

Datasheet

Electronic meter counter with measuring display and V-profile-guidance.

Features at a glance

- Electronic length measuring system including electronic measuring display in modular design.
- Measurement of linear movements directly on the surface of running materials.
- Measurement is performed by a measuring wheel with a circumference of 200 mm.
- Incremental magnetic sensor or magnetic ring for rotary distance measurement (length).
- Robust design with easy replacement of the measuring wheels.
- Programmable measuring display: counting direction, change between incremental and absolute measurement, scaling factor adjustable, changeable units / resolution, conversion from cm to inch.
- Supply battery-powered or with external power supply.
- Measuring display directly attached or externally in an installation or mounting housing.
- Integrated spring for permanent pressure of the measuring wheel on the surface, guarantees slip-free measurement.
- V-profile-sleeve guarantees uniform support and precise guidance of the materials.

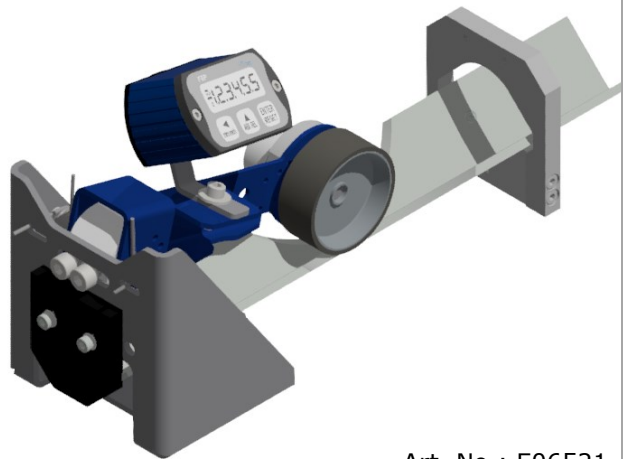
Standard variant Example

MZ/E Light Short with V-profile-guidance

Meter counter MZ/E Light Short with V-profile and lead-through module for flexible round materials.

MZ/E-LS-B-F8P/DA-P-X-200/25/G-V50/D10

- Measuring display F8P (battery-powered), direct mounting, programmable, in mounting housing
- Measuring wheel with 200 mm circumference, 25 mm width, running surface PU, smooth, vulcanised, corpus aluminium
- Profile guidance: V-profile, 50 mm, 90°, with lead-through module

