

MX15 Series— Modular Incremental Rotary Optical Encoder

BEI Sensors

Dimensions

Figure 1
(MX152/MX153)

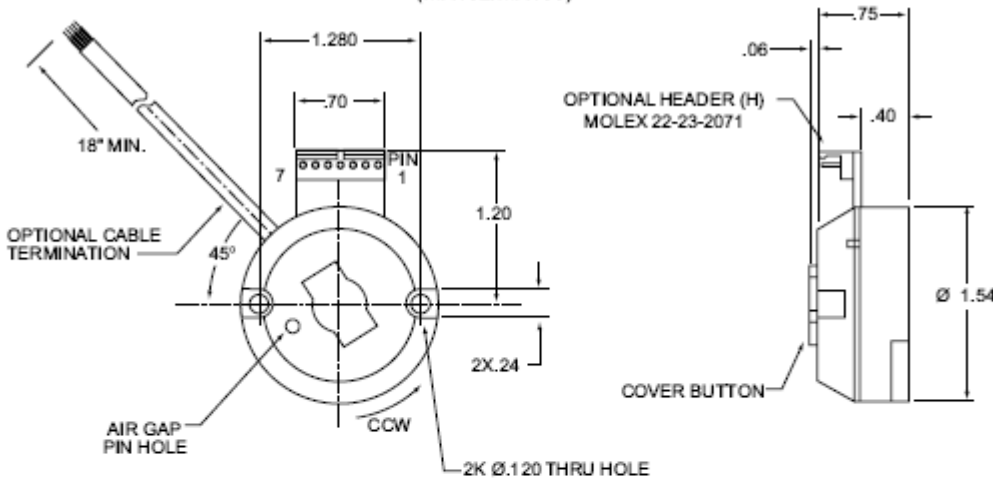
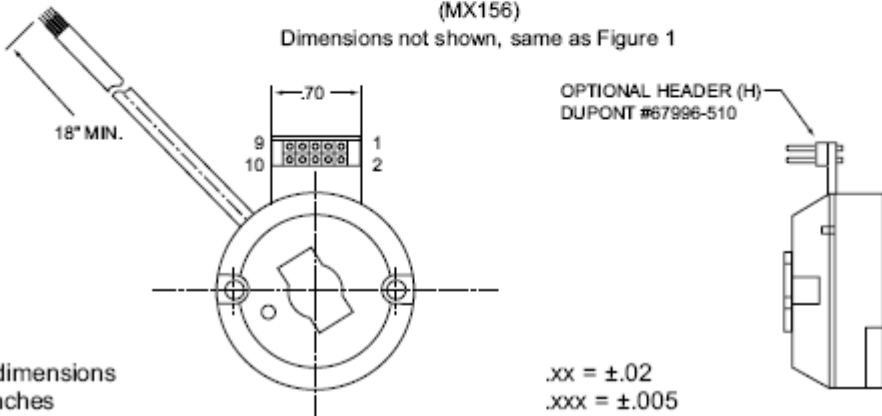


Figure 2
(MX156)

Dimensions not shown, same as Figure 1



All dimensions in inches

.xx = ±.02
.xxx = ±.005

Output Waveform

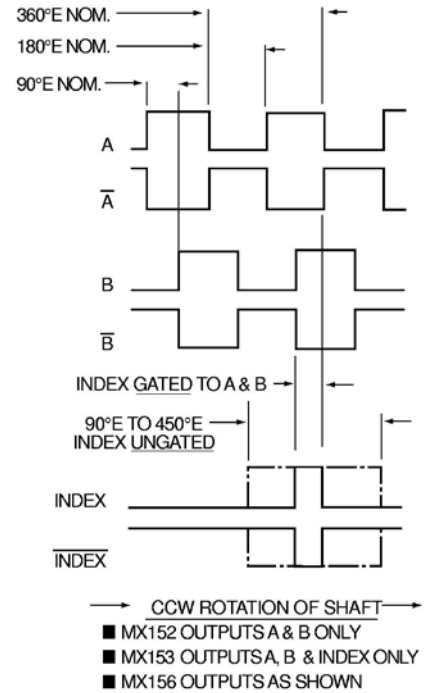
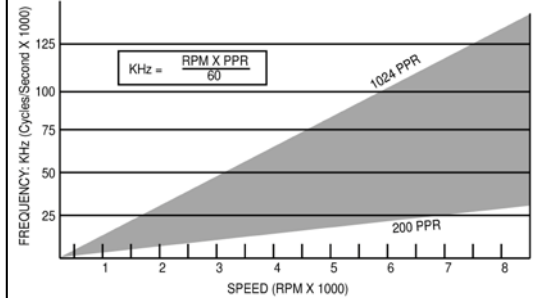


Figure 3



Terminations

Terminal Board (Header)
PINOUT: MX152 & MX153

Pin #	Signal	Pin #	Signal
1	NC	5	Data B
2	Index (MX153)	6	Data A
3	NC	7	ground
4	+5 volt		

PINOUT: MX156

Pin #	Signal	Pin #	Signal
1	+5 volt	6	Data Ā
2	+5 volts	7	Ground
3	Index	8	Ground
4	Index	9	Data B
5	Data A	10	Data B̄

