

Standard Counters – Mk 14 / Mk 16 / Mk 18



- 6- or 8-digit totaliser without zero reset
- 4- or 6-digit totaliser with manual, electrical or manual and electrical reset
- Integrated electrical 0-reset fitted for MK 16
- MK 14: electrical 0-reset to the rear side of counter

Applications:

registering of pieces, units, events, periods of time

Technical data:

Count mechanism:	
Electrical connection:	flat pin 0.8 x 2.8 mm [0.032 x 0.11"] with tab receptacles
Rated voltage:	12/24/48/60/115/230 V DC ±10 % 24/48/60/115/230 V AC ± 10 %
Height of figures:	4 mm [0.158"]
Housing:	Makrolon, colour grey, similar to RAL 7001
Colour of figures:	white on black
Shaft:	stainless steel
Mounting position:	any
Operating life:	approx. 200 x 10 ⁶ pulses
Weights:	zero reset manual electrical MK 14 85 g [2.998 oz] 145 g [5.115 oz] MK 16 100 g [3.527 oz] 140 g [4.938 oz]
Test voltage:	2000 V - effective
Acceleration influence:	3 g up to 10 Hz 6 g up to 15 Hz independent of 10 g 20 – 300 Hz position

Reset magnet:	
Power consumption:	approx. 9 W at DC approx. 12 VA at AC
Rated voltage:	12/24/48/60/115/230 V DC ± 10 % 24/48/60/115/230 V AC ± 10 %
Permissible residual ripple:	max. 48 %
Min. pulse time:	0.25 sec, during 0.3 sec no count pulse is allowed.
Cycle duration factor:	15 %, max. 1,0 min at MK 16 10 %, max. 40 sec at MK 14
Options:	– Extended temperature range

Type Series:

zero reset without		zero reset manual		zero reset man. + electr.		description
6-digit	8-digit	4-digit	6-digit	4-digit	6-digit	
–	MK 18.10	MK 14.11	MK 16.11	–	–	panel mount 2 screw holes
MK 16.20	MK 18.20	MK 14.21	MK 16.21	–	MK 16.23	panel mount with spring clip

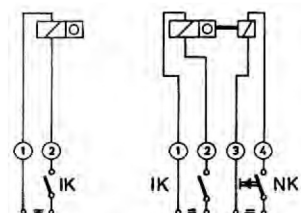
Order code
– Article number
– For special voltages, please give type, voltage, kind of voltage and series e.g. MK 16.21, 48 V AC, type a.

Count mechanism:

voltage	Mo- del	Max. pulse freq.	Min. pulse on time	Min. pulse interval	Pulse ratio	On time	Power consump- tion	Max. perm ripple voltage	Ambient. temperature °C*
V DC	0	10/sec	64 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 %	+45 [113 °F]
V AC	a	18/sec	22.2 ms	33.3 ms	2:3	100%	approx. 2.9VA	-	-10 ... + 45 [14 ... 113 °F]

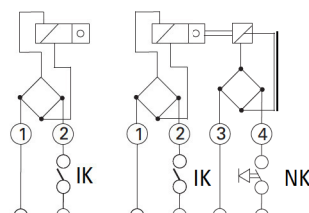
*non-condensing

Connection diagram: (type: 0 u.1, DC)



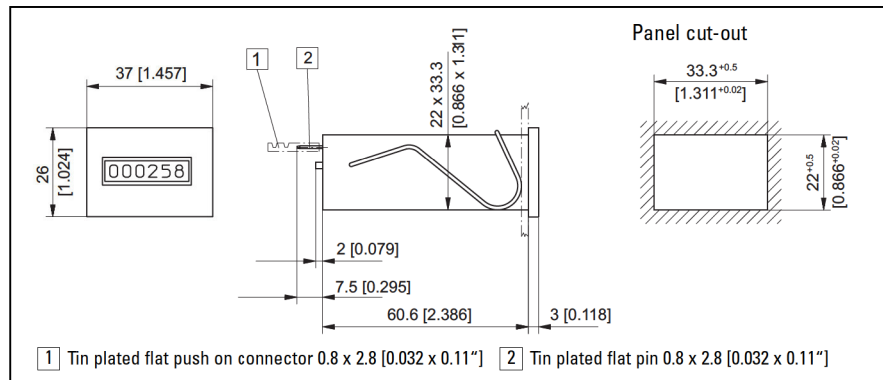
IK = Pulse contact NK = 0 contact

(type: a, AC)