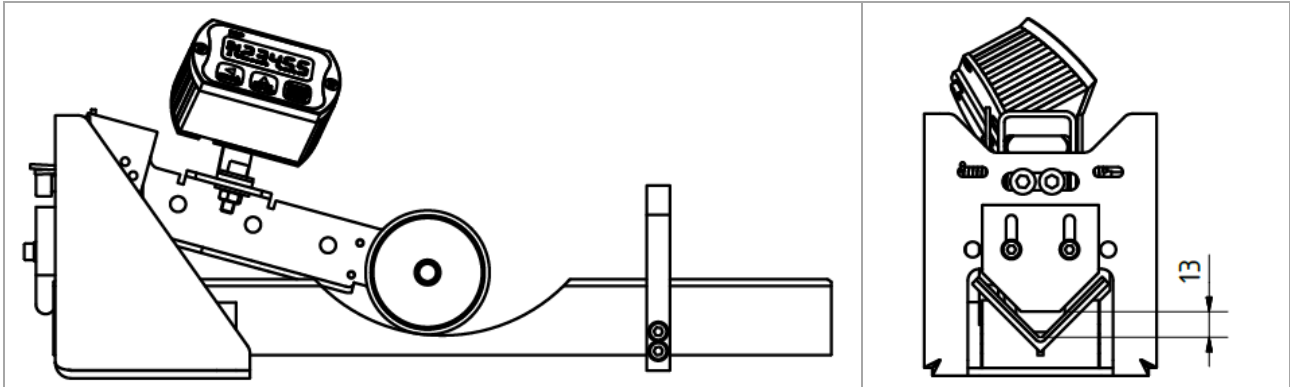


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Datasheet

Dimensions Example

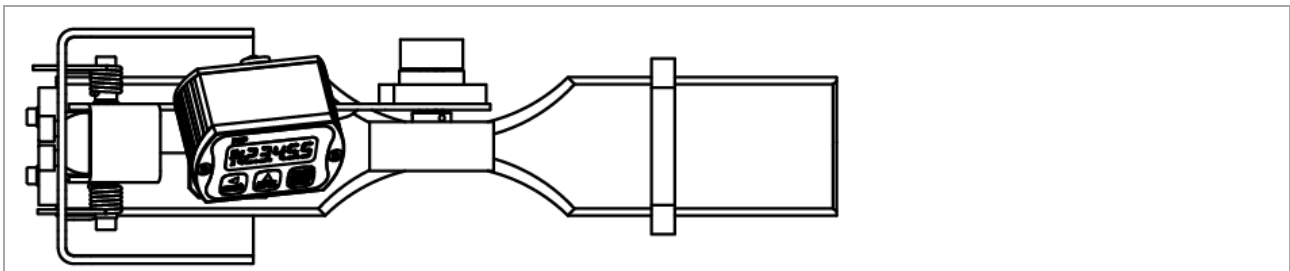
MZ/E Light Short with V-profile-guidance



Front view

Side view

V-profile 50 mm, 90°
 lead-through guidance \varnothing 10 mm



Top view

All dimensions in [mm]

Mechanical characteristics

Measuring wheel (standard)		
Circumference		C = 200 mm
Drilling		\varnothing = 10 mm
Material	Blank Surface	Aluminium Aluminium [R]; Polyurethane [G; RI; N]; Rubber [GG; GR]

Measuring system		
Weight	approx. 1,0 – 1,5 kg	depending on design
Repeatability	\pm 0,4 %	
Measuring speed	< 400 m/min	

Electrical characteristics

Interface	RS485 (SUBD9; 9 pins); only with external power supply
Measuring system port DA/FA	Open cable end (standard) M12 connector; 8 pins (on request)

Datasheet

Measuring wheels

Individual adaptation possibilities due to the different properties of the tread offer various application possibilities.

Tread	smooth [G]	corrugated [RI]	studded [N]	crisscross knurled [R]	O-ring [OR]
Cardboard / Paperboard	X	X	X	X	
Wood material	X	X	X	X	
Plastic (PE, PVC, etc.)	X	X	X	X	
Textile	X	X	X		
Paper	X	X	X		X
Metal, greasy parts, steel	X				
Leather	X				
Carpet, fleece			X		
Hose, cable			X		
Glass, plastic floor coverings		X			
Painted surfaces	X	X			
Rubber, foam, soft plastic				X	

Material


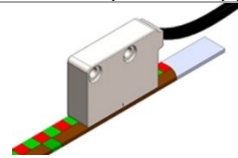
Tread - Material	Aluminium [AL]	Polyurethane [PUR]	Hytrel [TPE]	Nitril [NBR]
Permissible operating temperature	-30 °C ... +180 °C		-10 °C ... +70 °C	-10 °C ... +50 °C


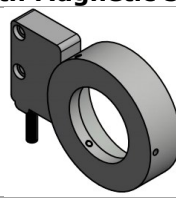
Material hardness (Shore hardness), measuring wheel series MR200 (circumference ≥ 200 mm)

Tread - Profile	crisscross knurled [R]	smooth [G]	smooth [G]	studded [N]	corrugated [RI]
Tread material	AL	TPE	PUR	NBR	TPE
Tread hardness approx.	--	90 Shore A	--	55 ±5 Shore A	90 Shore A

Datasheet

Measuring system

Magnitic sensor		
Incremental	F8P (in combination with measuring display, battery-powered)	LHR5/1 (in combination with measuring display, external power supply)
		
