



# SolderTacts Contacts

One-Piece, Controlled-Solder Contacts for Fast, Reliable Terminations

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One-Piece, Controlled-Solder Contacts for Fast, Reliable Terminations



One-piece controlled-reflow-solder SolderTacts contacts are designed to terminate coaxial cables, shielded wires and twisted pairs faster and more reliably than other methods. SolderTacts contacts help eliminate the variables of crimping. The one-step installation process helps cut down on production time while reducing handling and installed costs.

## Controlled Soldering and Strain Relief

SolderTacts contacts provide the optimum amount and type of solder and flux in a prefluxed solder preform that controls soldering and reduces operator sensitivity. The geometry of the coaxial cable is carried through the connector to eliminate separate pins, help reduce crosstalk, and supports improved shielding effectiveness and signal transmission.

These contacts contain two SolderSleeve terminations. One terminator connects the cable's signal conductor to the contact's inner pin. The other terminator connects the shield or ground lead to the contact body. When the contact is heated, the solder melts to provide a precise solder connection. SolderTacts contacts provide a simultaneous electrical connection and strain relief. Heat shrinkable tubing insulations help eliminate stress concentration on the wire within the contact.

## Improved Signal Integrity

For digital and RF signals, SolderTacts contacts offer better signal transmission than obtained with crimp contacts. They reduce crosstalk, signal attenuation, and reflections, while providing excellent protection against outside noise.

## Compatibility

SolderTacts contacts are compatible with a wide range of circular and rectangular military and commercial connectors, including MIL-DTL-38999, MIL-DTL-83723 and MIL-DTL-28748. Compatible with most standard connector cavities, SolderTacts contacts are intermateable and intermountable with contacts qualified to the above connector specifications. They use standard insertion and extraction tools.

### ECONOMICAL

- One-piece contact design with integrated soldering technology
- One-step installation process
- One contact fits multiple cable sizes
- No special tools required

### RELIABLE

- 360° shielding reduces crosstalk and improves signal transmission
- Reflow solder joints are strong and reliable
- Controlled reflow soldering process yields reliable, consistent terminations
- Terminations are fully inspectable

### VERSATILE

- Compatible with a variety of commercial and military connectors
- Termination available for coax cables, shielded pairs, twisted pairs, and triaxial cables
- 150°C temperature rating

## TE Components . . . TE Technology . . . TE Know-how . . .

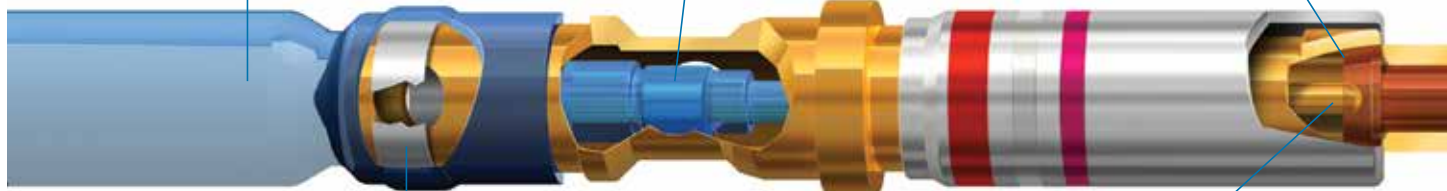
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH  
SEACON Phoenix | LL ROWE | Phoenix Optix | AFP | SEACON

Get your product to market faster with a smarter, better solution.

The outer SolderSleeve termination is a cross-linked heat-shrinkable insulating sleeve supplied in the expanded state. Cables insert easily, with no spacers or other parts required.

The inner SolderSleeve termination is a heat-shrinkable sleeve with a precisely prefluxed solder preform conforming to QQ-S-571.

The precision outer body meets electrical engagement and contact retention requirements of individual connector systems.



The outer solder preform contains precise amounts of solder and flux conforming to QQ-S-571.