IK = Pulse contact NK = 0 contact

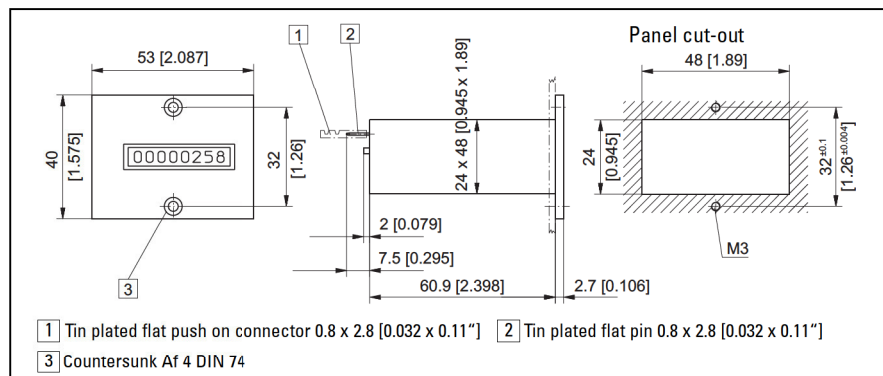
Type Mk 16.20



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

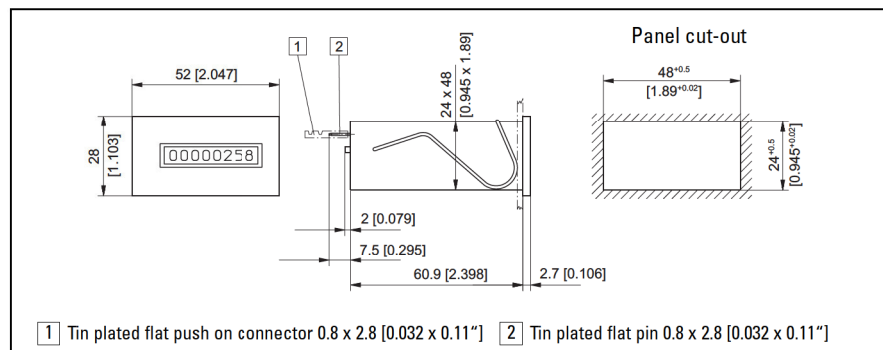
Type Mk 18.10



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

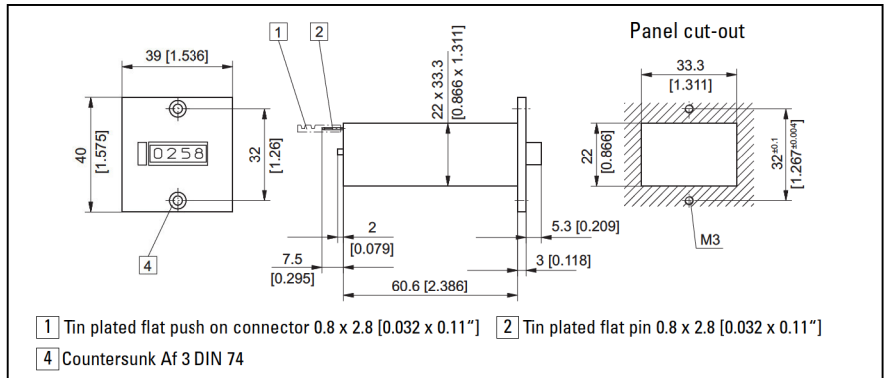
Type Mk 18.20



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

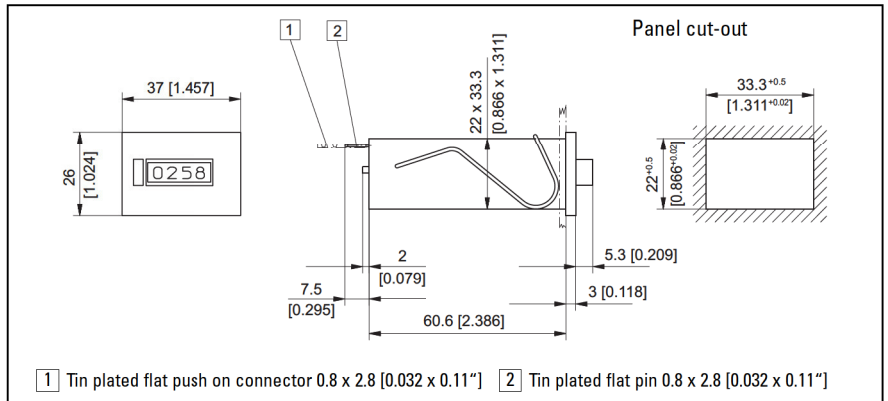


manual 0 reset

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

