Datasheet

Electronic meter counter with flexible length adjustment.

## Features at a glance

- Electronic length measuring system including electronic measuring display.
- Length of base frame variably adjustable (400 to 600 mm).
- Measurement of linear movements directly on the surface of running materials.
- Individual adaptation possibilities through different measuring wheel sizes (up to 500 mm/revolution) offer numerous applications in various machine industries.
- 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.

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

## Standard variant Example

Electronic meter counter with programmable measuring display, direct mounting and measuring wheel with 500 mm circumference

### MZ/E-LX-B-F8P/DA-P-X-500/G

- Flexible length adjustment: variably adjustable from 400 to 600 mm
- Measuring display F8P (battery-powered), programmable, direct mounting in mounting housing
- Magnetic sensor with magnetic ring
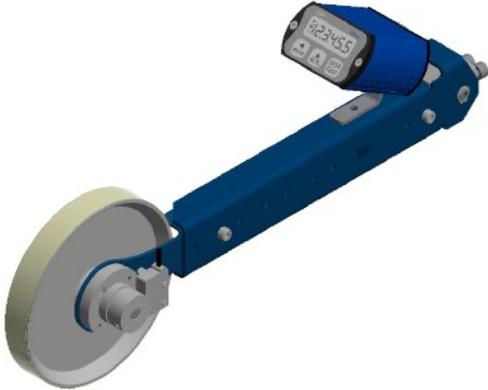- Measuring wheel with 500 mm circumference, tread PU, smooth, volcanized, corpus aluminium

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MZ-E LIGHT-XL_DB_2022-03-23_EN

Page 1 of 9

Measure  Indicate  Control  Sensors  Mechanics  Accessory

Datasheet



## Standard variants Example

**MZ/E Light XL**
Electronic meter counter with programmable measuring display, direct mounting
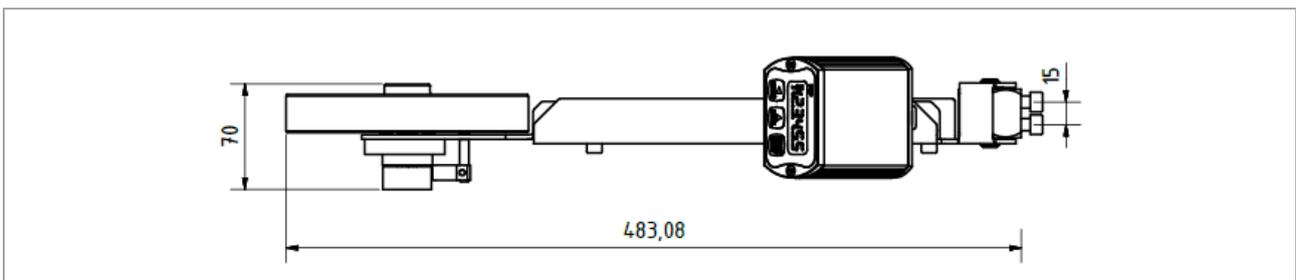and measuring wheel with 500 mm circumference

| **MZ/E-LX-B-F8P/DA-P-X-500/G** | |
|---|---|
| • Flexible length adjustment<br>• Measuring display F8P (battery-powered), programmable, direct mounting in mounting housing<br>• Magnetic sensor with magnetic ring<br>• Measuring wheel with 500 mm circumference, tread PU, smooth, volcanized, corpus aluminium |  |
| | Art. No.: 28051 |

