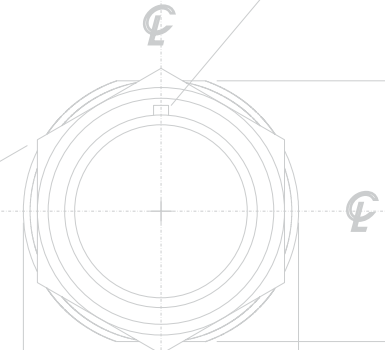
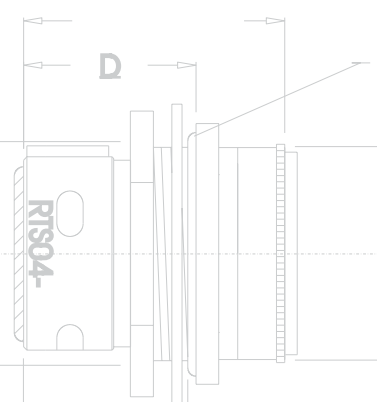




*RECONNECTING THE WORLD*  
*Mil-C-81703 Military and Commercial Connectors*



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### **When & How:**

Robert Technologies, Inc. began in 1995 as a custom electronic connector manufacturer. Since then, "RTI" has become well-respected, gaining a reputation for supplying the industry with high reliability electronic connectors that are reasonably priced, and readily available. In September 1999, Robert Tech received their first QPL (Qualified Product Listing) on the Mil-C-81703 Series I connector line. This approval has helped open doors to many companies involved in the aerospace, medical, oil exploration, energy, and communication industries.

### **Primary Focus:**

RTI's primary focus is to provide the military and commercial industries a choice on where they can purchase their military and commercial electronic connectors. RTI focuses strongly on custom design, custom manufacturing, and retrofitting. By giving that choice, we feel our quality, service, professionalism, and competitive pricing will give us the edge in the areas we focus on. Procurement, R&D, and Production departments should not be limited on what and where they can buy from. Situations like these can cause serious dilemmas in planning, meeting deadlines, and departmental budgets.

### **Primary Product Line:**

RTI's primary product line consists of the Mil-C-81703 Series I connector line, RT Solder Series (Commercial), and RTS Crimp Series (Commercial). These connectors are a Quick-Release style, and are used primarily in high-end applications. Here is a list of the various applications where you can find RTI products:

### **Military / Government Applications**

- Missile Guidance Systems
- Missile Drones
- Radar Jamming Systems
- Cockpit lighting and instrumentation
- Exterior Aircraft Lighting (Landing Gear, Marker Beacons)
- Government Subcontractors (Cable Assembly Houses, Refurbishing Houses)

### **Commercial Aircraft**

- Black Boxes
- Interior Lighting
- Accelerometer / Altimeter Gauges
- Marker Beacons

### **Industrial**

- Oil Exploration Machinery
- Nuclear Reactors

### **Range of Product:**

The Military 81703 Series I connector line has various insert configurations to suit almost any application. Contact gauges range from 12 to 20 which are non-removeable solder termination.

The RT Solder Series (Commercial) is equal in performance, uses identical insert configurations, contact gauges, and contact style as the Mil-C-81703 Series I line, but is more versatile. This allows for modifications to be applied to the connectors for specific requirements.

The RTS Crimp Series (Commercial) exceeds the Mil-C-81703 Series I and RT Solder Series lines in performance. This line will intermate with the corresponding layouts in the Mil-C-81703 Series I line and the RT Solder Series line. This line is used in more critical applications where the environment and voltage ratings are a factor. This line also has more diverse insert configurations including a 61 pin insert layout. Contact gauges range from 12 to 20, are removeable crimp, and can also be fitted with thermocouple and coaxial contacts. This line also has the capabilities to be modified through various modification codes provided by the factory.

### Facility:

RTI has a "state of the art" machine shop and a tooling facility for custom design and modifications. This allows Robert Tech to have total control over their work, using limited subcontracting during manufacturing.



### Quality Control:

All connectors are tested under Mil-C-81703 Series I & II Group B testing standards before leaving our facility. Robert Technologies, Inc. fully complies with government/industry testing requirements, and is Mil-I-45208A compliant.

For any additional information on Robert Technologies, Inc. products, or distribution locations, please call, write, or email us.

