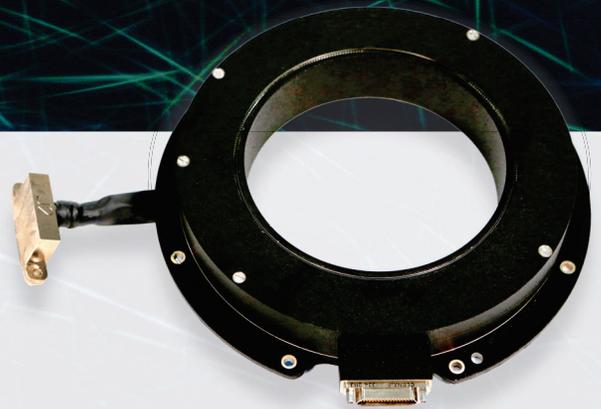
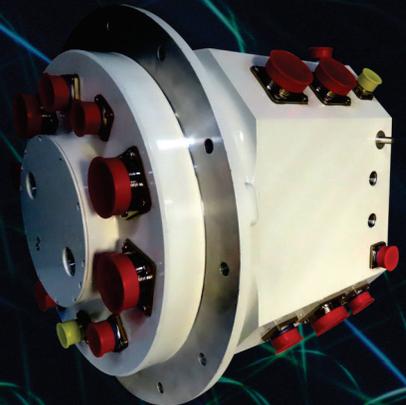
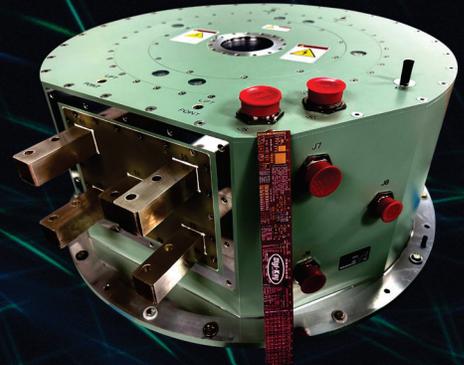


# EVERAXIS®

Standard & Custom Rotating Solutions

Reliable solutions  
for challenging  
environments



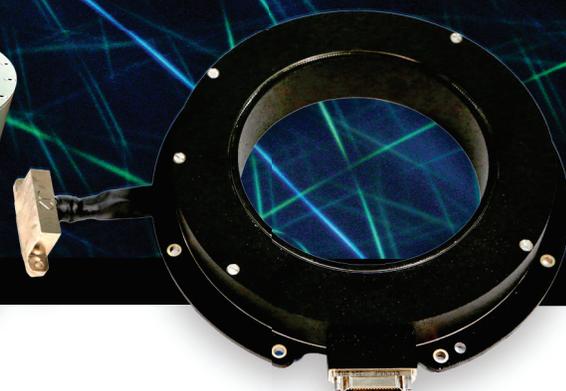
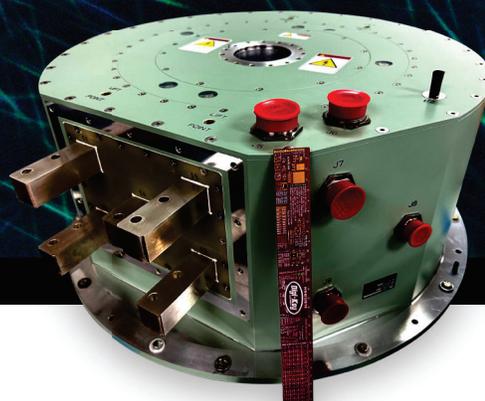
## SLIP RINGS AND TWIST CAPSULES



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# STANDARD ROTATING SOLUTIONS



## Standard and custom slip rings and twist capsules for aerospace, military, satellite, and strategic industrial applications

Everaxis has delivered mission-critical rotational products with exceptional reliability and precision for over 70 years. Today, our products are integral to systems engineered for the demanding environments of aerospace, military, space, and commercial/industrial markets.

The Everaxis rotational product line supports applications starting at the engineered component level. Our designers can customize existing products to perfectly match your needs or leverage our extensive engineering expertise to develop a custom design. With a library of over 3,000 baseline designs, we significantly reduce design and development time. Many of these designs are suitable for commercial or dual-use applications.

