Imp/s)	1.230.300.032	1.230.300.033		
AC (18 Imp/s)		1.230.300.061	1.230.300.064	1.230.300.066

Standard colour: grey

Colour of housing black:
Art. no. 1.230.301.XXX

Type B 18.30

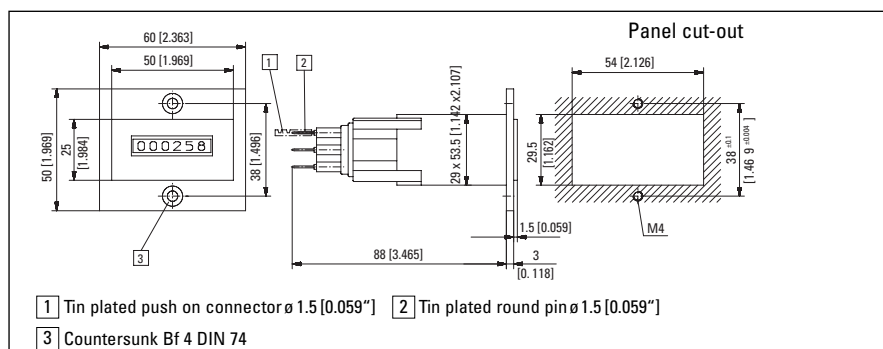


B 18.30 (8-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.260.300.012	1.260.300.013		
DC (25 Imp/s)	1.260.300.032	1.260.300.033		
AC (18 Imp/s)		1.260.300.061	1.260.300.064	1.260.300.066

Standard colour: grey

Colour of housing black:
Art. no. 1.260.301.XXX

Type F1 B 16.00

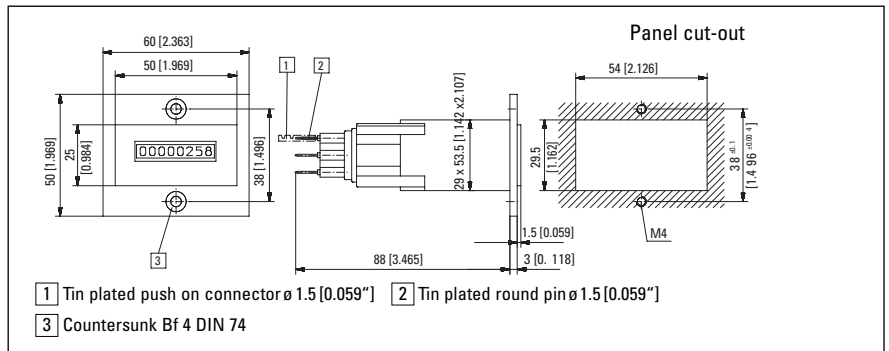


F1 B 16.00 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.231.502.012	1.231.502.013		
DC (25 Imp/s)	1.231.502.032	1.231.502.033		
AC (18 Imp/s)		1.231.502.061	1.231.502.064	1.231.502.066

Standard colour: beige

Colour of housing black:
Art. no. 1.231.501.XXX

Type F1 B 18.00

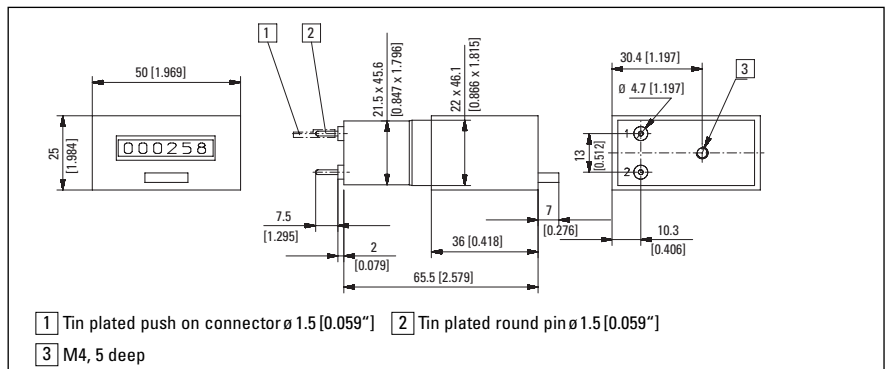


F1 B 18.00 (8-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.261.502.012	1.261.502.013		
DC (25 Imp/s)	1.261.502.032	1.261.502.033		
AC (18 Imp/s)		1.261.502.061	1.261.502.064	1.261.502.066

