

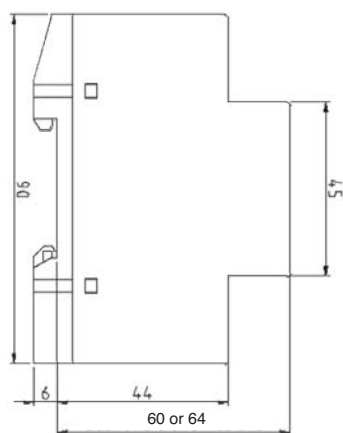
Pulse counters for DIN rail mounting, for AC or DC, overall height 60 mm or 64 mm

Electromechanical pulse counters register quantities and therefore document production results or operating cycles. These are units for DIN-rail mounting with overall height of 60 or 64 mm.



type 663.6, 663.7, 668.6, 668.7

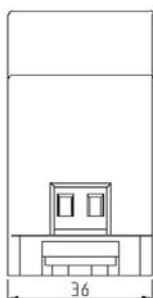
AC	DC	overall height in mm		»Lift«-terminal connection
		60	64	
663.6	668.6	■		■
663.7	668.7		■	■



drawing



type 663.6, 663.7, 668.6, 668.7



type 663.6, 663.7, 668.6, 668.7

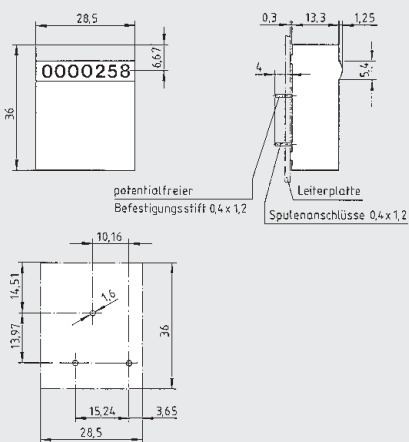
Technical specifications:

	AC	DC
housing:	plastic light grey RAL 7035	plastic light grey RAL 7035
gearing:	plastic	plastic
counting range:	9999999	9999999
max. frequency:	10 pulses/sec. max. duty cycle 100 %	10 pulses/sec. max. duty cycle 100 %
digits:	1,8 x 3,6 mm, white on black, decimals black on white	1,8 x 3,6 mm, white on black, decimals black on white
voltages:	115 or 230 V AC	12 - 24 V DC
special voltages: (additional charge)	24, 48, 400 V AC	on request
voltage tolerance:	±10 %	±10 %
frequency:	50 or 60 Hz (on request 20 to 100 Hz)	
power consump.:	< 2 VA	< 1 VA
protection (front):	IP 65, screws IP 20	IP 65, screws IP 20
ambient temp.:	- 10 ° C to + 70° C	- 10 ° C to + 70° C
stocking temp.:	- 40 ° C to + 80° C	- 40 ° C to + 80° C
elec. connection:	Terminal Blocks (lift principle) with Philips-Head-Screw (+/- screw) in combination with slotted screw with 3 mm screwdriver size, 0-2.5 mm ² fine wire or 0-4 mm ² single wire	Terminal Blocks (lift principle) with Philips-Head-Screw (+/- screw) in combination with slotted screw with 3 mm screwdriver size, 0-2.5 mm ² fine wire or 0-4 mm ² single wire
max. torque:	0,5 Nm	0,5 Nm
vibration resist.:	1 g (10...500 Hz) acc. to EN 60068-2-34	1 g (10...500 Hz) acc. to EN 60068-2-34
shock resistance:	30 g (18 ms) acc. to EN 60068-2-27 25 g (6 ms) acc. to EN 60068-2-29	30 g (18 ms) acc. to EN 60068-2-27 25 g (6 ms) acc. to EN 60068-2-29
EMC:	EN 55011, EN 61000-6-2	EN 55011, EN 61000-6-2
industrial norm:	EN 61010, protection class II	EN 61010, protection class II
reset:	without	without
weight:	approx. 75 g	approx. 75 g
approval:	CE, UL, cUL	CE, UL, cUL
fixing:	snap-on fixing for DIN-rail according to DIN EN 50022	snap-on fixing for DIN-rail according to DIN EN 50022

Electromechanical pulse counters



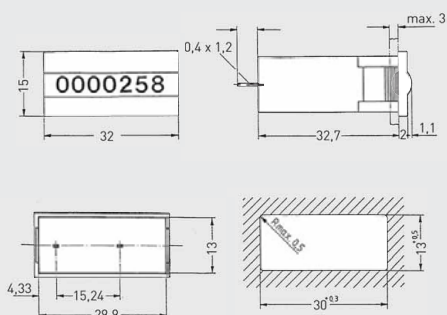
type 128



type 128



type 129



type 129

Mini pulse counters for printed circuit or front panel mounting, 5 - 24 V DC, 36 x 28,5 mm, 32 x 15 mm

Special features:

- mini pulse counter in solder and water-proof version
- highly shock and vibration resistant
- well suited for battery operation and electronic circuit
- low current consumption

type	printed circuit counter washable	front panel mounting (snap-in fixing max. 3 mm)
128	■	
129		■

Options:

- type 128 – indication visible on face (on request)
- type 129 – for large quantities also available in 12, 24, 110 or 230VAC (on request)
- 6 digit variant with smaller housing dimensions (on request for large quantities)