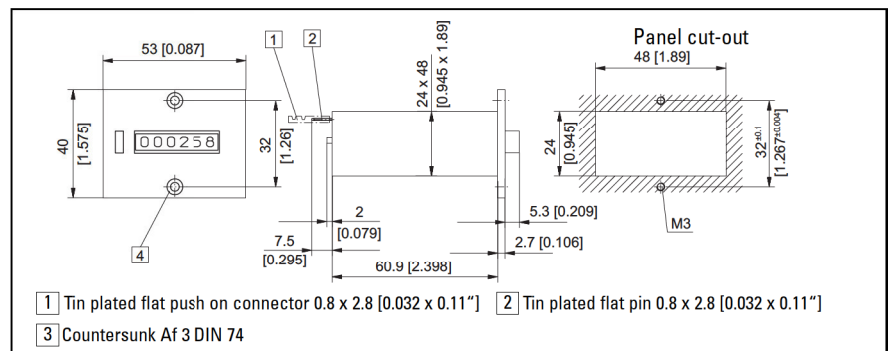


manual 0 reset

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

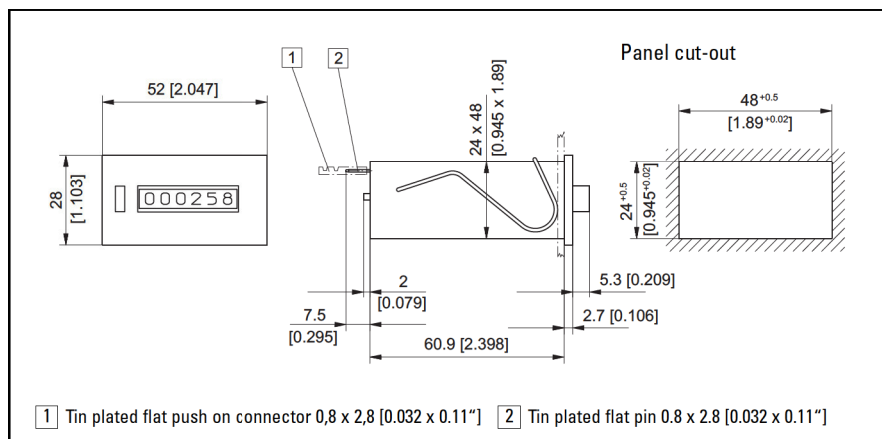


manual 0 reset

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

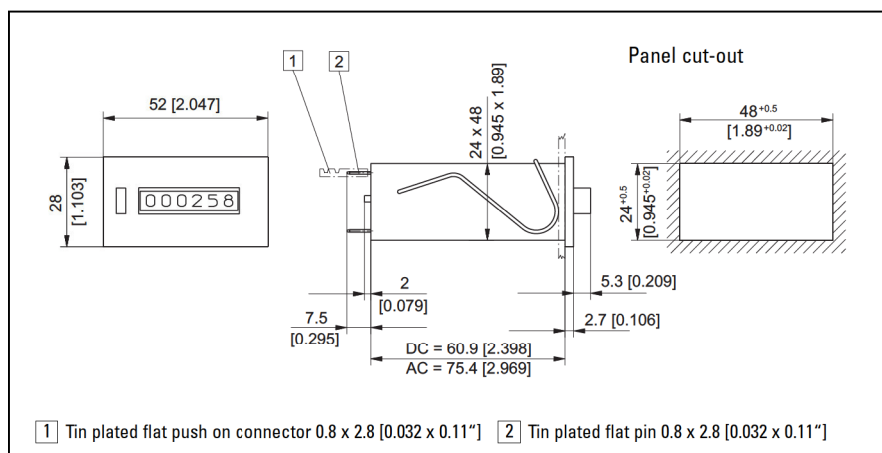


manual 0 reset

MK 16.21	12 V	24 V	115 V	230 V
(6-digit)	Art. no.	Art. no.	Art. no.	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	12 V	24 V	115 V	230 V
(6-digit)	Art. no.	Art. no.	Art. no.	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