

Trompeter



Space Rated Connectors

About Bel

Bel is a publicly traded company that has been operated by the same family for over 65 years. Our history of organic growth and acquisitions have broadened our product portfolio. This has established Bel as a world leader with a diverse offering of power, protection and interconnect products. We design and manufacture these products which are primarily used in the networking, telecommunications, computing, military, aerospace, transportation and broadcasting industries. Bel's portfolio of products also finds application in the automotive, medical and consumer electronics markets.

About Cinch Connectivity Solutions

For over 100 years, Cinch Connectivity Solutions has manufactured high quality and reliable high performance connectors and cable assemblies. Cinch is recognized as a world class connectivity supplier of RF, fiber optic, hybrid, microwave components, circular, d-subminiatures, modular rectangular, electronic enclosures and cable assemblies. Cinch provides innovative solutions to the military, commercial aerospace, networking, telecommunication, test and measurement, oil and gas and other harsh environment industries. We aim to exceed our customers' expectations and continually offer innovative solutions to the rapidly changing needs of the markets and customers we serve.

Along with our parent company, Bel Fuse Inc., our mission is to provide products and services using established quality standards and to meet our customer expectations. To fulfill this objective, we strive to produce components and assemblies that embody optimum levels of reliability and performance in their design, manufacture, and delivery. Cinch Connectivity Solutions has consistently proven to be a valuable supplier to the foremost companies in its chosen industries by developing cost effective solutions for the challenges of new product development.

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Space Rated Connectors

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Space Rated Connectors and Accessories



Trompeter has a long and proud history of servicing space applications. Applications include communications satellites, Navigation (GPS) satellites, and even the Mars Rover. Each of these applications share the common requirement of world class reliability in these very demanding conditions.

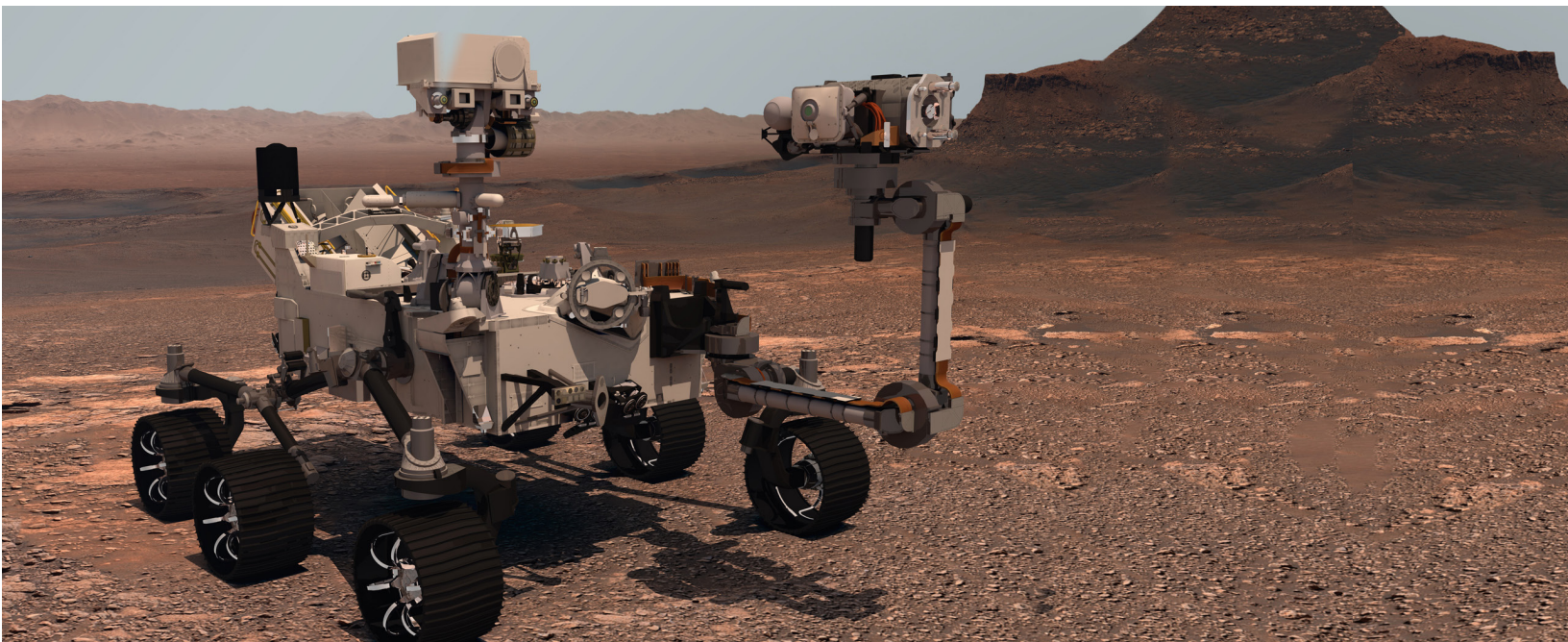
When placed in a vacuum and subjected to heat, non-metal materials are subject to outgassing, and some of its constituents are volatilized. One of the bi-products of outgassing is that the material loses a portion of its mass (total mass loss: TML). Another effect is that the outgassed matter will condense and collect on a surface. This material is known as Collectable Volatile Condensable Material (CVCN).

