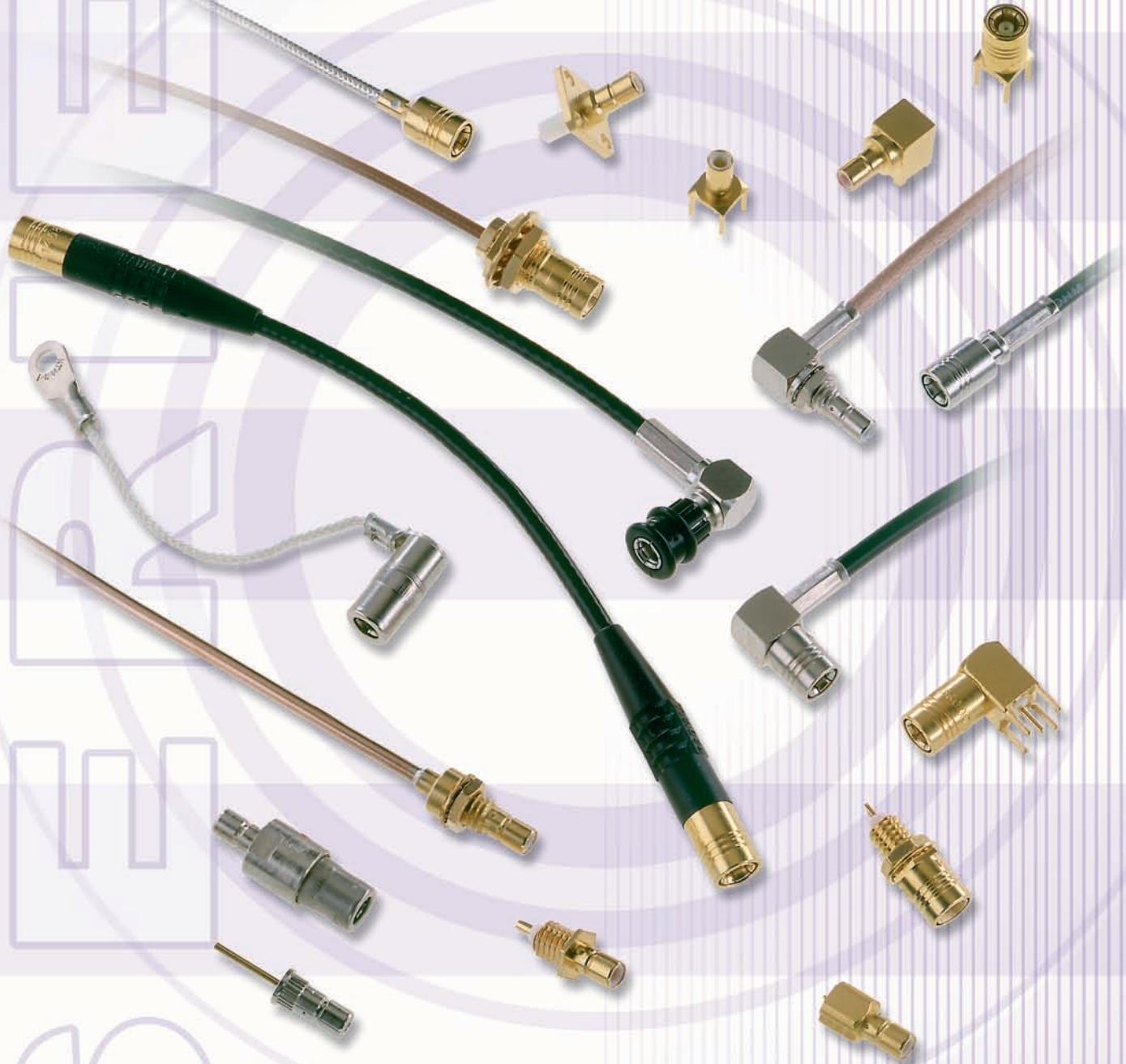
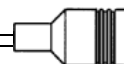


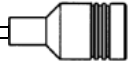
SMB/SMB lock series

RII4-RII5-RII6 / RII7





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Interface	7
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Jacks	13
Bulkhead jacks	14-15
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SMB Slide-on (SUBGLIS)	
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The SMB snap-on subminiature coaxial connectors provide a fast and reliable connection for high density packaging for applications up to 4 GHz.

Radiall offers a very large range of SMB connectors, including cable plugs and jacks with bulkhead and panel mount configurations, bulkhead and panel mount receptacles; through hole, SMT and edge card receptacles and in-series and between series adapters.

The SMB series also features versions with lower mating forces than standard. Four types of interconnection mechanisms are available :

- **SMB : standard** snap-on connection

The design permits quick engagement and disengagement.

- **SMB limited detent (SMB-A)** : snap-on connection with **low mating force**

The design permits quick engagement and disengagement and is suitable for printed circuit boards. Radiall offers a range of PCB and bulkhead receptacles with female center contact.

The SMB-A receptacles are completely intermateable with standard SMB jacks.

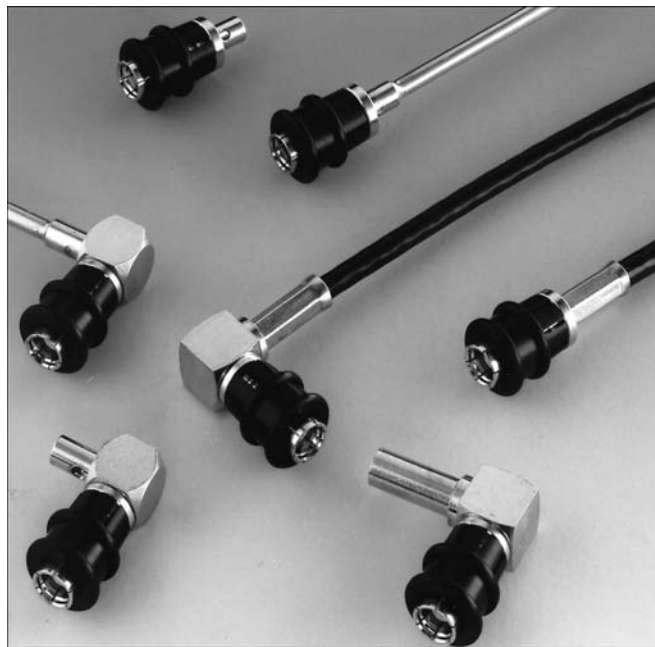
- **SMB slide-on (SUBGLIS)** : **slide-on** connection

The design is suitable for back plane and blind mate applications. In this case, we recommend the association of a mobile connector (floating jack / receptacle) with a fixed connector (panel plug / jack, receptacle).