Standard colour: beige

Colour of housing black:
Art. no. 1.261.501.XXX

Type B 16.01



B 16.01 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.012.012	1.230.012.013*		
DC (25 Imp/s)	1.230.012.032	1.230.012.033*		
AC (18 Imp/s)		1.230.012.061	1.230.012.064	1.230.012.066*

*standard stock model

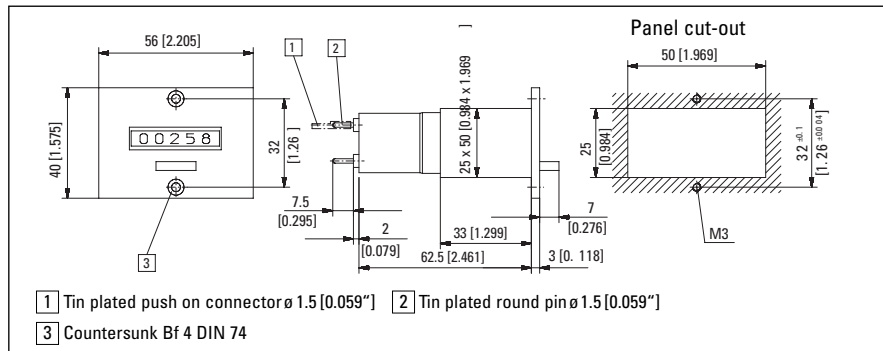
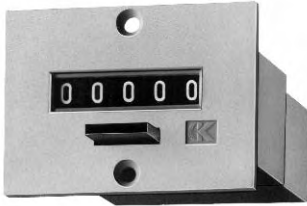
Standard colour: beige

Colour of housing black:
Art. no. 1.230.011.XXX

Additional stock models:

1.230.011.013	24 V DC/0 bw
1.230.011.033	24 V DC/1 bw
1.230.011.066	230 V AC/a bw

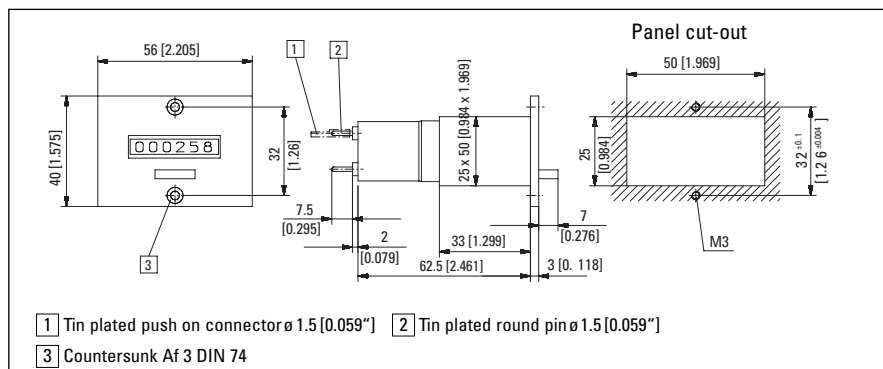
Type B 15.11



B 15.11 (5-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.200.110.012	1.200.110.013		
DC (25 Imp/s)	1.200.110.032	1.200.110.033		
AC (18 Imp/s)		1.200.110.061	1.200.110.064	1.200.110.066