Everaxis USA is a vertically integrated facility with comprehensive in-house environmental testing capabilities, including temperature cycling, vacuum, humidity, HALT/HASS, and vibration testing.

### Slip Ring Assemblies

A variety of applications require cable management systems to pass power, signals, video, fluids, and RF through a moving interface. Our slip ring assemblies are an ideal cable management option when the rotation is greater than 360°. We can fully customize our high-reliability slip ring assemblies to fit application requirements – or supply one of our standard products. Our slip rings can include:

- RF rotary joints
- Position feedback including resolvers and encoders
- Fiber optic rotary joints
- Fluid rotary joints

Everaxis can also provide separate brush block and ring assemblies for applications that require this level of assembly where the customer must manage the integration.

### Twist Capsules

Everaxis twist capsule products are designed for limited angle rotation applications. We customize our twist capsules for the number of lines, the range of motion, and the envelope available for each application. Like our slip ring assemblies, our twist capsules can transmit these signals:

- Power
- Signal
- RF
- Video
- High frequency
- Telemetry

COMMERCIALLY AVAILABLE SLIP RING SOLUTIONS

| Part Number* | Power | Analog | Digital Data | High Speed Digital Video | High Speed Data | Number of Circuits | Outer Diameter (in.) | Length (in.) | Through Bore | Inner Diameter (in.) | Current Rating per Ring | Voltage Rating (V) | Electrical Noise | Lead Wire   | Maximum Speed |
|--------------|-------|--------|--------------|--------------------------|-----------------|--------------------|----------------------|--------------|--------------|----------------------|-------------------------|--------------------|------------------|-------------|---------------|
| 1001544      | ■     | ■      | ■            |                          |                 | 12                 | 0.225                | 0.840        |              |                      | 0.5A                    | 150 VAC / VDC      | <10 mΩ           | 30 AWG      | 390 rpm       |
| 1001398      | ■     | ■      | ■            | ■                        | ■               | 12                 | 0.372                | 0.603        |              |                      | 1A                      | 150 VAC / VDC      | <10 mΩ           | 30 AWG      | 1000 rpm      |
| 1000604      | ■     | ■      | ■            | ■                        |                 | 40 Max             | 0.562                | 1.665        |              |                      | 1A                      | 110 VAC / VDC      | <10 mΩ           | 30 AWG      | 200 rpm       |
| 1000245      | ■     | ■      | ■            | ■                        | ■               | 20 Max             | 0.690                | 1.700        |              |                      | 1A                      | 110 VAC / VDC      | <10 mΩ           | 30 AWG      | 200 rpm       |
| 1001671      | ■     | ■      | ■            | ■                        | ■               | 12                 | 0.700                | 0.750        | ■            | 0.196                | 1A                      | 120 VAC / VDC      | <15 mΩ           | 28 AWG      | 500 rpm       |
| 1001884      | ■     | ■      | ■            | ■                        | ■               | 10                 | 1.000                | 2.150        |              |                      | 1A/5A                   | 24 VDC             | <20 mΩ           | 18/20 AWG   | 500 rpm       |
| 1000110      | ■     | ■      | ■            |                          |                 | 30 Max             | 1.000                | 2.560        |              |                      | 1A                      | 150 VDC            | <5 mΩ            | 28 AWG      | 750 rpm       |
| 1001847      | ■     | ■      | ■            | ■                        | ■               | 18                 | 1.250                | 1.270        | ■            | 0.375                | 2A                      | 210 VDC            | <20 mΩ           | 26 AWG      | 500 rpm       |
| 1001877      | ■     | ■      | ■            | ■                        | ■               | 18                 | 1.250                | 1.275        | ■            | 0.375                | 2A                      | 110 VAC / VDC      | <20 mΩ           | 26 AWG      | 1000 rpm      |
| 1001808      | ■     | ■      | ■            | ■                        | ■               | 36                 | 1.250                | 3.385        | ■            | 0.500                | 2A/8A                   | 210 VDC            | <10 mΩ           | 18/26 AWG   | 60 rpm        |
| 1000150      | ■     | ■      | ■            |                          |                 | 48 Max             | 1.720                | 4.500        |              |                      | 2A                      | 400 VDC            | <10 mΩ           | 28 AWG      | 750 rpm       |
|              | ■     | ■      | ■            |                          |                 | 80 Max             | 1.720                | 6.600        |              |                      | 2A                      | 400 VDC            | <10 mΩ           | 22 AWG      | 750 rpm       |
