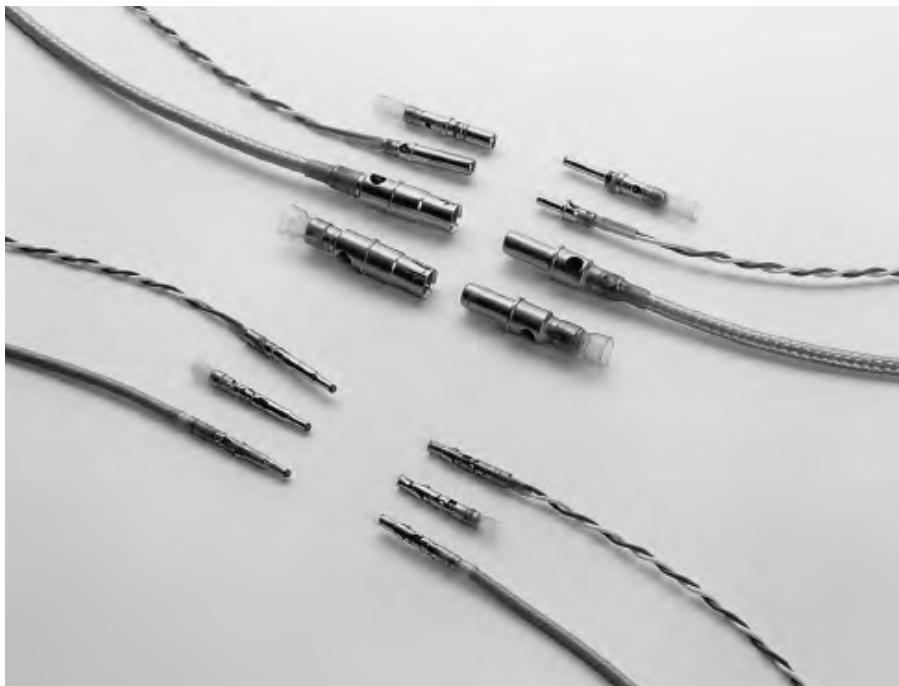


SolderTacts Shielded One-Piece Solder Contacts

Product Facts

- Reliable one-piece solder contacts: through-connector shielding reduces cross-talk, and improves signal transmission
- One-step installation
- Solder joints are strong and reliable
- Terminations are fully inspectable
- Termination for coax cables, shielded wires, twisted pairs, triaxial cables, for a variety of commercial and military connectors



Applications

One-piece controlled-soldering SolderTacts contacts connectors are designed to terminate coaxial cables, shielded wires, and twisted pairs faster and more reliably than any other method. SolderTacts contacts eliminate the variables associated with hard-to-handle crimping. Their one-step installation accelerates production while reducing handling and installed costs.

Controlled Soldering

SolderTacts contacts provide the optimum amount and type of solder and flux in prefluxed solder preforms to control soldering and reduce operator sensitivity. The geometry of the coaxial

cable is carried through the connector to eliminate separate pins, help reduce cross talk, and improve shielding effectiveness and signal transmission.

SolderTacts contacts provide simultaneous electrical connection and strain relief. Heat-shrinkable tubing insulations eliminate stress concentration on the wire within the contact. Because the insulation is transparent and inspection windows are provided, terminations are fully inspectable.

Compatibility

The design versatility of SolderTacts contacts makes them exceptionally well suited to military applications,

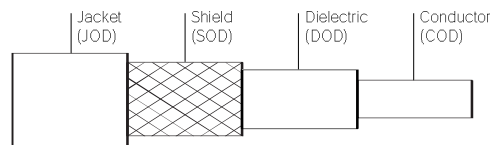
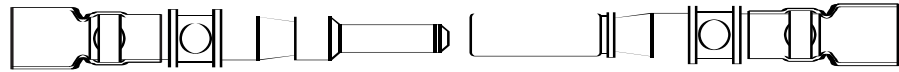
along with commercial aerospace, instrumentation and computers. SolderTacts products are compatible with most standard connector cavities. SolderTacts contacts are intermateable and intermountable with contacts qualified to the indicated specification.