Inner pin and socket contacts are permanently fixed within the assembly to provide proper setback and concentricity.



**APPLICATION TOOLING**

- Steinel HL1910E or HL2010E
- Steinel HL1920E or HL2020E
- Steinel HL1802E-074616
- Raychem CV-1981
- Raychem CV-1983
- Raychem AA-400

For more details, please see TE Application Tooling brochure 1-1773872-1

**SPECIFICATION**

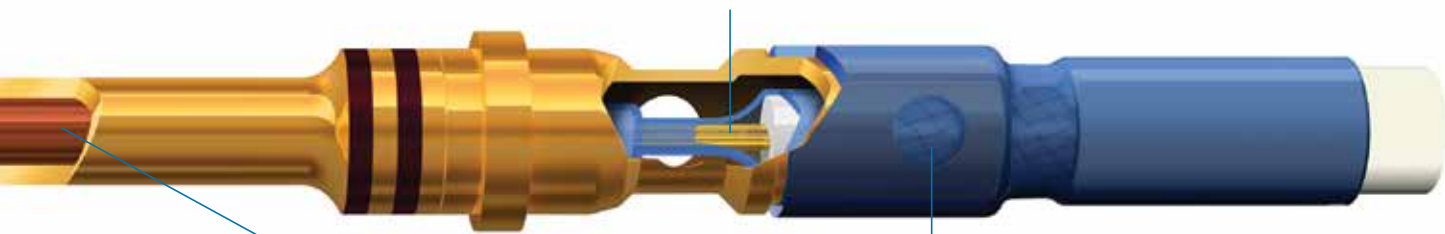
- **D-6002:** SolderTacts Military-Grade Electrical Contacts for Solder Termination

**APPLICATIONS**

- Commercial Aerospace
- Military Marine
- Military Aerospace
- Missile Defense
- C4ISR
- Offshore/Civil Marine
- Ground Defense
- Space

SolderTact Series	Part No. (D-602-)	Engineering Standard (Termination Instructions)	Repair Wand	
			Part No.	Part Description
Submin	0218, 0219	ES-61170	959014-000	AD-1481-SUBMN-SLDTK-HOLDR
	0238, 0239	ES-61169		
748	44, 45	ES-61133	994040-000	AD-1480
	0172, 0173	ES-61240		
	54, 55	ES-61132		
	0126, 0127	ES-61199		
723	D-610-09, -10	ES-61187	551737-000	AD-1571-1-POWERTACT-HOLDR
	0094, 0095	ES-61128	994057-000	AD-14940723-SLTC-HLD-ASY
	0106, 0107	ES-61134		
No. 12	16, 17	ES-61161	966800-000	AD-1508-REP-FOR-12-CONT
	482	46, 47	ES-61137	181779-000
56, 57		ES-61138		
999 Size 16	0140, 0141	ES-61226	859747-000	AD-1572-1-SOLD-HOLDER-ASY
	0142, 0143	ES-61224		
	0171	ES-61226		
	0174	ES-61124		
999 Size 12	0144, 0145	ES-61206	122917-000	AD-1566-1-HOLDER-ASSEMBLY
	0146, 0147	ES-61218		
	0159/0151	ES-61223		
999 Size 8	1108/1109	ES-61172	635308-000	AD-1568-1-SOLDERTACT-HLDR
	1110/1111			
	1112/1113	ES-61184		
	0156/0157-X	ES-61231		
	0169/0170-X	ES-61235		

In the terminated signal lead, the heat-shrink tubing shrinks tightly around the termination to insulate and strain relieve the connection. The tensile strength of the soldered terminations exceeds that of the cable itself.



The dielectric between inner and outer contacts provides concentricity, electrical integrity, precise mating dimensions, and closed entry at the inner socket.

The shield termination can be inspected through the viewing port.