| 1001666      | ■     | ■      | ■            |                          |                 | 8                  | 1.800                | 1.990        | ■            | 0.501                | 5A                      | 150 VAC / VDC      | <10 mΩ           | 24 AWG      | 900 rpm       |
| 1001030      | ■     | ■      |              |                          |                 | 30 Max             | 2.500                | 5.750        | ■            | 0.500                | 5A                      | 250 VDC            | <10 mΩ           | 22 AWG      | 5000 rpm      |
| 1001611      | ■     | ■      | ■            |                          |                 | 42 Max             | 2.700                | 2.710        | ■            | 0.312                | 2A                      | 100 VAC / VDC      | <10 mΩ           | 22/26 AWG   | 500 rpm       |
| 1001675      | ■     | ■      | ■            |                          |                 | 66 Max             | 2.700                | 4.310        | ■            | 0.312                | 2A/5A                   | 100 VAC / VDC      | <10 mΩ           | 22/26 AWG   | 500 rpm       |
| 1001498      | ■     | ■      | ■            |                          |                 | 80                 | 2.750                | 4.921        | ■            | 0.310                | 3A                      | 110 VAC / VDC      | <10 mΩ           | 22 AWG      | 150 rpm       |
|              | ■     | ■      | ■            |                          |                 | 170                | 2.750                | 8.661        | ■            | 0.310                | 3A                      | 110 VAC / VDC      | <10 mΩ           | 22 AWG      | 150 rpm       |
|              | ■     | ■      | ■            |                          |                 | 235                | 2.750                | 11.500       | ■            | 0.310                | 3A                      | 110 VAC / VDC      | <10 mΩ           | 22 AWG      | 150 rpm       |
|              | ■     | ■      | ■            |                          |                 | 280                | 2.750                | 13.230       | ■            | 0.310                | 3A                      | 110 VAC / VDC      | <10 mΩ           | 22 AWG      | 150 rpm       |
| 1000490      | ■     | ■      |              |                          |                 | 100 Max            | 4.000                | 10.500       | ■            | 1.000                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 5000 rpm      |
| 1000491      | ■     | ■      |              |                          |                 | 100 Max            | 5.000                | 10.500       | ■            | 1.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 4000 rpm      |
| 1000492      | ■     | ■      |              |                          |                 | 100 Max            | 6.500                | 10.500       | ■            | 2.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 3000 rpm      |
| 1000493      | ■     | ■      |              |                          |                 | 100 Max            | 7.500                | 10.500       | ■            | 3.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 2500 rpm      |
| 1000494      | ■     | ■      |              |                          |                 | 100 Max            | 8.500                | 10.500       | ■            | 4.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 2000 rpm      |
| 1001727      | ■     | ■      | ■            |                          |                 | 178                | 9.000                | 28.000       | ■            | 6.000                | 2A/20A                  | 110 VAC / VDC      | <10 mΩ           | Per request | 150 rpm       |
| 1000495      | ■     | ■      |              |                          |                 | 100 Max            | 9.500                | 10.500       | ■            | 5.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 1500 rpm      |
| 1000496      | ■     | ■      |              |                          |                 | 100 Max            | 10.500               | 10.500       | ■            | 6.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 1500 rpm      |
| 1001821      | ■     | ■      | ■            | ■                        | ■               | 30                 | 11.250               | 1.300        | ■            | 6.500                | 2A                      | 110 VAC / VDC      | <20 mΩ           | 24/26 AWG   | 50 rpm        |
| 1000497      | ■     | ■      |              |                          |                 | 100 Max            | 11.500               | 10.500       | ■            | 7.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 1000 rpm      |
| 1000498      | ■     | ■      |              |                          |                 | 100 Max            | 13.000               | 10.500       | ■            | 8.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 1000 rpm      |
| 1000499      | ■     | ■      |              |                          |                 | 100 Max            | 14.000               | 10.500       | ■            | 9.750                | 10A                     | 250 VAC / VDC      | <10 mΩ           | Per request | 750 rpm       |

\* Product part numbers are listed by outer diameter size.  
 Note: All configurations can be designed in a platter or drum style.

