

Slip Rings With Through-Bores

Endura-Trac™

Fiber W series

Description

The Endura-Trac™ series of slip ring assemblies were developed for a wide variety of applications and environments. The flexible design and through-bore capability of up to 9 inches, along with many other options make it ideal for a designer to incorporate into new and retrofit applications. Modular construction allows a range of signal and power combinations with power circuits up to 30 amps and signal circuits. With the release of the Fiber W Series the traditional composite brushes have been replaced with fiber brushes, eliminating the need for debris maintenance and brush replacement for the life of the slip ring.

Features

- Bore sizes from 1.5 inch to 9.0 inch
- Up to 48 signal circuits or low power (rated at 250 V / 5 A each)
- Up to 28 power circuits (rated at 600 V / 30 A each)
- Continuous bidirectional rotation up to 250 rpm on all sizes
- Flying lead wire bundle, 24 inch lead length standard
- #20 AWG signal lead wire, #12 AWG power lead wire
- All metal exterior cover
- Shaft and flange mounting
- Stator, rotor, or both can rotate

Benefits

- Ease of use
- Debris free operation
- Maintenance free life
- Extended life versus traditional composite brushes
- Compatible with data bus protocols, contact factory for details
- Transfers power, as well as analog and digital signals
- Hundreds of different combinations of signals and power circuits
- Integration of cable assemblies and connectors



Typical Applications

- Packaging machines
- Index tables
- Paper and film converting
- Rotary machines
- Machine tools
- Automation equipment
- Medical equipment
- Surveillance equipment
- Inspection equipment

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Fiber W Series Specifications		Options
Rated Speed	1.5 and 3.0 inch bore: 250 rpm 4.0, 6.0 and 9.0 inch bore: 250 rpm	<ul style="list-style-type: none"> • Drive adaptor for stator de-rotation • Longer lead lengths • Sealed version (NEMA 12) • Various power and signal configurations available • Mounting collar for shaft mount • Higher circuit counts available, contact factory • Higher RPMs possible on some units
Power Rings	30 A / 600 volts	
Signal Rings	5 A / 250 volts	
Lead Wire	Power circuits - 12 AWG flying leads Signal circuits - 20 AWG flying leads	
Temperature Range	-40°C to +80°C	

*Please note that the operational life of the unit is dependent upon rotational speed, environment and temperature.

Bore Size	ID Actual	OD	Max RPM	"L1"	S	R
1.5 inch (38,1 mm)	1.52 (38,61)	4.97 (126,24)	250	Unsealed - .2 (XX) + .4 (YY) + 1.63 Sealed - .2 (XX) + .4 (YY) + 2.41	4.033 (102,44)	1.896 (48,16)
3.0 (76,2)	3.02 (76,71)	6.47 (164,34)	250	Unsealed - .2 (XX) + .4 (YY) + 1.52 Sealed - .2 (XX) + .4 (YY) + 1.89	5.488 (139,40)	3.396 (86,26)
4.0 (101,6)	4.02 (102,11)	7.50 (190,50)	250	Unsealed - .2 (XX) + .4 (YY) + 1.38 Sealed - .2 (XX) + .4 (YY) + 2.18	6.500 (165,10)	4.396 (111,66)
6.0 (152,40)	6.02 (152,91)	9.51 (241,30)	250	Unsealed - .2 (XX) + .4 (YY) + 1.39 Sealed - .2 (XX) + .4 (YY) + 2.18	8.332 (211,63)	6.646 (168,81)
9.0 (228,60)	9.02 (229,11)	12.50 (317,50)	250	Unsealed - .2 (XX) + .4 (YY) + 1.63 Sealed - .2 (XX) + .4 (YY) + 2.37	11.500 (292,10)	9.585 (243,46)

To determine length of overall unit, use the "L1" formulas or contact us for assistance.

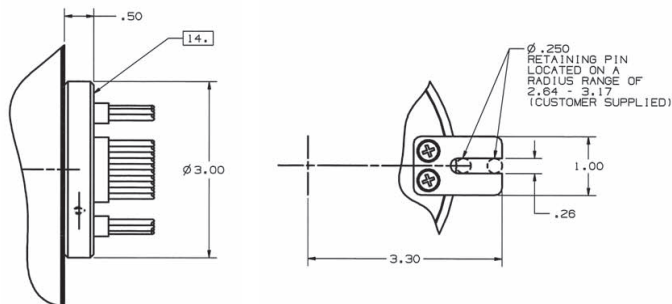
xx = Total number of signal rings, available in multiples of 4
yy = Total number of power rings, available in multiples of 2

Additional configurations available, contact factory for details.