SolderTacts shielded contacts can be terminated with standard Raychem heating tools. Once terminated, they can be installed into connector cavities with standard insertion and extraction tools. They are replaceable without cutting and restripping or shortening the cable.

Specifications/Approvals

Series	Raychem
D-602	D-6002

SolderTacts Shielded One-Piece Solder Contacts (Continued)



SolderTacts Product Construction, MIL-C-26482 Series

SolderTacts Series:
MIL-C-26482

Contact Military Specification	Cable Diameter				Wire (AWG)	Raychem SolderTacts Part No.	Size	Polarity	Cable Type
	JOD	SOD	DOD	COD					
MIS-20067/5-001†	1.78-4.70 [.070-.185]	1.65-2.79 [.065-.110]	.76-2.03 [.030-.080]	.23-.51 [.009-.020]	24-32	D-602-16	12	S	Coaxial
MIS-20067/6-001†	1.78-4.70 [.070-.185]	1.65-2.79 [.065-.110]	.76-2.03 [.030-.080]	.23-.51 [.009-.020]	24-32	D-602-17	12	P	Coaxial
—	1.52-3.30 [.060-.130]	1.68-2.13 [.066-.089]	.91-1.75 [.036-.069]	.30-.66 [.012-.026]	24-30	D-602-46	16	P	Coaxial
—	1.52-3.30 [.060-.130]	1.68-2.13 [.066-.089]	.91-1.75 [.036-.069]	.30-.66 [.012-.026]	26-32	D-602-47	16	S	Coaxial
—	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-56	16	P	Twinax
—	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-57	16	S	Twinax

† These SolderTacts contacts are on qualified parts list for indicated specification.

Tooling Selection Guide

Part Numbers	Engineering Standard (Termination Instructions)	Convection (Hot Air) Heating AT-1319 Adapter	Repair Wand	Contact Insertion Tool	Contact Removal Tool
D-602-46/47	ES61137	AT-1319-17	*	AD-1525	AD-1526
D-602-56/57	ES61138	—	—	(M81969/17-04)	(M81969/19-08)
D-602-16/17	ES61161	—	—	—	—

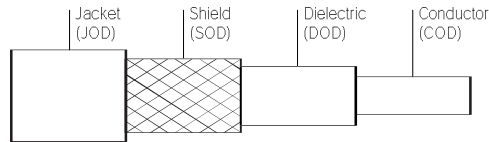
* Could be developed.

Note:

AA-400 SuperHeater Compressed Air Heating Tool shown on page 12-212 can be used for installation. Another option is the Steinel® General Purpose Hot-Air Heating Tool shown on page 12-215.

SolderTacts Shielded One-Piece Solder Contacts (Continued)