Table I: SolderTacts Contacts-to-Cable Cross Reference

	Submin Series	723 Series Size 12	723 Series Size 12	748 Series Size 16	748 Series Size 16	847 Series Size 16	748 Series Size 16
	D-602-0278	D-602-0094	D-602-0106	D-602-44	D-602-0172	D-602-72	D-602-76
	D-602-0279	D-602-0095	D-602-0107	D-602-45	D-602-0173	D-602-73	D-602-77
<b>Cheminax Coaxial Cables</b>							
5021K1X1X							
5022A1X1X							
5024A1X1X	✓	✓					
5026A1X1X	✓			✓		✓	✓
5026D1X2X	✓			✓		✓	✓
5028A1X1X	✓						
5028A1X2X	✓						
5030A1X1X	✓			✓ <sup>4</sup>	✓	✓	✓
7522A1X1X							
7524A1X1X							
7528A1X1X	✓	✓		✓ <sup>4</sup>	✓	✓	✓
7530A1X1X	✓			✓ <sup>4</sup>	✓	✓	✓
7530D1X2X							
9526A1X1X							
9528A1X1X			✓				
9528D1X2X			✓				
9530A1X1X		✓					
9530H1X1X	✓	✓					
9532A1X1X	✓	✓		✓ <sup>4</sup>	✓	✓	✓
<b>RG/U Coaxial Cables</b>							
RG-58							
RG-174	✓	✓		✓		✓	✓
RG-178	✓	✓		✓ <sup>1</sup>	✓	✓ <sup>1</sup>	✓ <sup>1</sup>
RG-179	✓	✓		✓	✓	✓	✓
RG-180							
RG-195			✓				
RG-316	✓	✓		✓		✓	✓
<b>Twisted Pair Cables</b>							
	Submin Series	723 Series Size 12	723 Series Size 12	748 Series Size 16	748 Series Size 16	847 Series Size 16	748 Series Size 16
	D-602-0288	D-602-0104		D-602-54	D-602-0126	D-602-74	
	D-602-0289	D-602-0105	—	D-602-55	D-602-0127	D-602-75	—
22-26					✓		
24-26		✓					
24-30 <sup>3</sup>	✓ <sup>2</sup>			✓		✓	
26-30 <sup>3</sup>							

1. Requires use of barrier.

2. .048" maximum insulation diameter.

3. Smaller cables can be accommodated. Consult product management.

4. These cables can be accommodated by D-602-44 and D-602-45. However, the D-602-0172 and the D-602-0173 are preferred for these cables. The cross reference list above is not intended to be exhaustive. Please consult TE.



Table I: SolderTacts Contacts-to-Cable Cross Reference

	482 Series Size 16	No. 12 Size 12	999 Series Size 8	999 Series Size 12	999 Series Size 12	999 Series Size 16
	D-602-46 D-602-47	D-602-16 D-602-17	D-602-0122 D-602-0123	D-602-0144 D-602-0145	D-602-0150 D-602-0151	D-602-0140 D-602-0141 D-602-0171
<b>Cheminax Coaxial Cables</b>						
5021K1X1X			✓			
5022A1X1X			✓		✓	
5024A1X1X		✓		✓		
5026A1X1X	✓	✓		✓		✓
5026D1X2X	✓	✓				✓
5028A1X1X						✓
5028A1X2X		✓				
5030A1X1X	✓	✓				✓
7522A1X1X			✓			
7524A1X1X			✓			
7528A1X1X	✓	✓		✓		✓
7530A1X1X	✓	✓		✓		✓
7530D1X2X		✓				
9526A1X1X			✓			
9528A1X1X			✓		✓	
9528D1X2X			✓		✓	
9530A1X1X				✓		
9530H1X1X		✓		✓		
9532A1X1X	✓	✓		✓		
<b>RG/U Coaxial Cables</b>						
RG-58			✓			
RG-174	✓	✓		✓		
RG-178	✓					✓
RG-179	✓ <sup>1</sup>	✓		✓		✓
RG-180			✓		✓	
RG-195			✓			
RG-316	✓	✓		✓		✓
<b>Twisted Pair Cables</b>						
	482 Series Size 16	No. 12 Size 12	999 Series Size 8	999 Series Size 12	999 Series Size 12	999 Series Size 16
	D-602-56 D-602-57	—	—	D-602-0146 D-602-0147	—	—
22-26 AWG				✓		
24-26						
24-30 <sup>3</sup>	✓					
26-30 <sup>3</sup>						✓

1. Requires use of barrier.

2. .048" maximum insulation diameter.

