FlexIN™
Magnetic Scale System for Large Diameters

WIDE INSTALLATION TOLERANCES

WIDE TEMPERATURE RANGE

FLEXIBLE SHAFT DIAMETERS

FlexIN is a rubber-supported magnetic scale system with built-in tensioning mechanism compatible with LM10 or LM15 incremental encoders.
It is designed for installation onto large shafts as an element of the position and speed control loop. The compact readhead has wide installation tolerances and offers industry standard output types and a reference pulse for relative position. The non-contact measuring principle ensures high reliability in demanding applications.



Why choose FlexIN?

FEATURES:

- Rubber spring profile supported scale with built-in tensioning mechanism
- For external diameter installation
- For diameters from 350 mm to 3,500 mm

BENEFITS:

- Full circle measurement
- Maximum rotational speed 210 rpm at 1 m
- Large diameter tolerance ±0.2 mm
- Temperature range from –20 °C to +85 °C
- Substrate thermal expansion compensation

WIND TURBINES | RADIO TELESCOPE | SOLAR PANELS | CT SCANNING | HARSH ENVIRONMENT

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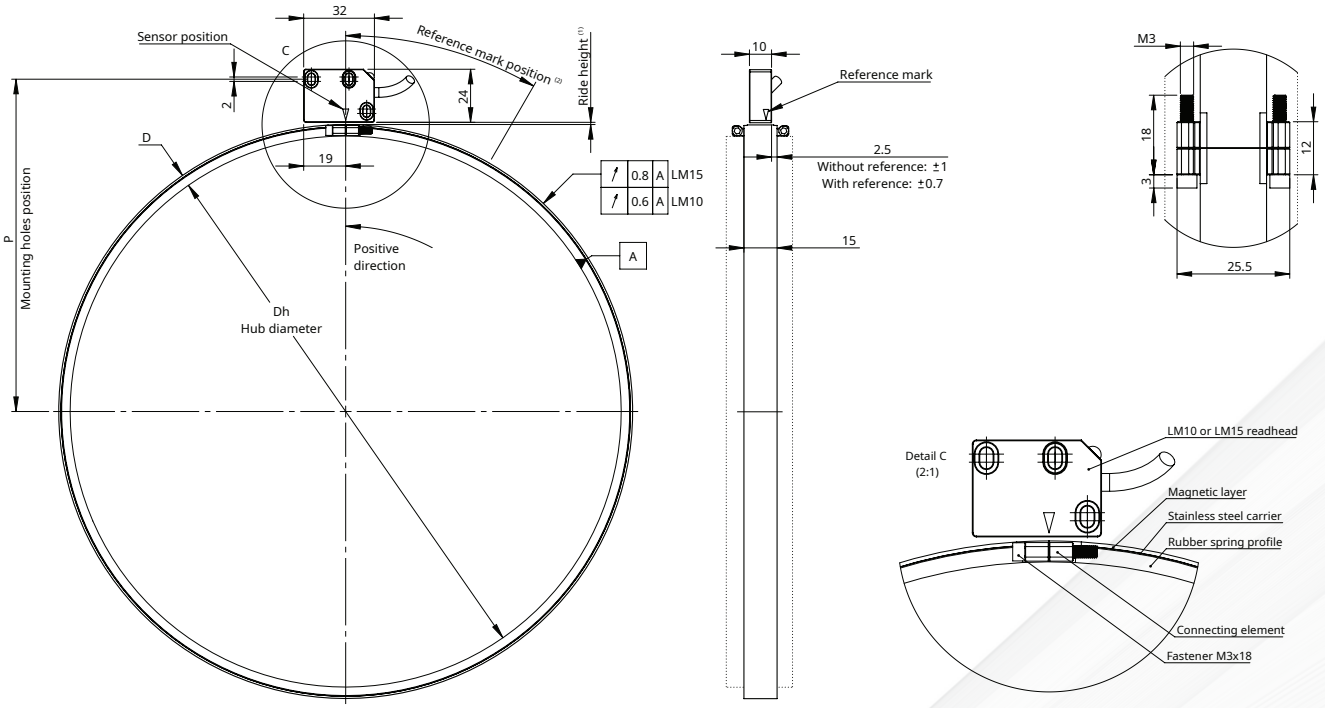
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FlexIN technical specifications

READHEAD	LM10		LM15	
Pole pitch	2 mm		5 mm	
Substrate diameter	350 mm to 3,500 mm			
Number of magnetic periods (depends on the diameter)	282 – 2,755		113 – 1,102	
Accuracy at 1 m diameter	< ±0.05°		< ±0.06°	
Resolution	Up to 13 bits per pole			
Hysteresis	< 3 µm at 0.3 mm ride height		< 12.5 µm at 1 mm ride height	
Reference mark	Single, periodic			
Maximum permissible speed (mechanical limit)	210 rpm at 1 m			
Operating temperature	–20 °C to +85 °C			
Installation tolerances:	No reference	Magnetised reference	No reference	Magnetised reference
Lateral offset	±1 mm	±0.7 mm	±1 mm	±0.7 mm
Ride height	0.3 mm; +1.2/–0.2 mm	0.3 mm; +0.5/–0.4 mm	0.5 mm; +3.5/–0.4 mm	0.5 mm; +2/–0.4 mm

FlexIN with LM10/15 readhead dimensions

Dimensions and tolerances in mm



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