SolderTacts Series:
MIL-C-28748 Series



SolderTacts Product Construction, MIL-C-28748 Series

Contact Military Specification	Cable Diameter				Wire (AWG)	Raychem SolderTacts Part Number	Size	Polarity	Cable Type
	JOD	SOD	DOD	COD					
MIS-20067/2-002 ^a	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.78 [.036-.070]	.23-.89 [.009-.035]	26-32	D-602-44	16	P	Coaxial
MIS-20067/1-001 ^a	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.78 [.036-.070]	.23-.89 [.009-.035]	26-32	D-602-45	16	S	Coaxial
MIS-20067/4-001 ^a	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-54	16	P	Twisted pair
MIS-20067/3-001 ^a	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-55	16	S	Twisted pair
M39029/79 ^b	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.68 [.036-.066]	.30-.66 [.012-.026]	26-32	D-602-72	16	P	Coaxial
M39029/80 ^b	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.68 [.036-.066]	.30-.66 [.012-.026]	26-32	D-602-73	16	S	Coaxial
M39029/40 ^b	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.68 [.036-.066]	.30-.66 [.012-.026]	26-32	D-602-76	16	P	Coaxial
M39029/41 ^b	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.68 [.036-.066]	.30-.66 [.012-.026]	26-32	D-602-77	16	S	Coaxial
—	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-0126	16	P	Twisted pair ^c
—	—	—	.76-1.24 [.030-.049]	.28-.79 [.011-.031]	24-30	D-602-0127	16	S	Twisted pair ^c
—	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.78 [.036-.070]	.23-.46 [.009-.018]	28-32	D-602-0172	16	P	Coaxial
MIS-20067/2-001, 003 ^a	1.52-3.35 [.060-.132]	1.68-2.13 [.066-.084]	.91-1.78 [.036-.070]	.23-.46 [.009-.018]	28-32	D-602-0173	16	S	Coaxial
MIS-20067/8-001 ^a	—	—	1.40-3.15 [.055-.124]	.64-1.57 [.025-.062]	16-20	D-610-09	16	P	Power
MIS-20067/7-001 ^a	—	—	1.40-3.15 [.055-.124]	.64-1.57 [.025-.062]	16-20	D-610-10	16	S	Power

^a These SolderTacts contacts are on the qualified parts list for indicated specification.

^b These SolderTacts contacts are interchangeable and intermountable with contacts qualified to the indicated specification; they replace crimp-style termination.

^c These SolderTacts contacts are designed for twisted-pair cable per MIL-STD-1553B.

SolderTacts Shielded One-Piece Solder Contacts (Continued)

Tooling Selection Guide:
MIL-C-28748 Series

SolderTacts Series	Part Number	Engineering Standard (Termination Instructions)	Convection (Hot Air) Heating	
			AT-1319 Adapter	Repair Wand
748	D-602-44/45	ES61133	AT-1319-14	AD-1480
	D-602-0172/0173	ES61240	—	—
	D-602-54/55	ES61132	—	—
	D-602-0126/0127	ES61199	—	—
	D-610-09/10	ES61187	AT-1319-15	AD-1571
	D-602-72/73	ES61135	AT-1319-18	AD-1486
	D-602-76/77	ES61164	AT-1319-20	AD-1554
SolderTacts Series	Contact Insertion Tool	Contact Removal Tool	Special Tools	
748	*	AD-1447	AD-1457A (bushing tool)	AD-1464 (flex tip removal tool)

* Not applicable.

Note:

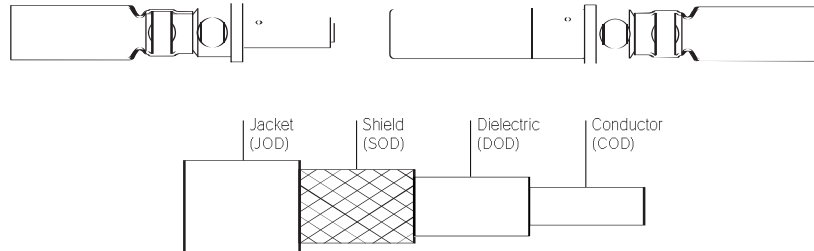
AA-400 SuperHeater Compressed Air Heating Tool shown on page 12-212 can be used for installation. Another option is the Steinel® General Purpose Hot-Air Heating Tool shown on page 12-215.



SolderTacts Shielded One-Piece Solder Contacts (Continued)

