

# 2.85" Diameter Electrical Slip Ring

Model 180

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.



Please note diagram shows model 180 with optional connectors

The Model 180 is comprised of electrical power and signal passes. Ideal for small systems, it is a compact, rugged unit designed for harsh operating conditions. For the hazardous area environment, there is an option for a fully certified, flameproof enclosure. When underwater operational capability is required, it can also be configured for use as a fluid-filled, pressure compensated unit.

## Features

- Electrical passes rated up to 1000 V / 7 A
- Hazardous area certification available
- Pigtail exits are capable of being sealed
- Can accommodate a variety of wire and cable types
- Rugged design intended for harsh environments
- Reliable operation under shock and vibration

## Benefits

- Compliance with the highest quality standards for design, manufacture and test
- Maintenance free operation
- More than 25 years of proven field performance
- Integration with fiber optic rotary joints and fluid rotary unions to provide a complete rotating interface solution

## Applications

- Remotely Operated Vehicles (ROVs)
- Winch and TMS applications
- Oceanographic winches (surface and subsea)
- Industrial machinery
- Land based oil and gas

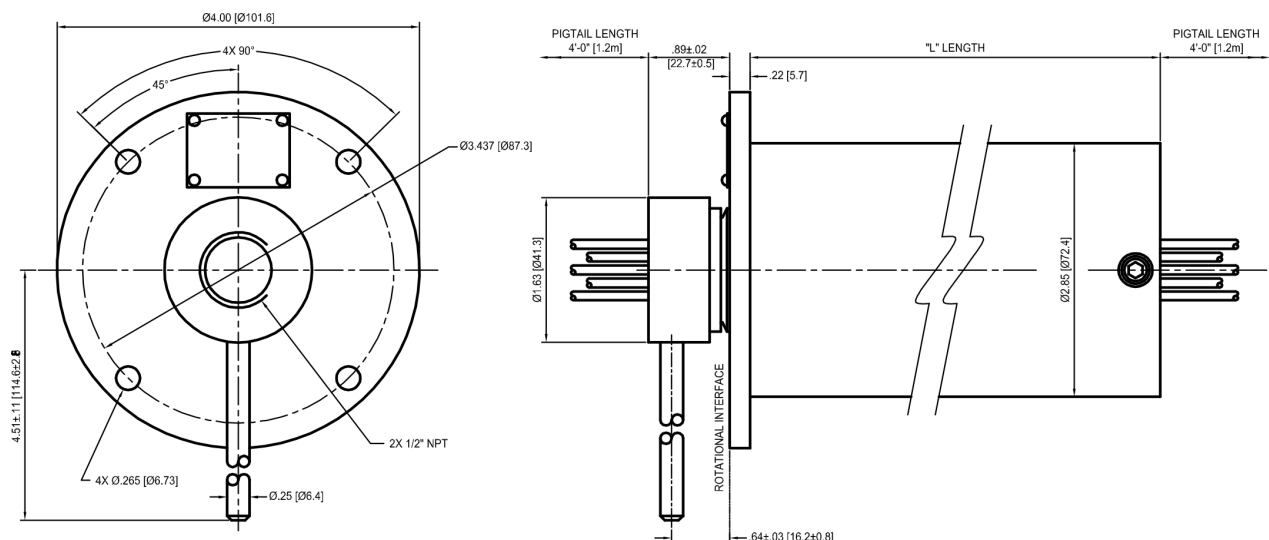
# Specifications

Electrical	
<b>Voltage</b>	Maximum 1000 VAC
<b>Current</b>	Maximum 7 A per pass Maximum 100 A total current
Electrical Performance	
<b>Contact Resistance</b>	20 mΩ nominal
<b>Insulation Resistance</b>	Minimum 500 MΩ @ 1 KVDC
<b>Signal Types</b>	Analog Video, CanBus, Profibus, Device Net, 10 Base-T Ethernet, SHDSL, RS-485, 1000 Base-T Ethernet
Mechanical	
<b>Rotation Speed</b>	Maximum 100 rpm
<b>Ingress Protection</b>	Sealed to IP66, except for pigtail exits
<b>Operating Temperature</b>	-20°C to +55°C <sup>1</sup>
<b>Housing</b>	Stainless steel (304)
<b>Insertion Length "L" (see drawing below)</b>	Varies with number of electrical passes
Environment Test	
<b>Temperature</b>	Tested to MIL-STD-810F Methods 501.4 and 502.4
<b>Vibration</b>	Tested to MIL-STD-167-1
<b>Shock</b>	Tested to MIL-STD-810D, method 516.3
<b>Humidity</b>	Tested to MIL-STD-810F, method 507.4

<sup>1</sup> -20°C to +40°C for a hazardous area certified Model 180-X under Canadian jurisdiction

Hazardous Area Option: Model 180-X	
<b>Certifications</b>	<b>US:</b> Class I, Division 1, Group C & D, T5 Class I, Zone 1, AEx d IIB T5 ETL ATM 4007859
	<b>CAN:</b> Class I, Division 1, Group C & D, T5 Class I, Zone 1, Ex d IIB T5 ETL ATM 4007859
	<b>ATEX:</b> CE 0334 II 2 G Ex db IIB T5 Gb KEMA 04ATEX2084X
	<b>IECEX:</b> Ex db IIB T5 Gb ETL 13.0013X
Terminations	
<b>Standard</b>	Wire pigtails, 4 ft [1.2 m], exiting via 1/2" or 3/4" NPT female ports
<b>Special</b>	Supply and installation of connectors, terminals, conduit, cable, glands, junction boxes, sealed pigtail exits
Additional Options	
<b>Optics</b>	Fiber Optic Rotary Joint (FORJ) or optical converter
<b>Design Classification</b>	ABS, DNV, BV, LRS
<b>Submersed Applications</b>	Fluid fill fittings or fluid filled/ pressure compensated at factory
<b>Other Devices</b>	RF Rotary Joint, shaft encoder, sensors, Fluid Rotary Union, customer supplied product
<b>Ingress Protection</b>	IP 67 or IP 68
<b>Housing Material</b>	316 stainless steel

Please contact factory with your application details



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

Dimensions in inches [mm]