**Dimensions**
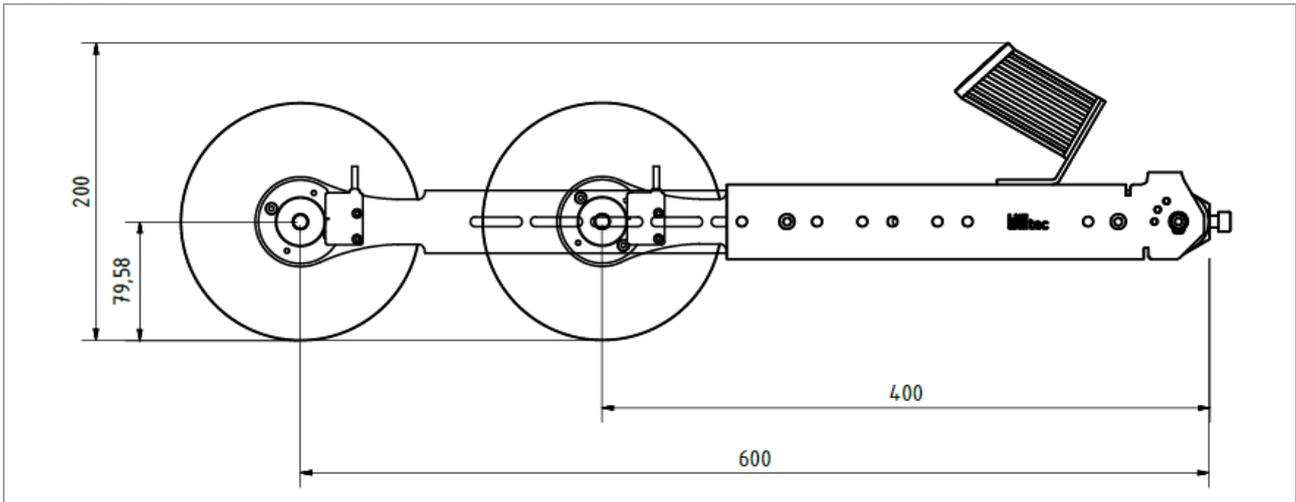


Length of base frame: 400-600 mm, variable                                        Side view



All dimension in [mm]                                                                            Top view

Measure    **Indicate**    Control    Sensors    Mechanics    Accessory

**MZ/E Light XL**
Electronic meter counter with remote programmable measuring display
and measuring wheel with 500 mm circumference

| **MZ/E-LX-230-EP2/FA-P-2.0-500/G** |
| --- |

- Flexible length adjustment
- Measuring display EP2 (230 VAC) programmable, remote display in mounting housing, cable length 2 m
- Magnetic sensor with magnetic ring
- Measuring wheel with 500 mm circumference, tread PU, smooth, vulcanized, corpus aluminium