Standard colour: grey

Type B 16.11



B 16.11 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.110.012	1.230.110.013*		
DC (25 Imp/s)	1.230.110.032	1.230.110.033*		
AC (18 Imp/s)		1.230.110.061*	1.230.110.064*	1.230.110.066*

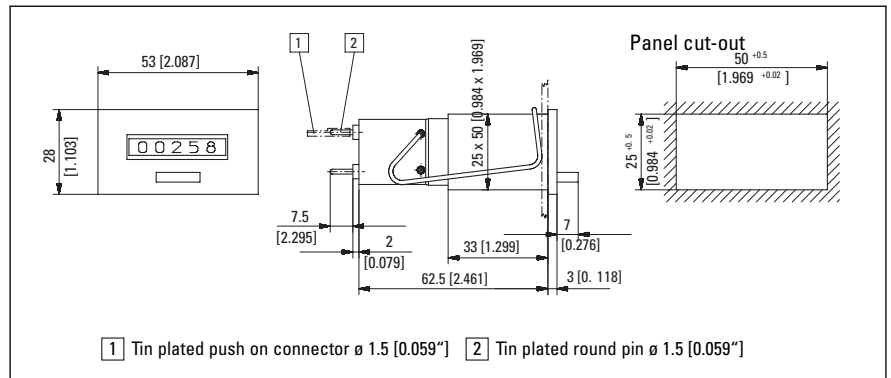
Standard colour: grey

Colour of housing black:
Art. no. 1.230.111.XXX

Additional stock models:
1.230.011.033 24 V DC/1 sw

*standard stock model

Type B 15.21

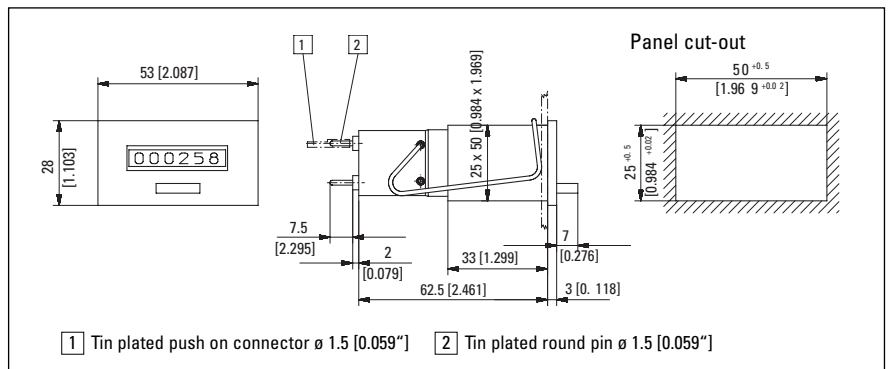


B 15.21 (5-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.200.210.012	1.200.210.013*		
DC (25 Imp/s)	1.200.210.032	1.200.210.033		
AC (18 Imp/s)		1.200.210.061	1.200.210.064	1.200.210.066

Standard colour: grey

*standard stock model

Type B 16.21



B 16.21 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.210.012*	1.230.210.013*		
DC (25 Imp/s)	1.230.210.032	1.230.210.033*		
AC (18 Imp/s)		1.230.210.061	1.230.210.064	1.230.210.066*

