INTERFACE DESIGN STANDARD	
IDS-556	
SHEET 1 OF 3	DATE: 1/7/2022
DRAWN: SPS	APPROVED: SJG

The PHOENIX Company of Chicago, Inc.
22 GREAT HILL RD., NAUGATUCK, CT 06770
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REV.	DESCRIPTION	APPR.	DATE
01	PRELIMINARY	JEM	1/7/2022
A	REL. PER ECN 14211	SJG	8/31/2026

Description: 556 Series, Size 12 PkZ® for PX Connector Housings, High Mating Life, 50 GHz Frequency

MATERIALS

BODIES
Plug: Brass Per ASTM B16
Receptacle: Brass Per ASTM B16

CONTACTS
Center Contact: Beryllium Copper Per ASTM B196
Outer Contact: Beryllium Copper Per ASTM B196

CLIP RING
Beryllium Copper Per ASTM B196

INSULATORS
Virgin Teflon (PTFE) Per ASTM D1710
TECAPEEK® Natural 450G Per ASTM D8033

PLATING
Gold Per MIL-DTL-45204 (Electro Deposited)
Copper Per SAE AMS 2418 (Electro Deposited)
Nickel Per QQ-N-290

FINISH (Ending Letter of Part Number)

A: .000050" Min. Gold Over Nickel

C: .000050" Min. Gold Over Copper

Other Metal Parts: Plated to Meet The Environmental Requirements

MATING CHARACTERISTICS

Bodies:	24 oz. (1.5 lbs.) Max. Insertion 2 oz. (0.125 lbs.) Min. Withdrawal
Contacts:	14 oz. (0.875 lbs.) Max. Insertion .5 oz. (0.031 lbs.) Min. Withdrawal
Axial Mating:	.070"
Housing Retention:	192 oz. (12 lbs.) Min.

ELECTRICAL

Frequency Range:	DC To 50 GHz
Voltage Rating (Breakdown):	1000 VRMS
Voltage Rating (DWV):	750 VRMS
Voltage Rating (Working):	325 VRMS
Insulation Resistance:	2000 Megohms Min.
Insertion Loss:	$.06\sqrt{f(GHz)}$ dB
Impedance:	50 Ohms
Contact Resistance:	Center Contact 5 Milliohms
Contact Resistance:	Outer Contact 3 Milliohms
VSWR:	Configuration Dependent
RF Leakage:	-90 dB Min. @ 2-3 GHz

ENVIRONMENTAL

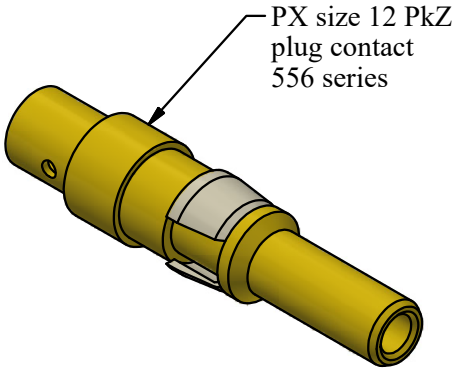
Operating Temperature:	-65°C To +165°C
Insulation Resistance:	2000 Megohms Post Humidity
Vibration:	MIL-STD-202, Method 204, Test Condition D
Shock:	MIL-STD-202, Method 213, Test Condition I
Thermal Shock:	MIL-STD-202, Method 107, Test Condition B, Except High Temperature Shall Be +85°C
Durability:	50,000 Cycles
Moisture Resistance:	MIL-STD-202, Method 106
Salt Spray:	MIL-STD-1344, Method 1001, Condition B

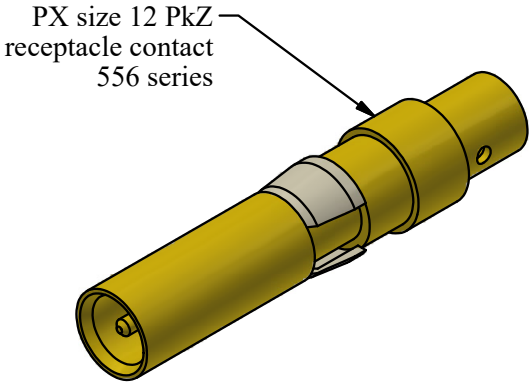
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CONTACTS:

