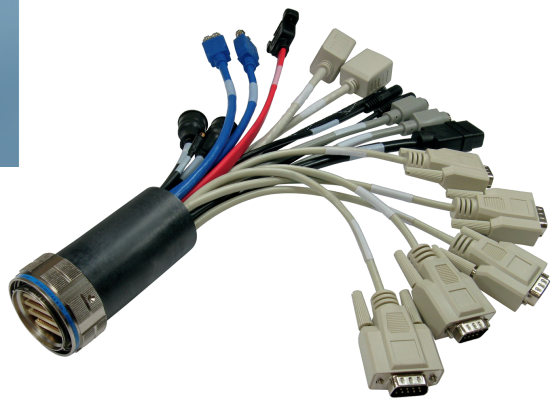


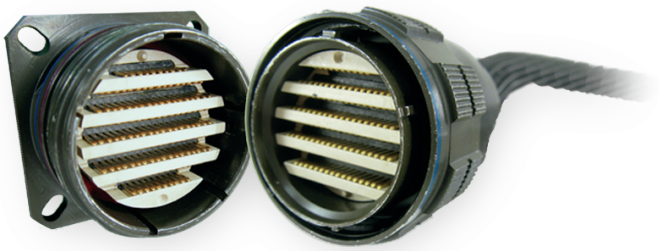
1382 West Jackson St.
Painesville, OH 44077

888-MERITEC
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Hercules™ Interconnect System



The Hercules Interconnect System with plug and cable assembly is embedded in a ruggedized, circular shell to provide a durable, high-speed interconnect scheme suitable for Military, Aerospace and commercial high-bandwidth applications not previously accommodated by industry standard interconnects. Using proprietary hermaphroditic contacts, Hercules delivers data rates exceeding 10 Gb/s per differential pair.



Features & Benefits

- Rugged, lightweight, machined VITA 76.0 style shells with gasketing for IP67 and EMI protection
- Supports data rates in excess of 10 Gb/s and differential-pair signaling with low-skew pairs
- Available in Plug-Cable Assemblies and Jam-Nut or Flange-Mount Receptacles for Solder Tail, Press Fit, or Pigtail
- Available in Keying A, B, C, D, N
- Available in positions 9, 13, 17 and 23
- Cable types available in 24, 26, 28, and 30 AWG
- Custom-length cable assemblies available
- One connector for a variety of standard protocols

Electrical Performance

- Impedance: 100 ±10Ω differential at 100ps rise time
- Cross talk: < –30 dB up to 5GHz from multiple aggressors
- Insertion Loss: Max 1 dB up to 5 GHz
- Return Loss: Max 10 dB up to 5 GHz
- Power Per Contact: 3 Amp
- Insulation Resistance: 300 VDC, >300 MΩ, 60s Soak
- Dielectric Withstand Voltage: 300 VDC, <1mA, 60s Soak
  (1000 VDC available with custom materials)

