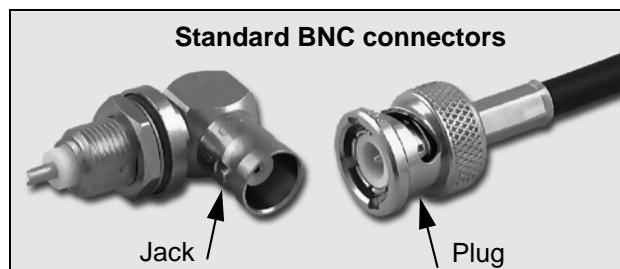


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RP BNC series.....	12-14
RP TNC series.....	15-18
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What is a reverse polarity connector ?

Radiall offers reverse polarity (or gender) connectors with the inversion of the center contact sexes and of the interface insulators:

- The plugs have a female center contact and the jacks have a male center contact (for the RP SMA, RP BNC and RP TNC series).
- The plugs have a male center contact and the jacks have a female center contact (for the RP SMB series).
The plug and the jack connector set also has the same visual shape and mechanical attributes as the standard series (see below).



They are compliant with the F.C.C. standard (Federal Communications Commissions) Part 15.203 which requires a non standard coaxial connector interface.

Secure connection

This design prevents any inadvertent mating with standard connectors.

Example: a RP jack will only mate with a RP plug.

Performances

All the RP series maintain the same characteristics (material, plating, matings...) and performances as the standard series to which they refer.

Example: a RP BNC connector will have the same characteristics as the equivalent BNC connector.

Range

The RP connector range already includes the following interfaces: RP SMB, RP SMA, RP BNC, RP TNC.

Other connectors or series can be developed with the RP interface.

RP CONNECTORS

Models	Cable	Series			
		RP SMB series	RP SMA series	RP BNC series	RP TNC series
straight plug	2/50/S		R300 124 061 (page 10)		
	2.6/50/D	R300 114 047 (page 8)	R300 124 040 (page 10)		
	3/50			R300 141 010* (page 13)	
	5/50/S		R300 124 073 (page 10)	R300 141 060 (page 13)	R300 143 062 R300 143 070 (page 16)
	5/50/S (LMR 200)			R300 141 020 (page 13)	R300 143 082 (page 16)
	5/50/D		R300 124 080 (page 10)	R300 141 030* (page 13)	
	10/50/S				R300 143 090 (page 16)
	10.2/50/S (Belden 9913)				R300 143 050 (page 16)
	10.3/50/S (LMR 400)				R300 143 010 (page 16)
right angle plug	2/50/S		R300 124 161 (page 10)		
	2.6/50/S		R300 124 183 (page 10)		
	5/50/S+D			R300 141 120* (page 13)	
straight jack	10/50/S				R300 143 220 (page 16)
	10.2/50/S (Belden 9913)				R300 143 250 (page 16)
	10.3/50/S (LMR 400)				R300 143 210 (page 16)
straight bulkhead jack	2/50/S		R300 124 235 (page 11)		
	2.6/50/S		R300 124 240 (page 11)		
	5/50/S				R300 143 240 (page 17)
2 hole flange jack	2/50/S				R300 143 270 (page 17)
	2.6/50/S				R300 143 260 (page 17)
right angle bulkhead jack	2/50/S		R300 124 323 (page 11)		
	2.6/50/S		R300 124 343 (page 11)		

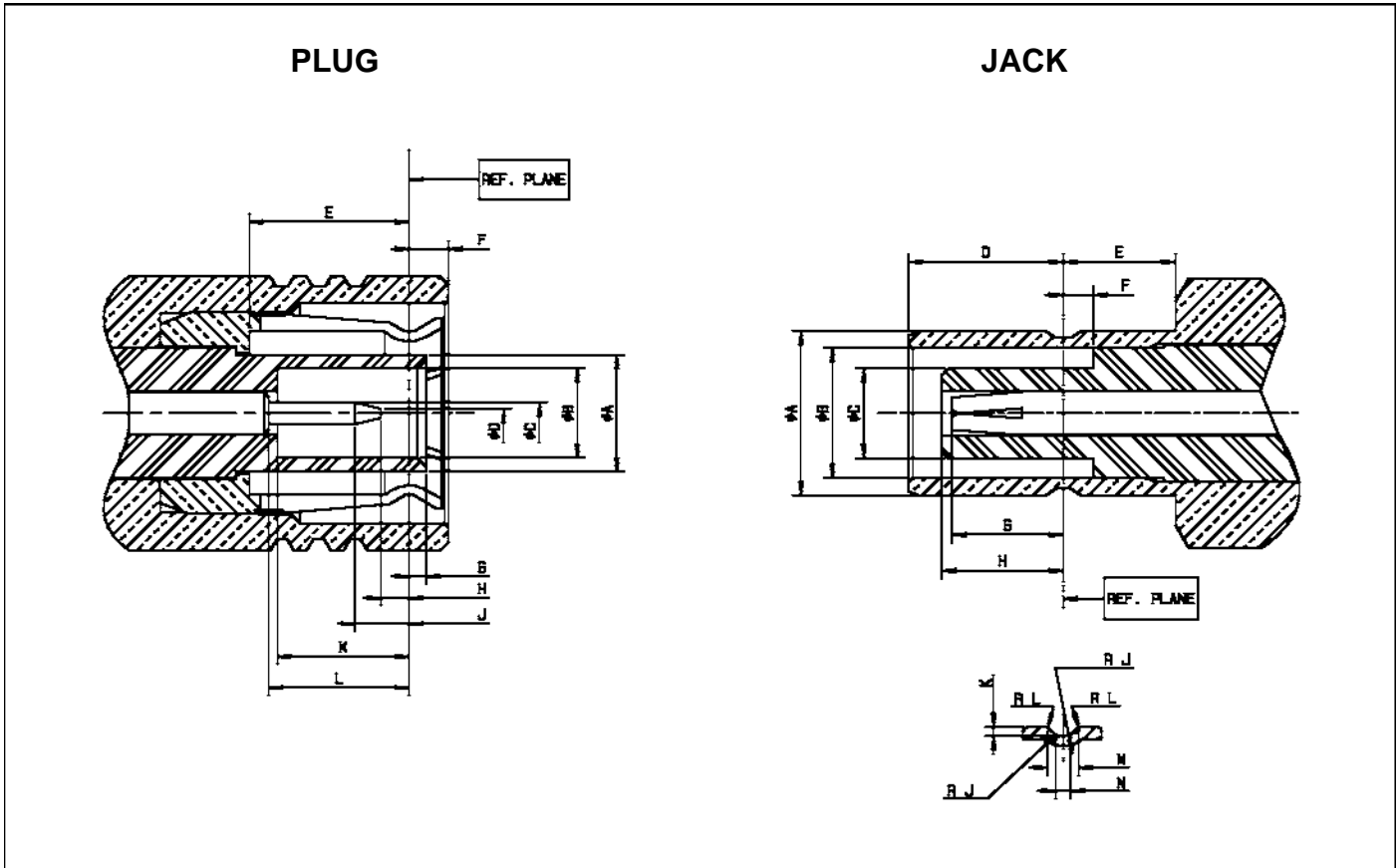
* clamp type

RP CONNECTORS (continued)

Models	Series			
	RP SMB series	RP SMA series	RP BNC series	RP TNC series
straight bulkhead receptacle			R300 141 400 (page 14)	R300 143 400 (page 18)
straight 2 hole flange receptacle			R300 141 420 (page 14)	
right angle PCB receptacle	R300 114 425 (page 8)	R300 124 403 (page 11)		
right angle SMT receptacle	R300 114 457 (page 8)			

ADAPTERS WITH RP INTERFACE

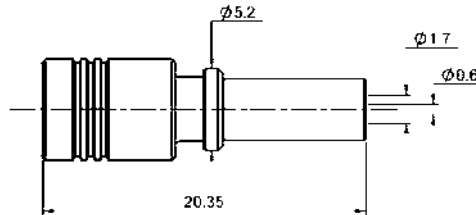
Models	RP SMB series		RP TNC series	
	Plug (male center contact)	Jack (female center contact)	Plug (female center contact)	Jack (male center contact)
SMA plug			R191 902 000 (page 18)	R191 903 000 (page 18)
SMA jack	R191 976 307 (page 8)	R191 976 327 (page 8)	R191 904 000 (page 18)	R191 905 000 (page 18)