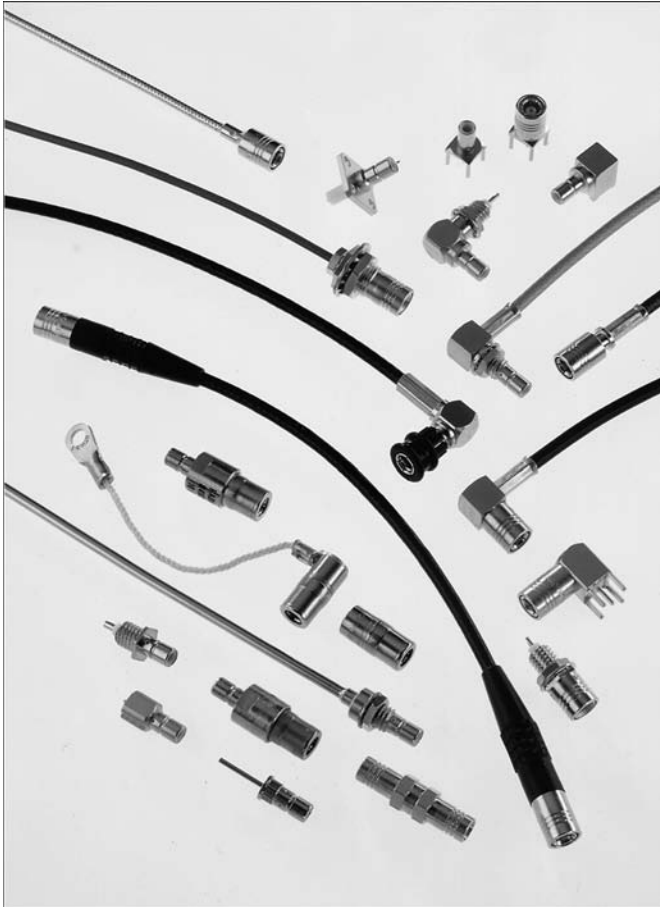
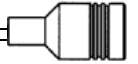
The SUBGLIS connectors are completely intermateable with standard SMB and SMB-A connectors and for that, they can be used for test applications.

- **SMB Lock** :

Plugs (with female center contact) have a coupling nut allowing a reliable lock-on connection (50 N min). This range allows a visual control of the locking system.



These four types of SMB connectors have the same electrical performances.



50 Ω	DC - 4 GHz
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INTRODUCTION

- Subminiature coaxial connectors
- Snap-on coupling
- Plugs have female contacts
- Jacks have male contacts
- Low weight and reduced outline dimensions
- Captive contact (except contrary specification)

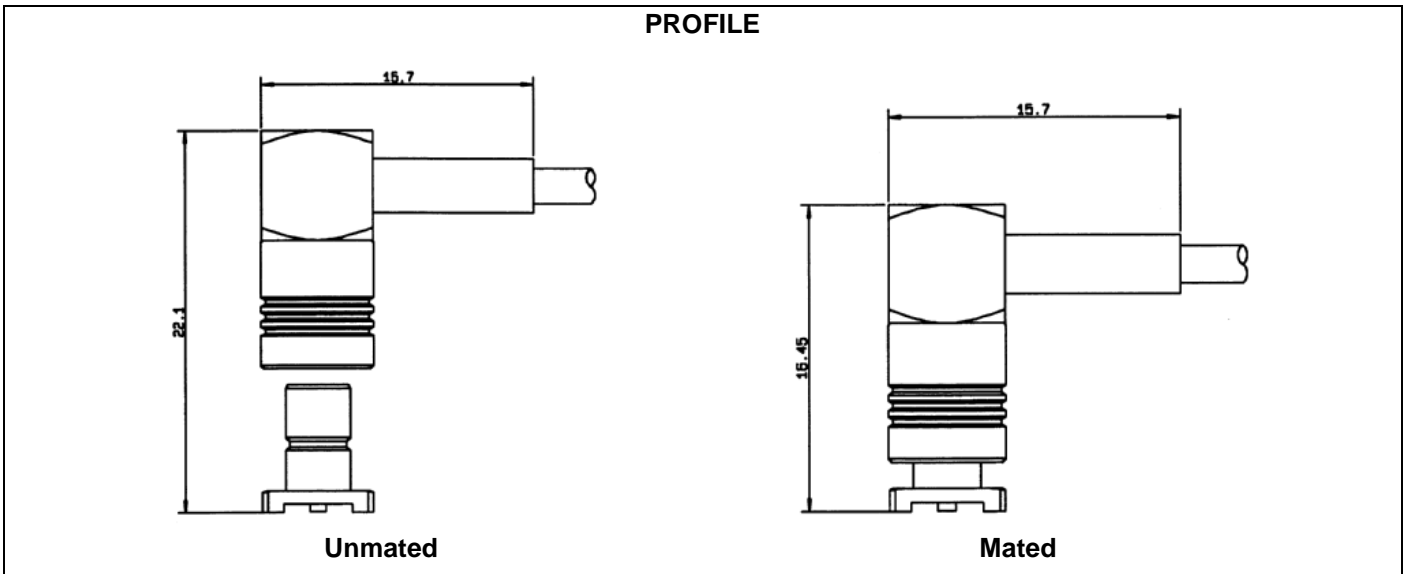
APPLICABLE STANDARDS

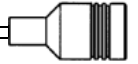
- SMB series MIL-C-39012
MIL-C-39012/67-72
- IEC 169-10
- CECC 22130
- BS 9210 N0007

