5.52” Diameter Electrical Slip Ring

Model 176

Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environments and is a leading manufacturer of high performance and high quality electrical slip rings. Contact Focal for assistance in selecting the best solution for your requirement.

The Model 176 is comprised of electrical power and signal passes, and provides superior performance and reliability in demanding operational environments. The Model 176 may be used for high voltage and high current applications, customized to meet customer specific needs. The slip ring is waterproof rated to IP66, with the option for greater ingress protection.

The Model 176 may be constructed for subsea use where underwater operation is required. The slip ring may be fluid-filled, and pressure compensated. Additional options are available for high voltage use in submerged applications.

For the hazardous locations, the Model 176-X variant is fully certified, as a flameproof and explosion proof enclosure.

Features

- Electrical passes rated up to 7200 V / 20 A
- Pigtail exits are capable of being sealed
- Sealed housing design tested to IP66 standards
- Can accommodate a variety of wire and cable types
- Maintained type certification for Hazardous locations
- Stainless steel construction
- Rugged design intended for harsh environments
- Reliable operation under shock and vibration
- Underwater designs available

Benefits

- Compliance with the highest quality standards for design, manufacture and test
- Maintenance free operation
- More than 30 years of proven field performance
- Integration with fiber optic rotary joints and fluid rotary unions to provide a complete rotating interface solution

Applications

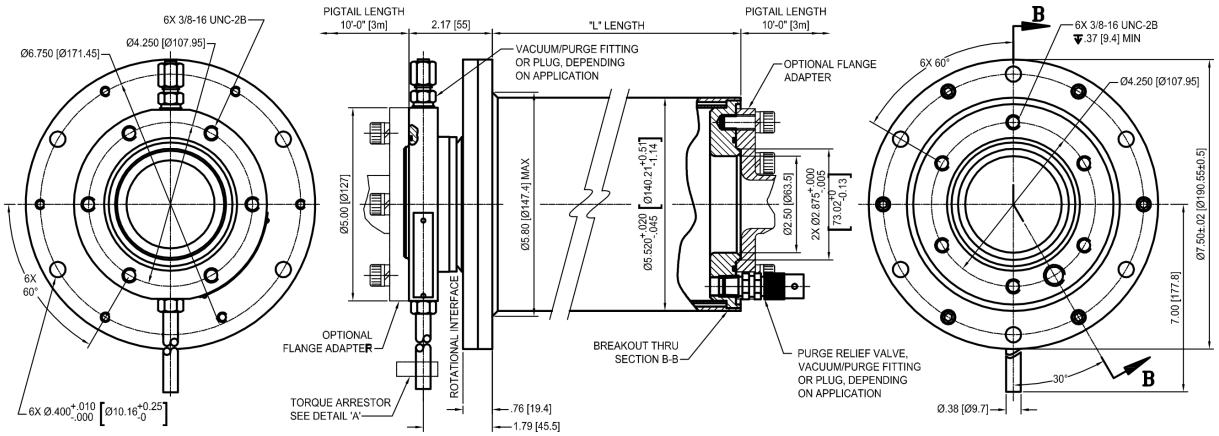
- Winch cable reels and TMS applications
- Remotely Operated Vehicles (ROVs)
- Seismic survey
- Towed instrument arrays
- Oceanographic survey (surface and subsea)
- Mine countermeasures

Specifications

Electrical	
Voltage	Maximum 7200 VAC
Current	Maximum 20 A per pass Maximum 720 A total current * *Maximum total current is dependent on duty cycle, ambient temperature and specific configuration. Consult factory to ensure configuration is suitable for application.
Electrical Performance	
Contact Resistance	20 mΩ nominal
Insulation Resistance	Typically > 500 MΩ @ 1 kVDC
Short Circuit Rating	1.5 kA / 1s, 3.7 kA peak
Signal Types	Analog Video, CanBus, Profibus, Device Net, 10 Base-T Ethernet, SHDSL, RS-485
Mechanical	
Rotation Speed	Maximum 50 rpm continuous
Ingress Protection	Sealed to IP66, except for pigtail exits
Operating Temperature	-20°C to +55°C [1]
Housing	Stainless steel (304)
Insertion Length "L" (see drawing below)	Varies with number of electrical passes
Environment Test	
Temperature	Tested to MIL-STD-810F methods 501.4 and 502.4
Vibration	Tested to MIL-STD-167-1
Shock	Tested to MIL-STD-810D, method 516.3
Humidity	Tested to MIL-STD-810F, method 507.4

[1] -20°C to +40°C for hazardous area certified Model 176-X under Canadian jurisdiction
Please contact factory with your application details

Hazardous Area Option: Model 176-X		
Certification	US:	Class I, Division 1, Group C & D, T5 Class I, Zone 1, AEx d IIB T5 ETL ATM 4007859
	CAN:	Class I, Division 1, Group C & D, T5 Class I, Zone 1, Group IIB T5 ETL ATM 4007859
	ATEX:	CE 0334 II 2 G Ex db IIB T5 Gb ITS 17 ATEX 12774X
	IECEx:	Ex db IIb T5 Gb ETL 13.0013X
Terminations		
Standard		Wire pigtails, 10 ft [3.0 m]
Flange and Cable Covers		Various entry threads and orientations available
Special		Supply and installation of connectors, terminals, conduit, cable, glands, junction boxes, sealed pigtail exits
Additional Options		
Optics		Fiber Optic Rotary Joint (FORJ) or optical converter
Design Classification		ABS, DNV, BV, LRS
Covered Pigtails		Tinned copper braid and heat shrink installed over loose wire pigtails
Submersed Applications		Fluid-fill fittings or fluid-filled/pressure compensated at factory
Other Devices		RF Rotary Joint, shaft encoder, sensors, Fluid Rotary Union (FRU), slip ring sensors, customer supplied product
Ingress Protection		IP 67 or IP 68
Housing Material		316 stainless steel



All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

Dimensions in inches [mm].