LETTER	mm		inch	
	min.	max.	min.	max.
A DIA		2.7		.106
B DIA	2.08		.082	
C DIA	0.48	0.53	.019	.020
D DIA		0.25		.001
E	3.58		.141	
F		1.63		.064
G		0.55		.022
H	0.02		.0008	
J		1.67		.066
K	2.88		.113	
L	2.81		.111	

LETTER	mm		inch	
	min.	max.	min.	max.
A DIA		3.71		.146
B DIA	2.9		.114	
C DIA		2.06		.081
D	3.33	3.58	.131	.141
E	1.65		.065	
F	0.55		.022	
G	2.11	2.81	.083	.111
H		2.88		.113
R J		0.13		.005
K	0.15	0.25	.006	.001
R L	0.05	0.15	.002	.006
M	0.69	0.94	.027	.037
N	0.28	0.38	.011	.015

STRAIGHT PLUG FULL CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)



Cable group	Part number	Captive center contact	Assembly instructions	Finish	Packaging
2.6 / 50 / D	R300 114 047**	yes	M02	BBR*	100 pcs/bulk

PCB RECEPTACLES (female center contact)

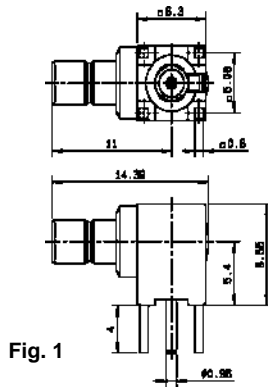


Fig. 1

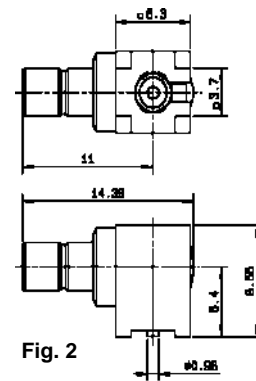


Fig. 2

Part number	Fig.	Captive center contact	Finish	PCB pattern	Assembly instructions	Packaging	Note
R300 114 425	1	yes	Nickel	P01		100 pcs/reel	solder legs
R300 114 457	2	yes	BBR*		M08	100 pcs/reel	SMT

BETWEEN SERIES ADAPTERS

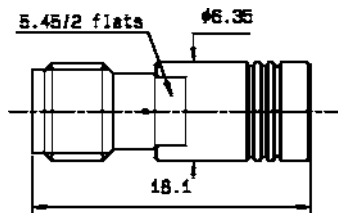


Fig. 1

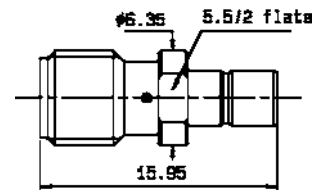
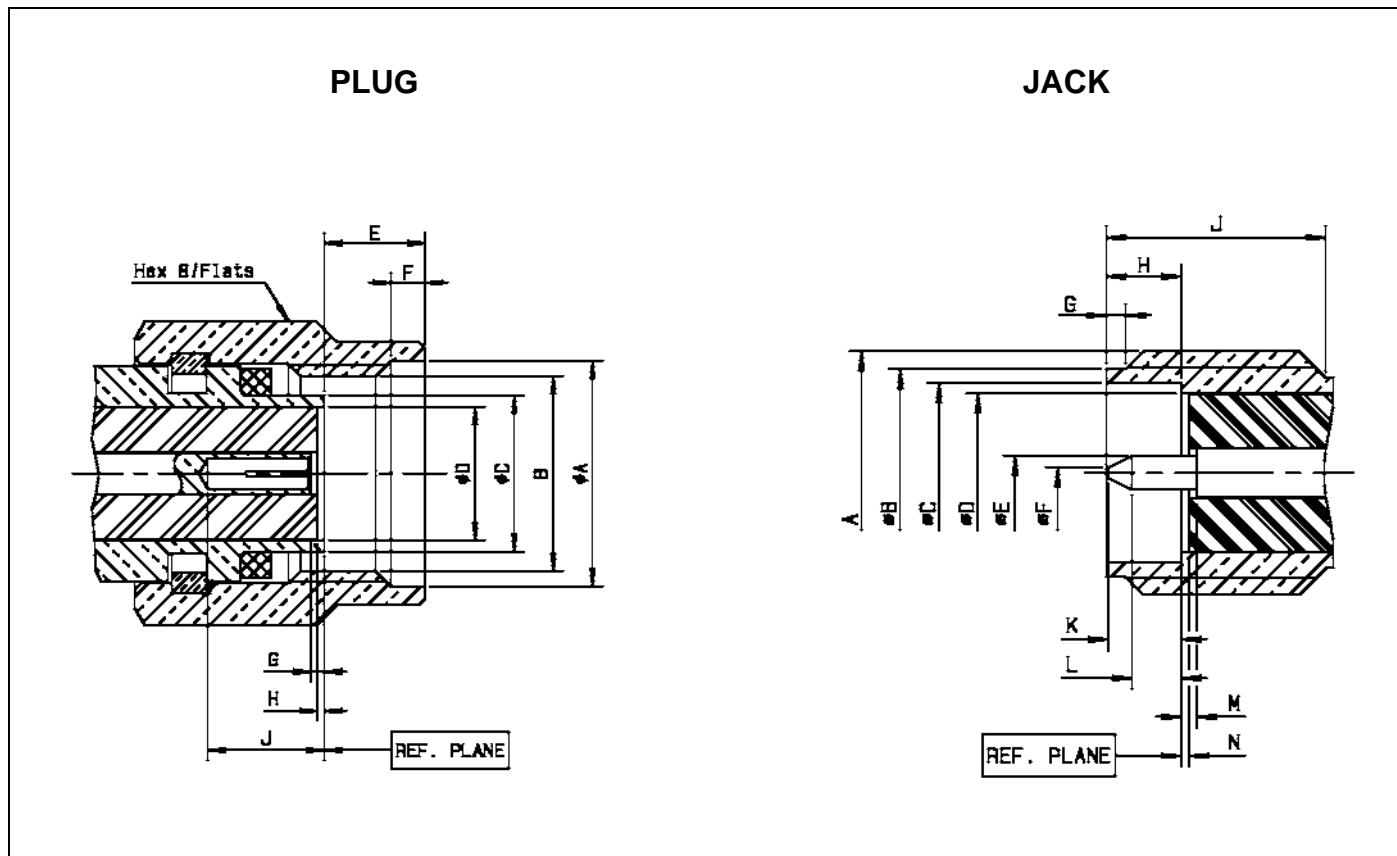


Fig. 2

Part number	Fig.	Captive center contact	Finish	Packaging	Note
R191 976 307	1	yes	BBR*	unit	RP SMB plug - SMA jack
R191 976 327	2	yes	BBR*	unit	RP SMB jack - SMA jack

* Bright Bronze Radiall

** For unit packaging, add "W" after the P/N



LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	6.35		.250	
B	1/4-36 UNS-2B			
C DIA		4.59		.181
D DIA	4.1 nominal		.161 nominal	
E		3.43		.135
F	0.38	1.14	.015	.045
G	0	0.25	0	.010
H	0	0.2	0	.008
J	2.92		.115	

LETTER	mm		inch	
	min.	max.	min.	max.
A	1/4-36 UNS-2A			
B DIA	5.28	5.49	.208	.216
C DIA	4.596		.181	
D DIA	4.1 nominal		.161 nominal	
E DIA	0.9	0.94	.035	.037
F DIA		0.3		.012
G	0.38	1.14	.015	.045
H	1.88	1.98	.074	.078
J	4.31		.170	
K		2.54		.100
L	1.27		.050	
M	0	0.25	0	.010
N	0	0.2	0	.008

STRAIGHT PLUGS CRIMP TYPE FOR FLEXIBLE CABLES (female center contact)

