

EMI 38 F / G

MAGNETIC INCREMENTAL BLIND HOLLOW SHAFT ENCODER



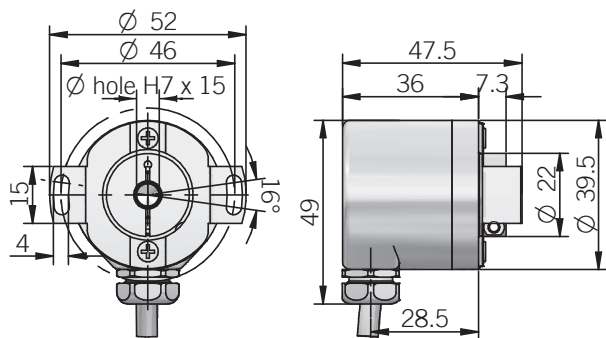
Specifications

Thanks to the magnetic technology, the EMI 38 series is suitable for harsh environment applications such as marble and glass working machines, washing systems and generally for industrial automation.

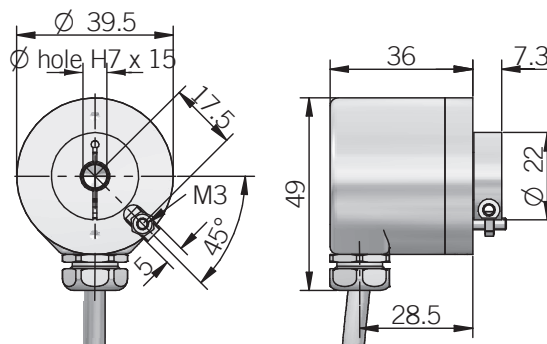
- 3 channel encoder (A / B / Z) up to 2048 ppr
- Power supply up to +28 VDC with several electronic interfaces available
- Cable output, connector available on cable end
- Compact dimensions
- Blind hollow shaft diameter up to 10 mm with shaft fixing by collar clamping
- Sturdy construction due to separated chambers design
- Wide operating temperature -25° ... +100°C (-13° ... +212°F)

ORDERING CODE	EMI	38F	1024	Z	5	L	6	X	6	PR	.XXX
SERIES magnetic incremental encoder series EMI											
MODEL blind hollow shaft with stator coupling 38F blind hollow shaft with antirotation pin 38G											
RESOLUTION ppr from 2 to 2048 see table for pulses availability											
ZERO PULSE without zero pulse S with zero pulse Z											
POWER SUPPLY (with L electronic interface) 5 V DC 5 (with L or PC electronic interface) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28											
ELECTRONIC INTERFACE push-pull P push-pull protected (AEIC-7272) PC line driver L											
SHAFT DIAMETER mm 6 mm 8 9,52 (3/8") mm 9 mm 10											
ENCLOSURE RATING IP 64 X IP 66 S											
MAX ROTATION SPEED (IP 66) 3000 rpm 3 (IP 64) 6000 rpm 6											
OUTPUT TYPE cable radial (standard length 0,5 m) PR											
VARIANT custom version XXX											

EMI 38 F



EMI 38 G



ELECTRICAL SPECIFICATIONS

Resolution	from 2 to 2048 ppr
Power supply	5 = 4,5 ... 5,5 V DC 5/28 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection)
Current consumption without load	80 mA max
Max load current	15 mA / channel
Output type*	push-pull / line driver
Max output frequency	205 kHz
Counting direction	A leads B clockwise (shaft view)
Accuracy	± 0,35° typical / ± 0,50° max
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

*output levels according to power supply, for further details please see under Technical basics section

RESOLUTIONS

2 - 4 - 8 - 10 - 16 - 20 - 32 - 40 - 64 - 80 - 100 - 125 - 128 - 200 - 250 - 256 - 400 - 500 - 512 - 1024 - 2048

CONNECTIONS

Function	Cable output Push-pull	Cable output Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
⊥	shield	shield

MECHANICAL SPECIFICATIONS

Shaft diameter	ø 6* / 8* / 9,52 (3/8") / 10 mm
Enclosure rating	X = IP 64 (IEC 60529) S = IP 66 (IEC 60529)
Max rotation speed	3000 rpm (IP 66) 6000 rpm (IP 64)
Max shaft load	5 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,25 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,02 Nm
Fixing torque for collar clamping	0,6 Nm recommended
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	painted aluminum
Bearings	2 ball bearings
Bearing lifetime	10 ⁹ revolutions
Operating temperature	-25° ... +100°C (-13° ... +212°F)
Storage temperature	-25° ... +85°C (-13° ... +185°F)
Weight	150 g (5,29 oz)