SolderTacts Series:
MIL-C-38999, Series I, II,
III, IV Circular Connectors

SolderTacts Product Construction, MIL-C-38999 Series



Contact Military Specification	United States Air Force Drawing No.	Cable Diameter				Wire (AWG)	Raychem SolderTacts Part Number	Size	Polarity	Cable Type
		JOD	SOD	DOD	COD					
Series I, III, and IV										
M39029/60 ^a	—	3.81–5.94 [.150-.234]	3.10–4.32 [.150-.170]	1.52–3.84 [.060-.151]	.48–1.09 [.019-.043]	22–24	D-602-0122	8	P	Coaxial
M39029/59 ^a	—	3.81–5.94 [.150-.234]	3.10–4.32 [.150-.170]	1.52–3.84 [.060-.151]	.48–1.09 [.019-.043]	22–24	D-602-0123	8	S	Coaxial
M39029/76 ^a	915304-1	1.27–2.62 [.050-.103]	1.68–2.13 [.066-.084]	.91–1.73 [.036-.068]	.23–.58 [.009-.023]	26–30	D-602-0140	16	P	Coaxial
M39029/77 ^a	915305-1	1.27–2.62 [.050-.103]	1.68–2.13 [.066-.084]	.91–1.73 [.036-.068]	.23–.58 [.009-.023]	26–30	D-602-0141	16	S	Coaxial
M39029/76 ^a	915304-2	—	—	.64–1.09 [.025-.043]	.23–.58 [.009-.023]	26–30	D-602-0142	16	P	Twisted pair
M39029/77 ^a	915305-2	—	—	.64–1.09 [.025-.043]	.23–.58 [.009-.023]	26–30	D-602-0143	16	S	Twisted pair
M39029/28 ^a	915307-1	1.47–3.10 [.058-.122]	1.68–2.39 [.066-.094]	1.12–2.03 [.044-.080]	.48–.89 [.019-.035]	24–32	D-602-0144	12	P	Coaxial
M39029/75 ^a	915308-1	1.47–3.10 [.058-.122]	1.68–2.39 [.066-.094]	1.12–2.03 [.044-.080]	.48–.89 [.019-.035]	24–32	D-602-0145	12	S	Coaxial
M39029/28 ^a	915307-3	—	—	.74–1.45 [.029-.057]	.48–.89 [.019-.035]	22–26	D-602-0146	12	P	Twisted pair
M39029/75 ^a	915308-3	—	—	.74–1.45 [.029-.057]	.48–.89 [.019-.035]	22–26	D-602-0147	12	S	Twisted pair
M39029/28 ^a	915307-2	1.90–3.81 [.075-.150]	2.54–2.97 [.100-.117]	1.27–2.62 [.050-.103]	.48–.89 [.019-.035]	22, 28	D-602-0150	12	P	Coaxial
M39029/75 ^a	915308-2	1.90–3.81 [.075-.150]	2.54–2.97 [.100-.117]	1.27–2.62 [.050-.103]	.48–.89 [.019-.035]	22, 28	D-602-0151	12	S	Coaxial
—	8340712-OS-01	2.49–3.42 [.098-.135]	1.68–3.05 [.066-.120]	.76–1.24 [.030-.049]	.27–.79 [.011-.031]	24–26	D-602-1108	8	S	Twisted pair ^b
—	8340713-OS-01	2.49–3.42 [.098-.135]	1.68–3.05 [.066-.120]	.76–1.24 [.030-.049]	.27–.79 [.011-.031]	24–26	D-602-1109	8	P	Twisted pair ^b
—	—	2.49–3.76 [.098-.148]	1.68–3.30 [.066-.130]	.91–1.78 [.036-.070]	.23–.89 [.009-.035]	22–26	D-602-1110	8	S	Triaxial
—	—	2.49–3.76 [.098-.148]	1.68–3.30 [.066-.130]	.91–1.78 [.036-.070]	.23–.89 [.009-.035]	22–26	D-602-1111	8	P	Triaxial
—	8340712-OL-01	2.49–3.42 [.098-.135]	1.68–3.05 [.066-.120]	.76–1.24 [.030-.049]	.27–.79 [.011-.031]	24–26	D-602-1112	8	S	Twisted pair ^b
—	8340713-OL-01	2.49–3.42 [.098-.135]	1.68–3.05 [.066-.120]	.76–1.24 [.030-.049]	.27–.79 [.011-.031]	24–26	D-602-1113	8	P	Twisted pair ^b
M39029/90 ^a	8912020-OS-01	3.68 [.145] Max.	—	.64–1.29 [.029-.051]	.27–.74 [.011-.029]	24–26	DK-602-0156-N-1	8	P	Twinaxial ^c
M39029/90 ^a	8912020-DL-01	4.11 [.162] Max.	—	.64–1.29 [.029-.051]	.27–.74 [.011-.029]	24–26	DK-602-0156-N-2	8	P	Twinaxial ^c

a These SolderTacts contacts are intermateable and intermountable with contacts qualified to indicated specification; they replace crimp-style termination.