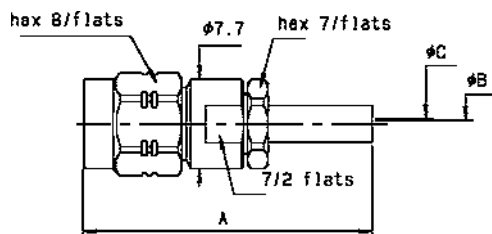


Fig. 1

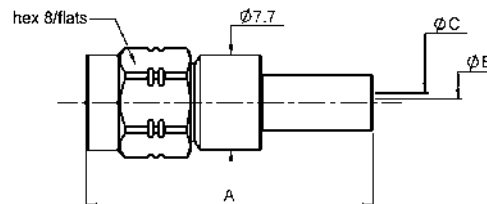
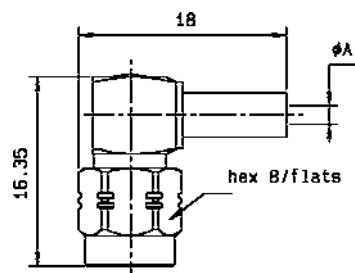


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)			Captive center contact	Assembly instructions	Finish	Packaging	Note
			A	B	C					
2 / 50 / S	R300 124 061	1	25	0.6	0.95	yes	M06	gold	100 pcs/bulk	
2.6 / 50 / D	R300 124 040	2	23.4	0.6	1.61	yes	M02	BBR*	100 pcs/bulk	full crimp
5 / 50 / S	R300 124 073	2	26.4	1.05	3.11	yes	M02	BBR*	100 pcs/bulk	
5 / 50 / D	R300 124 080	2	26.4	1.05	3.11	yes	M02	BBR*	100 pcs/bulk	

RIGHT ANGLE PLUGS CRIMP TYPE FOR FLEXIBLE CABLES (female center contact)



Cable group	Part number	Dimensions A (mm)	Captive center contact	Assembly instructions	Finish	Packaging
2 / 50 / S	R300 124 161	0.95	yes	M04	gold	100 pcs/bulk
2.6 / 50 / D	R300 124 183	1.61	yes	M04	gold	100 pcs/bulk

* Bright Bronze Radiall

STRAIGHT BULKHEAD JACKS CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)

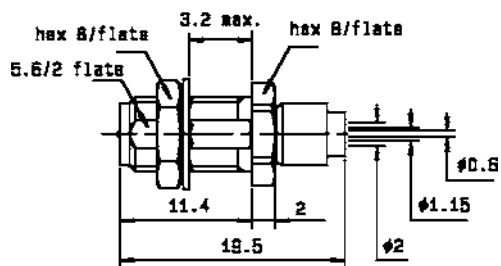


Fig. 1

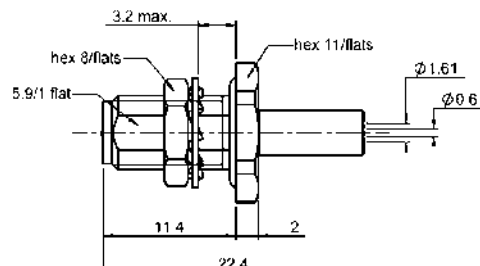
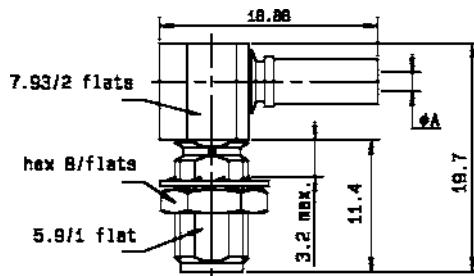


Fig. 2

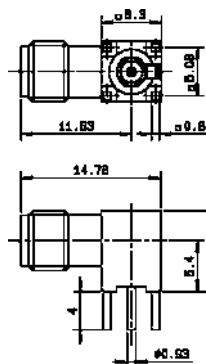
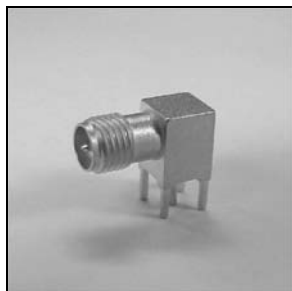
Cable group	Part number	Fig.	Captive center contact	Assembly instructions	Panel drilling	Finish	Packaging	Note
2 / 50 / S	R300 124 235	1	yes	M05	P05	nickel	100 pcs/bulk	
2.6 / 50 / S	R300 124 240**	2	yes	M02	P02	BBR*	100 pcs/bulk	panel seal full crimp

RIGHT ANGLE BULKHEAD JACKS CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)



Cable group	Part number	Dimensions A (mm)	Captive center contact	Assembly instructions	Panel drilling	Finish	Packaging
2 / 50 / S	R300 124 323	0.95	yes	M04	P02	nickel	100 pcs/bulk
2.6 / 50 / S	R300 124 343	1.63	yes	M04	P02	nickel	100 pcs/bulk

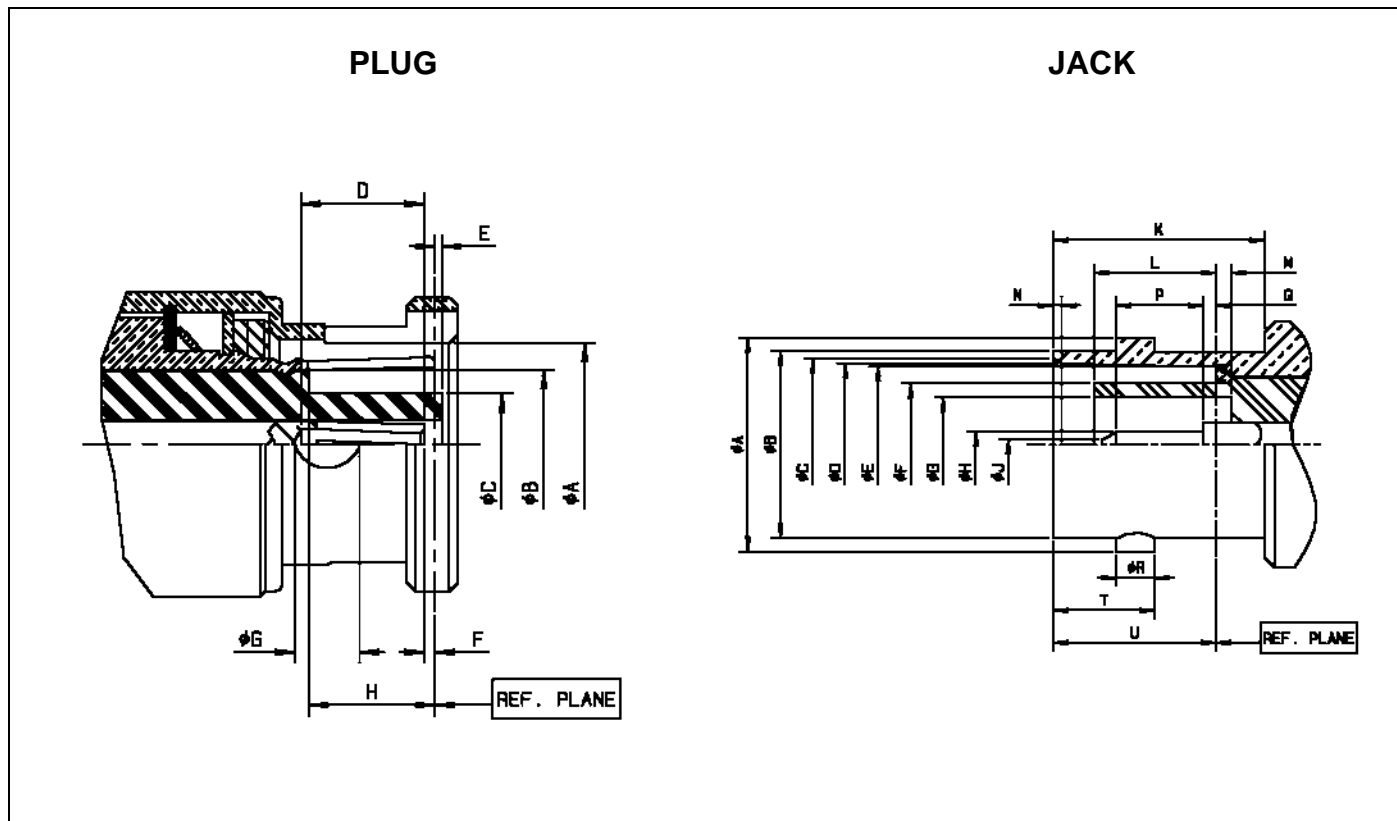
PCB RECEPTACLES (male center contact)



Part number	Captive center contact	PCB pattern	Finish	Packaging	Note
R300 124 403	yes	P01	nickel	100 pcs/reel	solder legs