## COMMERCIALLY AVAILABLE SLIP RING SOLUTIONS

| Part Number* | Power | Analog | Digital Data | High Speed Digital Video | High Speed Data | Number of Circuits | Outer Diameter (in.) | Length (in.) | Current Rating per Ring | Voltage Rating (V) | Electrical Noise | Lead Wire | Maximum Speed |
|--------------|-------|--------|--------------|--------------------------|-----------------|--------------------|----------------------|--------------|-------------------------|--------------------|------------------|-----------|---------------|
| 1002010-206  | ■     | ■      | ■            | ■                        |                 | 6                  | 0.440                | 0.490        | 2A                      | 210 VDC / 240 VAC  | 50 mΩ            | 28 AWG    | 60 rpm        |
| 1002010-212  | ■     | ■      | ■            | ■                        |                 | 12                 | 0.440                | 0.640        | 2A                      | 210 VDC / 240 VAC  | 50 mΩ            | 28 AWG    | 60 rpm        |
| 1002010-218  | ■     | ■      | ■            | ■                        | ■               | 18                 | 0.440                | 0.780        | 2A                      | 210 VDC / 240 VAC  | 50 mΩ            | 28 AWG    | 60 rpm        |
| 1002010-224  | ■     | ■      | ■            | ■                        | ■               | 24                 | 0.440                | 0.920        | 2A                      | 210 VDC / 240 VAC  | 50 mΩ            | 28 AWG    | 60 rpm        |
| 1002010-106  | ■     | ■      | ■            | ■                        |                 | 6                  | 0.870                | 0.520        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-112  | ■     | ■      | ■            | ■                        |                 | 12                 | 0.870                | 0.760        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-118  | ■     | ■      | ■            | ■                        | ■               | 18                 | 0.870                | 1.000        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-124  | ■     | ■      | ■            | ■                        | ■               | 24                 | 0.870                | 1.240        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-136  | ■     | ■      | ■            | ■                        | ■               | 36                 | 0.870                | 1.720        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-140  | ■     | ■      | ■            | ■                        | ■               | 40                 | 0.870                | 1.880        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |
| 1002010-338  | ■     | ■      | ■            | ■                        | ■               | 38                 | 1.000                | 2.150        | 2A                      | 210 VDC / 240 VAC  | 30 mΩ            | 26 AWG    | 250 rpm       |

\* Product part numbers are listed by outer diameter size.  
 Note: All configurations can be designed in a platter or drum style.



STANDARD AND CUSTOM SLIP RING AND TWIST CAPSULE SOLUTIONS

| Custom Designs           | Description   | Slip Rings | Twist Capsules |
|--------------------------|---|------------|----------------|
|                          | Everaxis can fully customize slip ring and twist capsule assemblies to fit commercial or military application requirements. We can also provide separate brush block and ring assemblies. Our slip rings and twist capsules can include the below signal types and options. |            |                |
| <b>Power</b>             | We have developed long life slip rings for constant rotation applications. We reduce the wear and debris generated in power slip rings through the use of proprietary materials and lengthen the life of the slip ring.   | ■          | ■              |
| <b>Analog / RF</b>       | We can transmit Analog, RF, HF and UHF signals through our assemblies. We impedance match the signal lines for minimum crosstalk and insertion losses.  | ■          | ■              |
| <b>High Speed Data</b>   | We can transmit high speed data signals through our assemblies. Below is a partial list of the signal types our slip rings have transmitted.  | ■          | ■              |
|                          | RS-422  | ■          | ■              |
|                          | USB   | ■          | ■              |
|                          | Serial EIA-422  | ■          | ■              |
|                          | Serial EIA-485  | ■          | ■              |
|                          | GPIB/HPIB (IEEE-488.1)  | ■          | ■              |
|                          | 10BASE-T / 100BASE-T / 1000BASE-T   | ■          | ■              |
|                          | USB Hi-Speed (USB 2.0)  | ■          | ■              |
|                          | Camera Link   | ■          | ■              |
|                          | Fibre Channel 2GB SCSI  | ■          | ■              |
|                          | eSATA (SATA 300)  |            | ■              |
|                          | FireWire (IEEE1394b)  | ■          | ■              |
|                          | Fibre Channel 4GB SCSI  |            | ■              |
|                          | USB Super Speed (USB 3.0)   |            | ■              |
|                          | Camera Link Full  |            | ■              |
| Thunderbolt              |   | ■          |                |
| <b>Digital Video</b>     | We can process high speed digital video signals through our assemblies. Below is a partial list of video signal we can transmit. We continue to develop new designs as video technologies evolve.   |            |                |
|                          | SD-SDI (SMPTE 259M)   | ■          | ■              |
|                          | HD-SDI (SMPTE 292M)   | ■          | ■              |
|                          | LVDS Display Interface  | ■          | ■              |
|                          | 3G-SDI (SMPTE 424M)   | ■          | ■              |
|                          | Single Link DVI   | ■          | ■              |
|                          | HDMI  | ■          | ■              |
|                          | DisplayPort   |            | ■              |
| Dual Link DVI            |   | ■          |                |
| <b>RF</b>                | We can integrate DC - 40 GHz non-contacting rotary joints up to 20 KW of power as well as rotating waveguide systems.   | ■          | ■              |
| <b>Fiber Optics</b>      | We can integrate fiber optic rotary joints into our slip ring assemblies:<br>• Single mode or multi-mode • 1 through 36 fiber channels  | ■          | ■              |
| <b>Position feedback</b> | We can sense speed, direction and position by integrating these products:<br>• Resolvers • Encoders • Potentiometers  | ■          | ■              |
| <b>Fluid</b>             | We can integrate media rotary joints into our slip ring assemblies:<br>• Air • Water • Fluids (Coolant, hydraulics, similar fluids)   | ■          | ■              |