Number of signal rings
(multiples of 4)

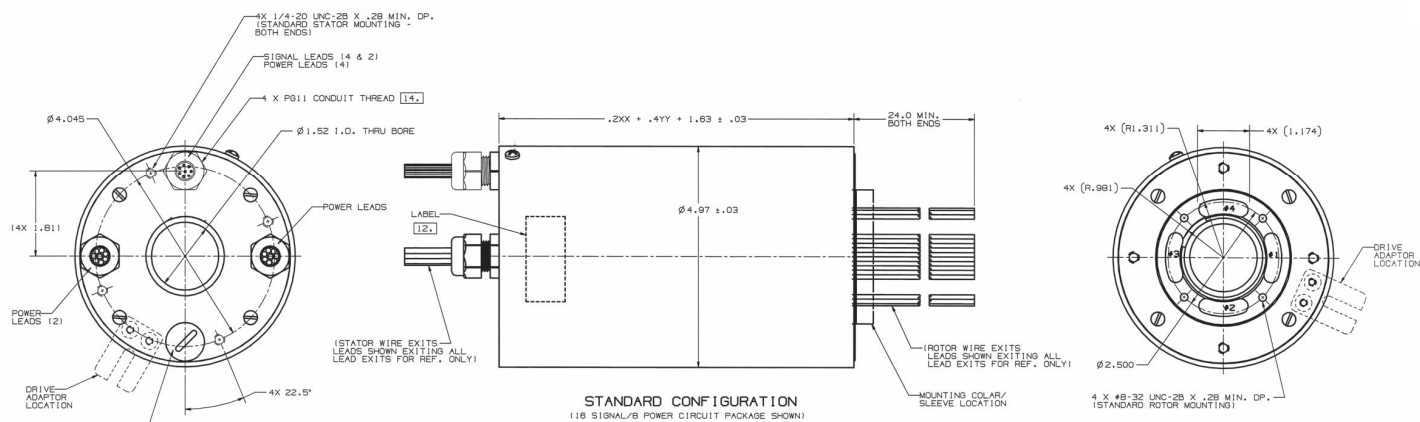
	0	4	8	12	16	20	24	28	32	36	40
0		-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-

Number of power rings
(multiples of 2)



Plus W Series Dimensions

Example shown is of the W15 (1.5 inch bore). Contact factory for all other sizes.



Dimensions in inches [millimeters]

Slip Rings With Through-Bores

Endura-Trac™ Accessories

Our pre-engineered slip rings that feature a flexible design, minimized lead times and maximum reliability



Mounting Guidelines

There are several mounting options available on Endura-Trac™ products. One of the most important rules to remember when designing the installation of a slip ring is to avoid hard mounting both the rotating and stationary sections. This can transfer concentricity and axial run-out into the slip ring assembly and can adversely affect slip ring life.

Hard Mounting (Fixed Mounting): Any concentricity or axial run-out in the rotating-mechanical system is transferred to the slip ring assembly.

Soft Mounting (Floating Mount): Any concentricity or axial run-out in the rotating-mechanical system is not transferred to the slip ring assembly.

Ideally, the inner portion of the slip ring (ID) should be mounted by attaching a flange directly to it with screws or by using a Mounting Collar Kit that attaches to the slip ring rotor section and connects to the shaft with set-screws. The outer portion of the slip ring (OD) is soft mounted using a Drive Adapter Kit. If the OD is hard mounted in a housing or with a flange, the ID may be soft mounted using a flexible coupling. Hard mounting both the rotor and stator is not recommended.

Mounting Accessories

The Mounting Collar Kit attaches to either end of the slip ring rotor and facilitates mounting to a shaft by means of 2 or 4 set-screws. Location of set screws vary by model, contact factory for details. All mounting collars add 0.50 inch to the overall unit length.

Drive Adapter Kits are the perfect solution for soft mounting the stator section of the slip ring. This simple pin-in-slot arrangement prevents system concentricity or axial run-out problems from being transferred into the slip ring.

Mounting Accessories

Bore Size (Inch)	Mounting Collar Kit Part Number	Drive Adapter Kit Part Number
1.5	W1500090	W1500087
3.0	W3000069	W1500087
4.0	W4000035	W1500087
6.0	W6000021	W1500087
9.0	W9000019	W1500087