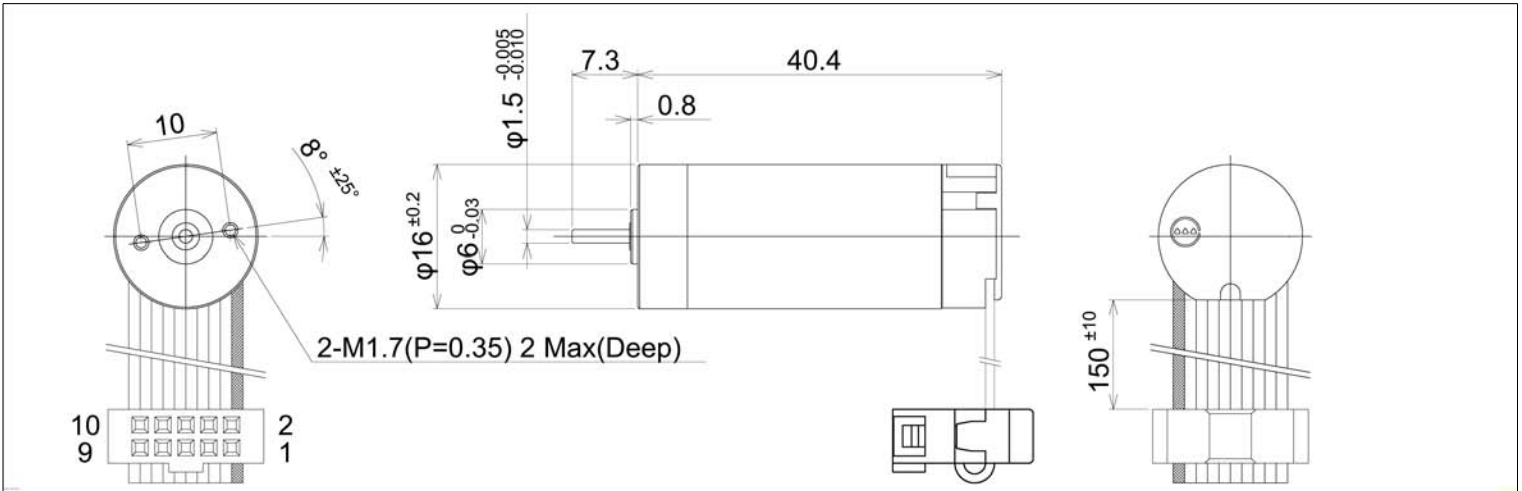
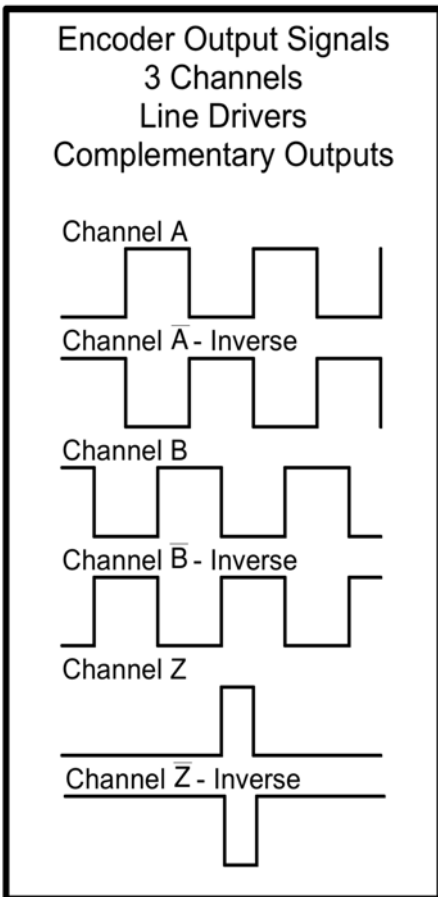


# 16 mm Ø Encoder - 3 Channel

Series EM16xxxxZ50 - Line Drive - Compl. Out



Not to Scale - Dimensions in millimeters (mm)



Supply Voltage - Max	5.25 Volt
Supply Voltage - Min	4.75 Volt
Supply Current - Max	≤ 25 mA
Output Current - Max	≤ 5 mA
Max Temp - Operating	60°C
Min Temp - Operating	-10°C
Relative Humidity - Operating	20% to 85%

Above Drawing is for encoder mounted to 16 mm diameter x 35 mm long Coreless dc motor.  
Encoder is compatible with 16 mm diameter x 25 mm and x 35 mm long and 17 mm diameter x 35 mm long Coreless dc motors. Length increase for integrated encoder is less than 5 mm.

Counts per Track per Rev.  
64, 128, 256, 512

Maximum Frequency Response  
Corresponds to a motor rotor speed of 18,750 rpm

**Pinout Details**

Connector Pin Number	Function
1	Motor +
2	Vcc
3	Ground
4	Motor -
5	Channel A - Inv
6	Channel A
7	Channel B - Inv
8	Channel B
9	Channel Z - Inv
10	Channel Z

**Connector Details**

Manufacturer: Molex  
Housing Assembly: 54559-1011  
Upper Housing: 54560-1011  
Strain Relief: 54561-1011  
Flat Band Cable: AWG#28

**This Encoder Is Only Available Mounted To A Global Motion Products Coreless DC Motor. It Is Not Sold Separately.**

Line Drivers, Complementary Outputs, and Index Track can be ignored. Utilize only signals needed. This encoder employs a Magnetoresistive Effect Element. It can be integrated into a range of 16 and 17 mm diameter coreless dc motors that have options for either spur or planetary gearboxes.

Similar versions of this encoder are available for 10 and 13 mm diameter coreless dc motors. A 16 mm diameter 2 Channel Optical version also is available. This encoder is not sold separately.

Characteristics and Specifications at 22°C

**Global Motion Products**  
Distributed by:  
Precision Motion Distributors: (925) 803-9565  
Technical Support: (760) 451-2723  
<http://www.gmpwebsite.com> Email: [info@gmpwebsite.com](mailto:info@gmpwebsite.com)

**Manufactured under a Certified ISO 9001:2008 Quality System.**

**RoHS Compliant**