These phenomena can lead to complications and even equipment failure. Outgassed materials are nothing but contaminants, and Trompeter mitigates these effects through proper material selection and design practices.

Trompeter tests these conditions using ASTM E595, and the limits are:

Total Mass Loss (TML): less than 1.0%

Collected Volatile Condensed Materials (CVCN): less than 0.10%



SPECIFICATIONS

Testing Procedures

Trompeter's space qualified products are manufactured to individual specifications and testing, as per the below example:

In-Process Inspections

Test Name	Sample Size
Visual and Mechanical Dimensions	100%
Plating Thickness	5 pcs
Solderability	5 pcs
Plating Adhesion	5 pcs
Contact Captivation	100%
Rotational Contact Retention	6 pcs
Axial Contact Retention	6 pcs
Proof Torque	100%
Contact Engaging Force	100%
Contact Separating Force	100%

Group A Inspections

Group A Inspection shall consist of the inspections specified in the table, performed in the order shown. Any defective units found shall not be delivered.

Test Name	Method	Sample Size
3.1.1 Visual and Mechanical Inspection	4.1	100%
3.1.2 Hermetic Seal*	4.2	100%
3.1.3 Leakage*	4.3	100%
3.1.4 Dielectric Withstanding Voltage	4.4	100%

**Pressurized connectors only*

Group B Inspections

Group B Inspection shall consist of the inspections specified in the table, performed in the order shown. Group B units shall be randomly selected once the lot has passed Group A Inspection. Any defects discovered during Group B tests shall be screened from the entirety of the lot.

Test Name	Method	Sample Size
3.2.1 Outgassing Verification	4.5	Dependent on lot size
3.2.1 Force to Engage/Disengage	4.6	Dependent on lot size
3.2.2 Coupling Proof Torque*	4.7	Dependent on lot size
3.2.3 Mating Characteristics	4.8	Dependent on lot size
3.2.4 Permeability of Nonmagnetic Materials	4.9	
3.2.5 Insulation Resistance	4.10	

**Threaded connectors only*

Group C Inspections

Test Name	Sample Size
Vibration	Defined by Customer
Shock	Defined by Customer
Moisture Resistance	Defined by Customer
Electrical Characteristics	Defined by Customer
Resistance to Solvents	Defined by Customer

Ordering Information

TTM Series (Subminiature Threaded Connectors)

