Meritec's Hercules Cable Plug Termination with the optional LSZH cable and its receptacle embedded in the mating rugged circular MIL-38999 shell provides both a durable and high bandwidth interconnect scheme suitable for many Military, Aerospace and ruggedized high bandwidth applications not previously accommodated by industry standard interconnects.

FEATURES | BENEFITS

- Rugged light-weight aluminum MIL-38999 Series III size 9, 17, 23 threaded coupling circular shells.
  (sizes 11, 13, 15 under development)
- Keying: "N" Standard,
  "A", "B", "C", "D" Special Ordered
- Optional connectors available for both cable assemblies & pigtail assemblies
- Cable types available: 4X High Bandwidth cable with LSZH or PVC jacket & FEP insulated 28 Awg Twin-ax w/ Halar Expando
- Available in 26, 28, 30 Awg cable
- Supports data rates in excess of 10Gbs and differential pair signaling with low-skew pairs & shielding for maximum EMI/RFI protection
- Meets or exceeds SAS, InfiniBand, USB 2.0 & 3.0, PCIexpress Gen2, Serial I/O, Ethernet, CX4, 10G Ethernet and SATA specifications
- Matched impedance design of 100 Ohm
- Mated cycles – 500 minimum
- Fully electrically tested
- Custom lengths built to order. Please consult Meritec

SPECIFICATIONS

ELECTRICAL:
(mated connector pair, less cable)

- Impedance: 100 ± 10Ohms differential at 100psec rise-time
- Crosstalk (NEXT): < -30dB up to 5Ghz from multiple aggressors
- Insertion Loss: < 1dB up to 5Ghz
- Power per contact: 3amp @ 10°C temp rise
- Low Level contact resistance: < 20mΩ, (EIA-364-23)
- Insulation resistance: > 100MΩ for 1 min @ 300VDC, (EIA-364-21)
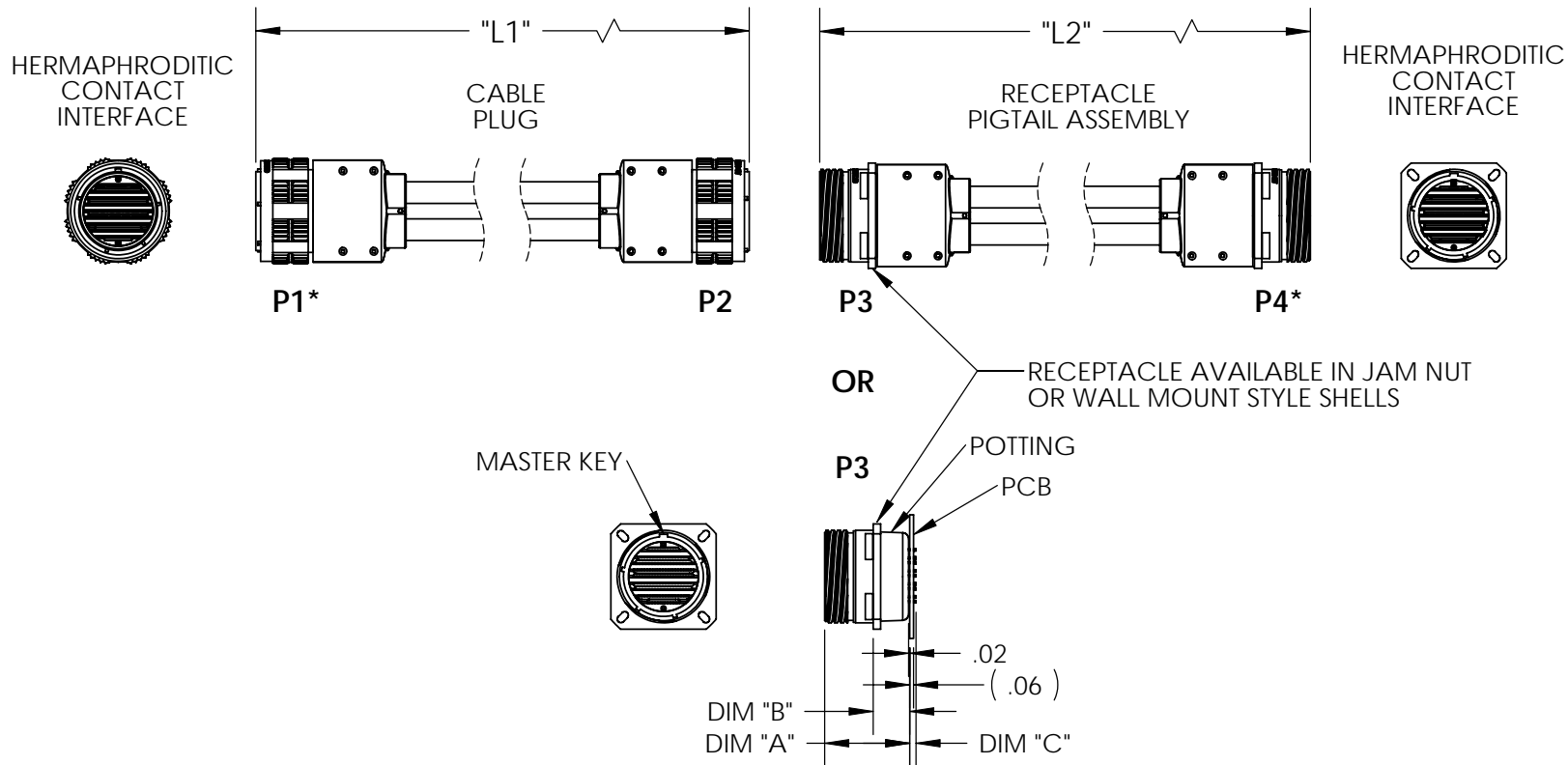- DWV: No defect for 1 min @ 300 VDC, (EIA-364-20)

