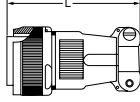


## MS3106 Mating Connectors for Incremental



### Encoders

These have sealed conductors and are screw-on, military-style connectors with solder cups on the back of the pins (can accept up to 16 gage wire) and a built-in clamping strain relief. The environmentally sealed backshell is waterproof.



Shell Size	Used with	L Max	#of Pins	Part No.
MS14	EM14 or SM14	2.125"	6	MS3106F14S-6S
MS16	EM16 or SM16	2.187"	7	MS3106F16S-1S
MS18	EM18 or SM18	2.656"	10	MS3106F18-1S
MS20	EM20 or SM20	2.656"	17	MS3106F20-29S

## MS3116 Mating Connector for 12 Bit Absolute Encoders

These have sealed conductors and use a bayonet (push and turn) shell. Pins have solder cups on the back for 20 gage wire and a built-in clamping strain relief. The environmentally sealed backshell is waterproof.

Shell Size	Used with	L Max	#of Pins	Part No.
MS14	SM14/19 or EM14/19	1.800	19	MS3116J14-19S

## Protective Housing for Hollow-Shaft Encoders

This cage protects hollow-shaft style encoders from mechanical damage during handling and installation. It is used with either the HS25 or the HS35 encoder and has a side cutout to allow for tether arm placement. It accepts a NEMA56 standard motor face mount and can be used with either through-shaft or blind shaft styles of encoders. Protective cover kits come with installation hardware. **Part Number 26068-001**

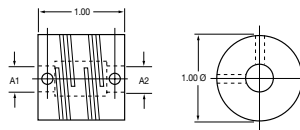


### Couplings

Couplings are high performance, helical-cut beam style providing the best combination of torsional rigidity and compensation for shaft misalignment. They are made of aluminum and are iridite coated to resist chemical attack.

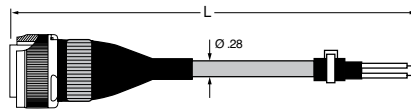
Part No.	A1Dia	Bore Dia +.002/- .000		Torsional Non-Reversing	Torques (Lbs-inch)		Momentary
		A2 Dia	Flexibility		Shock or Reversing		
39074-8-8	.250	.250	.165 min/in-oz	19	9.3	37	
39074-12-8	.375	.250	.315 min/in-oz	15	7.5	30	
39074-12-12	.375	.375	.315 min/in-oz	15	7.5	30	

Notes: 1. Bore is relieved to allow shafts to nearly butt 2. Setscrews: Cup point, hex socket, #6-32, two at each end, 90° apart. 3. Permitted axial motion from free length: ±.020 4. Permissible shaft misalignment: Angular up to 5°; Parallel up to .010". Installation note: To avoid coupling failure, be sure the shafts fit freely in the coupling bores and that the coupling is not compressed or subjected to greater deflections than specified above.



## Cable Assemblies for Incremental and Absolute Serial Encoders

Cable assemblies are built using high quality custom BEI standard cable (P/N 37048-003) consisting of four, low capacitance shielded twisted pairs (24 AWG Data, 20 AWG Power and ground) with an overall shield, extra large conductors for power, and signal ground all within an abrasion-resistant PVC jacket. Size 16 and 18 cable assemblies utilize a waterproof and UV resistant over-molded backshell.



Part Nos. for MS3106F14S-6S Mating Connector		
10 ft. # 31186-1410	20 ft. # 31186-1420	30 ft. #31186-1430

Part Nos. for MS3106F16S-1S Mating Connector		
10 ft. # 31186-1610	20 ft. # 31186-1620	30 ft. #31186-1630

Part Nos. for MS3106F18S-1S Mating Connector		
10 ft. # 31186-1810	20 ft. # 31186-1820	30 ft. #31186-1830

## Cable Reels

Both 100' and 500' reels of encoder cable are available for your own custom wiring requirements. This high quality custom BEI standard cable consisting of four, low capacitance shielded twisted pairs with an overall shield, extra large conductors for power, and signal ground; all within an abrasion-resistant PVC jacket.

100 ft. reel	Part No. 37048-003-100
500 ft. reel	Part No. 37048-003-500

## Cable Assemblies for 8 Bit Absolute Encoders

Cable assemblies for 8 Bit absolute encoders are built using high quality custom BEI Standard Cable (P/N 37059) consisting of 12, 22 gage conductors, an overall shield, and an abrasion-resistant PVC jacket.

Part Numbers for MS3106F20-29S Mating Connector		
10 ft. #31204-2010	20 ft. #31204-2020	30 ft. #31204-20300

## Cable Assemblies for 12-15 Bit Absolute Encoders

Cable assemblies for absolute encoders are built using high quality custom BEI standard cable (P/N 37063) consisting of 18, 26 gage conductors and uses larger, 22 gage conductors for power and ground. This cable has an overall shield and an abrasion-resistant PVC jacket.

Part Numbers for MS3116J14-19S Mating Connector		
10 ft. #31219-1410	20 ft. #31219-1420	30 ft. #31219-1430

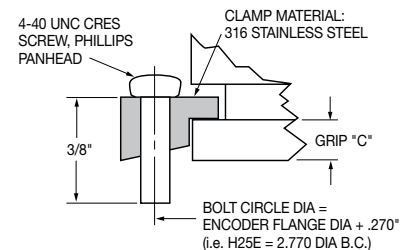
## Measuring Wheel

This measuring wheel uses an 80 durometer urethane rolling surface vulcanized to an aluminum hub and then machined to a circumference of 12 inches. It is designed to be used with shafts of a nominal 3/8" diameter and should be installed with the hub side facing away from the encoder housing. Maximum recommended load in service is 15 pounds. **Part Number 31196-001**



## Synchro-Clamps

Synchro clamps are used with servo-style bearing housings ("E" or "G" style housings on the encoder model number designation) to hold the face of the encoder against a mounting plate. Clamps are placed at a radius slightly larger than the encoder mounting flange, (see illustration below) and allow for rotational alignment of the encoder during installation for machine set-up.



Grip "C"	Encoder Type	Part No. (3-Piece Kit)
.093	H25E or H20E	924-31165-001
.125	H25G	924-31165-002