

Shielded HyperGrip® Connectors

Meet Demanding Medical Industry Requirements



HyperGrip® Shielded High Reliability Connectors

As more sophisticated digital medical equipment enters the market, and data transfer rates continuously increase, the use of shielded connectors will be required to protect medical device circuitry from harmful electromagnetic (EMI) and radio frequency interference (RFI).

Hypertronics' Shielded HyperGrip circular connectors are a stylish alternative designed to eliminate reliability issues commonly associated with commodity-type connector solutions. These connectors provide shielding up to 3 GHz with an attenuation of 50dB. The shielding feature provides EMI/RFI protection from the shielded cable through to the device.

The Shielded HyperGrip plug connectors offer a minimum of 20,000 mating cycles and have a current carrying capacity of one amp per contact. They are also shock and vibration resistant as well as self cleaning.

Hypertronics Shielded HyperGrip connectors have a greater mating life cycle and provide superior performance capabilities than standard interconnect solutions. Ownership costs are drastically reduced by eliminating the need for warranty repairs and/or replacements of cable interconnects within 20,000 cycles.

The HyperGrip offers unparalleled performance of the Hypertac® contact technology. Known for providing high cycle life, low contact resistance, low insertion force, reliability under extreme conditions, maximum contact performance, and excellent wiping action, HyperGrip is ideal for a variety of critical applications including portable ultrasound devices, digital X-Ray sensors, patient monitors, a variety of therapeutic devices and integrated imaging systems, where dependability is critical.

- Shielding - EMI / RFI Protection
- Color Coding (5 different colors available)
- Front or Rear Panel Mount Receptacle Design
- Contacts Fingerproof to IEC60601
- Hypertac® Contact Technology
- Customer Keyable (6 different keyable positions)
- Available with 12, 19, or 33 contacts

Shielded HyperGrip®

Features & Benefits

- Shielding-EMI/RFI protection
- Push/Pull latching design – simple, one hand quick disconnect
- Customer keyable – easily keyed in one of the six different standard keying positions to prevent mismatching, which could result in catastrophic consequences
- Aesthetic design – softly shaped and easy to clean
- Color coding – available in 5 colors to provide visual indication for efficient mating
- Integrated strain relief available – prevents cable wire fatigue due to bending
- Front or rear panel mount receptacle design – option to mount the harness assembly from inside or outside the device enclosure

- Recessed contact tails – protect wire terminations
- Fingerproof Contacts

Materials

- High-end engineering plastic components
 - Flammability rated to UL94V-0 on thermoplastic components
 - High temperature – rated to 185° C (in unmated condition)

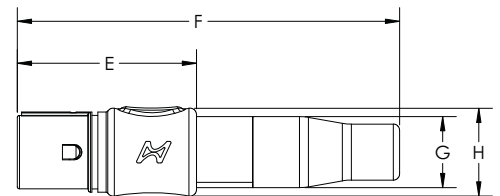
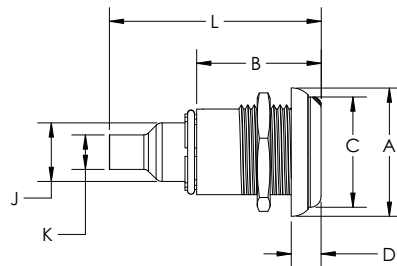
Contacts

- Hypertac contacts – up to 100,000 mating cycles
- Crimp/solder cup contact termination

	HG2	HG3	HG4
A	Ø1.014 (25.76)	Ø1.172 (29.77)	Ø1.250 (31.77)
B	1.137 (28.87)	1.137 (28.87)	1.137 (28.87)
C	Ø.866 (22.00)	Ø1.007 (25.59)	Ø1.090 (27.80)
D	.272 (6.91)	.272 (6.91)	.272 (6.91)
E	1.637 (41.59)	1.637 (41.59)	1.637 (41.59)
F	3.265 (82.93)	3.500 (88.88)	3.500 (88.88)
G	Ø.502 (12.75)	Ø.650 (16.50)	Ø.710 (18.15)
H	Ø.656 (16.66)	Ø.800 (20.36)	Ø.880 (22.47)
J	Ø.433 (11.00)	Ø.535 (13.60)	Ø.610 (15.50)
K	Ø.197 (5.00)	Ø.378 (9.60)	Ø.378 (9.60)
L	1.704 (43.27)	1.961 (49.82)	2.124 (53.95)

*Dimensions in inches (mm)

Shielded Connectors – General Specifications	
Contacts per Connector	HG2: 12 HG3: 19 HG4: 33
Shielding Effectiveness	Up to 3Ghz
Attenuation	50 dB maximum @ 3Ghz
Contact Resistance	8 milliohms
Extraction Force (Contact)	0.5–1.6 oz
Current Rating	1 amp per contact
Connector Mating Cycles	Up To 20,000 (contacts to 100,000)
Operating Temperature	-40° C to 125° C
Contact Material – Pin – Finish	Phosphor bronze Gold over nickel plate
Contact Material – Socket – Finish	Brass body components Beryllium copper wires Body components/wires Gold over nickel



US Patent numbers:

7,326,091 B2
7,661,995 B2
D 596,127 S

Hypertronics Corporation

16 Brent Drive
Hudson, MA 01749-2978
Toll Free: 1-800-225-9228
Phone: +1 978-568-0451
Fax: +1 978-568-0680