b These SolderTacts contacts are designed for shielded twisted pair cable per MIL-STD-1553B.

c These SolderTacts contacts are designed for databus contacts per MIL-STD-1553B.

SolderTacts Shielded One-Piece Solder Contacts (Continued)

SolderTacts Series:
MIL-C-38999, Series I, II,
III, IV Circular Connectors
(Continued)

Contact Military Specification	United States Air Force Drawing No.	Cable Diameter (in inches)				Wire (AWG)	Raychem SolderTacts Part Number	Size	Polarity	Cable Type
		JOD	SOD	DOD	COD					
Series I, III, and IV										
M39029/90 ^a	8912020-EL-01	4.50 max. [.177]	—	.74-1.30 [.029-.051]	.24-.74 [.011-.029]	24-26	DK-602-0156-N-3	8	P	Twinaxial ^c
M39029/91 ^a	8912019-OS-01	3.68 max. [.145]	—	.74-1.30 [.029-.051]	.24-.74 [.011-.029]	24-26	DK-602-0157-N-1	8	S	Twinaxial ^c
M39029/91 ^a	8912019-DL-01	4.12 max. [.162]	—	.74-1.30 [.029-.051]	.24-.74 [.011-.029]	24-26	DK-602-0157-N-2	8	S	Twinaxial ^c
M39029/91 ^a	8912019-EL-01	4.50 max. [.177]	—	.74-1.30 [.029-.051]	.24-.74 [.011-.029]	24-26	DK-602-0157-N-3	8	S	Twinaxial ^c
M39029/90 ^a	8912020-OL-01	4.67 max. [.184]	—	—	—	20	DK-602-0169-1	8	P	Twinaxial ^c
M39029/91 ^a	8912019-OL-01	4.67 max. [.184]	—	—	—	20	DK-602-0170-1	8	S	Twinaxial ^c
Series II										
M39029/76 ^a	915304-1	1.27-2.62 [.050-.103]	1.68-2.13 [.066-.084]	.91-1.73 [.036-.068]	.23-.58 [.009-.023]	26-30	D-602-0140	16	P	Coaxial
M39029/77 ^a	915306-1	1.27-2.62 [.050-.103]	1.68-2.13 [.066-.084]	.91-1.73 [.036-.068]	.23-.58 [.009-.023]	26-30	D-602-0171	16	S	Coaxial
M39029/76 ^a	915304-2	—	—	.64-1.09 [.025-.043]	.23-.58 [.009-.023]	26-30	D-602-0142	16	P	Twisted pair
M39029/77 ^a	915306-2	—	—	.64-1.07 [.025-.042]	.23-.58 [.009-.023]	26-30	D-602-0174	16	S	Twisted pair

a These SolderTacts contacts are intermateable and intermountable with contacts qualified to indicated specification; they replace crimp-style termination.
b These SolderTacts contacts are designed for shielded twisted pair cable per MIL-STD-1553B.
c These SolderTacts contacts are designed for databus contacts per MIL-STD-1553B.

