

# Slip Rings

## Model 180

### *Slip ring*

#### Description

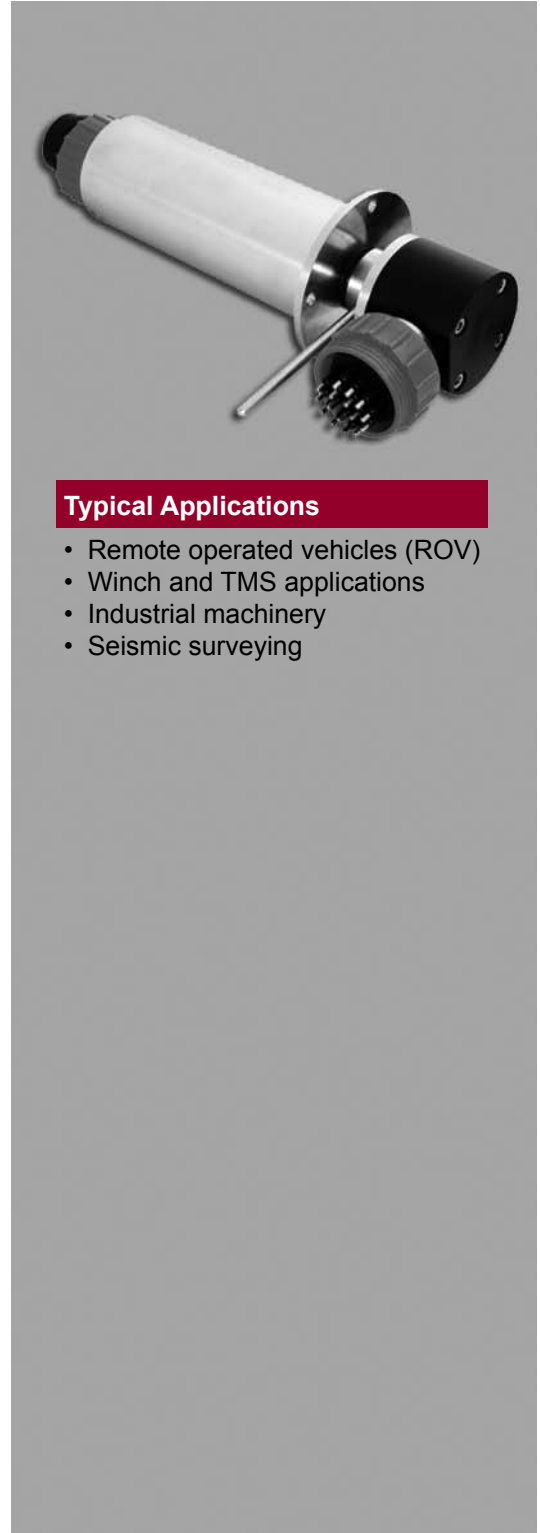
Ideal for small systems, the Model 180 is a compact, rugged unit designed for harsh operating conditions. For the hazardous area environment, the 180-X is a fully certified flameproof enclosure. When underwater operational capability is required, the 180 can also be adapted for use as a fluid filled pressure compensated unit. Available in both standard “L” lengths or custom designs.

#### Features

- Stainless steel enclosure for open deck use
- Sealed housing design tested to IP66 standards
- Can accommodate variety of wire and cable types
- Hazardous area certification available
- Reliable operation under shock and vibration
- Compact size

#### Benefits

- Each unit designed, manufactured, and tested in accordance with the highest quality standards
- Maintenance free operation
- More than 20 years of proven field performance
- Integration with fiber optic rotary joints and fluid rotary unions to provide a complete rotating interface solution



#### Typical Applications

- Remote operated vehicles (ROV)
- Winch and TMS applications
- Industrial machinery
- Seismic surveying

Electrical	
<b>Voltage</b>	Maximum 1000 VAC <sup>1</sup>
<b>Current</b>	Maximum 7 A per pass <sup>2</sup> Maximum 100 A total current <sup>3</sup>
<sup>1</sup> Maximum 600 V for KEMA certified Model 180-X	
<sup>2</sup> Higher current ratings possible by wiring passes in parallel	
<sup>3</sup> All current ratings based on a 20 °C ambient temperature	

Electrical Performance	
<b>Contact Resistance</b>	20 mΩ nominal
<b>Flashover Voltage</b>	2500 VAC
<b>Insulation Resistance <sup>1</sup></b>	Minimum 500 MΩ @ 1 kVDC
<b>Insertion Loss (Nominal) RG179 coax</b>	1.5 dB maximum up to 30 MHz
<b>Crosstalk (Nominal) RG179 coax</b>	-40 dB maximum up to 30 MHz
<b>Bit Error Rate</b>	Digital data transmission is greater than 25 Mbps at BER of 10 <sup>-9</sup>
<sup>1</sup> Value dependent on wire type	