Art. No.: 28050

**Dimensions**



Length of base frame: 400-600 mm, variable
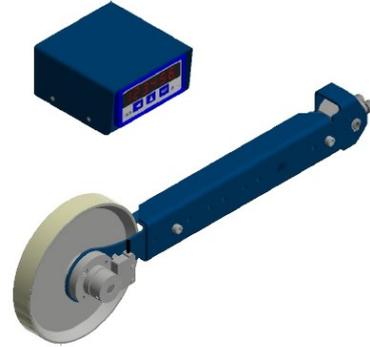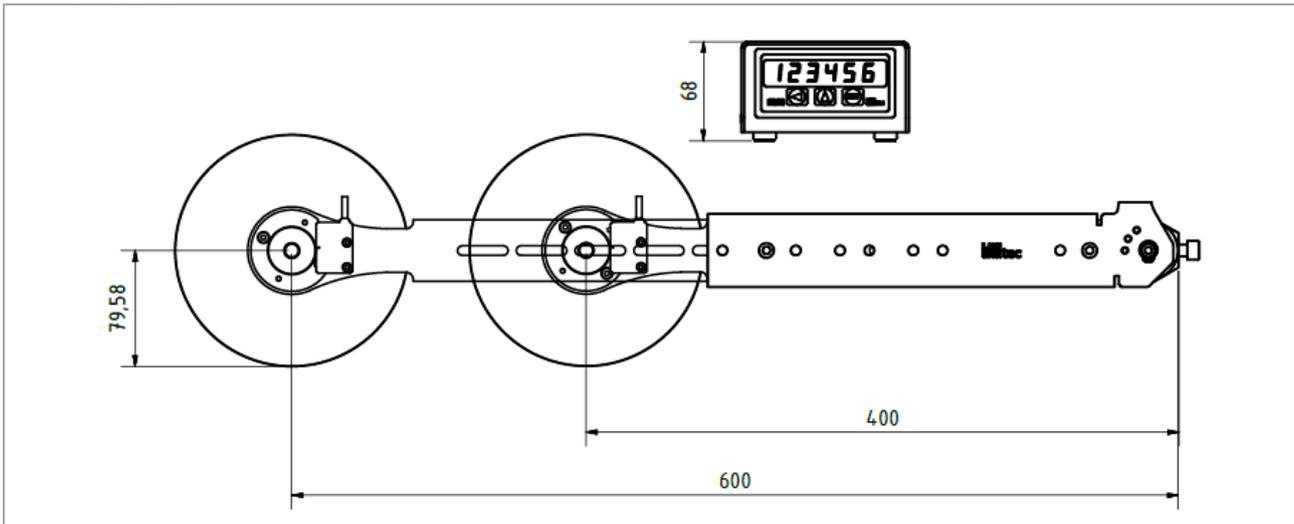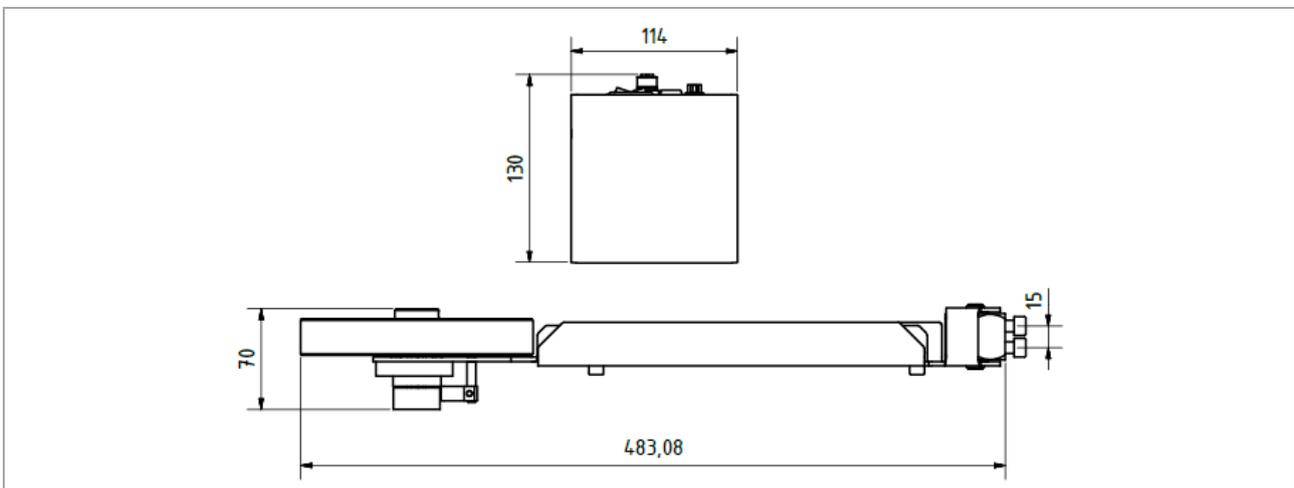
Side view

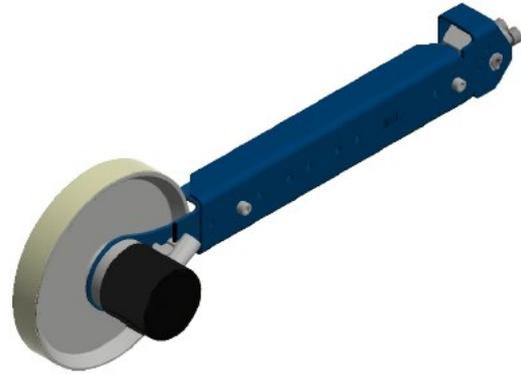

All dimensions in [mm]