* Bright Bronze Radiall

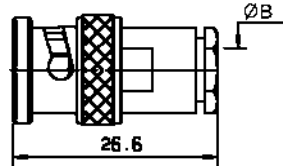
** For unit packaging, add "W" after the P/N



LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	9.78	9.91	.385	.390
B DIA	7		.275	
C DIA		4.72		.186
D	4.95		.195	
E	0.03	0.53	.001	.021
F	0.61	1.12	.024	.044
G DIA	3.15		.124	
H	5.28	5.79	.208	.228

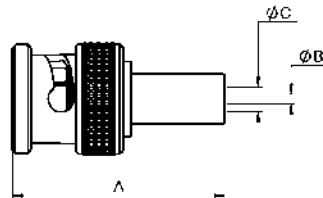
LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	10.97	11.07	.432	.436
B DIA	9.6	9.7	.378	.382
C DIA	8.79	9.04	.346	.356
D DIA	8.31	8.46	.327	.333
E DIA	8.1	8.15	.319	.321
F DIA		6.4		.252
G DIA	4.83		.190	
H DIA	1.32	1.37	.052	.054
J DIA		0.64		.025
K	10.52		.414	
L	4.78	5.28	.188	.208
M	0.53	1.04	.021	.041
N	0.38	0.76	.015	.030
P	1.98		.078	
Q	0	0.25	0	.009
R DIA	1.91	2.06	.075	.081
T	5.18	5.28	.204	.208
U	8.31	8.51	.327	.335

STRAIGHT PLUGS CLAMP TYPE FOR FLEXIBLE CABLES (female center contact)



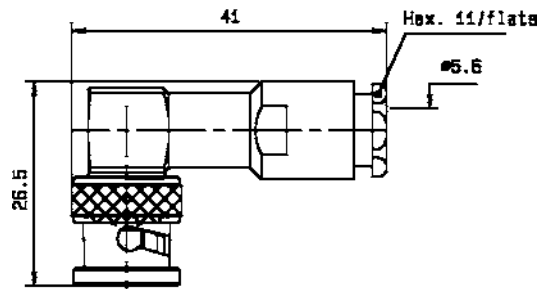
Cable group	Part number	Dimensions B (mm)	Captive center contact	Assembly instructions	Finish	Packaging
3 / 50	R300 141 010**	3.2	no	please consult	nickel	100 pcs/bulk
5 / 50 / S+D	R300 141 030**	5.6	no	please consult	nickel	100 pcs/bulk

STRAIGHT PLUGS FULL CRIMP TYPE FOR FLEXIBLE CABLES (female center contact)



Cable group	Part number	Dimensions (mm)			Captive center contact	Assembly instructions	Finish	Packaging	Note
		A	B	C					
5 / 50 / S	R300 141 020**	27.3	1.27	3.1	yes	M02	nickel	100 pcs/bulk	LMR200 cable
5 / 50 / S	R300 141 060**	27.3	1.05	3.1	yes	M02	nickel	100 pcs/bulk	

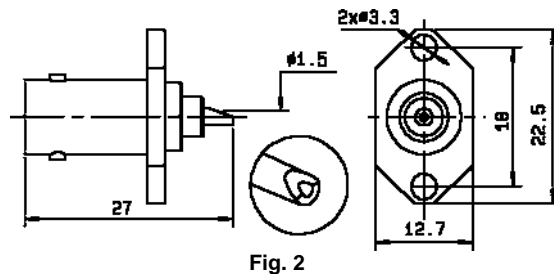
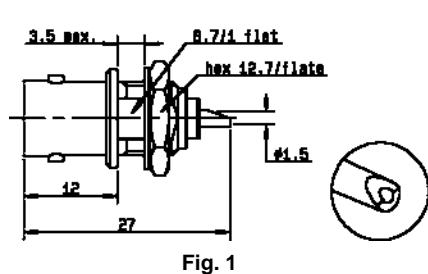
RIGHT ANGLE PLUG CLAMP TYPE FOR FLEXIBLE CABLES (female center contact)



Cable group	Part number	Captive center contact	Assembly instructions	Finish	Packaging
5 / 50 / S+D	R300 141 120**	yes	M07	nickel	100 pcs/bulk

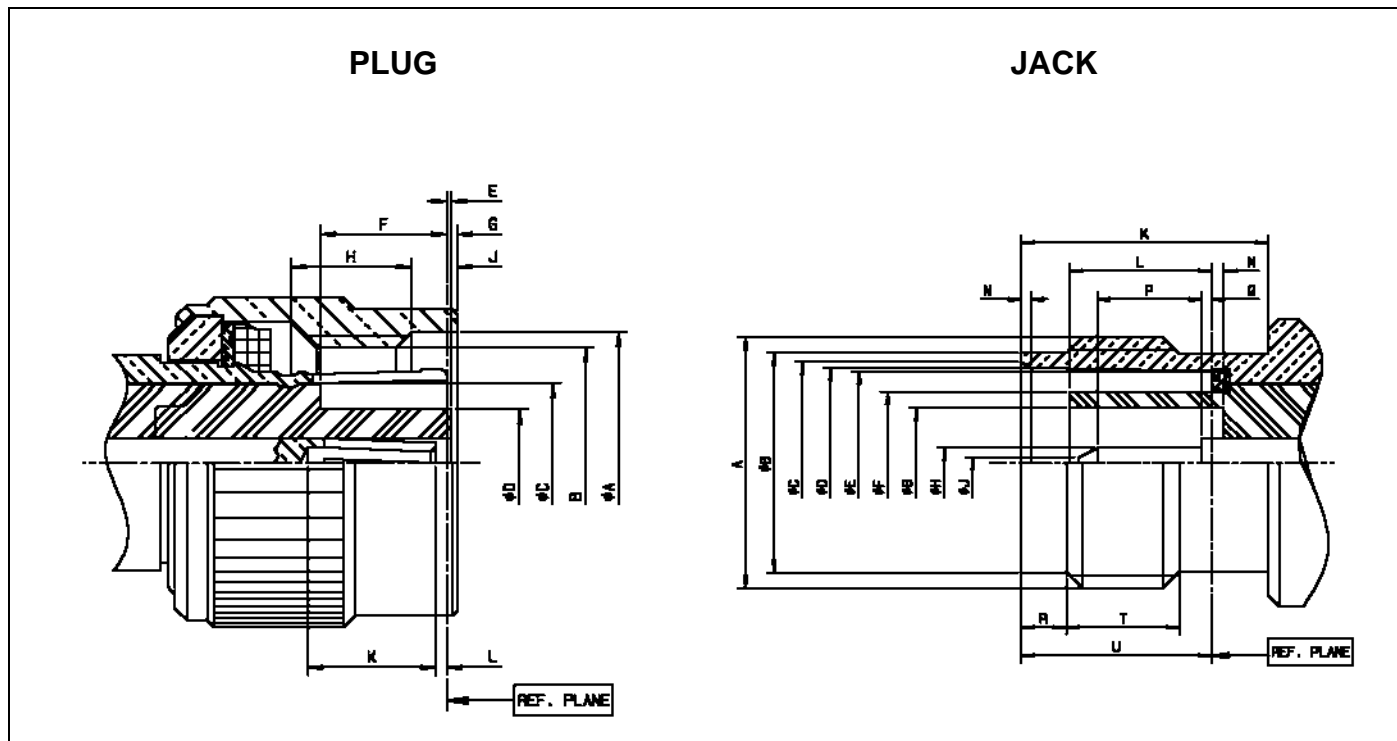
** For unit packaging, add "W" after the P/N

RECEPTACLES (male center contact)



Part number	Fig.	Captive center contact	Panel drilling	Finish	Packaging
R300 141 400**	1	yes	P03	nickel	100 pcs/bulk
R300 141 420**	2	yes	P08	nickel	100 pcs/bulk

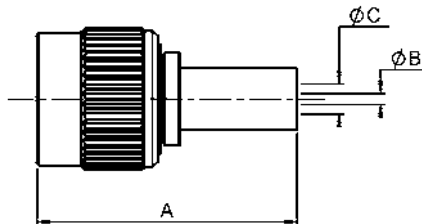
** For unit packaging, add "W" after the P/N



LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	11.18		.440	
B	7/16-28 UNEF-2B			
C DIA	7		.275	
D DIA		4.72		.186
E	0.03	0.53	.001	.020
F	5.28	5.79	.208	.228
G		1.98		.078
H	3.96		.156	
J	1.6		.063	
K	4.95		.195	
L	0.61	1.12	.024	.044

