

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	BY	DATE	APPR.	DATE
IDS-268			E	PER ECN 13033	ST	07/24/2018	JEM	07/24/2018
SHEET 1 OF 3	DATE: 06/01/17		F	PER ECN 13488	CA	09/10/19	JEM	09/10/19
DRAWN: JEM	APPROVED: RMB		G	PER ECN 13787	BGW	06/18/2020	RMB	06/18/2020
			H	PER ECN 14401	SPS	05/22/2024	SJG	05/22/2024

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**268 SERIES, SIZE 16 PkZ® FOR ARINC 600 CONNECTOR HOUSINGS, 50 OHMS, 50 GHz FREQUENCY**

**MATERIALS**

BODIES: BRASS PER ASTM B16/B16M.  
INSULATORS: TEFLON (PTFE) PER ASTM D4894.  
CENTER AND OUTER CONTACTS: BERYLLIUM COPPER  
PER ASTM B196/B196M.

**PLATING**

GOLD PER MIL-DTL-45204 (ELECTRO DEPOSITED).  
COPPER PER SAE AMS2418 (ELECTRO DEPOSITED).  
NICKEL PER QQ-N-290.

**FINISH (ADD LETTER TO END OF PART NUMBER)**

BODIES AND CENTER CONTACTS:  
- "A": .000050 MIN. GOLD OVER NICKEL.  
- "C": .000050 MIN. GOLD OVER COPPER.  
OTHER METAL PARTS: PLATED TO MEET THE  
ENVIRONMENTAL REQUIREMENTS.

**MATING CHARACTERISTICS**

OUTER BODIES:  
- INSERTION - 24 oz. (1.5 lbs) MAX.  
- WITHDRAWAL - 2 oz. (.125 lbs) MIN.  
CENTER CONTACTS:  
- INSERTION - 14 oz. (.875 lbs) MAX.  
- WITHDRAWAL - .5 oz. (.031 lbs) MIN.  
HOUSING RETENTION - 192 oz. (12 lbs.) MIN.  
AXIAL MATING TOLERANCE - .110 [2.79]

**CONFIGURATIONS**

HOUSING: ARINC 600 PLUG AND RECEPTACLE CONNECTOR SHELLS, SIZE 16 CAVITY. (REF: MIL-DTL-83527B)  
CABLES: RG-178, RG-316, RG-405 OR EQUIVALENT FLEXIBLE CABLES.  
INSERTION TOOL: M81969/1-03.  
EXTRACTION TOOL: M81969/1-03 OR M81969/8-208.  
DESIGN TERMINATION: CRIMP/CLAMP, SOLDER/CLAMP, DIRECT SOLDER, DIRECT CRIMP.  
**PKZ CONTACTS DO NOT MATE WITH OTHER INDUSTRY-STANDARD SIZE 12 CONTACTS.**

**ELECTRICAL (CONFIGURATION DEPENDENT)**

IMPEDANCE: 50 OHMS.  
FREQUENCY RANGE: DC TO 50 GHz.  
VOLTAGE RATING STRAIGHT: 700 VRMS.  
VOLTAGE RATING ANGLED: 500 VRMS.  
INSULATION RESISTANCE: 2000 MEGOHMS MIN.

CONTACT RESISTANCE:  
- CENTER CONTACT 6 MILLIOHMS  
- OUTER CONTACT 4 MILLIOHMS  
VSWR: CONFIGURATION DEPENDENT.  
INSERTION LOSS:  $.06\sqrt{f}$ (GHz) dB  
R.F. LEAKAGE: -90 dB MIN. @ 2-3 GHz.

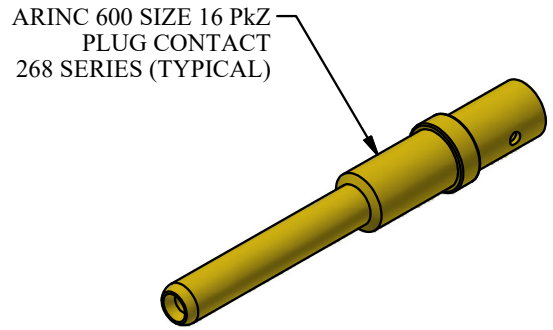
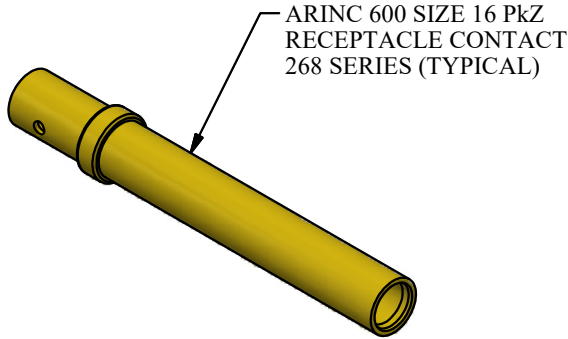
**ENVIRONMENTAL**

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, CONDITION B.  
DURABILITY: 500 CYCLES.