Top view

Measure  **Indicate**  Control  Sensors  Mechanics  Accessory

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**MZ/E Light XL**
Electronic meter counter without measuring display, with rotary encoder
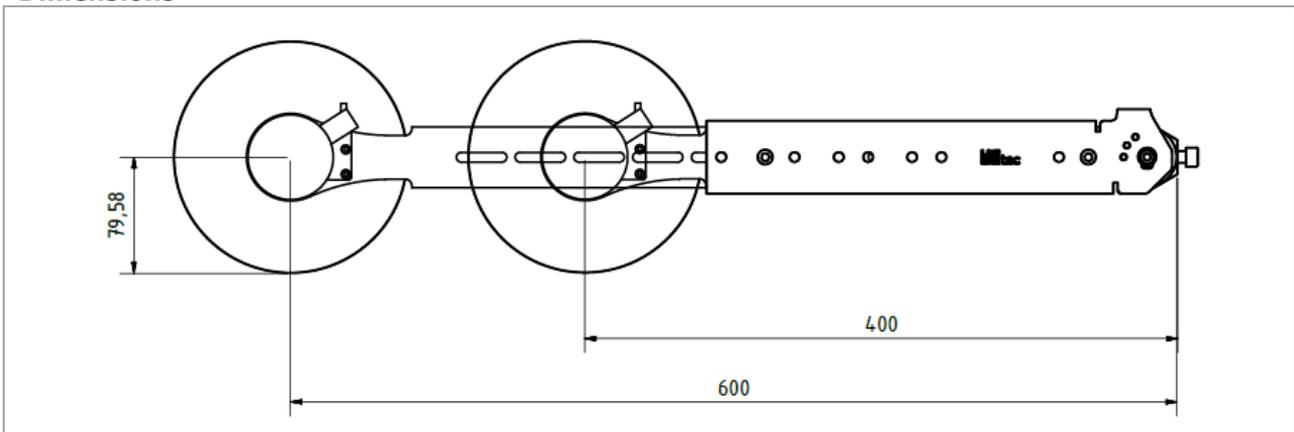and measuring wheel with 500 mm circumference

### MZ/E-LX-24-WIG110/Y-500-5.0-500/G

- Flexible length adjustment
- (24 VDC)
- Rotary encoder type WIG110,
  Output signal: Push Pull
  500 pulses/revolution
- Cable length 5 m
- Measuring wheel with 500 mm
  circumference, tread PU, smooth,
  volcanized, corpus aluminium

Art. No.: 28053

**Dimensions**



79,58

400

600

Length of base frame: 400-600 mm, variable                                   Side view



70

15

483,08

All dimensions in [mm]                                                        Top view

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Measure    **Indicate**    Control    Sensors    Mechanics    Accessory

Page 4 of 9

**MZ/E Light XL**
Electronic meter counter without measuring display, with magnetic sensor and magnetic ring
And measuring wheel with 500 mm circumference

| MZ/E-LX-5-LHR5/L-250-5.0-500/G |
|---|

- Flexible length adjustment
- (5 VDC)
- Magnetic sensor type LHR5/1,
  output signal: Line Driver
  Resolution: 250 pulses/revolution
- Cable length 5 m
- Measuring wheel with 500 mm
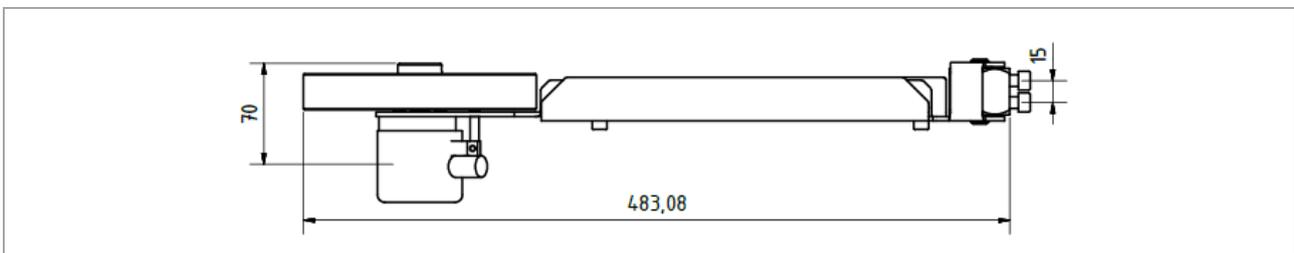  circumference, tread PU, smooth,
  vulcanized, corpus aluminium