APPLICATIONS

- Mobile communication systems
- Civil and military telecommunications
- Aeronautics
- Automotive

PROFILE





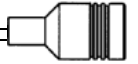
CABLE CONNECTORS (R114 : SMB / R115 : SMB limited detend / R116 : SMB slide-on / R117 : SMB LOCK)

Model Cable	Straight plug			Bulkhead straight plug		Right angle plug			Straight jack		Bulkhead straight jack			Right angle bulkhead jack
	crimp	clamp	solder	clamp	solder	crimp	clamp	solder	crimp	clamp	crimp	clamp	Solder	crimp
2/50/S	R114 073 000 R114 073 134 R114 081 020 (page 10)	R114 003 000 R114 003 133 (page 10)		R116 003 900 (page 25)		R114 183 000 R114 183 020 (page 11)	R114 163 000 R114 163 133 (page 12)		R114 237 000 (page 13)	R114 203 000 R114 203 133 (page 13)	R114 311 000 (page 14)	R114 303 000 R114 303 133 (page 14) R116 303 330 (page 26)		R114 372 020 (page 15)
2.6/50+75/S	R114 075 000 R114 075 134 R114 082 000 R114 082 020 (page 10) R117 082 807 (page 22)	R114 005 000 R114 005 133 (page 10)				R114 185 000 R114 185 020 R114 186 000 R114 186 020 R114 187 000 R114 187 020 R117 186 807 (page 23)	R114 165 000 R114 165 133 (page 12)		R114 238 000 R114 238 120 R114 238 000 (page 13)	R114 205 000 R114 205 133 (page 13)	R114 312 000 R114 313 000 R114 313 020 R114 316 000 R114 316 020 (page 14)	R114 305 000 R114 305 133 (page 14)		R114 373 020 (page 15)
2.6/50/D	R114 083 000 R114 083 020 (page 10) R117 083 807 (page 22)					R114 182 000 (page 11) R117 187 807 (page 23)								R114 373 120 (page 15)
3.6/75/D						R114 191 300 (page 11)								
5/50/S	R117 086 827 (page 22)					R117 178 827 (page 23)								
5/50/D	R117 087 827 (page 22)					R117 179 827 (page 23)								
.085			R114 053 000 (page 11) R117 053 807 (page 22)		R116 056 000 (page 26)			R114 169 000 (page 12) R117 152 807 (page 23)					R114 222 000 (page 15)	

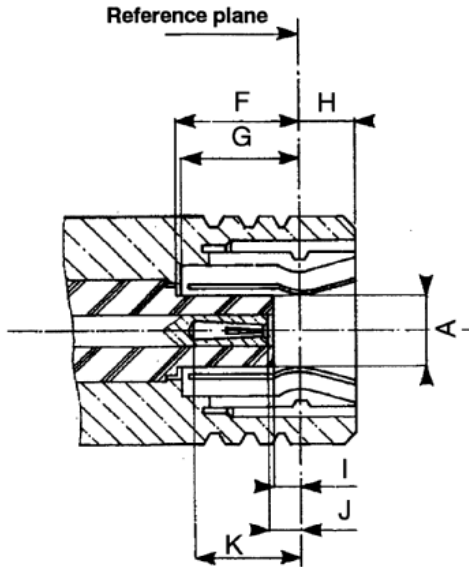
RECEPTACLES (R114 : SMB / R115 : SMB limited detend / R116 : SMB slide-on)

Model Back	Straight male flange		Straight male bulkhead				Straight female bulkhead	Right angle male bulkhead	Straight male receptacle			Straight female receptacle		Right angle male receptacle	
	square	2 holes	Front mount	Rear mount	Front mount recessed	Hermetically sealed	Floating		PCB	SMT	Edge card	PCB	Edge card	PCB	SMT
Extended dielectric	R114 413 000 (page 16)	R114 450 000 (page 16)													
Solder			R114 553 000 (page 16) R116 553 000 (page 27)	R114 554 000 (page 16)	R114 566 000 R114 566 020 (page 16)	R114 603 000 (page 16)	R116 556 000 (page 27)	R114 670 000 R114 670 020 (page 17)	R114 426 000 (page 17) R114 426 020 (page 22) R115 427 000 (page 22) R116 426 000 (page 28) R116 426 030 (page 28)	R114 424 000 R114 424 100 R114 424 120 R114 560 200 (rear mount) (page 17)	R114 423 000 R114 423 800 R114 423 810 R114 423 820 (page 17)	R114 425 000 (female) (page 17) R116 425 010 (page 28)	R114 444 800 (female) (page 17)	R114 665 000 R114 665 020 R114 665 110 R114 673 020 (rear mount) R114 673 120 (rear mount) R114 664 000 R114 664 100 R114 664 120 (page 18) R115 666 000 (page 24) R116 665 000 R116 666 030 (female) (page 28)	
Press fit									R114 416 000 R114 416 020 (page 17)						

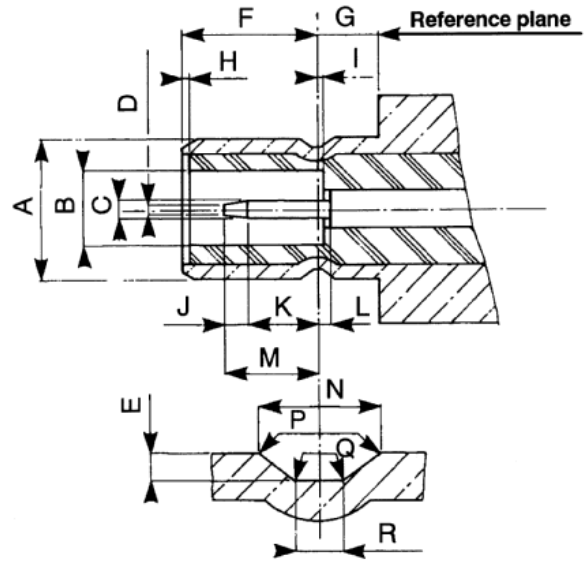
* with rear bulkhead mount



PLUG (with female contact)