Round Shielded Cable
COLOR CODE: MX152 & MX153

Color	Function	Color	Function
Red	+5 volt	Green	Data B
Black	Ground	Orange	Index(MX153)
White	Data A		

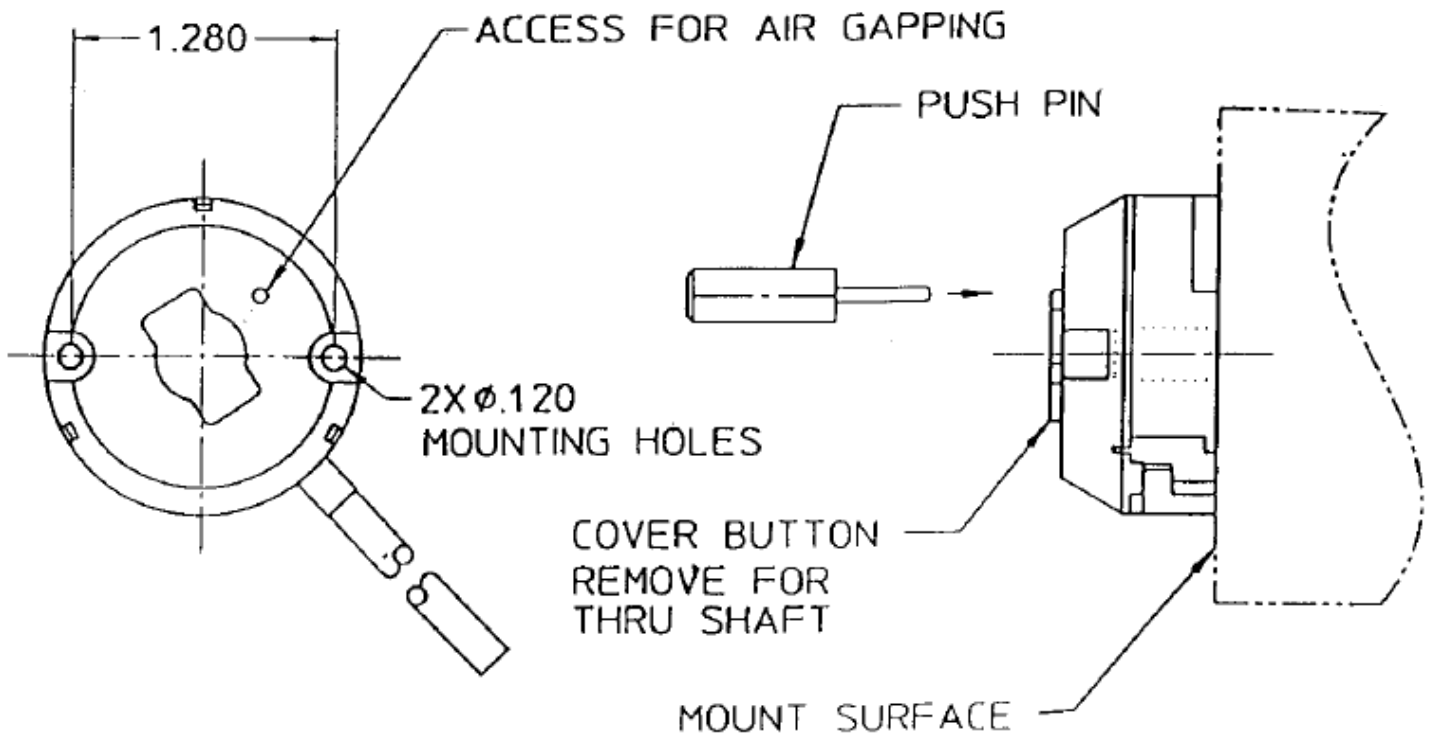
COLOR CODE: MX156

Color	Function	Color	Function
Red	+5 volt	Green	Data B
Black	Ground	Wht/Blk	Data B
White	Data A	Orange	Index
Blue	Data A	Red/Blk	Index

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Installation Instructions for MX15 Series Encoders



Preparation:

1. Inspect motor interface per MX15 Data Sheet or specification drawing.
2. Motor shaft must be free of burrs and other surface defects.

Installation:

1. Motor shaft should NOT be rotating during initial encoder installation.
2. Hold encoder perpendicular to motor shaft. Guide the encoder onto the motor shaft, pushing encoder STRAIGHT on until it is flush against the motor surface. Do NOT rock side to side.
3. Install two #2-56 mount screws. Do not fully tighten at this point. (Note: A thread sealant should be applied to the screw threads.)
4. Rotate the motor shaft (300 RPM, minimum). Insert push pin into the 1/16 hole in top of encoder and press until pin bottoms out on encoder cover momentarily, then remove pin. CAUTION: DO NOT press the push pin while motor shaft is stationary. Pin should only be pressed for one or two seconds while shaft is rotating.
5. Fully tighten mounting screws. (recommended torque is 20 to 25 ounce inches.)
6. This completes the mechanical installation. Proceed with electrical connections as indicated on product data sheet or specification drawing.

Removal:

1. Motor shaft may be stationary or rotating up to 1000 RPM during encoder removal.
2. Remove two mounting screws.
3. Grasp encoder firmly and pull STRAIGHT off the motor shaft. Do NOT rock side to side.

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