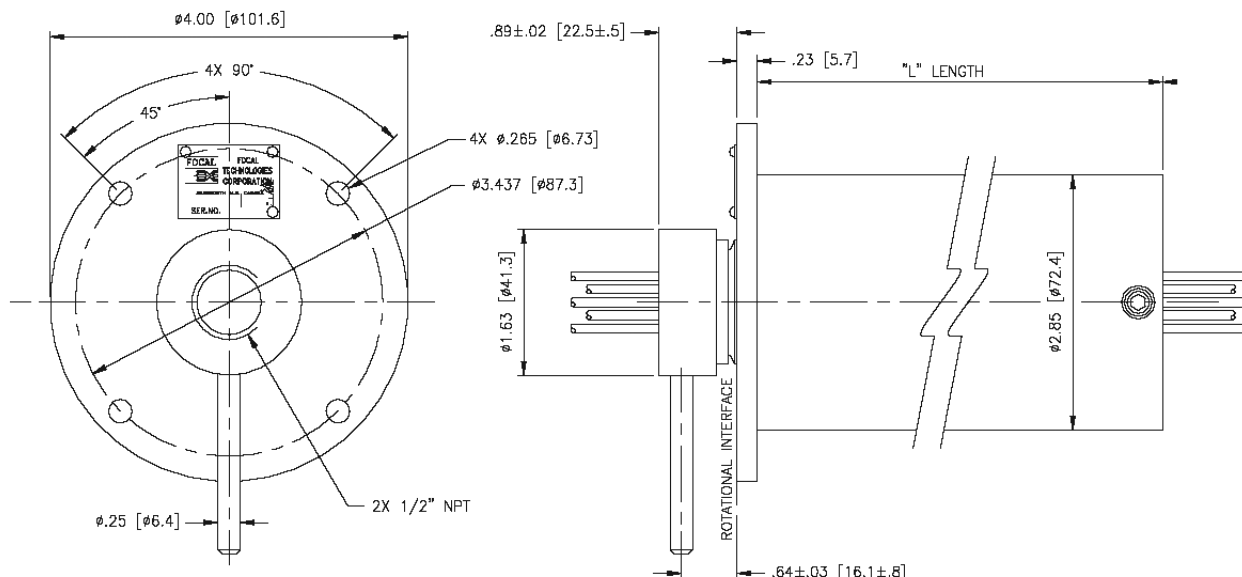
Mechanical	
<b>Rotation Speed</b>	Maximum 100 rpm continuous <sup>1</sup>
<b>Ingress Protection</b>	IP 66
<b>Operating Temperature</b>	-20 °C to + 55 °C <sup>2</sup>
<b>Housing</b>	Stainless steel (304)
<b>Length "L"</b>	Varies with number of electrical passes <sup>3</sup>
<sup>1</sup> Higher rotational speeds possible. Please consult factory.	
<sup>2</sup> -20 °C to +40 °C for CSA certified Model 180-X	
<sup>3</sup> Maximum number of electrical passes is 60	

Hazardous Area Option: Model 180-X	
<b>CSA Certification</b>	Class 1, Group C, D Zone 1 Group IIB
<b>KEMA Certification</b>	ATEX CE Ⓢ II 2 G EEx d IIB T5 (in accordance with ATEX directive 94 / 9 / EC)
Can be certified as associated apparatus (EEx d[ib] IIB T5) on special order (EN50020)	

Terminations	
<b>Standard</b>	Wire pigtails, 4 ft [1.2 m] in length, exiting via ½" or ¾" NPT female port
<b>Special <sup>1</sup></b>	Supply and installation of connectors, terminals, conduit, cable, glands, junction boxes
<sup>1</sup> Integration of customer supplied product possible	

Additional Options	
<b>Optics <sup>1</sup></b>	Fiber Optic Rotary Joint (FORJ) or Optical Converter
<b>Fluid</b>	Fluid Rotary Union (FRU)
<b>Submersed Applications</b>	Fluid filling fittings or fluid filled/pressure compensated at factory
<b>Other Devices <sup>2</sup></b>	RF Rotary Joint, Shaft Encoder, Sensors
<b>Ingress Protection</b>	IP 68
<b>Extended Temperature Range</b>	
<sup>1</sup> Maximum number of electrical passes is reduced to 30	
<sup>2</sup> Integration of customer supplied product possible	

## Model 180 Dimensions



Dimensions in inches [millimeters]