Mechanical Performance

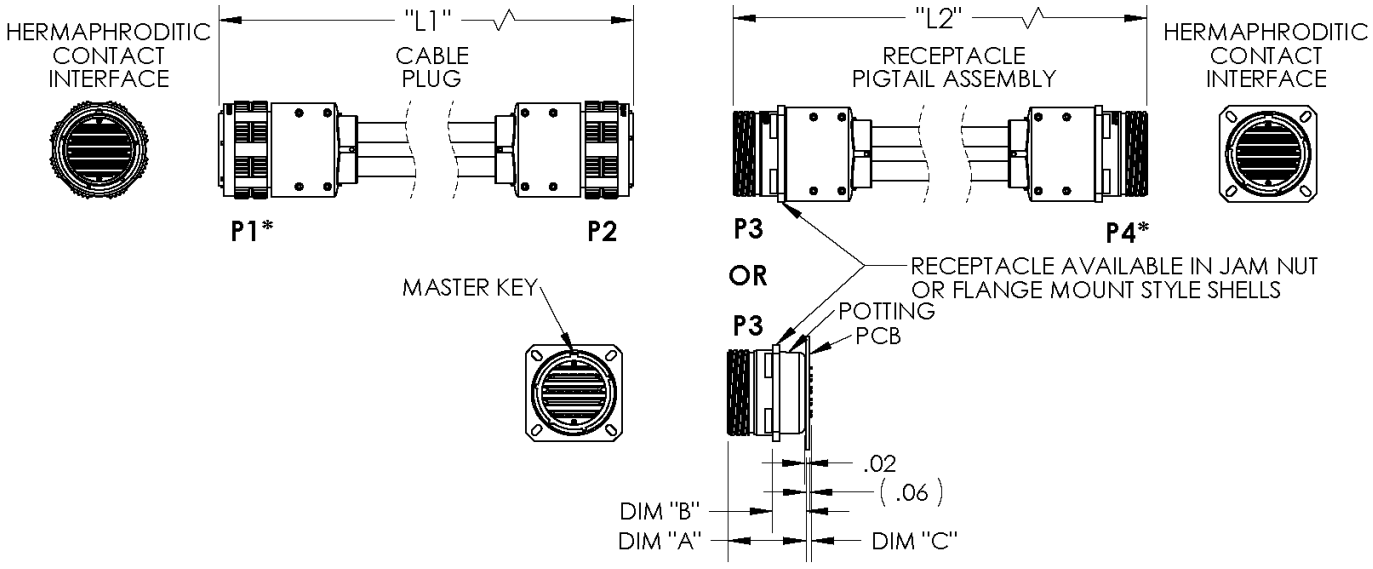
- Contact Material: Copper Alloy
- Standard Contact Finish: 100 µ-inch min AU Over 100 µ-inch min Ni
- Shell Mating Durability: 500 cycles
- Shell Material: Aluminum Alloy / Zinc Alloy
- Shell Plating: Chromate Over Cadmium, Electroless Nickel, Black Zinc

Environmental Performance

- Between -50 °C to +125 °C standard, with +175 °C available upon request

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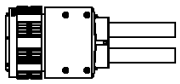
Hercules is the Approved VITA-76.0 High-Performance Standard



PIN STYLE	*DIM"A"	*DIM "B"	DIM "C"
SOLDER TAIL	.96 [24.4]	.18 [4.6]	.10 [2.5]
SOLDER TAIL	1.38 [35.1]	.59 [15.0]	.10 [2.5]
SOLDER TAIL	1.38 [35.1]	.59 [15.0]	.15 [3.8]
SOLDER TAIL	1.38 [35.1]	.59 [15.0]	.20 [5.1]
SOLDER TAIL	1.38 [35.1]	.59 [15.0]	.25 [6.4]
PRESS FIT	1.38 [35.1]	.59 [15.0]	.10 [2.5]
PRESS FIT	.96 [24.4]	.18 [4.6]	.10 [2.5]

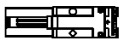
* DENOTES SIZE 23 FLANGE MOUNT ASSEMBLY DIMENSIONS

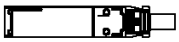
***OPTIONS (P1, P4)**

A.  HERCULES ™ MIL-38999 HERMAPHRODITIC

B.  4X IB STRAIGHT THUMBSCREW

C.  SFP+

D.  MINI-SAS

E.  QSFP

F. OTHER (RJ-45, USB, IPASS (PCIE))

VITA 72.0 Shell Size	No. of Contacts	Differential Pairs	Protocol(s)
Size 9	8	2	USB 2.0, 10GE
Size 13	28	6 + 6 Spares	USB 2.0, USB 3.0 10GE, 100GE, Micro-SATA, Mini-SAS, Display Port
Size 17	66	18 + 6 Spares	USB 2.0, USB 3.0 10GE, 100GE, SATA, eSATA, Micro-SATA, Mini-SAS, PCIe, 4X IB, Serial I/O, DVI, Display Port
Size 23	145	44 + 4 Spares	USB 2.0, USB 3.0 10GE, 100GE, SATA, eSATA, Micro-SATA, Mini-SAS, PCIe, 4X IB, 12X IB, Serial I/O, DVI, Display Port

All dimensions in inches with conversion to metric

Contact Us to Request a Quote!

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