Space Ready Part Number	Commercial Part Number	Description	Vacuum Ready Part Number
5-0097	PLR3155AC/S SPECIAL HEX CPLG	Plug	305-1243
5-0002	BJ3150/S	Bulkhead Jack	305-1228
5-0003	TNTM1/TNTMS1 W/ 2W resistor		305-1580
5-0013	CJ3150AC	Cable Jack	305-1497
5-0014	BJ3157	Bulkhead Jack	305-1227
5-0015	PL3155AC/S	Plug	305-1370
5-0029	TNTM1/TNTMS1		305-1469
5-0037	BJ3158	Bulkhead Jack	305-1532
5-0045	PL3155AC/SPL, HEX COUPLING	Plug	
5-0050	PLR3155AC	Plug	
5-0056	CJ3150	Cable Jack	
5-0057	BJ3159	Bulkhead Jack	
5-0060	TNTM1, SHIELD COMMON		
5-0071	BJ3150HS/S	Bulkhead Jack	305-1486
5-0074	TNTMF1 SPECIAL		
5-0075	TNTMF1		
5-0076	CBJ3157 SPECIAL LONG LEG		
5-0082	BJ3157F SPECIAL BeCu SHIELD	Bulkhead Jack	
5-0084	CBJ3157		305-1649
5-0084	CBJ3157		305-1487
5-0089	BJ3155	Bulkhead Jack	305-1627
5-0094	CBBJR3159 SPECIAL	Circuit Board Bulkhead Jack	
5-0095	BJ3157F SPECIAL (305-0960)	Bulkhead Jack	
5-0098	TNTMF1 W/ 3 RESISTORS		
5-0099	BJ3154	Bulkhead Jack	
5-0100	BJ3154AC	Bulkhead Jack	
5-0102	CBJ3157 SPECIAL (5-0076)		
5-0103	CBJ3157 SPECIAL (5-0084)		

SPACE RATED CONNECTORS

TRB Series (Miniature Bayonet Connectors)

Space Ready Part Number	Commercial Part Number	Description	Vacuum Ready Part Number
5-0009	BJ78HS	Bulkhead Jack	305-1539
5-0010	ADBJ77-A1PL3155	Adapter	
5-0011	PL75C	Plug	305-1241
5-0017	ADRMF70/TL/370/4L	Adapter	
5-0019	PLR75C	Right Angle Plug	305-1512
5-0020	CBJ70/TL/FL/370	Cable Jack	
5-0023	BJ76	Bulkhead Jack	305-1238
5-0025	ADBJ77/POLAR TO PL75 POLAR	Adapter	305-1317
5-0026	BJ79	Bulkhead Jack	305-1518
5-0027	BJ79C	Bulkhead Jack	305-1309
5-0028	PL74/PL74BR	Plug	305-1600
5-0031	CBBJR79/A	PCB Jack	305-1473
5-0038	PL75	Plug	305-1240
5-0039	PL75CFL	Plug	305-1324
5-0040	PL75FL/BR	Plug	305-1242
5-0043	CBBJR79FL	PCB Jack	
5-0053	BJ76FL	Bulkhead Jack	305-1239
5-0054	BJ78	Bulkhead Jack	305-1565
5-0055	BJ78FL	Bulkhead Jack	305-1564
5-0065	CBBJ79/TL/FL/379	PCB Jack	305-1601
5-0067	PLR70C WITH DSN312702	Plug	
5-0069	RFI75	RFI Cap	
5-0072	CJ70	Cable Jack	305-1519
5-0073	CJ70FL/BR	Cable Jack	305-1572
5-0086	BJ76HS	Bulkhead Jack	
5-0108	TNG1/FL1/TL1	Terminator	305-1445
5-0024	ADBJ77/TL/FL/377 TO 70 SERIES	Adapter	305-1306
5-0011-201	PL75C-201	Plug	
5-0027-201	BJ79C-201	Bulkhead Jack	
5-0031-1	CBBJR79	Bulkhead Jack	

TRT Series (Miniature Threaded Connectors)