Technical specifications:

	DC
reset:	no
counting range:	7 digits
character height:	4 mm (with lens)
operating voltages:	5, 12, 24 V DC
voltage tolerance:	±10 %
duty cycle:	100 %
counting frequency:	10 pulses/s (25 I/s = 24 V DC)
mean power consumption:	70 mW at 5 - 12 V DC, 250 mW at 24 V DC
protection class (DIN 40050):	type 128: IP 65, type 129: IP 65 (front)
ambient temperature:	-10 °C to +60 °C (option: to +85 °C)
electr. connections:	soldered conn. 0,4 x 1,2 mm
maintenance-free operation:	> 50 x 10 ⁶ pulses
approval:	CE
weight:	15 - 18 g

■ Electromechanical pulse counters

Pulse counters, for AC or DC, with or without reset, 36 x 24 mm

Description:

- adding counter, black plastic housing, fixing via a spring wire bracket



type 170

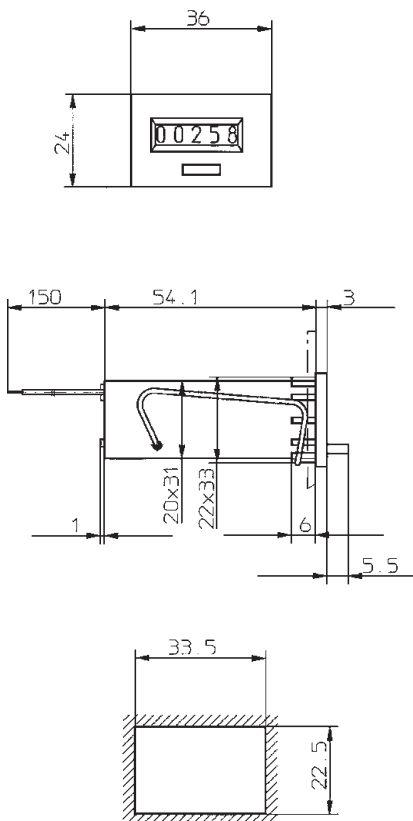


type 171

type	without reset	with reset	display
170	■		6 digit
171		■	5 digit

Technical specifications:

	AC	DC
voltages:	230 V AC	24 V DC
digits:	1,7 x 4 mm, white on black	1,7 x 4 mm, white on black
voltage tolerance:	±10 %	±10 %
frequency/ residual ripple:	50/60 Hz	≥ 48 %
testing speed:	10 pulses/sec.	10 pulses/sec.
pulse-/break duration:	50/50 msec.	50/50 msec.
power consumption:	1,5 VA	0,5 W
duration of operation at 25 °C:	100 %	100 %
ambient temperature:	-10 °C to +50 °C	-10 °C to +50 °C
maintenance-free oper.:	> 50 x 10 ⁶ pulses	> 50 x 10 ⁶ pulses
approval:	CE	CE
protection class :	type 170: IP 51 (front) type 171: IP 50 (front)	type 170: IP 51 (front) type 171: IP 50 (front)
electrical connection:	flex approx. 150 mm long	flex approx. 150 mm long
weight:	approx. 50 g	approx. 50 g



drawing type 170, 171

Electromechanical pulse counters



type 180



type 181

Pulse counters, for AC or DC, with or without reset, 53 x 28 mm

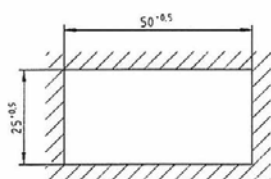
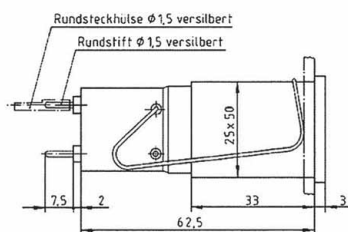
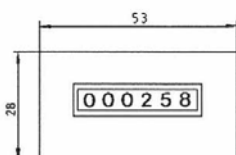
Description:

- adding counter, black plastic housing, fixing via a spring wire bracket

type	without reset	with reset	display
180	■		6 digit
181		■	6 digit

Technical specifications:

	AC	DC
voltages:	230 V AC	24 V DC
digits:	2 x 4,5 mm, white on black	2 x 4,5 mm, white on black
voltage tolerance:	±10 %	±10 %
frequency/ residual ripple:	50/60 Hz	≥ 48 %
testing speed:	18 pulses/sec.	25 pulses/sec.
pulse-/break duration:	2 : 3	3 : 2
minim. pulse duration:	22,2 ms	24 ms
power consumption:	2,9 VA	2 W
duration of operation at 25 °C:	100 %	100 %
ambient temperature:	-10 °C to +55 °C	-10 °C to +60 °C
maintenance-free oper.:	> 50 x 10 ⁶ pulses	> 50 x 10 ⁶ pulses
approval:	CE	CE
protection class :	type 180: IP 52 (front) type 181: IP 50 (front)	type 180: IP 52 (front) type 181: IP 50 (front)
electrical connection:	silver-bladed round pins ø 1,6 mm with plug bushes	silver-bladed round pins ø 1,6 mm with plug bushes
weight:	approx. 100 g	approx. 100 g



drawing type 180, 181