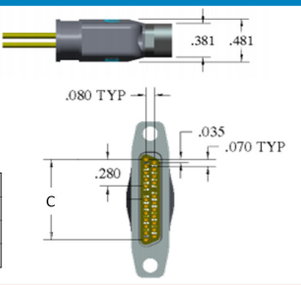
microSI™

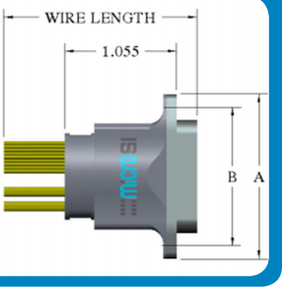
MMSI – Cable I/O (Female)

MMSI cable connectors are used in cable applications where signal integrity is desired. The connector interface controls the polarization of the twinax contact style. Comes with a variety of wiring and hardware options. All cable connectors are available in custom lengths.

GENERAL DIMENSIONS

SIZE	A	B	C
1X	1.636	1.377	0.840
4X	2.266	2.007	1.470
8X	3.106	2.847	2.310





Sample Part Number Format: MMSI-01L-24B0-006-2810

MMSI - ☐ - ☐ ☐ ☐ - ☐ - ☐ ☐

SERIES
Cable I/O
(Female)
1.78 mm

SIZE & INTERFACE POLARIZATION*
01L – 1X Left (23 pins, 4 DP +9SB)
01R – 1X Right (23 pins, 4 DP +9SB)
04L – 4X Left (41 pins, 10 DP +9SB)
04R – 4X Right (41 pins, 10 DP +9SB)
08L – 8X Left (65 pins, 18 DP +9SB)
08R – 8X Right (65 pins, 18 DP +9SB)

STYLE
21 – Female, Twinax
100Ω 24 AWG
24 – Female, Twinax
100Ω 30 AWG

SIDEBAND WIRES
(color code per MIL-STD-681)
A – 22759/11-24
B – 22759/11-26
C – 22759/11-28
D – 22759/33-24 ☒
E – 22759/33-26 ☒
F – 22759/33-28 ☒
G – 22759/33-30 ☒
H – NEMA HP3-EXBEB 24 AWG
J – NEMA HP3-EXBDB 26 AWG
K – NEMA HP3-EXBCB 28 AWG
L – NEMA HP3-EXBBB 30 AWG

OVERALL**
0 – None
1 – Silver-plated braid
2 – Tin-plated braid
3 – Silver-plated braid, Halar® sleeving
4 – Tin-plated braid, Halar® sleeving
5 – Halar® sleeving (no braid)

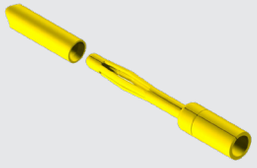
WIRE LENGTH[1]
Inches, 3 digits
Ex. 018 = 18 inches

BODY PLATING, INTERNAL SOLDER
1 – Electroless nickel, SAC305
2 – Electroless nickel, Sn/Pb ☒
5 – Gold, SAC305
6 – Gold, Sn/Pb ☒

HARDWARE
620 – Fixed jacknut
810 – Turning jackscrews; captivated**
NXX – Keying jacknuts***
JXX – Keying jackscrews***

High-Reliability Contact

MIL-DTL-83513



PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

1. Overall braid and/or Halar® will be 1.0 ± 0.5 inches shorter than specified wire length. Minimum length without overall braid or Halar® is 3 inches. If overall braid or Halar® is specified the minimum length is 6 inches.
2. All microSI females have fluorosilicone interfacial seals installed.

☒ Option not RoHS-compliant

* Left or right polarization is determined by looking at the male interface with the LONG SIDE downward. Polarization matches the angled side. Sidebands are on the non-angled side.

** Captivated hardware is factory-installed and non-removable.

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**** Refer to “Keying Hardware Options” on page 61.

SIGNAL INTEGRITY PERFORMANCE (Connectors Only)

1	Diff. Impedance, filtered to 79 ps (20-80%)	100 ohm
2	Diff. Insertion Loss	10 GHz @ -3 dB
3	Diff. Return Loss	7.5 GHz @ -10 dB
4	Intra-Pair	< 2 ps

MATERIALS and FINISHES

Socket Contact: . . . . . Brass
Pin Contacts: . . . . . BeCu alloy strip
Contact Finish: . . . . . Gold plate, 50 µ” minimum
Shells: . . . . . Aluminum alloy 6061-T6
Shell Finishes: . . . . . Electroless nickel or gold
Molded Insulators: . . . . . Glass-filled liquid crystal polymer (LCP)
Embedment: . . . . . Frey Eng. Co. compound CF3003-80 & L-II-49
Hardware: . . . . . Corrosion-resistant steel
Interfacial Seal Gaskets: . . . . . Fluorosilicone
EMI Gaskets: . . . . . Corrosion-resistant steel

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: . . . . . 3 amperes maximum
Operating Temperature: . . . . . -55° C to 125° C
Maximum Working Voltage: . . . . . 200V, RMS, 60Hz
Insulation Resistance . . . . . 5,000 megohms minimum @ 500 VDC
Durability: . . . . . 500 connector mating cycles
Contact Engaging Force: . . . . . 6.0 ounces maximum/contact
Contact Separating Force: . . . . . 0.5 ounces minimum/contact
Mating and Unmating Force: . . . . . 10 ounces maximum/contact

NOTE: Performance values are estimates at this time. Actual values will be determined when final product testing is complete.