3. Smaller cables can be accommodated. Consult product management.

4. These cables can be accommodated by D-602-44 and D-602-45. However, the D-602-0172 and the D-602-0173 are preferred for these cables. The cross reference list above is not intended to be exhaustive. Please consult TE.



Table II: Connector Accommodation: SolderTacts Shielded Contacts

Military Specification	SolderTacts Contacts Series/Contact Size	Specification	Cable Type	Contact Type	Part No.		
NAS 1599	723 Series Size 12 Contact	AS39029/74	Small Coaxial	Pin	D-602-0094		
MIL-DTL-26482 Series II		AS39029/73	Small Coaxial	Socket	D-602-0095		
SAE-AS81703 Series III		AS39029/74	Large Coaxial	Pin	D-602-0106		
MIL-DTL-83723 Series I & III		AS39029/73	Large Coaxial	Socket	D-602-0107		
MIL-DTL-83733		AS39029/74	Twisted Pair	Pin	D-602-0104		
		AS39029/73	Twisted Pair	Socket	D-602-0105		
MIL-DTL-26482 Series I	No. 12 Series Size 12 Contact	MIS-20067 (Army)	Coaxial	Pin	D-602-17		
			Coaxial	Socket	D-602-16		
MIL-DTL-26500 MIL-PRF-81733 Series II	482 Series Size 16 Contact		Coaxial	Pin	D-602-46		
			Coaxial	Socket	D-602-47		
			Twisted Pair	Pin	D-602-56		
			Twisted Pair	Socket	D-602-57		
			Coaxial	Pin	D-602-44		
MIL-DTL-28748/3,4,9,10 MIS-20065 (Army)	748 Series Size 16 Contact	MIS20067 (Army)	Coaxial	Socket	D-602-45		
			Twisted Pair	Pin	D-602-54		
			Twisted Pair	Socket	D-602-55		
			Power	Pin	D-610-09		
			Power	Socket	D-610-10		
			Coaxial	Pin	D-602-0173		
			Coaxial	Socket	D-602-0172		
			Twisted Pair (MIL-STD-1553)	Pin	D-602-0126		
			Twisted Pair	Socket	D-602-0127		
					AS39029/76	Coaxial	Pin
MIL-DTL-38999 Series I, II*, III, IV	999 Series Size 16 Contact		AS39029/77	Coaxial	Socket	D-602-0141	
			AS39029/77	Coaxial*	Socket	D-602-0171	
			AS39029/76	Twisted Pair	Pin	D-602-0142	
			AS39029/77	Twisted Pair	Socket	D-602-0143	
			AS39029/77	Twisted Pair*	Socket	D-602-0174	
			AS39029/28	Coaxial	Pin	D-602-0144	
	999 Series Size 12 Contact			AS39029/75	Coaxial	Socket	D-602-0145
				AS39029/28	Twisted Pair	Pin	D-602-0146
				AS39029/75	Twisted Pair	Socket	D-602-0147
				AS39029/28	Large Coaxial	Pin	D-602-0150
				AS39029/75	Large Coaxial	Socket	D-602-0151
				AS39029/60	Coaxial	Pin	D-602-0122
				AS39029/59	Coaxial	Socket	D-602-0123
				999 Series Size 8 Contact			USAF8340712-1 <sup>^</sup>
USAF8340713-1 <sup>^</sup>	Shielded Twisted Pair (MIL-STD-1553)	Pin	D-602-1109				
USAF8340712-2 <sup>^</sup>	Shielded Twisted Pair (MIL-STD-1553)	Socket	D-602-1112				
	Shielded Twisted Pair (MIL-STD-1553)	Pin	D-602-1113				
USAF8340713-2 <sup>^</sup>	Triaxial	Socket	D-602-1110				
Submin Series Size 16				Triaxial	Pin	D-602-1111	
				Coaxial	Pin	D-602-0278	
				Coaxial	Socket	D-602-0279	
				Twisted Pair	Pin	D-602-0288	
				Twisted Pair	Socket	D-602-0289	