Standard colour: grey

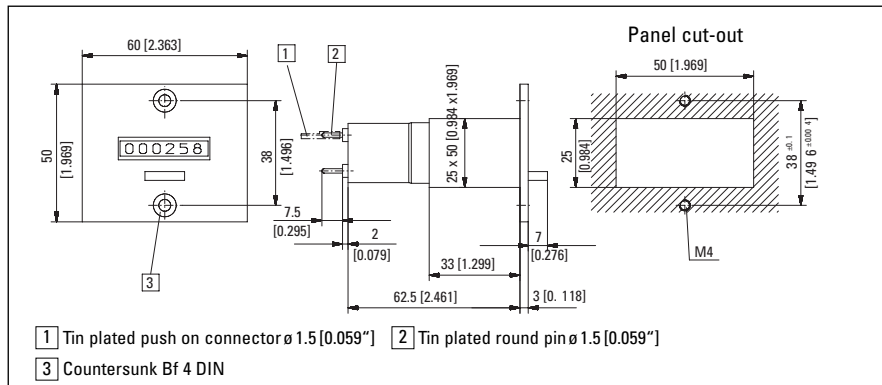
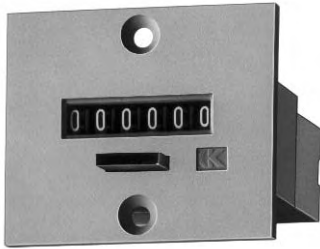
Colour of housing black:
 Art. no. 1.230.211.XXX

Further stock models:

- 1.230.211.013 24 V DC/0 sw
- 1.230.211.033 24 V DC/1 sw
- 1.230.211.066 230 V AC/a sw
- 1.230.217.013 24 V DC/0 sw vs
- 1.237.211.066 230 V AC/a sw
- 1.237.201.066 230 V AC/a sw flat pin

*standard stock model

Type B 16.31



B 16.31 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.230.310.012	1.230.310.013*		
DC (25 Imp/s)	1.230.310.032	1.230.310.033		
AC (18 Imp/s)		1.230.310.061	1.230.310.064	1.230.310.066

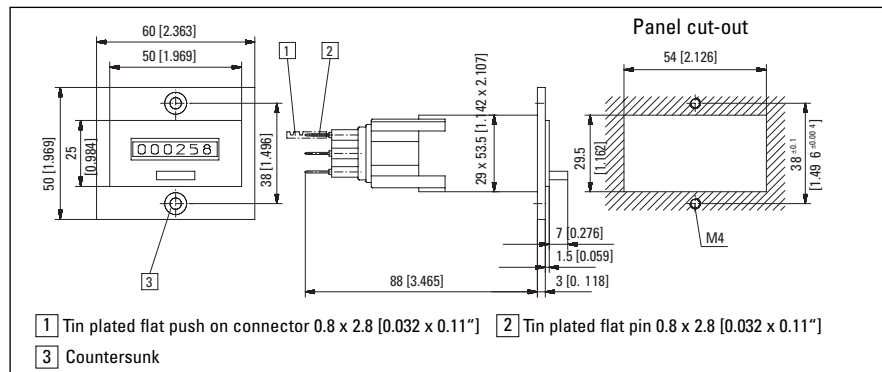
*standard stock model

Standard colour: grey

Colour of housing black:
Art. no. 1.230.311.XXX

Further stock models:
1.237.310.066 230 V AC/a flat pin

Type F1 B 16.01



F1 B 16.01 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.231.512.012	1.231.512.013		
DC (25 Imp/s)	1.231.512.032	1.231.512.033		
AC (18 Imp/s)		1.231.512.061	1.231.512.064	1.231.512.066