MECHANICAL:
- Contact material: Copper Alloy
- Standard contact finish: 50 μ inch min Au over 50 μ inch min Ni
- Aluminum shell w/ plating options
- Durability: 500 cycles

ENVIRONMENTAL:
- -65C° to +175C°
- IP67, mated or capped condition
- 500 hour salt spray

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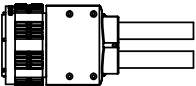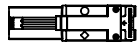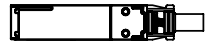
Hercules Ruggedized Interconnect System

HERMAPHRODITIC CONTACT INTERFACE

"L1"

CABLE PLUG

"L2"

RECEPTACLE PIGTAIL ASSEMBLY

HERMAPHRODITIC CONTACT INTERFACE

P1*   **P2**   **P3**   **P4***

OR

RECEPTACLE AVAILABLE IN JAM NUT OR WALL MOUNT STYLE SHELLS

MASTER KEY

P3

POTTING

PCB

.02

(.06)

DIM "B"

DIM "A"

DIM "C"

PIN STYLE	*DIM "A"	*DIM "B"	DIM "C"
SOLDER TAIL	.97 [24.6]	.15 [3.8]	.10 [2.5]
SOLDER TAIL	.97 [24.6]	.15 [3.8]	.20 [5.1]
SOLDER TAIL	1.39 [35.3]	.57 [14.5]	.10 [2.5]
SOLDER TAIL	1.39 [35.3]	.57 [14.5]	.25 [6.4]
PRESS FIT	1.39 [35.3]	.57 [14.5]	.10 [2.5]

* DENOTES WALL 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))

Shell Size	Number of Differential Pairs	Protocol(s)	Number of Contacts
9	2	USB, SATA	8
17	18+6 Spares	IB,SAS,SATA,Serial I/O,PCIe	66
23	44+4 Spares	IB,SAS,SATA,Serial I/O,PCIe	145

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