\* Size 16 contacts only for use with MTCP and MIL-DTL-38999 Series II connectors only.

<sup>^</sup> Intermountable and intermatable, replaces crimp style termination.



Table III: SolderTacts Contact Compatibility

Contact Military Specification	Raychem Equivalent* Part Numbers	Nature of Compatibility	SolderTacts - Compatible Connector Specifications	SolderTact Series
M39029/73-396 M39029/73-397 M39029/73-398 M39029/73-555	D-602-0107 D-602-0095 D-602-0105 D-602-0093	Equivalent product. TE is a qualified vendor.	MIL-DTL-26482 Series II MIL-DTL-81703 Series III MIL-DTL-83723 Series I, III MIL-DTL-83733 NAS-1599	723 Series
M39029/74-399 M39029/74-400 M39029/74-401	D-602-0106 D-602-0094 D-602-0104			
M39029/28	D-602-0144 D-602-0146 D-602-0150	Intermountable and intermatable. Replaces crimp-style termination.	MIL-DTL-38999 Series I, II*, III, IV *Size 16 only	999 Series
M39029/59	D-602-0123			
M39029/60	D-602-0122			
M39029/75	D-602-0145 D-602-0147 D-602-0151			
M39029/76	D-602-0140 D-602-0142			
M39029/77	D-602-0141 D-602-0143 D-602-0171 D-602-0174			
M39029/90	DK-602-0156-N-X DK-602-0169-N-X	Intermountable and intermatable. Replaces crimp-style termination.		
M39029/91	DK-602-0157-N-X DK-602-0170-N-X			
USAF8340712-1 USAF8340712-2 USAF8340713-1 USAF8340713-2	D-602-1108 D-602-1112 D-602-1109 D-602-1113	Equivalent product. TE is a qualified vendor.		
M39029/25 M39029/26	D-602-17 D-602-16	Intermountable and intermatable. Replaces crimp-style termination.	MIL-DTL-26482 Series I MIL-DTL-26500 MIL-DTL-81703 Series II	No. 12 Series
MIS20067/5 MIS20067/6	D-602-16 D-602-17	Equivalent product. TE is a qualified vendor.		
M39029/40 M39029/41 M39029/42 M39029/43	D-602-76 D-602-77 D-602-77 D-602-76	Intermountable and intermatable. Replaces crimp-style termination.	MIL-DTL-28748/3, /4, /9, /10	748 Series
M39029/79	D-602-72 D-602-74	Intermountable and intermatable. Replaces crimp-style termination.		847 Series
M39029/80	D-602-73 D-602-75			
MIS20067/1 MIS20067/2 MIS20067/3 MIS20067/4 MIS20067/7 MIS20067/8	D-602-45 D-602-44 D-602-55 D-602-54 D-610-10 D-610-09	Equivalent products. TE is a qualified vendor.	MIS-20065 (Army)	748 Series
	D-602-77 D-602-76 D-602-76 D-602-77	Intermountable and intermatable. Replaces crimp-style termination.		748 Series
	D-602-0278 D-602-0279 D-602-0288 D-602-0289	Intermountable and intermatable. Replaces crimp-style termination.	Souriau Trim Trio Connector Family	Submin Series

\* SolderTacts contacts are intermatable and interchangeable with existing MIL-spec contacts.

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Consult TE for the latest dimensions and design specifications.

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