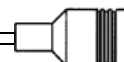
JACK (with male contact)



LETTER	mm		inch	
	min.	max.	min.	max.
A DIA		2.06		.081
F	3.58		.141	
G	3.58		.141	
H		1.63		.064
I	0.18		.007	
J	0.18	0.94	.007	.037
K	2.97		.117	

LETTER	mm		inch	
	min.	max.	min.	max.
A DIA		3.71		.146
B DIA	2.08		.082	
C DIA	0.48	0.53	.019	.021
D DIA		0.25		.010
E	0.15	0.25	.006	.010
F	3.33	3.58	.131	.141
G	1.65		.065	
I		0.18		.007
J	0.25		.010	
K	1.32		.052	
L		0.18		.007
M		2.97		.117
N	0.69	0.94	.027	.037
P	0.05	0.15	.002	.006
Q		0.13		.005
R	0.28	0.38	.011	.015

CLAMP TYPE CONNECTORS : R 114 xxx 000 = braid retention with cylindrical gasket
 R 114 xxx 133 = braid retention with V groove gasket



TEST/CHARACTERISTICS	MIL-C-39012 A	VALUES/REMARKS
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ELECTRICAL CHARACTERISTICS

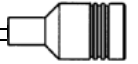
Impedance		50 Ω
Frequency range		DC-4 GHz
V.S.W.R. (typ.) Straight models	Frequency cable group: .085" 2 2.6	3-14
Right angle models	.085" 2	1 GHz 1.12 1.10 1.12 1.10 1.10
Insertion loss (typ.) dB Straight models	cable group: .085" 2 2.6	3-27
Right angle models	.085"	2.5 GHz 1.22 1.22 1.22 1.18 1.20
RF leakage		-55 dB min from 2 to 3 GHz
Insulation resistance		1000 MΩ min
Contact resistance	center contact (mΩ) outer contact (mΩ)	3-16
Working voltage	cable group at sea level at 70000 ft (21000 m)	Initial 6 1
Dielectric withstanding voltage	cable group at sea level at 70000 ft (21000 m)	After test 8 1.5
RF withstanding voltage (5 MHz sine wave)	cable group at sea level	2/50 250 V rms 60 V rms
		2.6/50 335 V rms 85 V rms
		2/50 750 V rms 185 V rms
		2.6/50 1000 V rms 250 V rms
		2/50 500 V rms
		2.6/50 700 V rms

MECHANICAL CHARACTERISTICS

Durability		3-15	500 matings
Mating / unmating		3-5-1	Axial force: 62 N max (14 Lbf)
Cabling retention force	cable group: 2/50 2.6/50	3-24	58 N (13 Lbf) 110 N (25 Lbf)
Center contact retention			Axial : 10 N (2.25 Lbf)

ENVIRONMENTAL CHARACTERISTICS

Temperature range	standard models hermetic sealed models models for semi-rigid cables		-65°C / + 165°C -65°C / +165°C -65°C / +105°C
Combined climate tests			MIL-STD-202. method 102. condition C
Thermal shock		3-20	MIL-STD-202. method 107. condition B
High temperature endurance			MIL-STD-202. method 108
Corrosion (salt spray)		3-13	MIL-STD-202. method 101. condition B, 5%
Vibrations		3-18	MIL-STD-202. method 204. condition B, 15g
Shocks		3-19	MIL-STD-202. method 213. condition B, 75g
Low pressure		3-22	MIL-STD-202. method 105. condition C
Hermetic seal			Applied vacuum 10 ⁻⁶ mm of Hg (Torrs) Leakage rate < 10 ⁻⁶ atm/cm ³ /s



TEST/CHARACTERISTICS	VALUES/REMARKS
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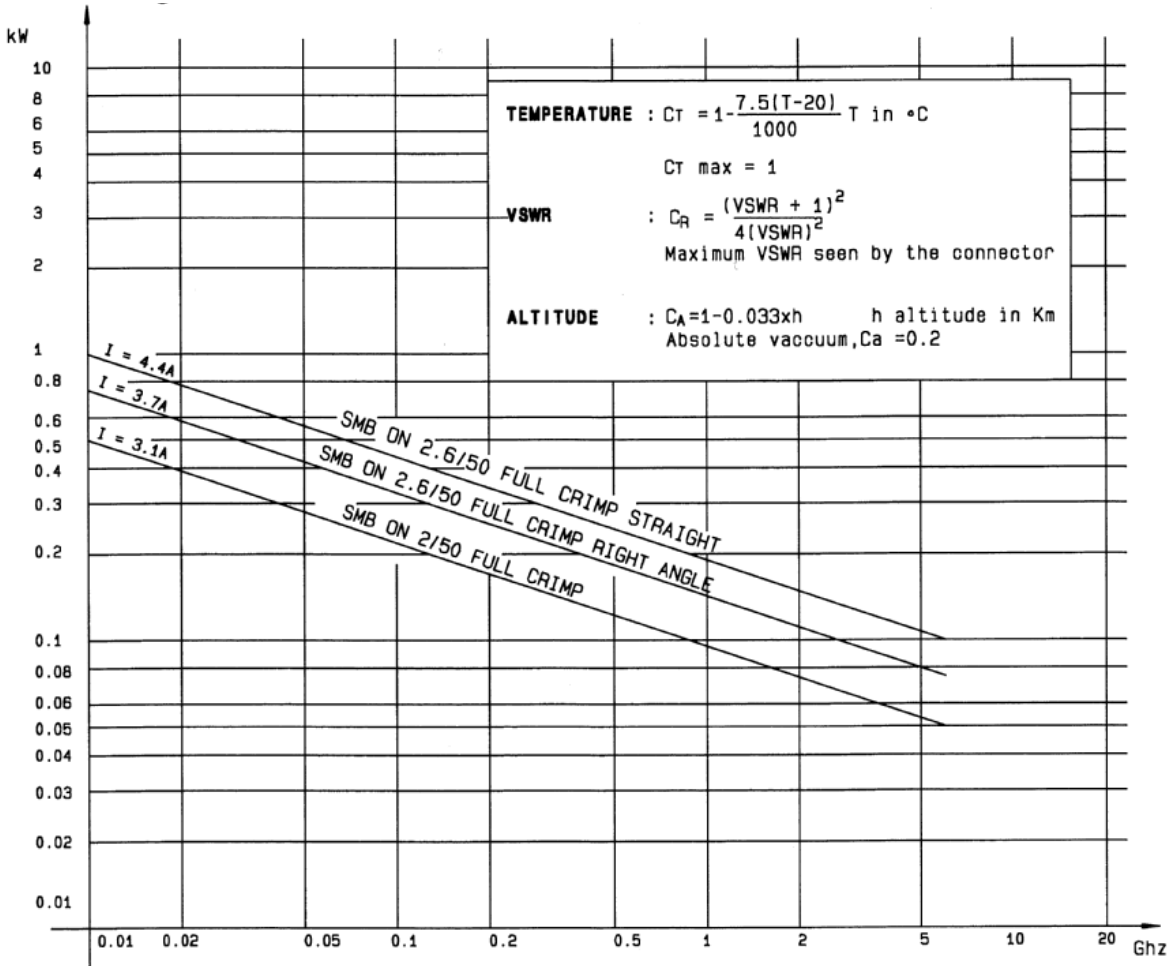
MATERIAL

