

# ENC-MS40 Magnetic Absolute Encoders



## FEATURES

- **Magnetic Absolute Encoder**
- **Analog Outputs 0-5V, 0-10V, and 4-20mA**
- **8-Bit Clockwise Resolution**
- **Compact and Robust Absolute Encoder**
- **IP65 Rating, IP66 on Request**

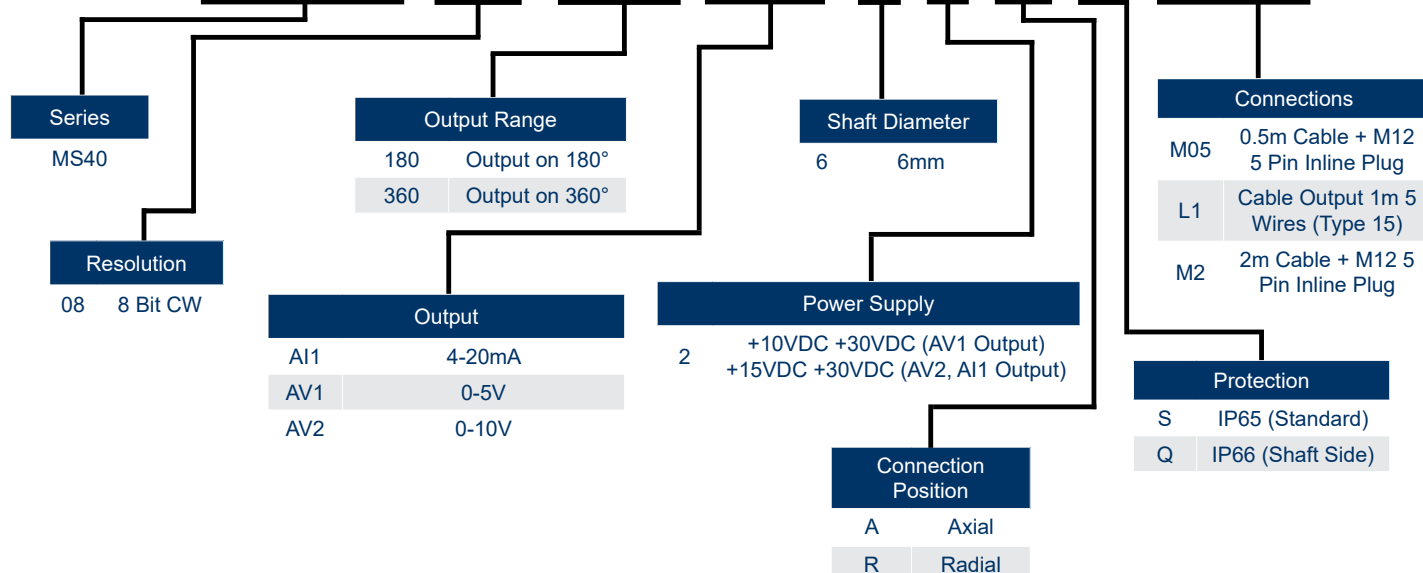


## DESCRIPTION

The MS40 with an Analog Output is a Magnetic Absolute Encoder used for standard applications with 8-Bit Clockwise Resolutions. This Encoder has a shaft diameter of 6mm. Also, it has an Output Range of 180° or 360°. The standard protection is an IP65 Rating with the option of an IP66 Rating on the shaft side. When using the AV1 Output the required Power Supply is +10VDC to +30VDC. However, when using the AV2 or AI1 Output the required Power Supply is +15VDC to +30VDC. The MS40 has two Connection Position options to choose from, Radial and Axial. The Axial exit is in line with the shaft and the Radial connector exit is perpendicular to the shaft.