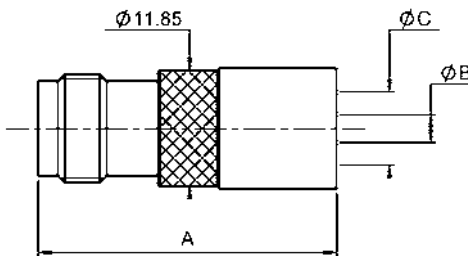
LETTER	mm		inch	
	min.	max.	min.	max.
A	7/16-28 UNEF-2A			
B DIA	9.6	9.68	.378	.381
C DIA	8.79	9.04	.346	.356
D DIA	8.31	8.46	.327	.333
E DIA	8.1	8.15	.319	.321
F DIA	-	6.4		.252
G DIA	4.83		.190	
H DIA	1.32	1.37	.052	.054
J DIA		0.64		.025
K	10.52		.414	
L	4.78	5.28	.188	.208
M	0.53	1.04	.021	.041
N	0.38	0.76	.015	.030
P	1.98		.078	
Q	0	0.25	0	.010
R	1.73	2.24	.068	.088
T	4.75		.187	
U	8.31	8.51	.327	.335

STRAIGHT PLUGS CRIMP TYPE FOR FLEXIBLE CABLES (female center contact)



Cable group	Part number	Dimensions (mm)			Captive center contact	Assembly instructions	Finish	Packaging	Note
		A	B	C					
5 / 50 / S	R300 143 062**	26.6	1.05	3.1	yes	M02	nickel	100 pcs/bulk	full crimp
5 / 50 / S	R300 143 082**	26.6	1.27	3.1	yes	M02	nickel	100 pcs/bulk	LMR200 cable full crimp
5 / 50 / D	R300 143 070	26.6	1.05	3.1	yes	M02	nickel	100 pcs/bulk	full crimp
10 / 50 / S	R300 143 090**	28.2	2.45	7.46	yes	M03	nickel	100 pcs/bulk	
10.2 / 50 / S	R300 143 050**	28.2	2.85	7.8	yes	M03	nickel	100 pcs/bulk	Belden 9913 cable
10.3 / 50 / S	R300 143 010**	28.2	2.85	7.46	yes	M03	BBR*	100 pcs/bulk	LMR400 cable

STRAIGHT JACKS CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)



Cable group	Part number	Dimensions (mm)			Captive center contact	Assembly instructions	Finish	Packaging	Note
		A	B	C					
10 / 50 / S	R300 143 220**	30.5	2.5	7.44	yes	M03	nickel	100 pcs/bulk	
10.2 / 50 / S	R300 143 250**	30.5	2.85	7.78	yes	M03	nickel	100 pcs/bulk	Belden 9913 cable
10.3 / 50 / S	R300 143 210**	30.5	2.85	7.44	yes	M03	BBR*	100 pcs/bulk	LMR400 cable

* Bright Bronze Radiall

** For unit packaging, add "W" after the P/N

STRAIGHT 2 HOLE FLANGE JACKS CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)

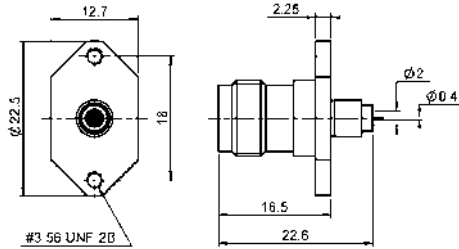


Fig. 1

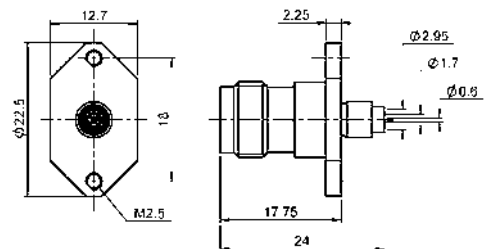
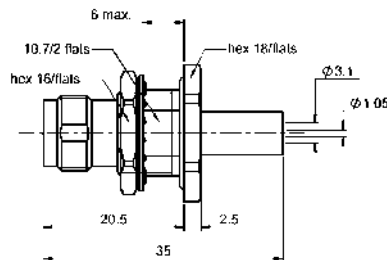


Fig. 2

Cable group	Part number	Fig.	Captive center contact	Assembly instructions	Panel drilling	Finish	Packaging
2 / 50 / S	R300 143 270**	1	yes	M01	P06	nickel	100 pcs/bulk
2.6 / 50 / S	R300 143 260	2	yes	M01	P07	nickel	100 pcs/bulk

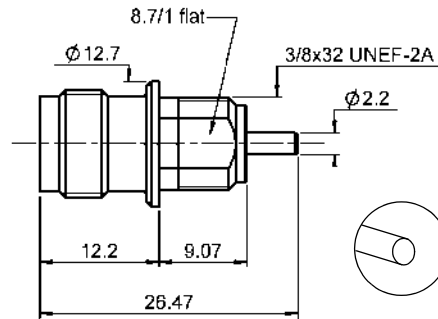
STRAIGHT BULKHEAD JACKS FULL CRIMP TYPE FOR FLEXIBLE CABLES (male center contact)



Cable group	Part number	Captive center contact	Assembly instructions	Panel drilling	Finish	Packaging	Note
5 / 50 / S	R300 143 240**	yes	M02	P04	nickel	100 pcs/bulk	panel seal

** For unit packaging, add "W" after the P/N

BULKHEAD RECEPTACLES (male center contact)



Part number	Captive center contact	Panel drilling	Finish	Packaging
R300 143 400**	yes	P03	BBR*	100 pcs/bulk

BETWEEN SERIES ADAPTERS

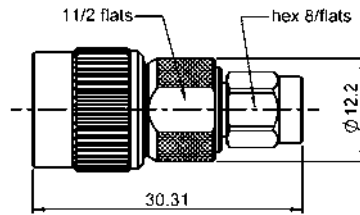


Fig. 1

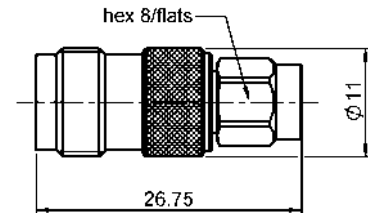


Fig. 2

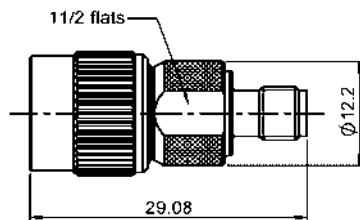


Fig. 3

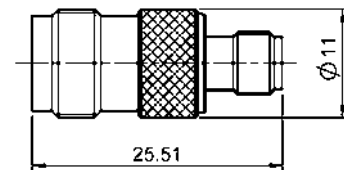


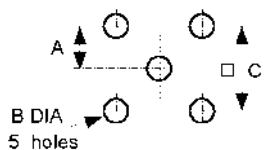
Fig. 4

Part number	Fig.	Finish	Packaging	Note
R191 902 000	1	nickel	unit	RP TNC plug-SMA plug
R191 903 000	2	nickel	unit	RP TNC jack-SMA plug
R191 904 000	3	nickel	unit	RP TNC plug-SMA jack
R191 905 000	4	nickel	unit	RP TNC jack-SMA jack

* Bright Bronze Radiall

** For unit packaging, add "W" after the P/N

P01



	mm	
	maxi	mini
A	2.59	2.49
B	1.4	1.3
C	5.13	5.03

P02



	mm	
	maxi	mini
A	6.5	6.4
B	6.15	6

P03



	mm	
	maxi	mini
A	9.75	9.65
B	8.9	8.8

P04



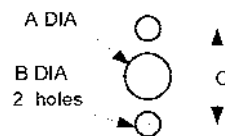
	mm	
	maxi	mini
A	12.8	12.7
B	12.1	12
C	12.8	12.7
D	10.9	10.8

P05



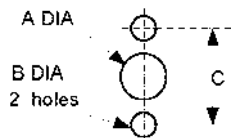
	mm	
	maxi	mini
A	6.5	6.4
B	5.8	5.7

P06



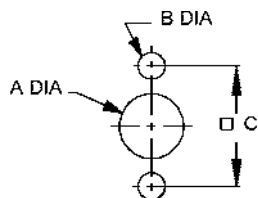
	mm	
	maxi	mini
A	5.49	5.41
B	2.8	2.7
C	18.1	17.9