Tooling Selection Guide

SolderTacts Series	Part Numbers (D-602-)	Engineering Standard (Termination Instructions)	Convection (Hot Air) Heating AT-1319 Adapter	Repair Wand	Contact Insertion Tool	Contact Removal Tool*
999 Size 16	0140/0141	ES61226	AT-1319-78	AD-1565	M81969/8-07 or M81969/14-03	M81869/8-08 or M81969/14-03
	0142/0143	ES61224	—	—		
	0171	ES61226	AT-1319-27	AD-1572		
	0174	ES61224	—	—		
999 Size 12	0144/0145	ES61206	AT-1319-24	AD-1566	M81969/8-09 or M81969/14-04	M81969/8-10 or M81969/14-04
	0146/0147	ES61218	—	—		
	0150/0151	ES61223	—	—		
999 Size 8	0122/0123	ES61179	AT-1319-22	AD-1568	—	M81969/14-06 or Astro ATBX-2277
	1108/1109	ES61172	—	—		
	1110/1111	ES61172	AT-1319-22	AD-1568		
	1112/1113	ES61184	and AT-1319-14	and AD-1480		
	0156/0157-X	ES61231	—	—		
	0169/0170-X	ES61235	—	—		

* Tyco Electronics does not provide this tool. See connector manufacturer.

Note:

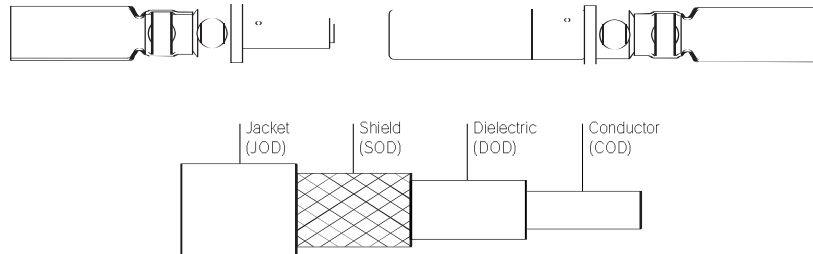
AA-400 SuperHeater Compressed Air Heating Tool shown on page 12-212 can be used for installation. Another option is the Steinel® General Purpose Hot-Air Heating Tool shown on page 12-215.



SolderTacts Shielded One-Piece Solder Contacts (Continued)

SolderTacts Series:
Subminiature*

SolderTacts Product Construction, Submin Series



Raychem Cable Diameter

SolderTacts	Size	Polarity	Cable Type	Cable Diameter				(AWG)
				JOD	SOD	DOD	COD	
D-602-0278	16	P	Coaxial	1.52-2.92 [.060-.115]	1.85-2.18 [.073-.086]	.64-1.91 [.025-.075]	.23-.74 [.009-.029]	24-32
D-602-0279	16	S	Coaxial	1.52-2.92 [.060-.115]	1.85-2.18 [.073-.086]	.64-1.91 [.025-.075]	.23-.74 [.009-.029]	24-32
D-602-0288	16	P	Twisted pair	—	—	.74-1.40 [.029-.055]	.23-.74 [.009-.029]	24-32
D-602-0289	16	S	Twisted pair	—	—	.74-1.40 [.029-.055]	.23-.74 [.009-.029]	24-32

* These SolderTacts contacts belong to the Raychem "Subminiature" series of contacts, which are designed for use in commercial connectors.

Tooling Selection Guide

SolderTacts Series	Part Numbers (D-602-)	Engineering Standard (Termination Instructions)	Convection (hot air) Heating AT-1319 Adapter	Repair Wand	Contact Insertion Tool	Contact Removal Tool
Submin	0278/0279	ES61170	AT-1319-12	AD-1481	**	AD-1447
—	0288/0289	ES61414	—	—	—	—

** Not applicable.

Note:

AA-400 SuperHeater Compressed Air Heating Tool shown on page 12-212 can be used for installation. Another option is the Steinel® General Purpose Hot-Air Heating Tool shown on page 12-215.