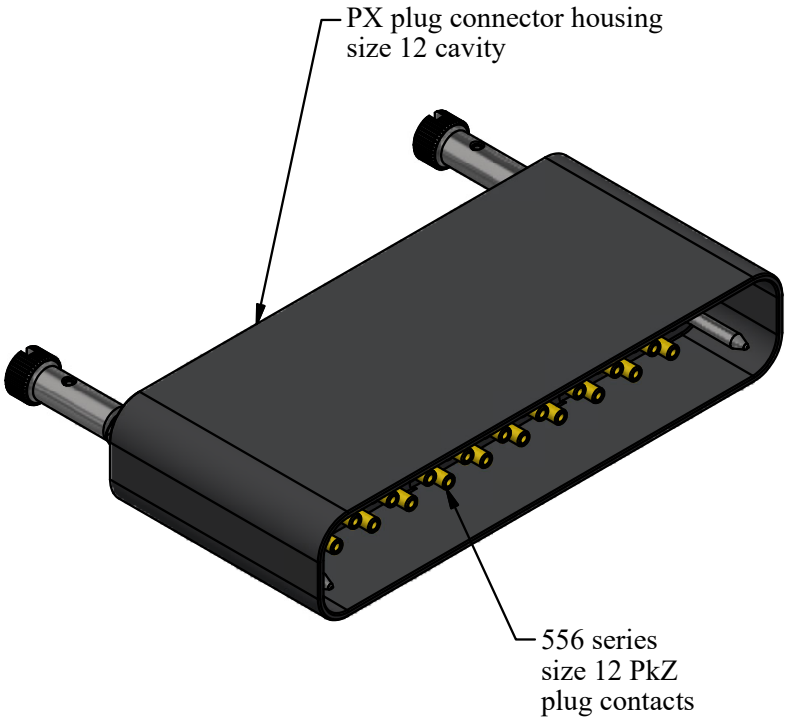


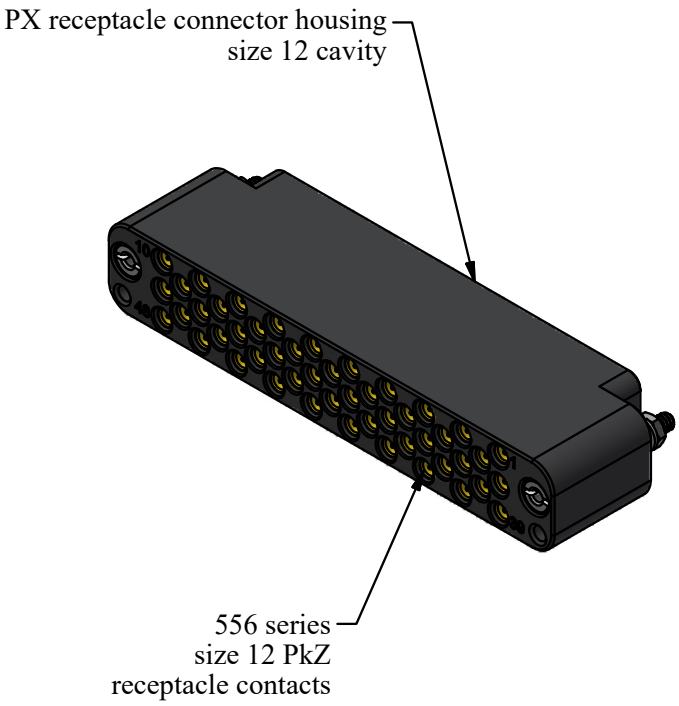


CONTACTS IN CONNECTOR HOUSINGS:

