July 2011



### **DIMENSIONAL CHARACTERISTICS**



### **FEMALE CONTACT**



### $H = 7.62_{MAX} [.300]$

A =  $5.12_{MAX}$  [.202] for 2-row connectors A =  $7_{MAX}$  [.276] for 3-row connectors B = 5.72 + X [.225 + X] for 2-row connectors B = 7.6 + X [.300 + X] for 3-row connectors X = Board thickness + hardware thickness d =  $15.24_{MAX}$  [.600] e = 1.8 [.071] to 3.4 [.134] or  $2.5_{MIN}$  [.098] (for YP contacts)

### Starclip female technology: 6 tines for better reliability

- $\rightarrow$  6 contact tines instead of 4
- $\rightarrow$  Excellent mechanical and electrical reliability
- $\rightarrow$  Better resistance to high vibrations
- $\rightarrow$  Improved electrical conductivity
- $\rightarrow$  100% compatible with other connectors

#### Material

- $\rightarrow$  Hood: machined brass alloy
- → Starclip: CuBe[BeCu], stamped and formed

#### Plating

- $\rightarrow$  Barrel: tin lead or lead free
- $\rightarrow$  Starclip: gold over nickel

### **MALE CONTACT**



Mating end diameter: Ø 0.635 [.025] Contact section (mating side): 0.32 mm<sup>2</sup> [.0005 in<sup>2</sup>] Material: brass alloy (machined)

#### Platina: aold over nickel

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### **MATERIALS**

Guiding devices: electroless nickel plating over brass CuZn or passivated stainless steel 303 Rails: passivated stainless steel 316L

Plastic insert: thermoplastic LCP, 30% glass-fiber filled

# **MECHANICAL, ENVIRONMENTAL AND ELECTRICAL CHARACTERISTICS**

MIL DTL 55302 sections	MECHANICAL CHARACTERISTICS
0.8 <sub>MAX</sub> [.031] N/A	Backoff <sup>1</sup> (mm)
0.85 <sub>MAX</sub> § 4.5.3	Mating force per contact (N)
0.35 < F < 0.85 § 4.5.3	Unmating force per contact (N)
500 § 4.5.9	Durability cycles
15 g § 4.5.10	Sinusoidal vibrations (10 to 2000 Hz) micro discontinuity 2ns
0.5 g <sup>2</sup> / Hz § 4.5.10	Random vibrations (5 to 2000 Hz) micro discontinuity 2ns
100 g § 4.5.10	Shocks 6ms ½ sinus 2ns
	ENVIRONMENTAL CHARACTERISTICS
-65 / +150 § 4.5.13	Thermal shocks (°C)
96 § 4.5.11	Salt Spray (hours)
	Humidity
10	Days
25/65	Temperature (°C)
90-95	Humidity rate (%)
	ELECTRICAL CHARACTERISTICS
3* § 4.5.5	Current rating per contacts (A)
5 <sub>MIN</sub> § 4.5.8	Insulation resistance (at 500Vdc) (GΩ)
10 <sub>MAX</sub> § 4.5.12	Contact resistance (mΩ)
750 <sub>MIN</sub> § 4.5.7.1	Dielectric Withstanding Voltage (Vrms)

<sup>1</sup>: When both connectors are fully mated, the backoff is the maximum distance the connectors can be unmated while functioning properly

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# HILINX <sup>2.54[.100]</sup> >>> TECHNICAL SPECIFICATIONS

### **DIMENSIONAL CHARACTERISTICS**



### **FEMALE CONTACT**





H = 8.5 [.335] for receptacles  $H = 10.2_{MAX}$  [.401] for plugs  $I = 6.4_{MAX}$  [.252] for 2-row connectors  $I = 8.95_{MAX}$  [.352] for 3-row connectors L = 34.29 [1.350] to 110.49 [4.350] for 2-row connectors L = 63.5 [2.500] to 165.1 [6.500] for 3row connectors B = 7 + X [.276 + X] for 2-row connectors B = 9.55 + X [.376 + X] for 3-row connectors X = Board thickness + hardware thickness  $d = 17_{MAX} [.670]$ e = 1.8 [.071] to 3.4 [.134] or 2.5<sub>MIN</sub> [.098] (for YP contacts)

### Starclip female technology: 6 tines for better reliability

- $\rightarrow$  6 contact tines instead of 4
- $\rightarrow$  Excellent mechanical and electrical reliability
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- $\rightarrow$  100% compatible with other connectors

### Material

- $\rightarrow$  Hood: machined brass alloy
- → Starclip: CuBe[BeCu], stamped and formed

### Plating

- $\rightarrow$  Barrel: tin lead or lead free
- $\rightarrow$  Starclip: gold over nickel

### **MALE CONTACT**



Mating end diameter: Ø 0.76 [.030] Contact section (mating side): 0.45 mm<sup>2</sup> [.0007 in<sup>2</sup>] Material: brass alloy (machined) Plating: gold over nickel

### **MATERIALS**

Guiding devices: electroless nickel plating over brass CuZn or passivated stainless steel 303 Rails: passivated stainless steel 316L

Plastic insert: thermoplastic LCP, 30% glass-fiber filled

# **MECHANICAL, ENVIRONMENTAL AND ELECTRICAL CHARACTERISTICS**

MIL DTL 55202 cost	
> 0.0 [ 025]***	Backoff (mm)
> 0.9 [.035]	
0.98 <sub>MAX</sub>	Mating force per contact (N)
0.981 <sub>MAX</sub>	Unmating force per contact (N)
500	Durability cycles
15 g §	Sinusoidal vibrations (10 to 2000 Hz) micro discontinuity 2ns
0.5 g <sup>2</sup> / Hz §	Random vibrations (5 to 2000 Hz) micro discontinuity 2ns
100 g §	Shocks 6ms ½ sinus 2ns
	ENVIRONMENTAL CHARACTERISTICS
-65 / +150 §	Thermal shocks (°C)
96 §	Salt Spray (hours)
	Humidity
10	Days
25 / 65	Temperature (°C)
90-95	Humidity rate (%)
	ELECTRICAL CHARACTERISTICS
5**	Current rating per contacts (A)
5 <sub>MIN</sub>	<b>Insulation resistance</b> (at 500Vdc) (G $\Omega$ )
10 <sub>MAX</sub> §	<b>Contact resistance</b> (mΩ)
1000 <sub>MIN</sub> §	Dielectric Withstanding Voltage (Vrms)

<sup>1</sup>: When both connectors are fully mated, the backoff is the maximum distance the connectors can be unmated while functioning properly

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