Standard colour: beige

Colour of housing black:
Art. no. 1.231.511.XXX



B 15.21 vs



Dvs B 16.31



Dv B 16.31

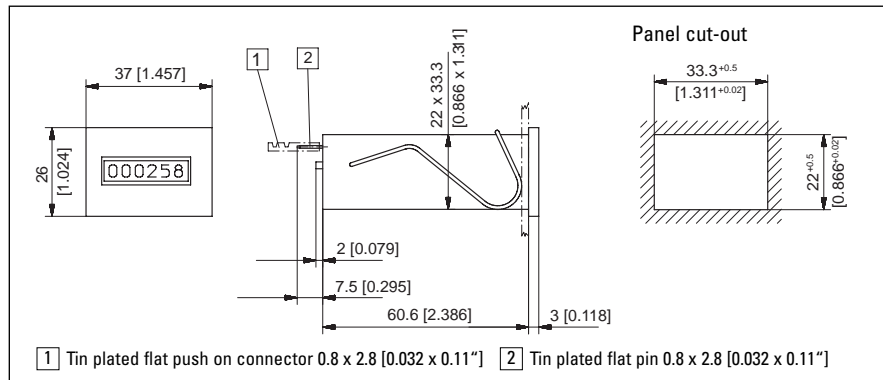


K1B 15.31



945.2

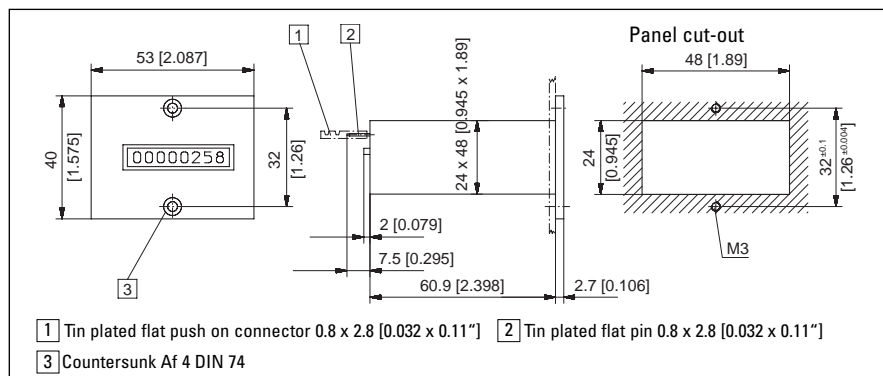
Type Mk 16.20



MK 16.20 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.330.200.012	1.330.200.013		
DC (25 Imp/s)	1.330.200.032	1.330.200.033		
AC (18 Imp/s)		1.330.200.061	1.330.200.064	1.330.200.066

Colour of housing black:
Art. no. 1.330.201.XXX

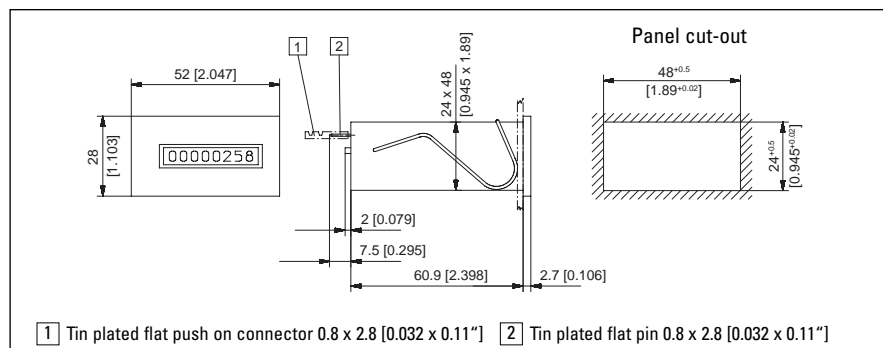
Type Mk 18.10



MK 18.10 (8-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.360.100.012	1.360.100.013		
DC (25 Imp/s)	1.360.100.032	1.360.100.033		
AC (18 Imp/s)		1.360.100.061	1.360.100.064	1.360.100.066

