MTM41
Non-Contact Rotary Sensor

MeasureX

Features

- 360° Absolute Position Measurement
- Suitable for harsh environments
- High Resolution (0.1°) and Accuracy (1%FS)
- IP67 rated
- Non-contact Technology with Long Life Cycle
- Analogue output of 4-20mA, 0/5V or 0/10V

Description

MTM41 is a non-contact absolute magnetic tilt and rotary angle sensor with a linear measuring range of 5° to 355°. Thanks to the non-contact technology, these sensor offers high accurate wear-free absolute rotary angle measurement. This compact sensor provides analog output of 4-20mA, 0-5V or 0-10V which is compatible with most PLCs and industrial control systems. Its Stainless Steel or Aluminium body and IP67 rating makes it ideal for harsh environments and applications with vibration, dust, moisture and chance of water splash.

While the standard Precision is 1% FS, you can optionally get a precision of 0.5% FS. A high resolution of up to 0.1° and a short response time of less than 3ms, allows precise control of complex and dynamic operations with MTM41. The robust construction of MTM41 with its high performance makes it ideal for demanding long term applications.

Applications

- Marine hand throttle position
- Inboard / outboard tilt and rotation
- Agricultural equipment motion
- General industrial equipment
- Quarter-turn valves
- Fuel dampers
- Throttle position
- Fuel rack position

Technical Specifications

- **Measuring Angles:** 90°, 180°, 360°
- **Output**: 4-20mA, 0/10V, 0-5V
- **Supply Voltage**:12 to 24VDC
- **Current consumption**:10mA (typically)
- **Resolution:** 0.1°
- **Accuracy:** 1% (standard)or 0.5% (optional)
- **Mechanical Repeatability:** ≤ 0.01%FS
- **Frequency response:** 10Hz
- **Noise level (Ripple):** less than 15mVrms or 25µArms
- **Compensated temp range:** 0 ~ +55°C
- **Operating temp range:** -20 ~ +80°C
- **Temp. coefficient of zero:** ≤ %0.01 FS/°C
- **Temp. coefficient of span:** 0.025% FS /°C
- **Load resistance (4/20mA output):** 500Ω at 24VDC input
- **Electrical connection:** 1m shield wire, others
- **Body material:** Stainless Steel or anodized Aluminum
- **Protection level:** IP67

MeasureX Pty Ltd
14/42 Garden Boulevard, Melbourne,
VIC, 3172, Australia

Tel: +61 3 9558 2420
email: Sales@MeasureX.com.au
Website: www.MeasureX.com.au

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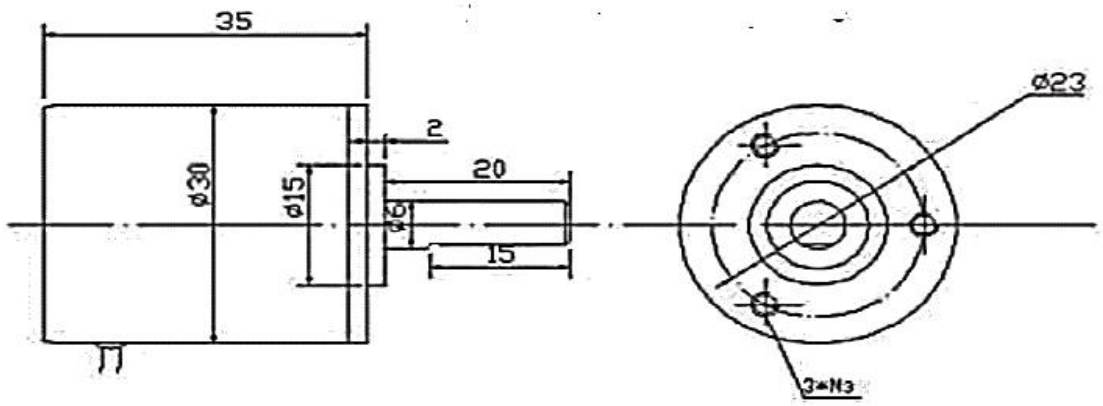
Dimensions



MTM41 with cable connector

Wiring

- **Brown: Supply +**
- **Blue: Supply -**
- **Black: Output**

Ordering Code

MTM41				
	Range	**90°, 180°, 360°**		
		Accuracy		
		1%		
		0.5%		
			Output Signal	
			4/20mA	
			0/10VDC	
			0/5VDC	
				Electrical connection
				1m cable
				Other
MTM21	**360°**	**1%**	**4/20mA**	**1m**

Note: *All specifications are subject to change without prior notice*

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