

INTERFACE DESIGN STANDARD

IDS-785

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DATE: 02/16/2018

DRAWN: SPS

APPROVED: JEM

The **PHOENIX** Company of Chicago, Inc.

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REV	DESCRIPTION	DATE	APPR
01	PRELIMINARY	02/16/2018	JEM
A	REL. PER ECN 14210	03/22/2023	SJG

DESCRIPTION: 785 SERIES, PkZ®, SIZE 8, 75 OHMS

Materials

Bodies:

Plug Bodies - Brass Per ASTM B 16.  
 Receptacle Bodies - Brass Per ASTM B 16.

Insulators - Virgin Teflon (PTFE) Per ASTM D 1710  
 Retaining Ring - Beryllium Copper Per ASTM B 196.  
 Pin Contacts - Beryllium Copper Per ASTM B 196  
 Socket Contacts - Beryllium Copper Per ASTM B 196.  
 Bullets - Brass Per ASTM B 16.

PLATING:

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

Finish (Add letter to end of part number)

Bodies and Contacts:

"A" - .000050 Min. Gold over Nickel.  
 "B" - .000030 Min. Gold over Nickel.  
 "C" - .000050 Min. Gold over Copper.  
 "D" - .000030 Min. Gold over Copper.

Mating Characteristics

Outer Bodies	_____	48 oz. (3.0 lbs.) Max. insertion. 2 oz. (0.125 lbs.) Min. withdrawal.
Center Contacts	_____	14 oz. (0.875 lbs.) Max. insertion. .5 oz. (0.031 lbs.) Min. withdrawal.
Housing Retention	_____	192 oz. (12 lbs) Min.
Axial Mating Tolerance	_____	.090

Electricals

Impedance: 75 Ohms.  
 Frequency Range: DC TO 3 GHz.  
 Voltage Rating Straight: 1000 VRMS.  
 Voltage Rating Angled: 800 VRMS.  
 Insulation Resistance: 2000 Megohms min.  
 INSERTION LOSS:  $.06 \sqrt{f(\text{GHz})}$  dB

Contact Resistance: Center Contacts 5 Milliohms  
 Contact Resistance: Outer Contacts 3 Milliohms  
 VSWR:  $1.08 + .009 * f(\text{GHz.})$ , for RG-402 (75 OHMS) Cables  
 $1.10 + .008 * f(\text{GHz.})$ , for RG-179 Cable  
 $1.15 + .010 * f(\text{GHz.})$ , for RG-59 Cable

Enviromental

Operating temperature: -55°C to +165°C  
 Vibration: MIL-STD-202, Method 204, Test Condition D.  
 Shock: MIL-STD-202, Method 213, Test Condition I.  
 Salt spray: MIL-STD-1344, Method 1001, Test Condition B.  
 Durability: 500 cycles.

Thermal shock: MIL-STD-202, Method 107, Test Condition B, except high temperature shall be +85°C.  
 Moisture resistance: MIL-STD-202, Method 106.  
 Insulation resistance: 2000 Megohms, post humidity.

Configurations

Designed to fit in MIL-C-38999 and Mighty Mouse Housing Size 8 Cavity.

Termination: Crimp/Clamp, Solder/Clamp, and Direct Solder.

\*Notes:

- 1) Dimensions are in inches unless otherwise specified [metric].
- 2) Dimensions are shown for reference purposes only.