Robert Technologies, Inc.  
3 Fairfield Court  
Manalapan, NJ 07726  
Tel: 732. 254. 6389  
Fax: 732. 254. 1493  
Email : [info@roberttechinc.com](mailto:info@roberttechinc.com)

Barry Greenberg – President/CEO  
Kurt Reinhard – Quality Control Mgr.  
William Cicatello – Assembly Mgr.

### PART IDENTIFICATION

RTS 07 37 S \* \*\*

#### SERIES

MIL C 81703 Compatible  
Removable Crimp

#### SHELL STYLE

- 00 — Box Mount Receptacle
- 01 — In-Line Receptacle
- 04 — Jam Nut Mount Receptacle
- 07 — Straight Plug
- 08 — Straight Plug, HD Lanyard
- 09 — Rack and Panel

#### MODIFICATION CODE

#### ALTERNATE ROTATIONS

(Consult Dealer)

#### (P)IN(S)OCKET

#### SHELL SIZE/INSERT ARRANGEMENT

(See Available Layouts)



RTS-00



RTS-01



RTS-04



RTS-08

### MODIFICATION CODES

CODE	DESCRIPTION / TYPE
004	POTTING BOOT SUPPLIED / RT, RTS
023	OLIVE DRAB PLATING / RT, RTS
025	LANYARD RELEASE / RTS
072	CONDUIT ADAPTER, LESS CLAMP / RTS
081	90 DEGREE END BELL / RTS
090	SUPPLIED LESS CONTACTS / RTS
095	CLAMP W/HEAVY GOLD CONTACTS / RTS

CODE	DESCRIPTION / TYPE
290	WATERTIGHT 90 DEGREE END BELL, OLIVE DRAB PLATING / RTS
293	CLAMP W/OLIVE DRAB PLATING / RTS
369	OLIVE DRAB PLATING & POTTING BOOT / RTS
411	CABLE CLAMP & ADAPTER / RTS
598	GOLD PLATED SHELL W/CLAMP
6043	STAINLESS STEEL SHELL, OLIVE DRAB / RTS
6044	STAINLESS STEEL SHELL, WIRE SEAL / RTS

\* ALL RTS CRIMP STYLE INSERTS ARE SKYDROL RESISTANT.

### PERFORMANCE

All Parts Designed, Manufactured and Tested to meet the following specs:

- Air Leakage:** Less than 1 cu. in/hr per @ 30 psi diff.
- Altitude:** 1250 volts (rms) 60 cps @ 50,000 ft. (mated)
- Corrosion:** Meets requirements of Mil-STD-202A, Method 101, Condition B.
- Contact Spacing:** Minimum contact spacing (center to center): #20 - .130 / #16 - .168 / #12 - .205
- Contact Retention:** Withstand 25 lbs minimum, in either direction.
- Current:** #20 contact - 7.5 amps / #16 contact - 25 amps / #12 contact - 40 amps.
- Durability:** 500 cycles of engagement without defects.
- Humidity:** Meets requirements fo Mil-E-5272 procedures I & III.
- Insulation Resistance:** 50,000 megohms minimum at 75°F.
- Temperature Rating:** Operating temperatures from -67°F to over 300°F.

### CROSS REFERENCE/ REPLACEMENT

RTI	DEUTSCH*	MIL C 81703**	Description
RTS00	DS00	MS3140	Wall Mount Receptacle
RTS01	17064	(no cross)	In Line Receptacle
RTS04	DS04	MS3144	Jam Nut Receptacle
RTS07	DS07	MS3147	Straight Plug
RTS08	17942	MS3148	HD Lanyard Release Plug
RTS09	DS09	(no cross)	
RTS07--025	DS07-- 025	(no cross)	Lanyard Release Plug

\* "The Deutsch Co." & "Robert Technologies, Inc." share no affiliation; for cross reference only.

\*\* For dimensional reference.

