

MWS250

Robust measuring wheel encoder for speed and position measurement on conveyor belts

SICK
Sensor Intelligence.

Advantages



Robust measuring wheel encoder for speed detection on conveyor belts

The MWS250 is the right choice for precise speed and position determination in demanding environments. Two measuring wheels and the constant contact pressure ensure stable surface contact and enable accurate measurement - even with un-pressurized or uneven conveyor belts with ± 10 mm spring travel. The robust mechanics enable reliable performance - even with dust, vibration or changing material surfaces. Thanks to the MWS250, conveying equipment processes can be designed smoothly and logistics processes can be automated.



Uncomplicated integration into control and automation systems with TTL, HTL and RS-422 incremental interfaces.



MWS250 combines encoder, measuring wheel and proven spring arm.

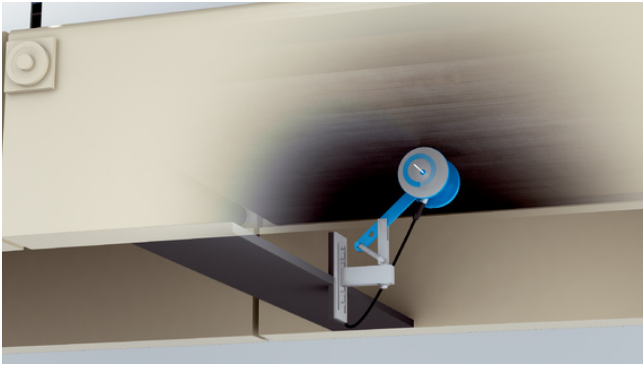


The vulcanized measuring wheel enables precise and durable measurement on various materials. Further measuring wheels are available as accessories.

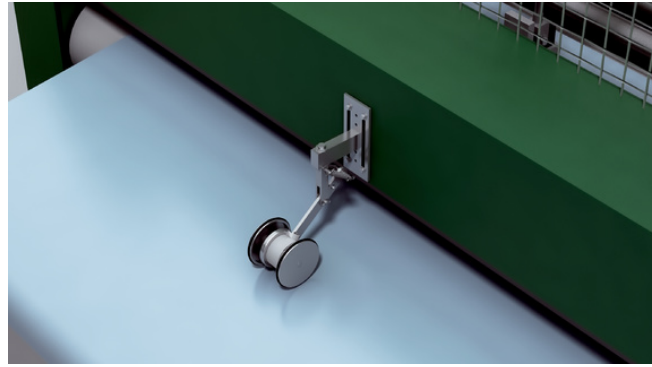


Quick mounting and easy integration into existing systems

The MWS250 measuring wheel encoder is suitable for installation above or below the belt. The rotatable spring arm and optional accessories allow mounting in different installation situations. Thanks to preset or configurable incremental interfaces such as TTL, HTL and line number, the sensor adapts to existing system architectures. This reduces the installation effort and saves valuable time during commissioning.

**Speed measurement on conveyor belts**

The MWS250 measures the conveyor speed directly on the belt and thus supports precise volume calculation and process control – especially in sorter systems and automated logistics systems.

**Length measurement in textile production**

When processing fabric sheets, the MWS250 reliably measures the length of the material. The slip-free measurement ensures consistently high quality in cutting, printing and finishing processes.



Technical data overview

Resolution in pulses/mm	1 ... 218.5 (depends on variant)
Spring deflection spring arm	± 15 mm
Measuring wheel circumference	300 mm / 12 " (depends on variant)
Measuring wheel surface	PUR
Programmable	- / ✓ (depends on variant)
Communication interface	Incremental
Communication Interface detail	HTL / Push-Pull / TTL / RS-422 / TTL / HTL (depends on variant)
Connection type	Male connector, M12
Supply voltage	4.5 V ... 32 V (depends on variant)
Operating temperature range	-30 °C ... +100 °C (at maximum 3,000 pulses per revolution) ¹⁾ -40 °C ... +100 °C

¹⁾ These values relate to all mechanical versions including recommended accessories unless otherwise noted.

Product description

The MWS250 from SICK is an incremental measuring wheel encoder with two measuring wheels and a spring travel of ± 10 mm. The sensor reliably measures the position and speed of moving materials – even on uneven, dusty or unpressurized conveyor belts. The robust mechanism with constant contact pressure ensures almost slip-free detection. The measuring wheel system can be flexibly mounted above or below the belt, offers all the standard incremental interfaces and is freely programmable in terms of resolution. Interchangeable measuring wheels and optional accessories facilitate integration into conveyor belts, track and trace and logistics applications.

At a glance

- Two measuring wheels for stable contact and slip-free measurement
- Rotatable spring arm and accessories available
- TTL, HTL, RS-422 and M12 male connector
- Configuration of interface, pulse count, voltage, zero pulse
- Robust mechanism with proven springs
- Configuration of the device for use with multiple applications
- Vulcanized measuring wheel for different surfaces

Your benefits

- Precise speed and length measurement - even on uneven surfaces
- Quick and easy mounting even in confined spaces
- Flexible integration thanks to common interfaces and connection type
- Suitable for individual requirements and easy integration into different application environments
- High operational safety under demanding conditions
- Simplified spare parts management and reduced warehousing and downtimes
- Reliable measurement on different material surfaces

Fields of application

- Speed and position detection on conveyor belts
- Position detection in steel and sheet metal processing machines
- Sorting in logistics and storage systems
- Control of transport processes in conveying equipment
- Precise volume measurement in track and trace systems

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com