SolderTacts Shielded One-Piece Solder Contacts (Continued)

**SolderTacts Series:
MIL-C-83723**

Contact Military Specification*	Cable Diameter				Wire (AWG)	Raychem SolderTacts	Size	Polarity	Cable Type
	JOD	SOD	DOD	COD					
M39029/74-400	2.39-3.56 [.094-.140]	1.96-2.49 [.077-.098]	1.32-2.06 [.052-.081]	.28-.74 [.011-.029]	24-32	D-602-0094	12	P	Coaxial
M39029/73-397	2.39-3.56 [.094-.140]	1.96-2.49 [.077-.098]	1.32-2.06 [.052-.081]	.28-.74 [.011-.029]	24-32	D-602-0095	12	S	Coaxial
M39029/74-401	—	—	.74-1.45 [.029-.057]	.28-.74 [.011-.029]	24-32	D-602-0104	12	P	Twisted pair
M39029/73-398	—	—	.74-1.45 [.029-.057]	.28-.74 [.011-.029]	24-32	D-602-0105	12	S	Twisted pair
M39029/74-399	3.05-3.68 [.120-.145]	3.10-3.15 [.122-.124]	2.36-2.67 [.093-.105]	.28-.74 [.011-.029]	24-32	D-602-0106	12	P	Large coaxial
M39029/73-396	3.05-3.68 [.120-.145]	3.10-3.15 [.122-.124]	2.36-2.67 [.093-.105]	.28-.74 [.011-.029]	24-32	D-602-0107	12	S	Large coaxial

* These SolderTacts contacts are on qualified parts list for indicated specification.

Tooling Selection Guide

Raychem SolderTacts Part Number	Engineering Standard (Termination Instructions)	Convection (Hot Air) Heating AT-1319 Adapter	Repair Wand	Contact Insertion Tool	Contact Removal Tool	Special Tools
D-602-0094/0095	ES61128	AT-1319-19	AD-1494	AD-1527	AD-1527	AD-1496
D-602-0106/0107	ES61134	Rev. D	Rev. C	(M81969/14-04)	(M81969/14-04)	(twisted)
D-602-0104/0105	ES61129	—	—	—	—	—

Note:

AA-400 SuperHeater Compressed Air Heating Tool shown on page 12-212 can be used for installation. Another option is the Steinel® General Purpose Hot-Air Heating Tool shown on page 12-215.

**SolderTacts Series:
DOD-C-83527**

Raychem SolderTacts Reference	Size	Polarity	Cable Type	Contact Military Specification
D-602-0185	16	socket	Coaxial	—
D-602-0094	12	pin	Coaxial	M39029/74
D-602-0093**	12	socket	Coaxial	M39029/73
D-602-0106	12	pin	Coax (large)	M39029/74
D-602-0189**	12	socket	Coax (large)	M39029/73

** These SolderTacts contacts are intermateable with M39029/73, but are not on QPL.

**SolderTacts Series:
DOD-C-83527
(data bus contacts)*****

Raychem SolderTacts Reference	Size	Polarity	Cable Type	Contact Military Specification
D-602-0186	8	pin	Twisted pair	M39029/96
D-602-0187	8	socket	Twisted pair	M39029/95
DK-602-0186-2	8	pin	Sh. twisted pair	M39029/96
DK-602-0187-2	8	socket	Sh. twisted pair	M39029/95

*** These SolderTacts contacts are designed for shielded twisted pair cable per MIL-STD-1553B.



Electronics

**SolderTacts Series:
Grommets**

Performance

The performance of SolderTacts contacts is defined by the applicable Raychem specification control drawing (SCD) and Raychem Specification D-6002. Products on qualified product lists meet the requirements of the base specification.

Termination

Termination of SolderTacts contacts is defined in the appropriate Raychem Engineering Standard. To obtain a copy, contact Tyco Electronics.

Shielded Contacts



SolderTacts Shielded One-Piece Solder Contacts (Continued)

Raychem SolderTacts Reference	Size	Polarity
D-600-0071	—	For shielded twisted pair
D-600-0116	For size 8 DOD-C-83527 series	—
D-600-0125	For size 8 MIL-C-38999 series, for twisted pair	—