P07



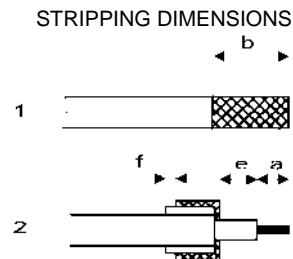
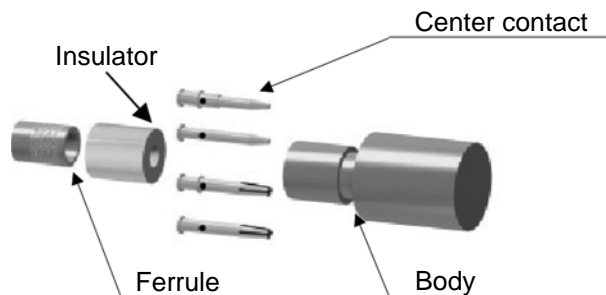
	mm	
	maxi	mini
A	11.3	11.2
B	2.7	2.6
C	18.05	17.95

P08



	mm	
	maxi	mini
A	9.3	9.2
B	3.3	3.2
C	18.05	17.95

M 01

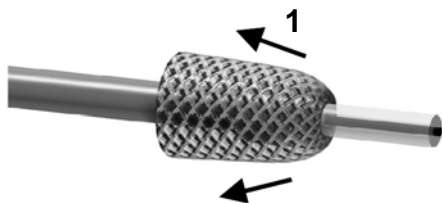


Part number	Stripping length (mm)				Ferrule			Center contact		
	a	b	e	f	hex.	standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01) +dies	hex.	standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01) +dies
R300 143 260	5.45	8.4	3.4	1.5	4.52	R282 211 000	R282 235 009 (M22520/5-09)	1.73	R282 223 000	R282 235 009 (M22520/5-09)
R300 143 270	3	10	5							

- 1**
- Strip the cable as shown in sketch 1.
 - Slide the ferrule until it bottoms against the sleeve.



- 2**
- Fold the braid back.
 - Trim off the extra braid as shown in sketch 2.



- 3**
- Trim the inner conductor as shown in sketch 2.
 - Slide insulator onto cable dielectric.



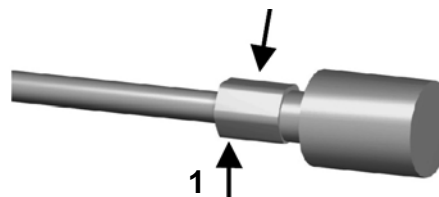
- 4**
- Slide the center contact on until it bottoms against the insulator back nut.
 - Solder or crimp the contact with crimping tool (see table).



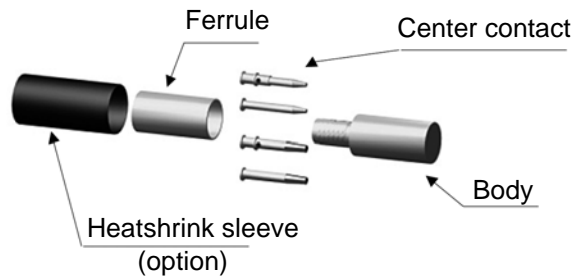
- 5**
- Mount the body onto the sub-assembly.



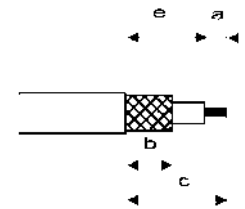
- 6**
- Crimp the body with crimping tool (see table).



M 02



STRIPPING DIMENSIONS

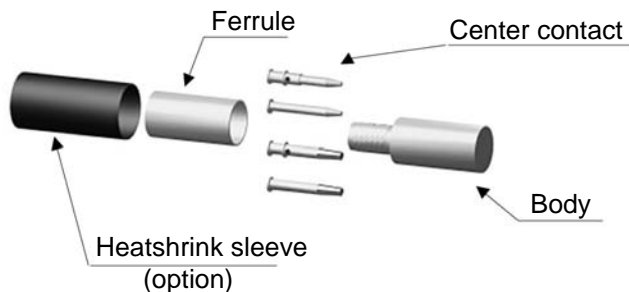


Part number	Stripping length (mm)				Ferrule			Center contact
	a	b	c	e	hex.	standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01)+dies	
R300 114 047	2.5	5.4	11	8.5	3.25	R282 211 000	R282 235 003 (M22520/5-03)	Crimp tool R282 281 000 + Positioner R282 967 012 select. n°3
R300 124 040	3	6.3	10.8	7.8	3.84	R282 271 000	R282 235 037 (M22520/5-37)	Crimp tool R282 281 000 + Positioner R282 967 012 select. n°5
R300 124 073 R300 124 080					5.41	R282 223 000	R282 235 011 (M22520/5-11)	Crimp tool R282 281 000 + Positioner R282 967 012 select. n°7
R300 124 240					3.25	R282 271 000	R282 235 003 (M22520/5-03)	Crimp tool R282 281 000 + Positioner R282 967 012 select. n°5
R300 141 020 R300 141 060 R300 143 062 R300 143 070 R300 143 082	4	8.5	15.6	11.6	5.41	R282 223 000	R282 235 011 (M22520/5-11)	Standard crimp tools dies included R282 223 000 hex. 1.73 or MIL standard R282 293 000 (M22520/5-01) + dies R282 235 011 (M22520/5-11) hex. 1.73
R300 124 240			15	11				

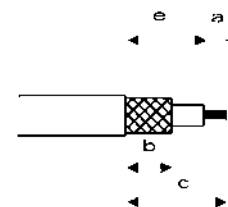
- 1 - Slide the heatshrink sleeve onto the cable (Option).
- Slide the ferrule onto the cable.
- Strip the cable.
-
- 2 - Slide the centre contact on until it bottoms against the cable dielectric.
- Crimp the centre contact with crimping tool.
-
- 3 - Fan the braid.
-

- 4 - Slide the cable into the body until it bottoms against insulator.
-
- 5 - Slide the ferrule over the braid.
- Crimp the ferrule with crimping tool.
-
- 6 - Cut the excess of braid if necessary.
- Slide the sleeve over the ferrule and heatshrink it in place (Option).
-

M 03

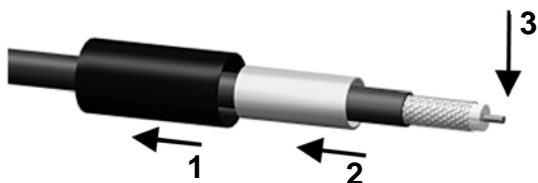


STRIPPING DIMENSIONS



Part number	Stripping length (mm)				hex.	Ferrule	
	a	b	c	e		standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01)+dies
R300 143 010 R300 143 050 R300 143 090 R300 143 210 R300 143 220 R300 143 250	3	7.5	12	9	10.54	R282 231 000	R282 235 116 (Y116DANIELS)

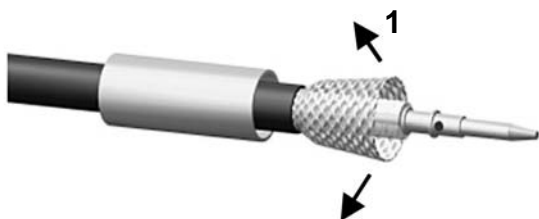
- 1**
- Slide the heatshrink sleeve onto the cable (Option).
 - Slide the ferrule onto the cable.
 - Strip the cable.



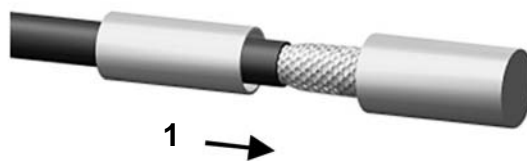
- 2**
- Slide the centre contact on until it bottoms against the cable dielectric.
 - Solder the centre contact.
 - Clean solder area.



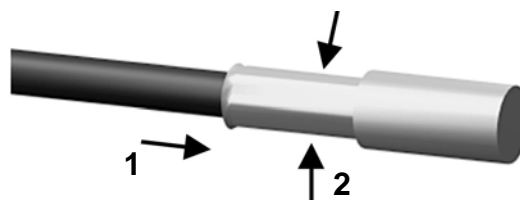
- 3**
- Fan the braid.