Resolution	10 µm	100 µm, 10 µm, 5 µm
Accuracy	up to 100 µm	up to 100 µm
Measuring length	up to 48 m	up to 48 m
Output signal	--	LD = TTL Line Driver, PP = Push-Pull
Power supply	½ AA 3,6 V battery (lithium thionyl chloride) via measuring display	5 VDC or 24 VDC via measuring display or preset counter
IP-rating	IP67	IP67
Power supply	½ AA 3,6 V battery (lithium thionyl chloride) via measuring display	5 VDC or 24 VDC via measuring display
Resolution (standard) ppr	0,1 (standard); 0,01 freely programmable	5000
Repeatability	± 0,1 mm	
Output signal	PP = Push Pull; LD = Line Driver	PP = Push-Pull; LD = Line Driver
IP-rating	IP67	IP67

Measuring scale		
Incremental	Magnetic ring MRI	Magnetic ring with Magnetic sensor LHR5/1
		
Pole pitch	5 mm	
Accuracy (based on 1 m length)	36 µm or 18 µm	

Accessories

Fastening
Flange clamp connector for round tube Ø 18 mm
















Other options for fastening the meter counter on request.

Datasheet

Measuring display

Measuring display directly attached or externally in an installation or mounting housing

Mechanical characteristics	Direct display	Remote display	
	Mounting housing	Inst. housing	
Battery-powered			
F8P <ul style="list-style-type: none"> Display range: 999,999 Digit height: 10.0 mm Measuring system: integrated Resolution: 5.000 ppr Power supply: 3.6 VDC 			
WVZ11 <ul style="list-style-type: none"> Display range: two lines each 99.9999 Digit height: 8.0 mm Measuring system: LHR5 Resolution: 5,000 ppr Power supply: 3.6 VDC or 10 to 30 VDC 	Figure On request	Figure On request	
External power supply			
EP1-S <ul style="list-style-type: none"> Display range: 99.999999 Digit height: 8.0 mm Measuring system: LHR5 Resolution: 5.000 ppr Power supply: 24 VDC or 230 VAC 			
EP2-I <ul style="list-style-type: none"> Display range: 99.9999 Digit height: 14.0 mm Measuring system: LHR5 Resolution: 5.000 ppr Power supply: 24 VDC or 230 VAC 			
VZE <ul style="list-style-type: none"> Display range: two lines each 99.9999 Digit height: 8.0 mm Measuring system: LHR5 Resolution: 5,000 ppr Power supply: 24 VDC or 230 VAC 	Figure On request		

Datasheet

Ordering example Electronic meter counter with measuring display and V-profile-guidance

MZ/E - **LS** - **B** - **F8P/DA** - **P** - **X** - **200/25/G** - **V50/D10**

Type

LS = Light Short

Power Supply

B = battery-powered
24 = 24 VDC/ external power supply
230 = 230 VAC/ external power supply

Display /Installation Position

F8P = battery-powered
EP1 = EP1-S; external power supply
EP2 = EP2-I; external power supply
WVZ11 = battery-powered
VZE = external power supply
VZ24 = external power supply

Display /Installation Position

/DA = direct display; mounting housing
/FA = remote display; mounting housing
/FE = remote display; installation housing

Resolution

P = programmable
X = custom programming (on request)

Cable Length

X = direct display; mounting housing
xx = 1.0; 2.0; 5.0; 10 = remote display
(observe German decimal separator “,”)

Measuring Wheel Circumference [mm] /Width /Tread

200 = 200 mm (standard); corpus aluminium

Measuring Wheel Circumference [mm] /Width /Tread

/12 = 12 mm
/25 = 25 mm

Measuring Wheel Circumference [mm] /Width /Tread

/G = smooth
/RI = corrugated
/N = studded
/R = crisscross knurled
/GG = rubber, smooth
/GR = rubber, knurled

Profile guidance-Width

V50 = V-profile, 50 mm, 90°

Profile guidance-Width /Lead-through guidance

/D10 = diameter of lead-through guidance \varnothing 10 mm

Fastening

R18 = flange clamp connector for round tube \varnothing 18 mm (optional)



Variants that cannot be configured from the ordering example are available on request as a special version.