### PART IDENTIFICATION



#### SERIES

MIL C 81703 Compatible  
Solder Contacts

#### SHELL STYLE

9700 — Straight Plug  
9702 — Straight Plug w/Clamp  
9703 — Straight Plug, OD  
9718 — Double Knurled Straight Plug  
9728 — Double Knurled Straight Plug w/Clamp

#### MODIFICATION CODE

#### ALTERNATE ROTATIONS

(Consult Dealer)

#### (P)IN/(S)OCKET

#### SHELL SIZE/INSERT ARRANGEMENT

(See Available Layouts)



9700



9702



9703

### MODIFICATION CODES

CODE	DESCRIPTION / TYPE
003	90 DEGREE END BELL FOR WIRE BUNDLE / RT
004	POTTING BOOT SUPPLIED / RT, RTS
006	HEAVY GOLD CONTACTS / RT
010	CLAMP, BUSHING / RT
023	OLIVE DRAB PLATING / RT, RTS
035	EPOXY BACKFILL / RT
045	ALUMALITE FINISH / RT
057	NICKEL FINISH; SHELL & CONTACTS / RT

CODE	DESCRIPTION / TYPE
215	CONDUIT ADAPTER / RT
295	SUPPLIED W/STEP UP CONDUIT ADAPTER / RT
296	SUPPLIED W/STANDARD CONDUIT ADAPTER / RT
313	SUPPLIED W/STEP UP CONDUIT ADAPTER & LARGE END BELL / RT

\* ALL RTS CRIMP STYLE INSERTS ARE OIL RESISTANT.

### PERFORMANCE

All Parts Designed, Manufactured and Tested to meet the following specs:

- Air Leakage:** Less than 1 cu. in/hr @ 30 psi diff.
- Altitude:** 750 volts (rms) 60 cps @ 50,000 ft.
- Corrosion:** 48 hrs salt spray per Mil-STD-202A.
- Contact Spacing:** Minimum contact spacing (center to center).[#20 - .130] / [#16 - .168] / [#12 - .205]
- Current:** #20 contact - 7.5 amps / #16 contact - 25 amps / #12 contact - 40 amps.
- Durability:** 500 cycles of engagement without defects.
- Humidity:** Per SAE AS81703.
- Insulation Resistance:** Greater than 5,000 megohms @ 75°F.
- Temperature Rating:** -55°C to 125°C +/-3°C.

### CROSS REFERENCE/ REPLACEMENT

RTI	DEUTSCH*	MIL C 81703**	Description
RT9702	DM9702	MS3137	Straight Plug w/Clamp
RT9703	DM9703	(no cross)	Straight Plug w/Lanyard
RT9717	DM9717	(no cross)	Plug w/Lanyard and Clamp
RT9718	DM9718	(no cross)	Double Knurled Straight Plug
RT9720	DM9720	(no cross)	Lanyard Release Plug
RT9728	DM9728	(no cross)	Double Knurled Plug w/Clamp
RT9730	14946	MS3138	Plug w/Heavy Lanyard

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\*\* For dimensional reference.

### PART IDENTIFICATION



#### SERIES

MIL C 81703 Compatible Solder Contacts

#### SHELL STYLE

9601 — Jam Nut Receptacle  
9606 — Wall Mount  
9616 — Box Mount Receptacle

#### MODIFICATION CODE

#### ALTERNATE ROTATIONS

(Consult Dealer)

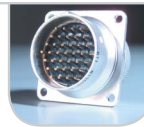
#### (P)IN/(S)OCKET

#### SHELL SIZE/INSERT ARRANGEMENT

(See Available Layouts)



9601



9606



9616

### MODIFICATION CODES

CODE	DESCRIPTION / TYPE	CODE	DESCRIPTION / TYPE
003	90 DEGREE END BELL FOR WIRE BUNDLE / RT	215	CONDUIT ADAPTER / RT
004	POTTING BOOT SUPPLIED / RT, RTS	295	SUPPLIED W/STEP UP CONDUIT ADAPTER / RT
006	HEAVY GOLD CONTACTS / RT	296	SUPPLIED W/STANDARD CONDUIT ADAPTER / RT
010	CLAMP, BUSHING / RT	313	SUPPLIED W/STEP UP CONDUIT ADAPTER & LARGE END BELL / RT
023	OLIVE DRAB PLATING / RT, RTS		* ALL RTS CRIMP STYLE INSERTS ARE OIL RESISTANT.
035	EPOXY BACKFILL / RT		
045	ALUMALITE FINISH / RT		
057	NICKEL FINISH; SHELL & CONTACTS / RT		

### PERFORMANCE

All Parts Designed, Manufactured and Tested to meet the following specs:

- Air Leakage:** Less than 1 cu. in/hr @ 30 psi diff.
- Altitude:** 750 volts (rms) 60 cps @ 50,000 ft.
- Corrosion:** 48 hrs salt spray per Mil-STD-202A.
- Contact Spacing:** Minimum contact spacing (center to center).  
[#20 - .130] / [#16 - .168] / [#12 - .205]
- Current:** #20 contact - 7.5 amps / #16 contact - 25 amps / #12 contact - 40 amps.
- Durability:** 500 cycles of engagement without defects.
- Humidity:** Per SAE AS81703.
- Insulation Resistance:** Greater than 5,000 megohms @ 75°F.
- Temperature Rating:** -55°C to 125°C +/-3°C.