Colour of housing black:
Art. no. 1.360.101.XXX

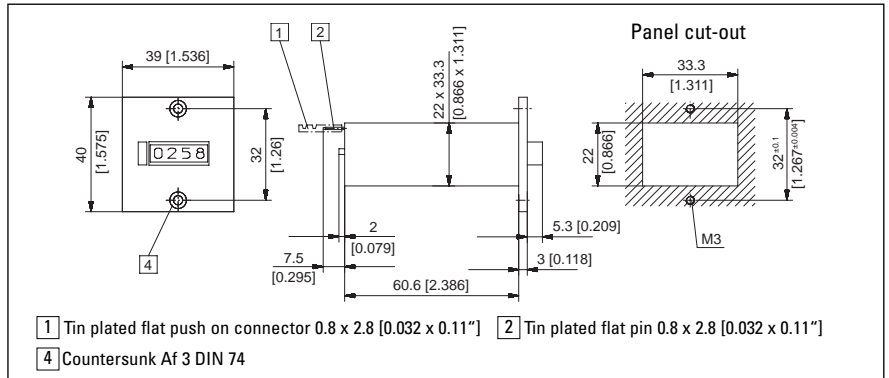
Type Mk 18.20



MK 18.20 (8-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.360.200.012	1.360.200.013		
DC (25 Imp/s)	1.360.200.032	1.360.200.033		
AC (18 Imp/s)		1.360.200.061	1.360.200.064	1.360.200.066

Colour of housing black:
Art. no. 1.360.201.XXX

Type Mk 14.11

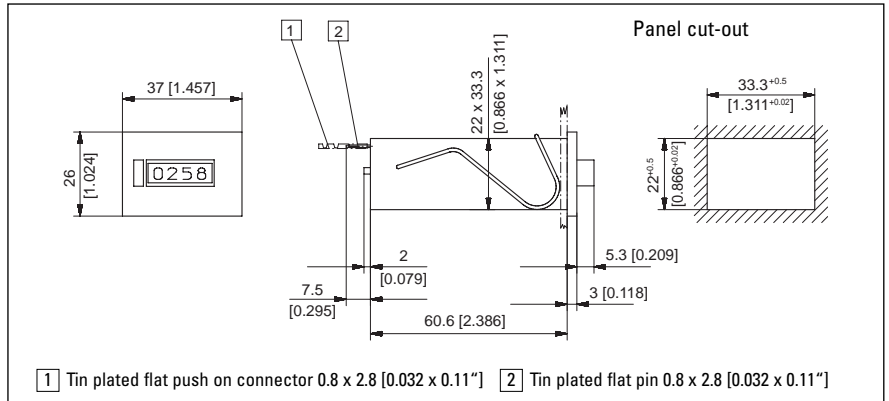


manual 0 reset

MK 14.11 (4-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.310.110.012	1.310.110.013		
DC (25 Imp/s)	1.310.110.032	1.310.110.033		
AC (18 Imp/s)		1.310.110.061	1.310.110.064	1.310.110.066

Colour of housing black:
Art. no. 1.310.111.XXX

Type Mk 14.21

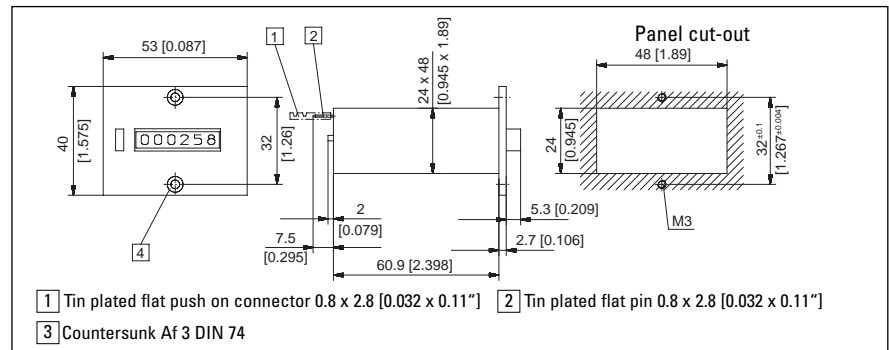
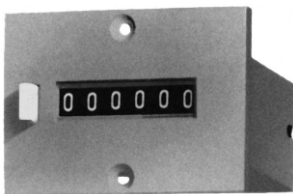


manual 0 reset

MK 14.21 (4-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.310.210.012	1.310.210.013		
DC (25 Imp/s)	1.310.210.032	1.310.210.033		
AC (18 Imp/s)		1.310.210.061	1.310.210.064	1.310.210.066