Space Ready Part Number	Commercial Part Number	Description	Vacuum Ready Part Number
5-0032	CBBJR379	Circuit Board Bulkhead Jack	
5-0044	BJ377	Bulkhead Jack	305-1480
5-0063	BJ379/BR	Bulkhead Jack	305-1573
5-0064	PL375	Plug	305-1574
5-0068	RFI375	RFI Cap	305-1602
5-0070	TNT1/TNTS1	Terminator	305-1468
5-0091	CJ370C	Cable Jack	
5-0032-1	CBBJR379A	Bulkhead Jack	
5-0033-201	PL375C-201	Bulkhead Plug	
5-0249-201	BJ379C-201	Bulkhead Jack	
5-0033	PL375C/S	Plug	305-1484
5-0085	BJ376	Bulkhead Jack	

SPACE RATED CONNECTORS

TRS Series (Subminiature Bayonet Connectors)

Space Ready Part Number	Commercial Part Number	Description	Vacuum Ready Part Number
5-0034	BJ157	Bulkhead Jack	
5-0005	BJ3157F SPECIAL	Bulkhead Jack	305-1549
5-0219	PL155AC	Plug	305-1310
5-0008	CBBJ3159	Circuit Board Bulkhead Jack	305-1581
5-0012	BJ159AC	Bulkhead Jack	305-1311
5-0016	PL3155/S	Plug	305-1507
5-0018	305-0525 (150 SERIES ADAPTER)		305-1579
5-0030	TNGBJM1/TNTBJM1/TNGBJMFL1		305-1496
5-0046	BJ150	Bulkhead Jack	
5-0047	BJ158	Bulkhead Jack	
5-0049	PLR155AC	Plug	
5-0058	PL155FL	Plug	305-1609
5-0059	CJ150	Cable Jack	
5-0061	BJ159	Bulkhead Jack	
5-0062	CJ150FL	Cable Jack	
5-0080	BJ150FL	Bulkhead Jack	
5-0083	PL3155 W/ 14" of cable	Plug	305-1488
5-0087	CJ150AC	Cable Jack	305-1381
5-0090	BJ155	Bulkhead Jack	305-1628
5-0092	PL155ACFL	Plug	
5-0093	BJ3150HS/S SPECIAL	Bulkhead Jack	305-1053
5-0101	BJ3159AC/S	Bulkhead Jack	305-1559
5-0106	BJ3159AC/S WITH 100% A&B TEST	Bulkhead Jack	
5-0022	RFI155(FL)/RFI3155	RFI Cap	305-1475
5-0036	PL155	Plug	305-1609
5-0253	BJ159AC-201	Bulkhead Cable Jack	
5-0254	CBJ157	Jack	

