



Admotec's Flat Magnetic Encoder has the narrowest profile and the highest performance in harsh environments.

The new Admotec Series FM700 flat magnetic encoder permits OEMs to achieve optimum performance from a narrow profile, fully enclosed magnetic encoder. Only 27mm long (31mm with dust cover), the Series FM700 requires less space than traditional optical encoders and delivers higher performance. In addition to a once-per-revolution marker, this flat magnetic encoder provides up to 2,048 pulses per revolution on each of two quadrature channels and operates in harsh environments including high shock, vibration, and contaminants.

In addition, the self-contained, hollow-shaft FM700 is easily installed and automatically aligned—no additional shaft coupling is required. Two set screws secure the FM700 on the rotating shaft, and three screws attach the flexible spring assembly of the encoder body to the stationary flange. This low profile design virtually eliminates shaft loading, and accommodates up to 0.2mm (0.008") of shaft end play.

Conforming to the rigorous European EMC directive, the Series FM700 flat magnetic encoder carries the prestigious CE mark and is qualified for demanding international and domestic applications.

The combination of narrow profile, high performance in tough environments, and simple installation make the new series FM700 the perfect choice for general industrial automation including servo motor feedback, textile, packaging, test equipment, and aerospace applications.

Admotec—motion and position sensing for original equipment manufacturers.

FM

FLAT MAGNETIC ENCODER

SERIES FM700

FEATURES & BENEFITS

Magnetic, not optical	Reliable operation in harsh environments: high shock and vibration, dust, oil, moisture, etc.
Flat design	Shorter axial length saves space.
Hollow shaft for direct coupling	Higher accuracy without precise adjustment.
Line driver outputs	Immunity to electrical noise and interference (EMI/RFI).
CE mark	Conforms to European EMC directive.
IP54 rating	Protected against dust and water sprays.

GENERAL SPECIFICATIONS

Operating Temperature	-30 to +90	°C
Maximum Speed	6,000	RPM
Weight	120	grams nom.
Inertia	35	gram cm ²
Starting Torque	30	gram cm
Cable Length	500	mm
Supply Voltage	5.0 ±5%	V dc
Supply Current	160	mA max.
Output Load Resistance	100	Ω min.
Channel Frequency	200	kHz max.
Quadrature	90 ±45	° electrical
Cycle Error (max.)	±9	° electrical

ORDERING INFORMATION

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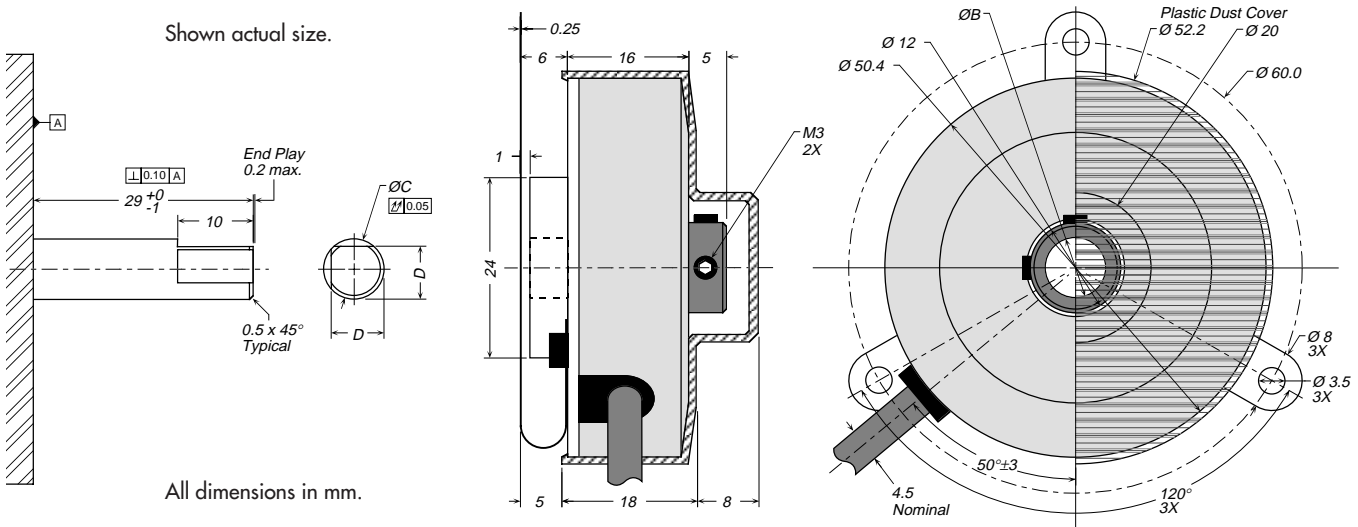
Hollow-Shaft Bore

08 = 8mm
25 = 1/4"

Resolution (PPR)

300, 360, 500,
1000, 1024, 2000,
2048

OUTLINE & MOUNTING DIMENSIONS AND SHAFT SPECIFICATIONS



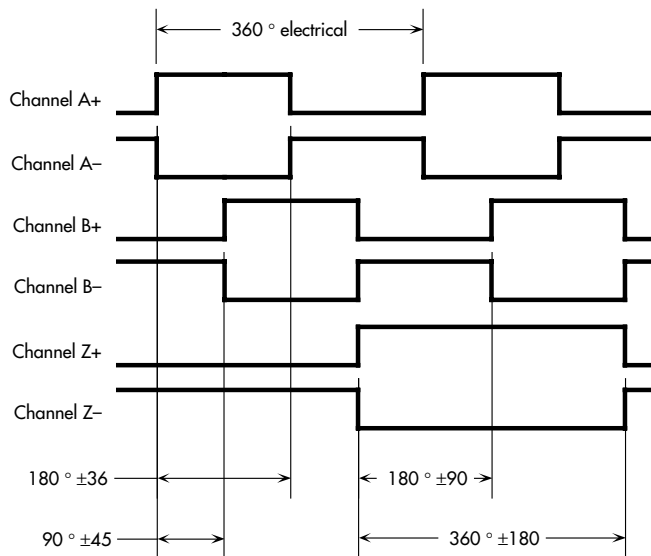
HOLLOW-SHAFT BORE (ØB)

Model Number	ØB	ØB Tolerance
FM700-3-08-□□□□	8.00mm	+0.015/-0 (ISO H7)
FM700-3-25-□□□□	6.35mm (1/4")	+0.015/-0 (ISO H7)

RECOMMENDED SHAFT DIMENSIONS (ØC, D)

Model Number	ØC	ØC Tolerance	D
FM700-3-08-□□□□	8.00mm	+0/-0.009 (ISO h6)	7.0
FM700-3-25-□□□□	6.35mm (1/4")	+0/-0.009 (ISO h6)	5.0

OUTPUT SIGNAL FORMAT



TYPICAL CONNECTION