Body and center pin contact	Half hard brass as per QQ-B-626
Center socket contact	Beryllium copper as per QQ-C-530
Ferrules	Brass
Insulators	PTFE teflon
Gaskets	Silicone elastomer

PLATING

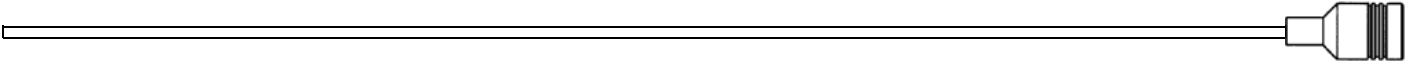
Body	Gold or nickel
Center contacts	Gold

POWER RANGE



Standard packaging: 100 pieces. For unit packaging, add "W" after the P/N.

All dimensions are given in mm



STRAIGHT PLUGS CRIMP TYPE FOR FLEXIBLE CABLES

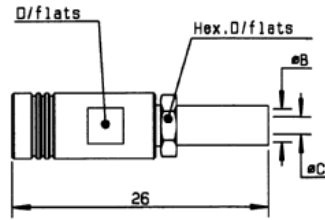


Fig. 1

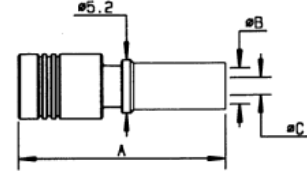
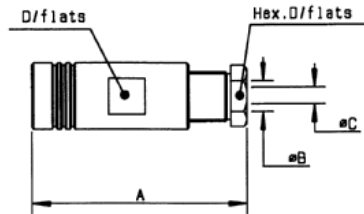


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)				Captive center contact	Assembly instructions	Finish	Note		
			A	B	C	D						
2 / 50 / S	R114 073 000	1	20.4	2.55	0.95	5	yes	M03	Gold	full crimp		
	R114 073 134*					5.5		M10	Nickel			
	R114 081 020*											
2.6 / 50+75 / S	R114 075 000	1	19.8	3.25	1.7	5	yes	M03	Gold	full crimp		
	R114 075 134					5.5						
	R114 082 000	2									M10	Nickel
	R114 082 020											Gold
2.6 / 50 / D	R114 083 000	2	18.8					Gold	full crimp			
	R114 083 020						Nickel					

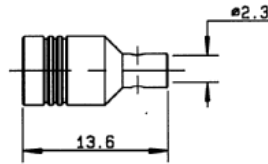
STRAIGHT PLUGS CLAMP TYPE FOR FLEXIBLE CABLES



Cable group	Part number	Dimensions (mm)				Captive center contact	Assembly instructions	Finish	Note	
		A	B	C	D					
2 / 50 / S	R114 003 000	21.8	2.2	0.95	5	yes	M02	Gold	conical braid clamp	
	R114 003 133	17			5.5		M01			
2.6 / 50+75 / S	R114 005 000	21.8	3	1.7	5		M02		Gold	conical braid clamp
	R114 005 133	17			5.5		M01			

* Packaging: unit

STRAIGHT PLUG SOLDER TYPE FOR SEMI RIGID CABLE



Cable group	Part number	Captive center contact	Assembly instructions	Finish
.085"	R114 053 000	no	M08	Gold

RIGHT ANGLE PLUGS CRIMP TYPE FOR FLEXIBLE CABLES

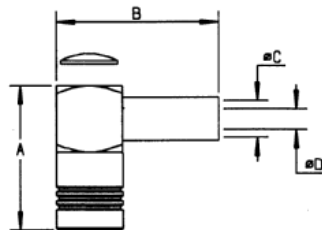


Fig. 1

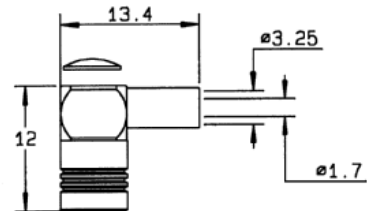
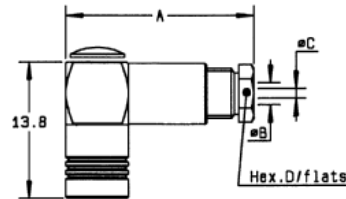