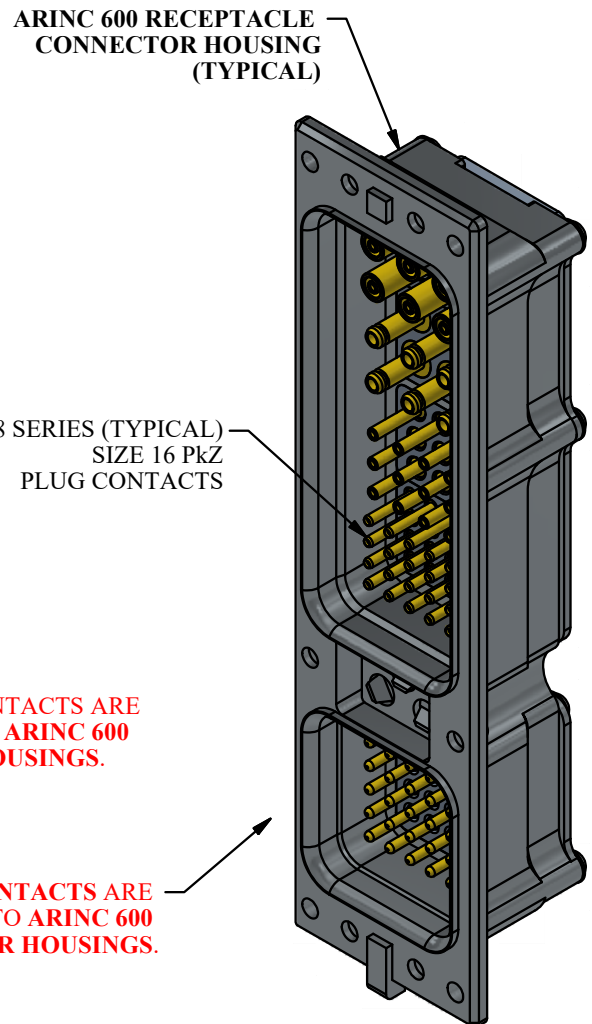
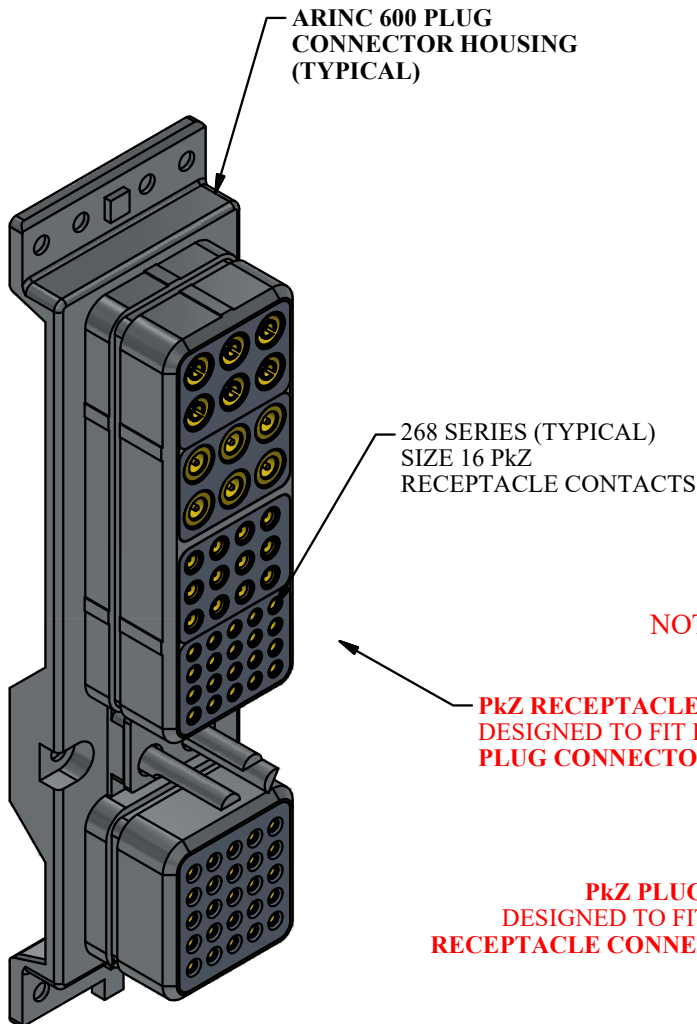
THERMAL SHOCK: MIL-STD-202, METHOD 107,  
TEST CONDITION B, EXCEPT HIGH  
TEMPERATURE SHALL BE +85°C.  
MOISTURE RESISTANCE: MIL-STD-202,  
METHOD 106.  
INSULATION RESISTANCE: 2000 MEGOHMS  
POST HUMIDITY.