Insertion Tool: M81969/8-208

Extraction Tool: T0633HD





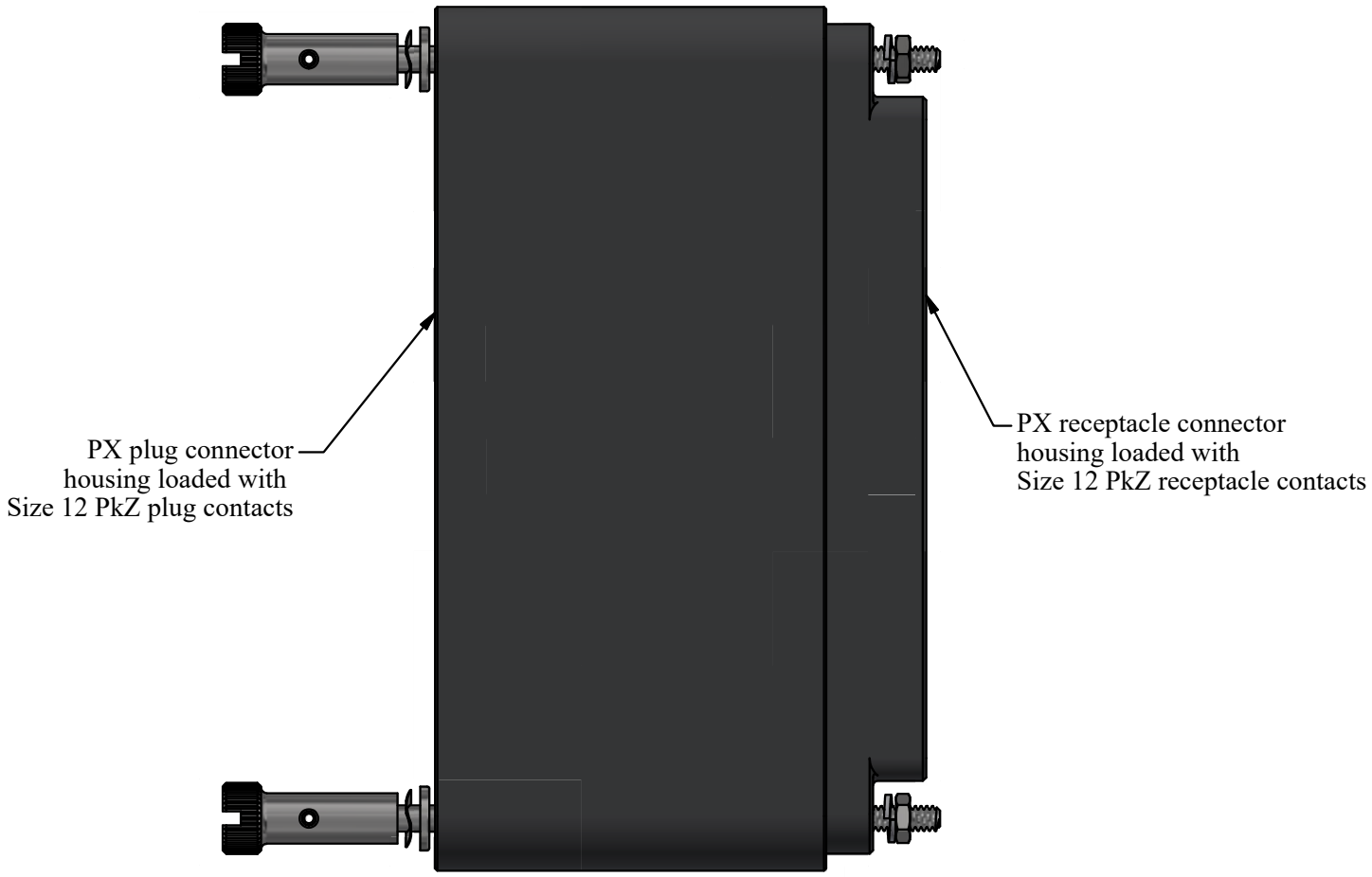
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CONTACT MATING IN CONNECTOR HOUSINGS:

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.

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