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)				Captive center contact	Assembly instructions	Finish	Note		
			A	B	C	D						
2 / 50 / S	R114 183 000	1	13.8	15.7	2.55	0.95	yes	M06	Gold			
	R114 183 020								Nickel			
2.6 / 50+75 / S	R114 185 000	2	13.8	15.7	3.25	1.7			M06		Gold	short version
	R114 185 020										Nickel	
	R114 186 000	1	13.8	15.7	3.25	1.7		M09	Gold	full crimp		
	R114 186 020								Nickel			
	R114 187 000							M06	Gold		cable BT 3002	
	R114 187 020								Nickel			
2.6 / 50 / D	R114 182 000		13.8						Gold			
3.6 / 75 / D	R114 191 300*		13.7	18.3	4.4	2.1			Gold			

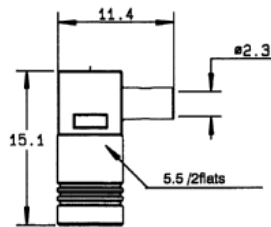
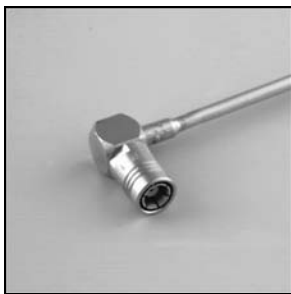
* Upon request

RIGHT ANGLE PLUGS CLAMP TYPE FOR FLEXIBLE CABLES

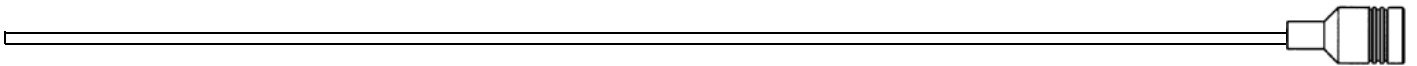


Cable group	Part number	Dimensions (mm)				Captive center contact	Assembly instructions	Finish	Note
		A	B	C	D				
2 / 50 / S	R114 163 000	19	2.2	1	5	yes	M04	Gold	
	R114 163 133	16.1			5.5		conical braid clamp		
2.6 / 50+75 / S	R114 165 000	19	3	1.7	5		M04		
	R114 165 133	16.1			5.5		M05		conical braid clamp

RIGHT ANGLE PLUG SOLDER TYPE FOR SEMI RIGID CABLE



Cable group	Part number	Captive center contact	Assembly instructions	Finish	Note
.085"	R114 169 000	yes	M07	Gold	cable bending required



STRAIGHT JACKS CRIMP TYPE FOR FLEXIBLE CABLES

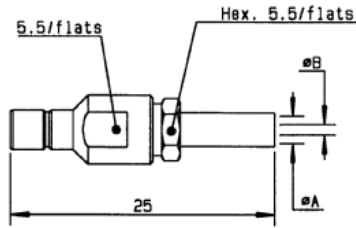


Fig. 1

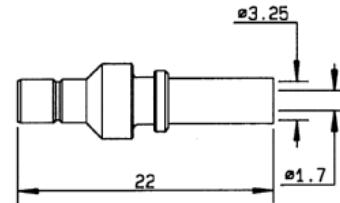
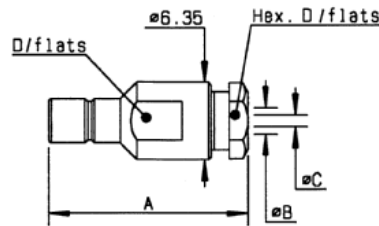
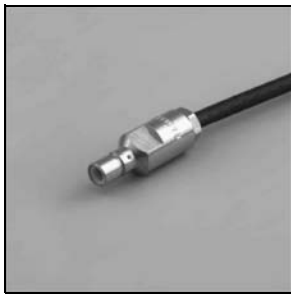


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)		Captive center contact	Assembly instructions	Finish	Note
			A	B				
2 / 50 / S	R114 237 000	1	2.55	0.95	yes	M03	Gold	full crimp
2.6 / 50+75 / S	R114 238 000	2				M10	Nickel	
	R114 238 120					M03	Gold	
	R114 239 000	1	3.25	1.7				

STRAIGHT JACKS CLAMP TYPE FOR FLEXIBLE CABLES



Cable group	Part number	Dimensions (mm)				Captive center contact	Assembly instructions	Finish	Note
		A	B	C	D				
2 / 50 / S	R114 203 000	21	2.2	1	5	yes	M02	Gold	conical braid clamp
	R114 203 133*•	16.5					5.5		
2.6 / 50+75 / S	R114 205 000	21	3	1.7	5		M02		
	R114 205 133	16.5				5.5	M01		conical braid clamp

• Upon request

* Packaging: unit

STRAIGHT BULKHEAD JACKS CRIMP TYPE FOR FLEXIBLE CABLES

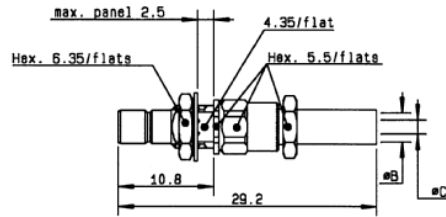


Fig. 1

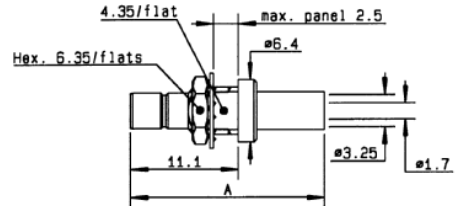


Fig. 2

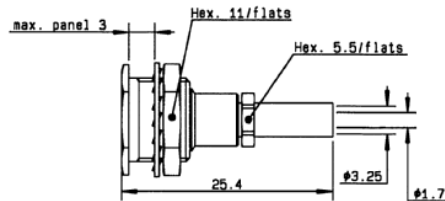


Fig. 3

Cable group	Part number	Fig.	Dimensions (mm)			Captive center contact	Assembly instructions	Panel drilling	Finish	Note
			A	B	C					
2 / 50 / S	R114 311 000	1		2.55	1	yes	M03	P10	Gold	back mount
2.6 / 50+75 / S	R114 312 000				3.25		1.7			M10
	R114 313 000	2	22							
	R114 313 020		20							
	R114 316 000	3					M03	P07	Gold	recessed / front mount
R114 316 020										