450 Series (Micro Miniature Connectors)

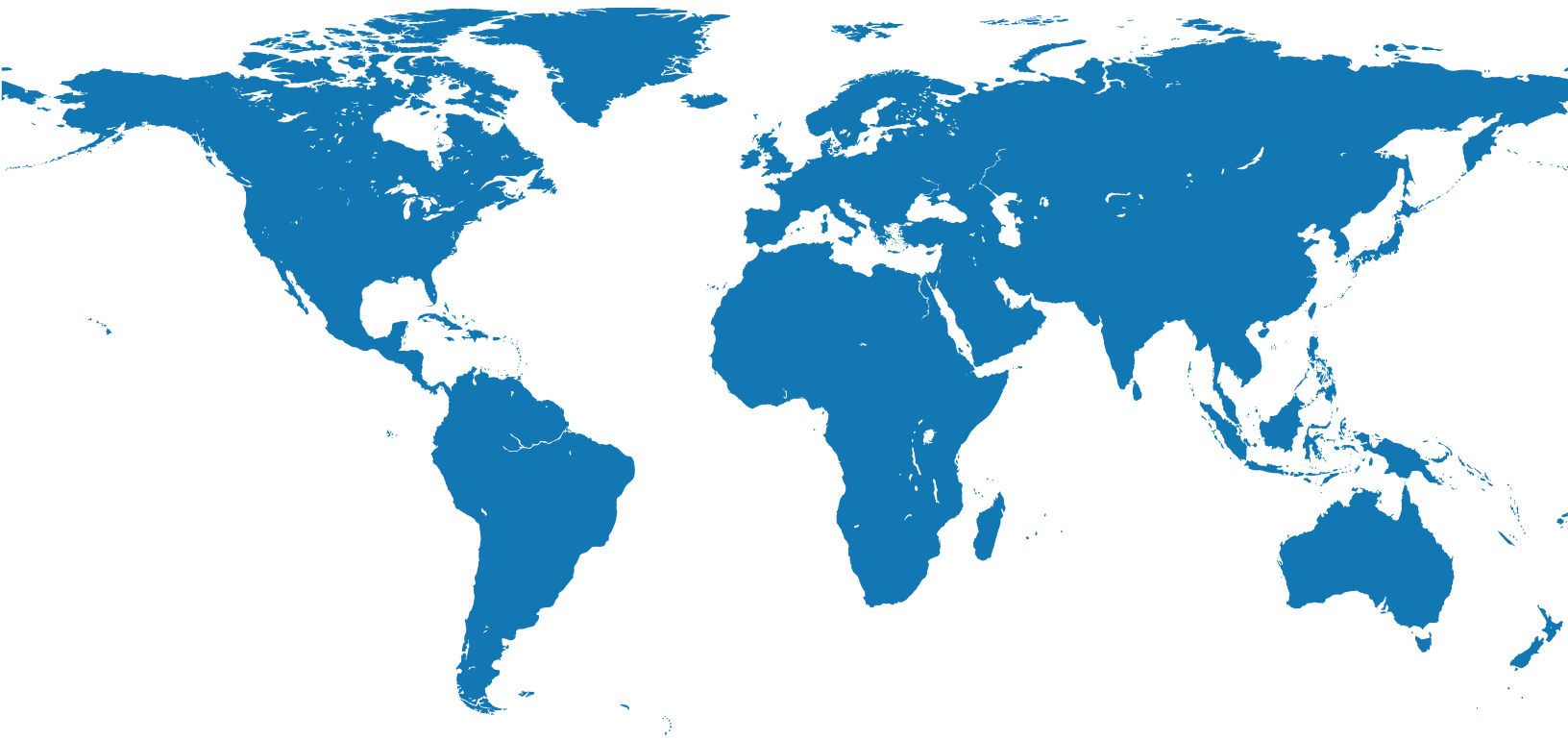
Space Ready Part Number	Commercial Part Number	Description	Vacuum Ready Part Number
5-0001	BJ3450/P/S	Bulkhead Jack	305-1500
5-0004	PLR3455AC/P/S	Right Angle Plug	305-1597
5-0006	CJ3450AC/P/S	Cable Jack	305-1542
5-0021	CBBJ3459/P/S SPL	PCB Jack	
5-0041	PL3455ACP/S	Plug	305-1535
5-0048	BJ450	Bulkhead Jack	305-1231
5-0051	PL455AC	Plug	305-1236
5-0052	PLR455AC	Right Angle Plug	
5-0077	BJ3459AC/P/S	Bulkhead Jack	305-1534
5-0088	PL3455AC/SPL, HEX COUPLING	Plug	305-1621
5-0096	PL3455ACP/S (POGO PIN)	Plug	
5-0104	PL3455AC	Plug	
5-0105	BJ3450P/S WITH 100% A&B TEST	Bulkhead Jack	
5-0107	RFI455/FL/3455	RFI Cap	305-1368



About Cinch Connectivity Solutions

In operation since 1917, Cinch supplies high quality, high performance connectors and cables globally to the Aerospace, Military/Defense, Commercial Transportation, Oil & Gas, High End Computer, and other markets. We provide custom solutions with our creative, hands on engineering and end to end approach.

Our diverse product offerings include: connectors, enclosures and cable assemblies utilizing multiple contact technologies including copper and fiber optics. Our product engineering and development activities employ cutting edge technologies for design and modeling, and our various technologies and expertise enable us to deliver custom solutions and products for our strategic partnerships.



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