Art. No.: 28052

**Dimensions**



Length of base frame: 400-600 mm, variable

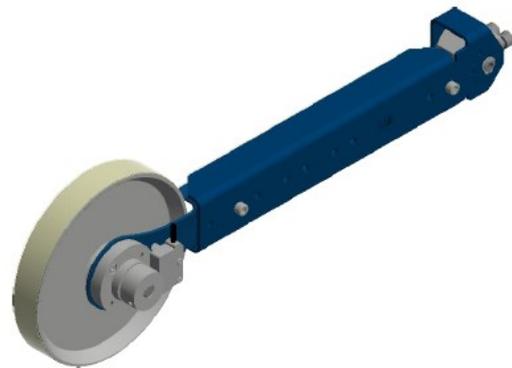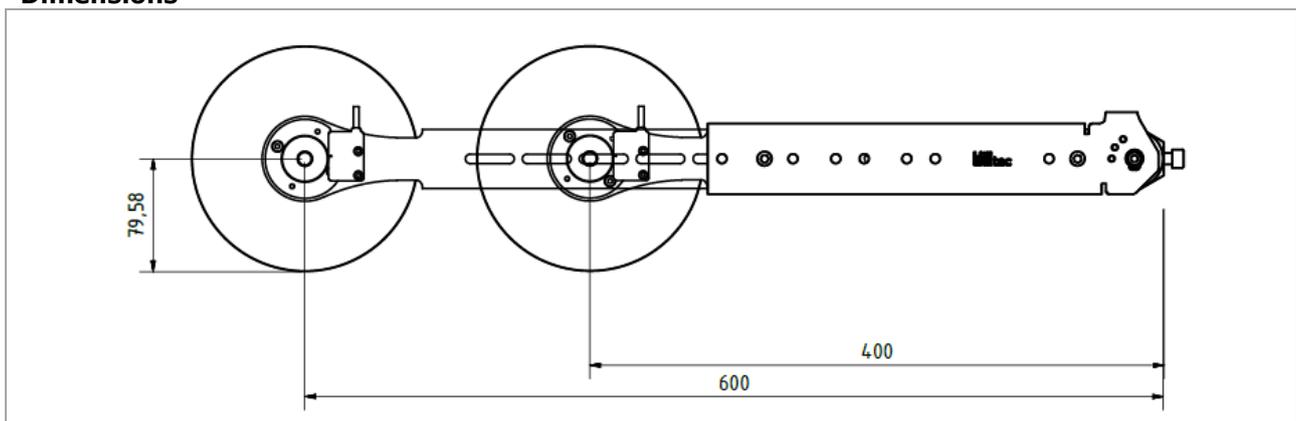Side view
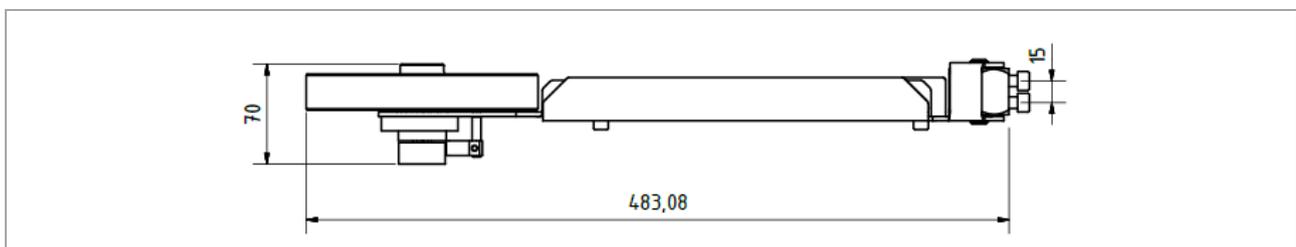


All dimensions in [mm]

Top view

For information on mechanical and electrical characteristics, see page 6.
The order code for other designs can be found on pages 8 and 9.

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Measure   Indicate   Control   Sensors   Mechanics   Accessory

Page 5 of 9

## Mechanical characteristics

| Measuring wheel | | | | |
|---|---|---|---|---|
| Circumference [C] | 200 mm | 304,8 mm (=12 Inches) | | 500 mm |
| Drilling | Ø10 mm | | | |
| Material | Blank | Aluminium | | |
|  | Surface | Aluminium [R]; Polyurethane [G; RI; N]; Rubber [GG; GR] | | |

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

## Electrical characteristics

| Measuring system | |
|---|---|
| Interface | RS485 (SUBD9; 9 pins); only with external power supply |
| Port DA/FA | Open cable end (standard) <br> M12 connector; 8 pins (on request) |

## Sensors

| | Rotary encoder | Magnetic sensor |
|---|---|---|
| | **WIG110** | **LHR5/1** |
| **Incremental** |  |  |
| **Power supply** | 5 VDC or 24 VDC | 5 VDC or 24 VDC |
| **Resolution** (standard) ppr | 1/ 50/ 100/ 250/ 200/ 500/ 1000/ 5000 | 5000 |
| **Output signal** | PP = Push Pull; LD = Line Driver | |
| **IP-rating** | IP65 | IP67 |