STRAIGHT BULKHEAD JACKS CLAMP TYPE FOR FLEXIBLE CABLES

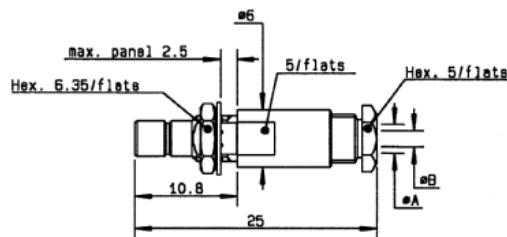


Fig. 1

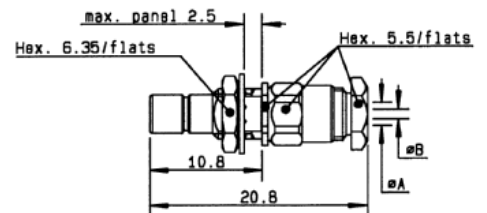
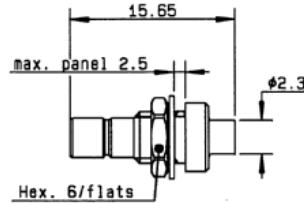


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)		Captive center contact	Assembly instructions	Panel drilling	Finish	Note	
			A	B						
2 / 50 / S	R114 303 000	1	2.2	1	yes	M02	P10	Gold	conical braid clamp	
	R114 303 133	2				M01				
2.6 / 50+75 / S	R114 305 000	1	3	1.7						M02
	R114 305 133	2								M01

STRAIGHT BULKHEAD JACK SOLDER TYPE FOR SEMI RIGID CABLE



Cable group	Part number	Captive center contact	Assembly instructions	Panel drilling	Finish
.085"	R114 222 000	yes	M08	P10	Gold

RIGHT ANGLE BULKHEAD JACKS CRIMP FOR FLEXIBLE CABLE

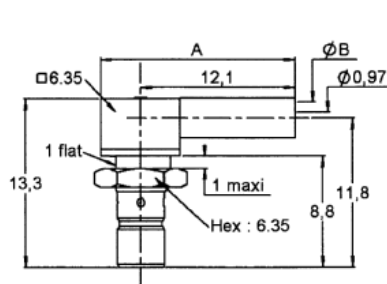


Fig. 1

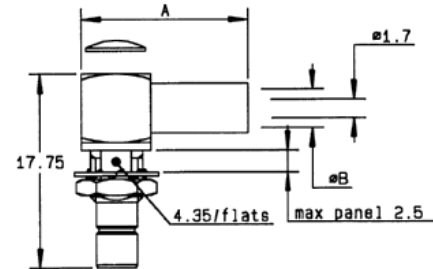
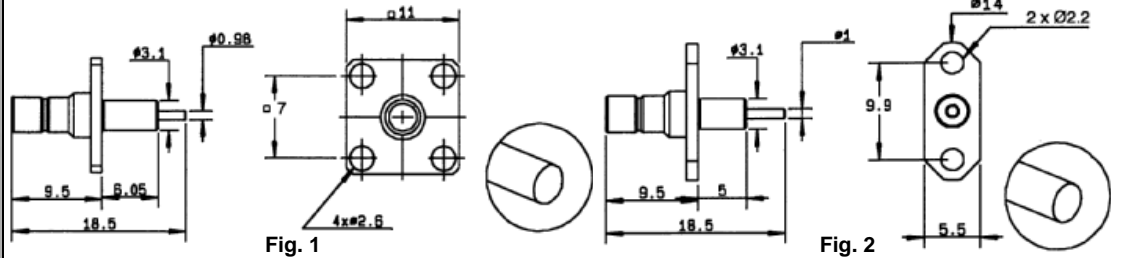


Fig. 2

Cable group	Part number	Fig.	Dimensions (mm)		Captive center contact	Assembly instructions	Panel drilling	Finish
			A	B				
2 / 50	R114 372 020	1	15.3	2.55	yes	M11	P11	Gold
2.6 / 50 / S	R114 373 020*	2	15.7	3.25		M06	P10	Nickel
2.6 / 50 / D	R114 373 120*		15.35	3.5				

* Packaging: unit

STRAIGHT FLANGE RECEPTACLE (male center contact)



Part number	Fig.	Captive center contact	Panel drilling	Finish	Note
R114 413 000	1	no	P01	Gold	square flange / extended dielectric
R114 450 000*	2		P06		2 hole flange / extended dielectric

STRAIGHT BULKHEAD RECEPTACLES (male center contact)

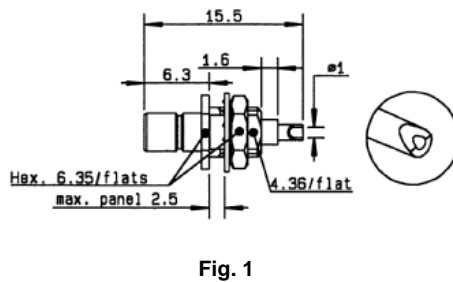


Fig. 1

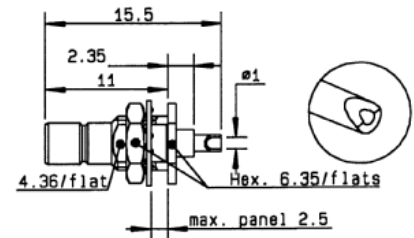


Fig. 2

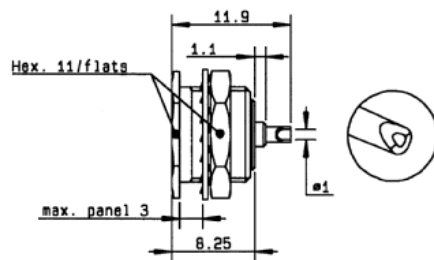


Fig. 3

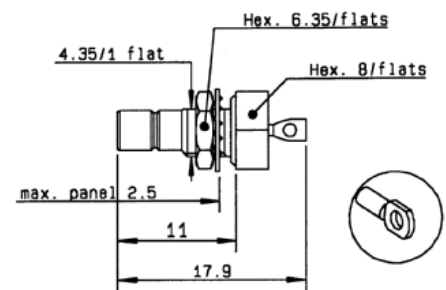
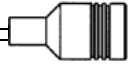