# Our vast experience supplying mission critical control speaks for itself



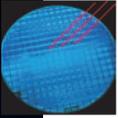
## EXPERIENCE

Tanks | Light Armored Vehicles | Personnel Carriers | Military Turret Drives | Fire Control Test Systems | Electro-Optical Systems | Missile Guidance | Radar Pedestals | Inertial Navigation Systems | Stabilized Platforms | Satellites | Interplanetary Missions |



## HERITAGE MILITARY PROGRAMS

Paladin M109A6 Howitzer | Armored Knight | Vulcan Air Defense System | HELRAS Sonar System | Patriot Launcher | MSTAR | Combat Talon II | Future Command Liaison Vehicle | LAV25 Light Armored Vehicle | Fire Support Team Vehicle | RECCE Light Armored Vehicle | Multi-Purpose Protective Vehicle | ARROWS Remotely Operated Weapon Station | Future Command Liaison Vehicle | KATLANIT-Israel | Improved TOW Vehicles | Aurora Vehicle M109 | M60 Vehicle Upgrade | FH88 155 Howitzer Upgrade | CROWS Weapon Station | F-35 EOTS | LTAMDS | AH-64 MTADS |



## HERITAGE COMMERCIAL PROGRAMS

Test Inspection Probes | Packaging Machines | Machining Centers | CCTV pan/tilt camera mounts | Robotics | Rotary Index Tables | Oil Field Drilling | Centrifuges | Semiconductor Equipment | Wind Turbines | Cranes | Man Lifts | Medical Equipment | Motion Simulators | Rate Tables |



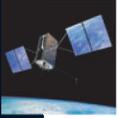
## HERITAGE SPACE PROGRAMS

MicroMAS | TROPICS | THEMIS | MAVEN | MVP Centrifuges | SADAs | CODEX | Commercial Satellites | Classified Space Programs |



## HERITAGE AEROSPACE PROGRAMS

U-2 | Common Module Scanner | BAT Missile | DDG-1000 | Lantirn | ASTAMIDS | Jetwave FMA | TMA | Live TV | GoGo |



### About Everaxis USA

Everaxis USA is a recognized world-leading designer and manufacturer of customized slip rings and rotating equipment to meet specific customer requirements for the transmission of power, data, optical and RF signals – including integration of RF/FORJ/Fluid. Everaxis USA offers standard products, but our real value is designing a custom solution while minimizing lead time and cost.

Learn more by contacting us at: [+1\(239\) 728 8306](tel:+12397288306) [usa.sales@everaxis-usa.com](mailto:usa.sales@everaxis-usa.com) [everaxis-usa.com](http://everaxis-usa.com)



# EVERAXIS®