Measure   Indicate   Control   Sensors   Mechanics   Accessory

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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** | | | |
| **C10**<br>• Display range: 99,999<br>• Digit height: 8.0 mm<br>• Measuring system: integrated<br>• Resolution: 5.000 ppr<br>• Power supply: 1.5 VDC |  |  |  |
| **F8P**<br>• Display range: 999,999<br>• Digit height: 10.0 mm<br>• Measuring system: integrated<br>• Resolution: 5.000 ppr<br>• Power supply: 3.6 VDC |  |  |  |
| **WVZ11**<br>• Display range: two lines each 99.9999<br>• Digit height: 8.0 mm<br>• Measuring system: LHR5<br>• Resolution: 5,000 ppr<br>• Power supply: 3.6 VDC or 10 to 30 VDC | Figure<br>On request | Figure<br>On request |  |
| **External power supply** | | | |
| **EP1-S**<br>• Display range: 99.999999<br>• Digit height: 8.0 mm<br>• Measuring system: LHR5<br>• Resolution: 5.000 ppr<br>• Power supply: 24 VDC or 230 VAC |  |  |  |
| **EP2-I**<br>• Display range: 99.9999<br>• Digit height: 14.0 mm<br>• Measuring system: LHR5<br>• Resolution: 5.000 ppr<br>• Power supply: 24 VDC or 230 VAC |  |  |  |
| **VZE**<br>• Display range: two lines each 99.9999<br>• Digit height: 8.0 mm<br>• Measuring system: LHR5<br>• Resolution: 5,000 ppr<br>• Power supply: 24 VDC or 230 VAC | Figure<br>On request | Figure<br>On request |  |

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Page 7 of 9

Measure **Indicate** Control Sensors Mechanics Accessory

# Datasheet

**Order example** Electronic meter counter with flexible length adjustment and measuring display

| MZ/E | - LX | - B | - F8P/DA | - P | - X | - 500/G |
|---|---|---|---|---|---|---|

**Type**
**LX** = Light; with flexible length adjustment
Length of base frame: 400-600 mm, variable

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

**Display** /Installation Position
C10 = battery-powered
**F8P** = battery-powered
EP7 = battery-powered
EP1 = EP1-S; external power supply
EP2 = EP2-I; external power supply
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 (standard 0.01m)
X = custom programming on request

**Cable Length** [m]
**X** = direct display; mounting housing
1.0; 2.0; 5.0; 10 = remote display
(observe German decimal separator „,")

**Measuring Wheel Circumference** [mm] /Tread
**500**; 304,8; 200
(observe German decimal separator „,")

Measuring Wheel Circumference [mm] **/Tread**
**/G** = smooth
/RI = corrugated
/N = studded
/R = crisscross knurled
/GG = rubber, smooth
/GR = rubber, knurled

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

Measure | Indicate | Control | Sensors | Mechanics | Accessory

Datasheet

## Order example Electronic meter counter with flexible length adjustment <u>without measuring display</u>

| MZ/E | - LX | - 5 | - LHR5/L | - 250 | - 5,0 | - 500/G |
|------|------|-----|----------|-------|-------|---------|

**Type**
**LX**    = Light; with flexible length adjustment
          Length of base frame: 400-600 mm, variable

**Power Supply**
**5**     = 5 VDC
24      = 24 VDC

**Measuring System** /Output Signal
**LHR5**          = LHR5/1 sensor
WIG110         = rotary encoder

Measuring System **/Output Signal**
/Y       = Push Pull
**/L**       = Line Driver

**Resolution** [ppr]
1; 50; 100; 200; **250**; 500; 1000; 5000
further resolutions on request

**Cable Length** [m]
1,0; 2,0; **5,0**; 10
(observe German decimal separator ",")

**Measuring Wheel Circumference** [mm] /Tread
**500**; 304,8; 200
(observe German decimal separator ",")

Measuring Wheel Circumference [mm] **/Tread**
**/G**       = smooth
/RI      = corrugated
/N       = studded
/R       = crisscross knurled
/GG      = rubber, smooth
/GR      = rubber, knurled

ℹ️    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.

Measure    Indicate    Control    Sensors    Mechanics    Accessory