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CONTACTS:



CONTACTS IN CONNECTOR HOUSINGS:



**NOTE:**

**PKZ RECEPTACLE CONTACTS ARE DESIGNED TO FIT INTO ARINC 600 PLUG CONNECTOR HOUSINGS.**

**PKZ PLUG CONTACTS ARE DESIGNED TO FIT INTO ARINC 600 RECEPTACLE CONNECTOR HOUSINGS.**

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IDS-268

SHEET 3 OF 3

DATE: 06/01/17

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APPROVED: RMB

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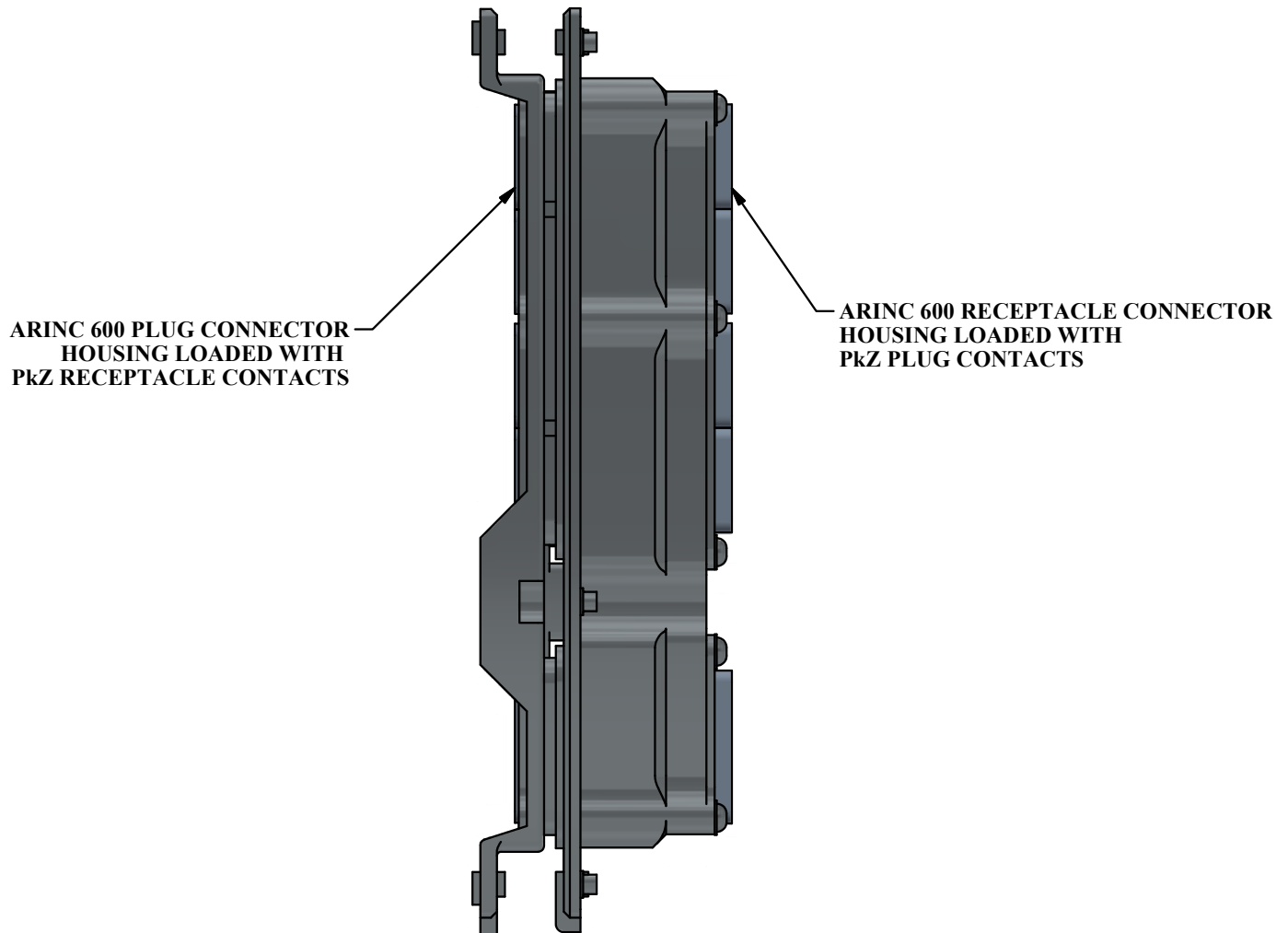
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### CONTACT MATING IN CONNECTOR HOUSINGS:

**HANDLE WITH CARE**



### CAUTION

- PRECISION CONTACTS WITH SMALL DIAMETERS ARE USED IN THESE CONNECTORS TO ACHIEVE SUPERIOR ELECTRICAL AND MECHANICAL PERFORMANCE.
- CARE IS REQUIRED WHEN MATING THESE CONNECTORS TO PROTECT THE CONTACTS FROM DAMAGE AND ACHIEVE OPTIMAL PERFORMANCE.
- STABILIZING RINGS FOR PkZ PLUG CONTACTS CAN BE USED TO AID IN THE MATING OF THE CONNECTORS.