Measuring wheel

FEATURES

- For continuous recording of the belt speed in belt conveyors
- With inductive proximity switch, alternatively with incremental rotary encoder
- Ball bearing mounted friction wheel with perforated disc and abrasion-proof polyurethane running surface
- Easy installation and handling
- High reliability
- Low-maintenance
- For ATEX areas (optional)

DESCRIPTION

The measuring wheel MR 10 serves to continuously record the belt speed in belt conveyors and is used in combination with the MTS built-in belt scales.

The measuring wheel MR 10 consists of a robust ball bearing mounted friction wheel with integrated perforated disc, a sensor as well as a wheel bar and bracket of the measuring wheel. The friction wheel made of polyamid has a very abrasion-proof polyurethane running surface and is supported by two high-quality deep groove ball bearing on the wheel bar. The stainless steel wheel bar absorbs the sensor and is movably mounted on the bracket by means of a solid shaft.

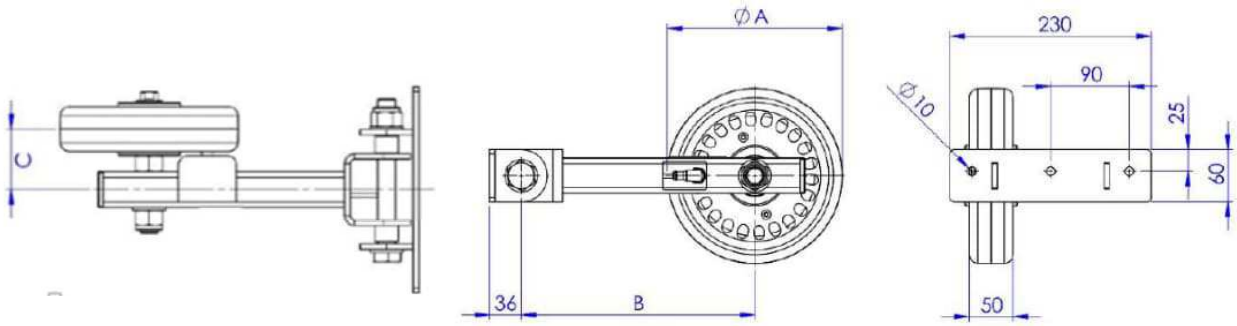
The measuring wheel is available in three dimensions: with a wheel diameter of 200 mm, alternatively 160 mm or 250 mm.

As standard, the measuring wheel is equipped with an inductive proximity switch. For higher requirements on the measuring accuracy, legalfortrade application and for slow moving belt conveyors, an incremental rotary encoder is used.

Other features of the measuring wheel MR 10: Low noise, low rolling resistance, traceless, high chemical resistance. ATEX approval optionally.

The measuring wheel runs on the lower belt and records the current belt speed. On the basis of its own weight, the measuring wheel is located frictionally engaged on the belt and is driven by the belt movement. As a result, the rotation speed of the measuring wheel is exactly equivalent to the belt speed.

OUTLINE DIMENSIONS (MM)



Type	Wheel diameter (A)	Distance (C)	Length wheel bar (B)
MR 10 (200)	200 mm	68 mm	231 / 467 mm
MR 10 (160)	160 mm	74 mm	
MR 10 DG (200)	200 mm	76 mm	246 / 437 mm
MR 10 DG (160)	160 mm	76 mm	

Special versions:

- Wheel diameter 250 mm
- Extended wheel bar
- Traction disc for better grip on the lower belt

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A VPG Brand

Measuring wheel

SPECIFICATIONS	
Diameter	200 mm, alternatively 160 mm or 250 mm
Belt width	Bearing
Combined measuring error of belt scale	± 1 % to max. 2 % in the range of 50 % and 100 % of the maximum feed rate and checked application in the temperature range from -10°C to +40°C
Operating temperature range	depending on sensor
Characteristics	low noise, traceless, high chemical resistance, oil- and grease-resistant
Material	
Measuring wheel	Polyamide 6
Perforated disc	steel, powder-coated, optionally stainless steel
Running surface	elastic-polyurethane
Wheel bar	stainless steel
Bracket	steel, galvanized or stainless steel
Measuring wheel MR 10 with inductive proximity switch	
Supply voltage	10 to 36 V DC – takes place via control unit
Outgoing signal	voltage pulses, 22 per rotation
Switching function	PNP (in connection with ModWeigh control units), alternatively NPN
Electrical connection	M12 plug, 3-wire, cable length 5 m
Working temperature range	-25°C to +70°C
Environmental protection	IP 68
Weight	approx. 5 kg
Measuring wheel MR 10 DG with incremental rotary encoder RO3100	
Supply voltage	4.75 to 30 V DC – takes place via control unit
Outgoing signal	voltage pulses, 1 to 10,000 per rotation
Electrical connection	M12 plug, 5-wire, cable length 5 m
Working temperature range	-40°C to +85°C
Environmental protection	IP 65
Weight	approx. 8 kg

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