Colour of housing black:
Art. no. 1.310.211.XXX

Type Mk 16.11

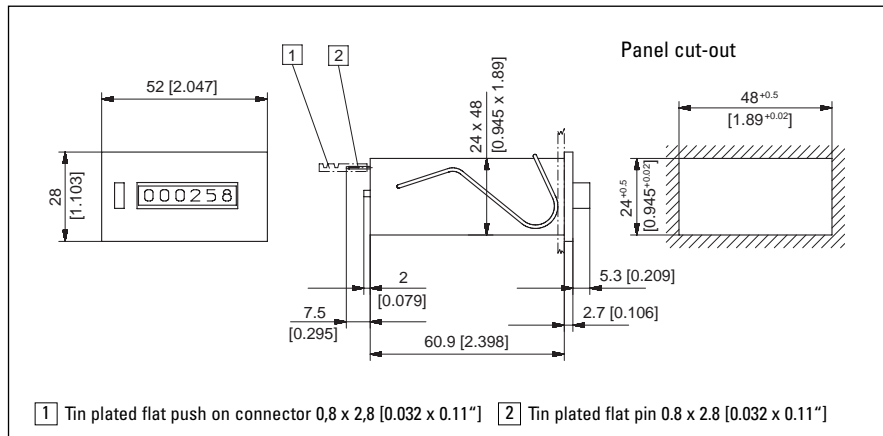


manual 0 reset

MK 16.11 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.340.110.012	1.340.110.013		
DC (25 Imp/s)	1.340.110.032	1.340.110.033		
AC (18 Imp/s)		1.340.110.061	1.340.110.064	1.340.110.066

Colour of housing black:
Art. no. 1.340.111.XXX

Type Mk 16.21

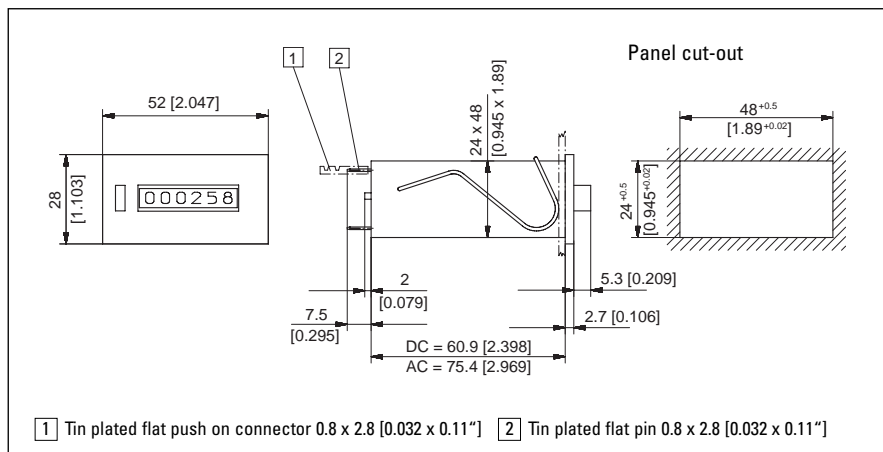


manual 0 reset

MK 16.21 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.340.210.012	1.340.210.013		
DC (25 Imp/s)	1.340.210.032	1.340.210.033		
AC (18 Imp/s)		1.340.210.061	1.340.210.064	1.340.210.066

Colour of housing black:
Art. no. 1.340.211.XXX

Type Mk 16.23



manual and electrical 0 reset

MK 16.23 (6-digit)	12 V Art. no.	24 V Art. no.	115 V Art. no.	230 V Art. no.
DC (10 Imp/s)	1.340.230.012	1.340.230.013		
DC (25 Imp/s)	1.340.230.032	1.340.230.033		
AC (18 Imp/s)		1.340.230.061	1.340.230.064	1.340.230.066

Colour of housing black:
Art. no. 1.340.231.XXX