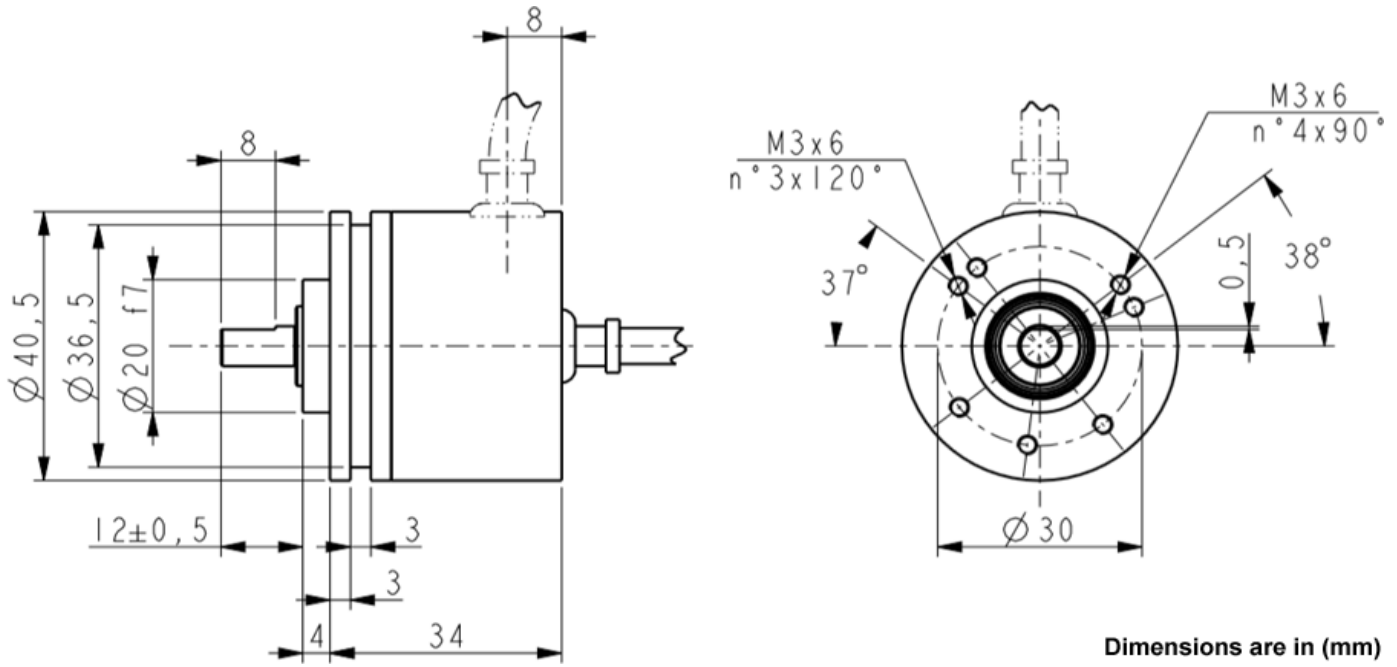
## ORDERING INFORMATION

# ENC-MS40-08-180-AI1-6-2-A-S-M05



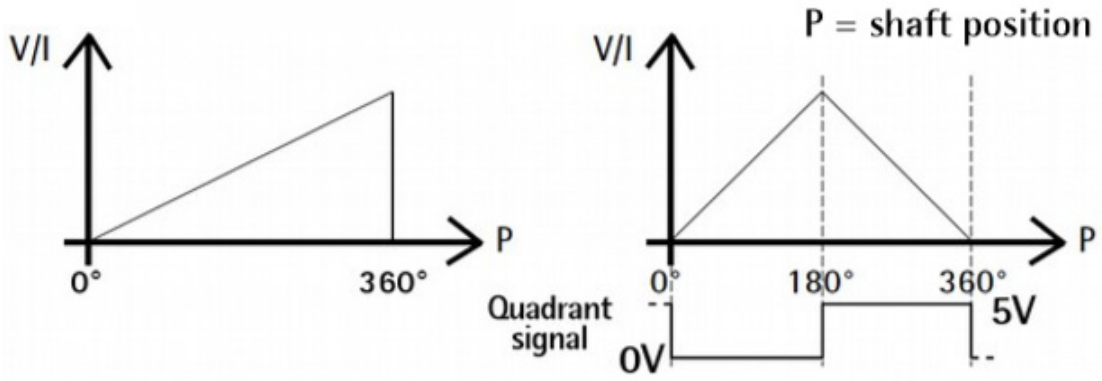
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DIMENSIONS



Dimensions are in (mm)

ANALOG OUTPUTS



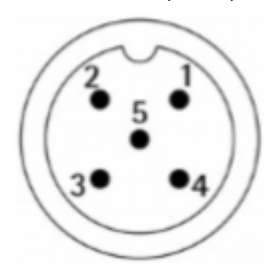
Output Range = 360°

Output Range = 180°

CONNECTOR INFORMATION

Analog Signals		M23 12-Pin	Cable
AI1	AV1/AV2		
+Iout	+Vout	1	Brown
	+Vdc	2	Red
	0Vdc	3	Black
	Quadrant	4	White
FAULT	n.c.	5	Blue
	Shield	Case	Shield

M12 5-Pin (Male)



Note: Quadrant signal available on Output Range 180° only. Pulse amplitude is 0-5V.

Note 2: Fault signal is for cable integrity check. Available only with AI1 option.

<b>Environmental Specifications</b>	
Shock	100g, 6ms
Vibrations	10g, 5-2000 Hz
Protection	IP65
Operating Temperature Range	-20°C +85°C (-4°F + 185°F)
Storage Temperature Range	-20°C +85°C (-4°F + 185°F) (98% R.H. without Condensation)
Option	Protection IP66 (shaft side)
<b>Mechanical Specifications</b>	
Dimensions	see drawing
Shaft Diameter	6 mm
Shaft Loading (Axial, Radial)	20 N max.
Shaft Rotational Speed	12000 RPM max.
Starting Torque at 20°C	0,1 Ncm
Bearings Life	10 <sup>^</sup> 9 Rev. Min.
Electrical Connections	M12 Inline Plug or Cable Output 1 m (3.3 ft)
Weight	~ 100 g (3,5 oz)
Option	Additional Cable
<b>Electrical Specifications</b>	
Resolution (PPR)	Analog: 0-5V, 0-10V, 4-20mA Fault Signal Output
Power Supply	+10VDC +30VDC (AV1 Output) +15VDC +30VDC (AV2, AI1 Output)
Power Consumption	65 mA max.
Protection	Protected Against Inversion of Polarity
EMC	Electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4
<b>Materials</b>	
Flange	Anticorodal, UNI EN AW-6082
Housing	Fiber Glass Epoxy Resin
Bearings	ABEC 5
Shaft	Stainless Steel, Non-Magnetic, UNI EN 4305