

Datasheet

Electronic meter counter with measuring display and U-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.
- U-profile-guidance with guiding sleeve or module for adjusting the width of the lead-through.
- Uniform support and precise guidance of the materials.

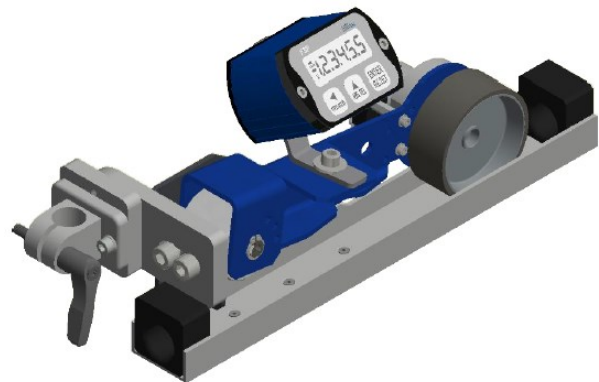
Standard variant Example

MZ/E Light Short with U-profile-guidance

Meter counter MZ/E Light Short with U-profile for flat meter material and hoses. Robust U-shaped substructure with lead-through guidance for running materials.

MZ/E-LS-B-F8P/DA-P-X-200/25/G-U40/D20-R18

- Measuring display F8P (battery-powered), direct mounting, programmable, in mounting housing
- Measuring wheel with 200 mm circumference, 25 mm width, tread PU, smooth, vulcanised, corpus aluminium
- Profile guidance: U-profile with 40 mm width, incl. lead-through guidance (guiding sleeve \varnothing 20 mm)
- Flange clamp connector for round tube \varnothing 18 mm

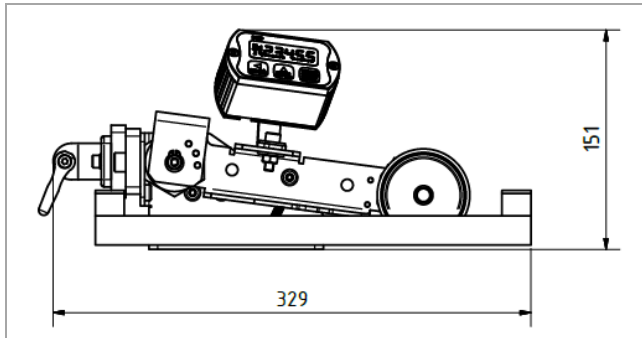


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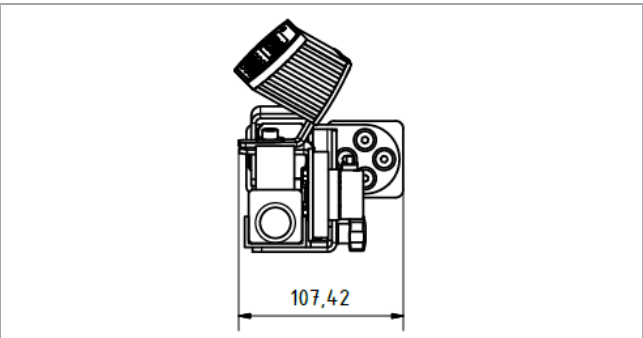
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Dimensions Example

MZ/E Light Short with U-profile-guidance

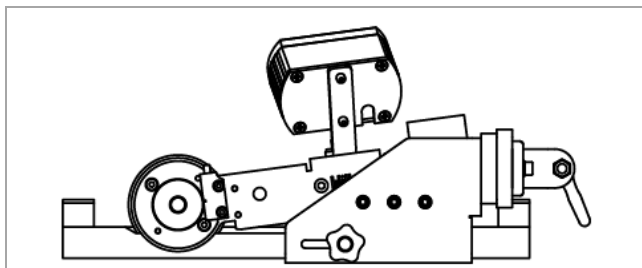


Front view

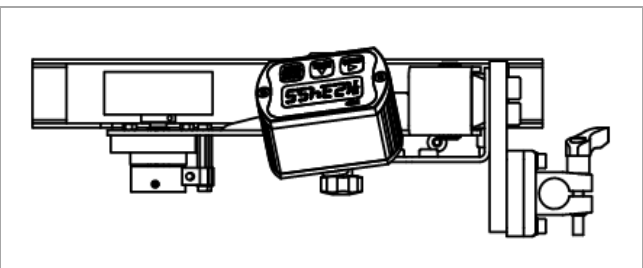


Side view

lead-through guidance (guiding sleeve \varnothing 20 mm)



Rear view



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)

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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


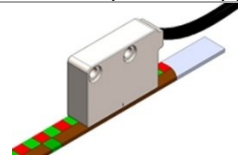
Tread - Material	Aluminium [AL]	Polyurethane [PUR]	Hytrel [TPE]	Nitril [NBR]
Permissible operating temperature	-30 °C ... +180 °C		-10 °C ... +70 °C	-10 °C ... +50 °C


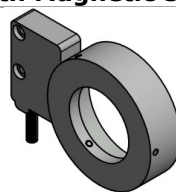
Material hardness (Shore hardness), measuring wheel series MR200 (circumference ≥ 200 mm)

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

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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.

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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		

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

MZ/E - **LS** - **B** - **F8P/DA** - **P** - **X** - **200/25/G** - **U40/D20**

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

U60 = U-profile, 60 mm
U125 = U-profile, 125 mm

Profile guidance-Width /Guiding sleeve

/D20 = diameter of guiding sleeve \varnothing 20 mm

Fastening

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

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Application examples



Depending on the application, we offer you the electronic meter counter in a wide variety of designs with customer-specific options.

Meter counter MZ/E Light Short with U-profile and guiding sleeve for length measurement of pressure hoses

MZ/E-LS-B-F8P/DA-P-X-200/12/G-U40/D20

- Measuring display F8P (battery-powered), direct mounting, programmable, in mounting housing
- Measuring wheel with 200 mm circumference, 25 mm width, tread PU, smooth, vulcanised, corpus aluminium
- Profile guidance: U-profile with 40 mm width, incl. lead through guidance (guiding sleeve \varnothing 20 mm)



Meter counter MZ/E Light Short with U-profile for length measurement of drive belts

MZ/E-LS-B-F8P/DA-P-X-200/25/R-U60

- Measuring indicator F8P (battery-powered), direct mounting, programmable, in mounting housing
- 2 x measuring wheel with 200 mm circumference, 12 mm width, tread and corpus aluminium, crisscross knurled
- Profile guidance: U-profile with 60 mm width



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

The manufacturer reserves the right to make changes to the products that it deems necessary for their improvement without prior notice.