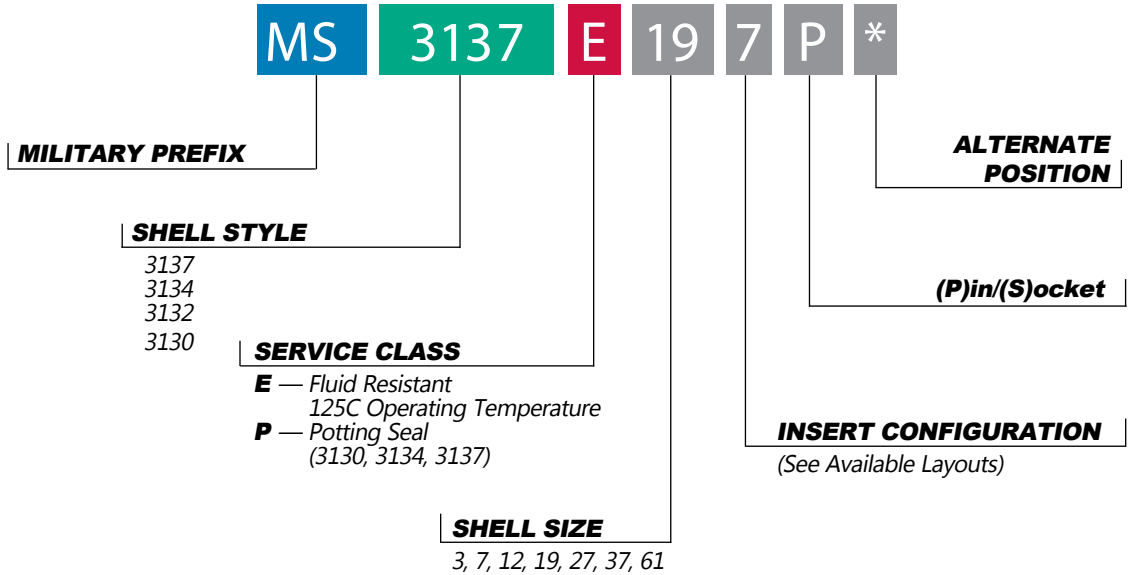
### CROSS REFERENCE/ REPLACEMENT

RTI	DEUTSCH*	MIL C 81703**	Description
RT9601	DM9601	MS3134	Jam Nut Receptacle
RT9606	DM9606	MS3130	Wall Mount
RT9606N	DM9606	MS3132	Box MNT w/o Grommet
RT9609	DM9609	n/a	In Line Receptacle
RT9613	DM9613	n/a	Special Purpose Receptacle
RT9616	DM9616	n/a	Box MNT/No Back

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\*\* For dimensional reference.

**PART IDENTIFICATION**



**PERFORMANCE**

**All Parts Designed, Manufactured and Tested to meet the following specs:**

- Air Leakage:** Less than 1 cu. in/hr @ 30 psi diff.
- Altitude:** 750 volts (rms) 60 cps @ 50,000 ft.
- Corrosion:** 48 hrs salt spray per Mil-STD-202A.
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- Current:** #20 contact - 7.5 amps / #16 contact - 25 amps / #12 contact - 40 amps.
- Durability:** 500 cycles of engagement without defects.
- Humidity:** Per SAE AS81703.
- Insulation Resistance:** Greater than 5,000 megohms @ 75°F.
- Temperature Rating:** -55°C to 125°C +/-3°C.

**CROSS REFERENCE/ REPLACEMENT**

RTI	DEUTSCH*	MIL C 81703**	Description
RT9601	DM9601	MS3134	Jam Nut Receptacle
RT9606	DM9606	MS3130	Wall Mount
RT9606N	DM9606	MS3132	Box MNT w/o Grommet
RT9700	DM9700	MS3137	Straight Plug

\* "The Deutsch Co." & "Robert Technologies, Inc." share no affiliation; for cross reference only.  
\*\* For dimensional reference.