

INTERFACE DESIGN STANDARD		<i>The PHOENIX Company of Chicago, Inc.</i> 22 GREAT HILL RD., NAUGATUCK, CT 06770 WWW.PHOENIXOFCHICAGO.COM PHONE: (800) 323-9562	REV.	DESCRIPTION	DATE	APPR.
IDS-178L			A	PER ECN 14388	4/12/2024	SPS
SHEET 1 OF 1	DATE: 4/12/2024					
DRAWN: RA	APPROVED: SPS					

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### 178L Series, PkZ® Size 12

#### MATERIALS

##### BODIES

Plug: Brass Per ASTM-B-16  
 Receptacle: Brass Per ASTM-B-16

##### CONTACTS

Male Contact: Beryllium Copper Per ASTM-B-196  
 Female Contacts: Beryllium Copper Per ASTM-B-196

##### INSULATORS

Teflon (PTFE) Per ASTM-D-1457

##### PLATING

Gold PerR MIL-DTL-45204  
 Copper Per MIL-C-14550  
 Nickel Per QQ-N-290

#### FINISH (Add Letter To End Of Part Number)

##### OPTIONS

Bodies And Contacts:  
 A: .000050 Min. Gold Over Nickel  
  
 Other Metal Parts: Plated To Meet The Environmental Requirements

#### MATING CHARACTERISTICS

Outer Bodies: 24 oz. (1.5 lbs.) Max. Insertion.  
 2 oz. (0.125 lbs.) Min. Withdrawal  
  
 Center Contacts: 14 oz. (0.875 lbs.) Max. Insertion.  
 .5 oz. (0.032 lbs.) Min. Withdrawal  
  
 Axial Mating Tol.: .070" (1.78 mm)  
  
 Housing Retention: 192 oz. (12 lbs.) Min.

#### ELECTRICAL

Frequency Range: DC To 18 GHz	Contact Resistance: Center Contact 6 Milliohms
Voltage Rating Straight: 800 VRMS	Contact Resistance: Outer Contact 4 Milliohms
Voltage Rating Angled: 600 VRMS	VSWR: Configuration Dependent
Insulation Resistance: 2000 Megohms Min.	
Insertion Loss: $.06\sqrt{f(\text{GHz})}$ dB	RG-316, RG-178, RG-405 Or Equivalent
Current Rating: 1.5 AMPS	
Impedance: 50 Ohms	R.F. Leakage: -90 dB Min. @2-3 GHz

#### ENVIRONMENTAL

Operating Temperature: -55°C to+ 165°C	Durability: 500 Cycles
Insulation Resistance: 2000 Megohms Post Humidity	Moisture Resistance: MIL-STD-202, Method 106
Vibration: MIL-STD-202, Method 204, Test Condition D	Corrosion: N/A
Shock: MIL-STD-202, Method 213, Test Condition I	Temperature Cycling: N/A
Thermal Shock: MIL-STD-202, Method 107, Test Condition B, Except High Temperature Shall Be +85°C	High Temperature Test: N/A
	Salt Spray: MIL-STD-1344, Method 1001, Condition B