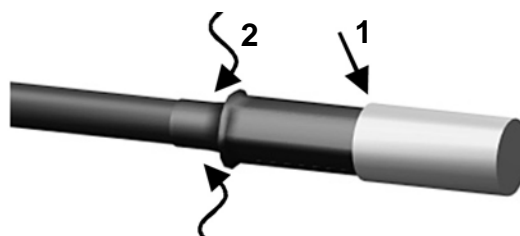
- 4**
- Slide the cable into the body until it bottoms against insulator.



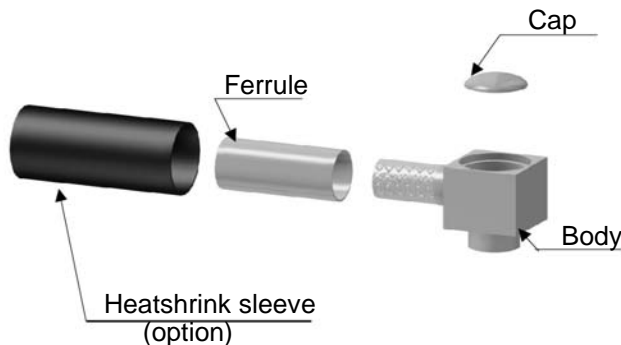
- 5**
- Slide the ferrule over the braid.
 - Crimp the ferrule with crimping tool.



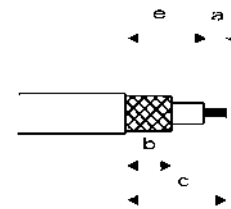
- 6**
- Cut the excess of braid if necessary.
 - Slide the sleeve over the ferrule and heatshrink it in place (Option).



M 04

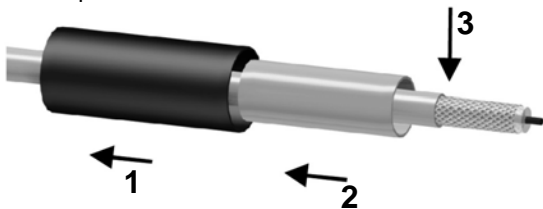


STRIPPING DIMENSIONS



Part number	Stripping length (mm)				hex.	Ferrule	
	a	b	c	e		standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01)+dies
R300 124 161	2	6.5	12	10	2.67	R282 211 000	R282 235 003 (M22520/5-03)
R300 124 183					3.25		
R300 124 323	1.8	5.7	12.6	10.8	2.67		
R300 124 343		6.3	12.8	11.4	3.25		

- 1**
- Slide the heatshrink sleeve onto the cable (option).
 - Slide the ferrule onto the cable.
 - Strip the cable.



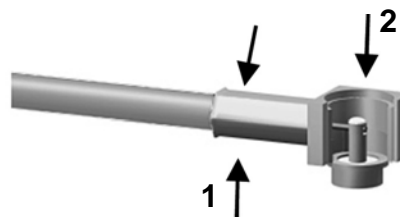
- 2**
- Fan the braid.



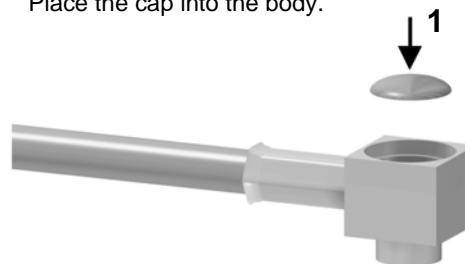
- 3**
- Push the connector body under the braid.
 - Slide the ferrule over the braid.



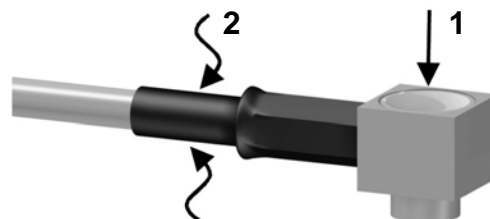
- 4**
- Crimp the ferrule with crimping tool.
 - Solder the inner conductor.



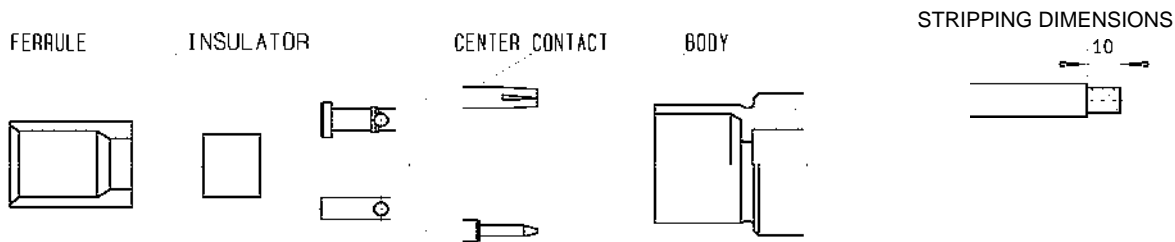
- 5**
- Place the cap into the body.



- 6**
- Press on the cap flush or slightly below the surface of the body assembly.
 - Slide the sleeve over the ferrule and heatshrink it in place (option).



M 05



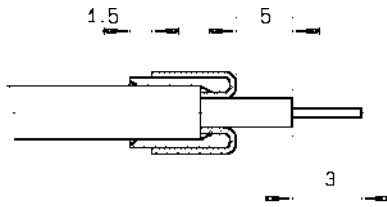
Part number
R300 124 235

1

- Strip the cable.

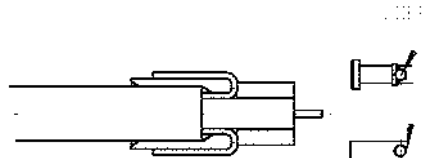
2

- Slide on the ferrule until it bottoms against the jacket.
- Fan the braid.
- Fold back braid and trim off surplus braid.
- Trim the inner conductor as shown.



3

- Slide the insulator.
- Slide on the center contact until it bottoms against cable dielectric.
- Solder center contact.



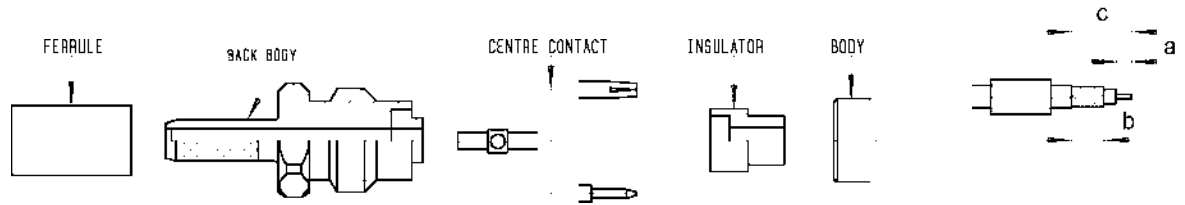
4

- Slide sub-assembly into the connector body with the ferrule.
- Crimp the body, crimping tool R282 211 000 (Hex.: 4.52) or crimping tool R282 293 000 (M22520/5-01) + dies R282 235 009 (M22520/5-09).



M 06

STRIPPING DIMENSIONS



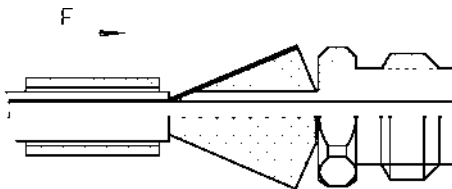
Part number	Stripping length (mm)			hex.	Ferrule	
	a	b	c		Standard crimp tools dies included	MIL standard R282 293 000 (M22520/5-01)+dies
R300 124 061	3.5	7	13.5	2.67	R282 211 000	R282 235 003 (M22520/5-03)

1

- Slide the ferrule onto the cable.
- Strip the cable.

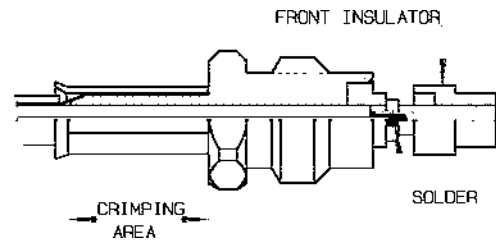
2

- Fan the braid.
- Slide the back body between dielectric and braid.
- Slide ferrule over the braid (in direction F).



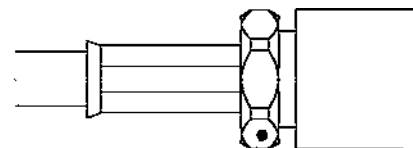
3

- Crimp the ferrule with crimping tool (see table).
- Mount the centre contact and solder it.
- Mount the front insulator.



4

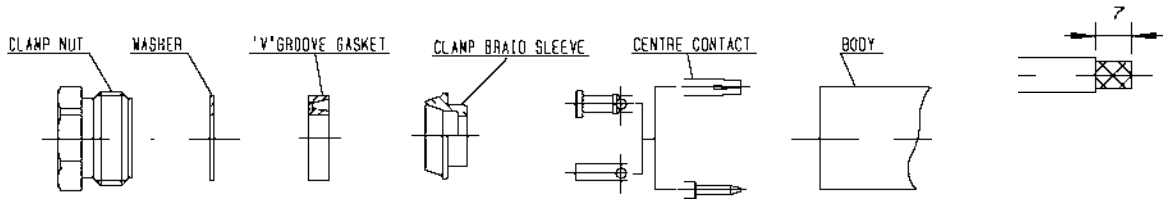
- Screw sub-assembly into the connector body. Recommended coupling torque 90 N.cm.



Hex. : 7 /plats

M 07

STRIPPING DIMENSIONS



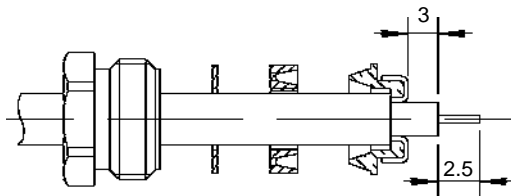
Part number
R 300 141 120

1

- Strip the cable.

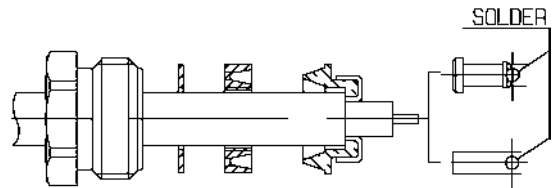
2

- Slide the clamp nut, the washer and the "V" groove gasket onto the cable.
- Slide clamp braid sleeve over braid.
- Fold back braid and trim off excess braid.
- Trim back dielectric as shown.



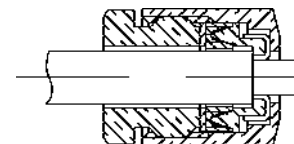
3

- Solder the cable inner conductor into center contact.



4

- Screw sub-assembly into the connector body. Recommended coupling torque 450 N.cm.

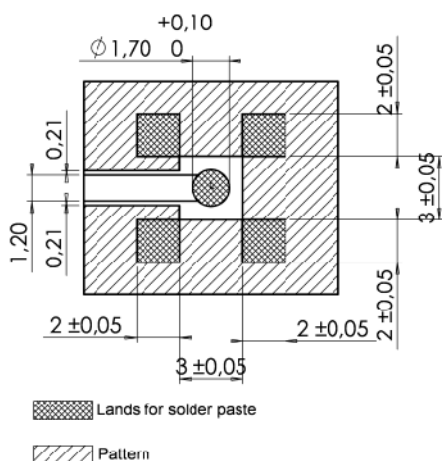


M 08

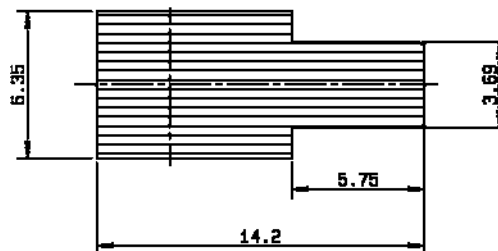
Part number

R 300 114 457

Soldering pattern



Video shadow



COPLANAR LINE: Pattern and signal are on the same side. Thickness of PCB = 1.6 mm.

The material of PCB is the glass epoxy resin ($E_r = 4.8$). The solder paste should be printed except for the land pattern on the PCB.

M08 (Flg)

A - SOLDERING PROCEDURE USING AUTOMATIC PICK AND PLACE EQUIPMENT:

1) Solder paste:

- RADIALL recommends using a **solder paste Sn63-Pb35- Ag2 type** (63% tin - 35% lead - 2% silver) "**no clean - low residue**" (5% solid residue of flux quantity) that will permit the **elimination of the cleaning operation step** after soldering.
- When using a conventional solder paste with high level (50%) of flux solid residue, it is important to incorporate a good cleaning operation step, similar to what is described below in paragraph 5.
- Note: when choosing a solder paste for gold-plated PCB pattern, it is important to use a paste made with silver. This will help to avoid formation of intermetallics as part of the solder joint.

2) Solder paste deposition:

- The solder paste should be deposited on the designated zone areas (see patterns p. 27) by a screen printing process. RADIALL advises a thickness of .008" (0.2 mm).
- If using a thickness of less than .008" (0.2 mm) the zone area must be specifically designed for this thickness (please consult RADIALL).
- Please optically verify that the edges of the zone are clean and without contaminates.

3) Placement of the component:

- Place the receptacle onto the PCB with automatic pick and place equipment. Please verify that the PCB zoned areas have not oxidised.
- Various types of suction can be used.
- RADIALL does not recommend using adhesive agents on the receptacle or on the PCB.
- The use of a video camera is preferred for checking the positioning of the components (see video shadow, p. 27).

4) Soldering: infra-red reflow process:

- Please follow RADIALL's recommended profile as illustrated.
- When using a "no clean - low residue" type of solder paste, RADIALL recommends a linear pre-heat profile not to exceed 160°C with a 1 to 2°C/s. rise.

5) Cleaning of the PCB:

- When using a conventional solder paste with high level of residue, please clean the PCB with a substitute product, similar to CFC, that complies with International Environmental Agency rules.
- RADIALL recommends using a vapor phase process (ultrasonic waves are acceptable).

6) Quality check:

- Verify by visual inspection that center contact of the receptacle has not been contaminated by solder or flux.
- Solder joints: verify by visual inspection that the formation of meniscus on the sides of the receptacle legs are proper.

B - SOLDERING PROCEDURE BY MANUAL OPERATION:

1) Solder paste: (Refer to procedure A - 1)

2) Flux deposition:

- Deposit a thin layer of flux on mounting zone.
- Allow the flux to evaporate a few seconds before applying solder paste (in order to avoid dilution of the paste).

3) Solder paste deposition:

- Deposit a small quantity of solder paste on mounting zone area by syringe.
- Be careful, do not apply solder paste outside of the zone area.

4) Placement of the component:

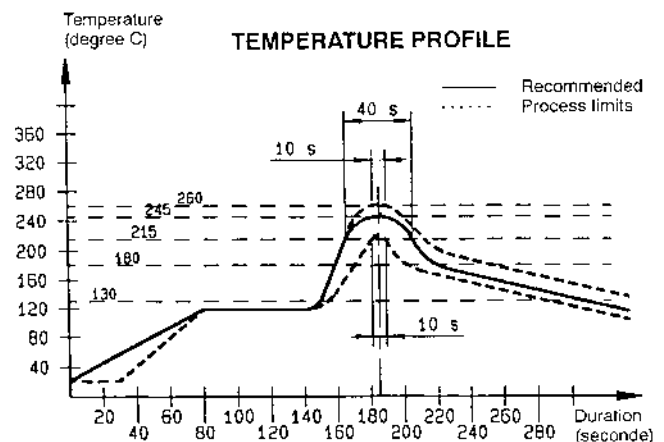
- Lift the body of the receptacle with tweezers. Do not use your fingers (fingers risk twisting the legs of the the receptacle or ejecting the center contact and can contaminate contact surfaces).
- Place the component on the mounting zone by pressing lightly on the top of the receptacle with tweezers. The receptacle legs will stick into the solder paste.

5) Soldering:

- Pre-heat stage: use a heat gun (soldering iron is not recommended) at a distance of .800" (20 mm) from the receptacle, applying the jet of air in a continuous circular motion, until the solder paste starts to look dull. this stage avoids any thermal shock since both areas to be soldered are brought up to the same temperature.
- Final re-melting step is carried out by moving the heat gun to a closer distance of .200" (5 mm) from the receptacle while guiding the jet of air onto each receptacle leg, at a 45° angle.

6) Cleaning of the PCB: (Refer to procedure A-5)

7) Quality check: (Refer to procedure A-6)



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NOTES