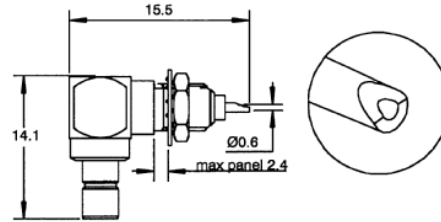
Fig. 4

Part number	Fig.	Captive center contact	Panel drilling	Finish	Note
R114 553 000	1	yes	P10	Gold	front mount
R114 554 000	2				rear mount
R114 566 000	3		P07	Nickel	front mount/recessed
R114 566 020					
R114 603 000	4		P10	Gold	hermetically sealed

* Packaging: unit

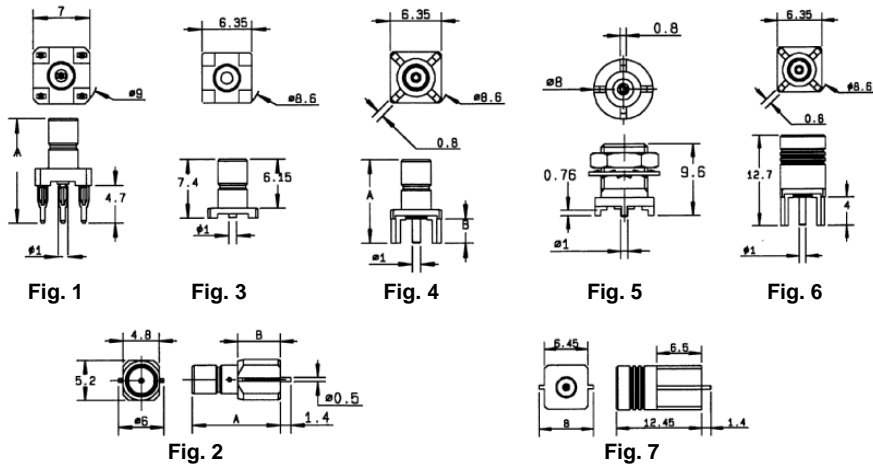


RIGHT ANGLE BULKHEAD RECEPTACLES (male center contact)



Part number	Captive center contact	Panel drilling	Finish
R114 670 000	yes	P10	Gold
R114 670 020			Nickel

STRAIGHT PCB RECEPTACLES



Part number	Fig.	Dimensions		Captive center contact	Assembly instructions	Panel drilling	Finish	Note	
		A	B						
R114 416 000 [•]	1	12.1		yes	M14	P02	Gold	press fit pins	
R114 416 020		12.9					Nickel		
R114 423 000	2	11.5	5.5		yes	M15	Gold	SMT edge card	
R114 423 800 [•]		12.5	6.5					SMT edge card / packaging 1000 reel	
R114 423 810		11.5	5.5					SMT edge card / packaging 500 reel	
R114 423 820								SMT edge card / packaging 100 reel	
R114 424 000	3							SMT	
R114 424 100								SMT / packaging 100 reel	
R114 424 120								SMT / packaging 500 reel	
R114 426 000	4	11.4	4						P03
R114 426 020									
R114 560 200 [•]	5						M15	Gold	rear mount
R114 425 000	6					female			
R114 444 800 [•]	7					female/SMT edge card/packaging 800 reel			

[•] Upon request

RIGHT ANGLE PCB RECEPTACLES (male center contact)

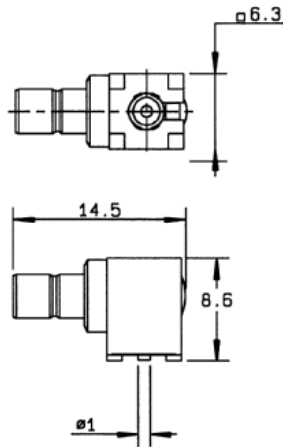
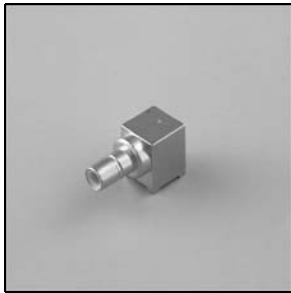


Fig. 1

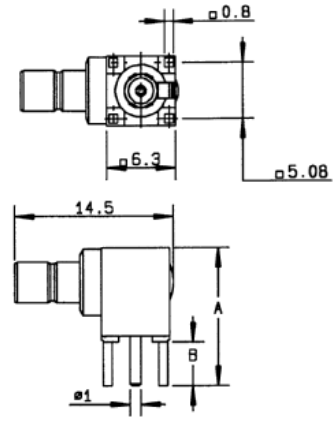


Fig. 2

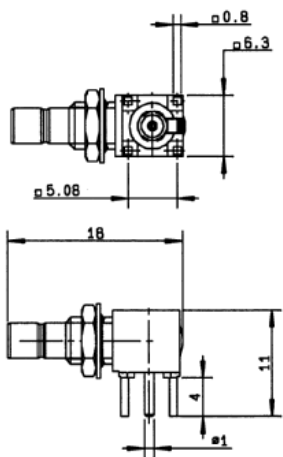


Fig. 3

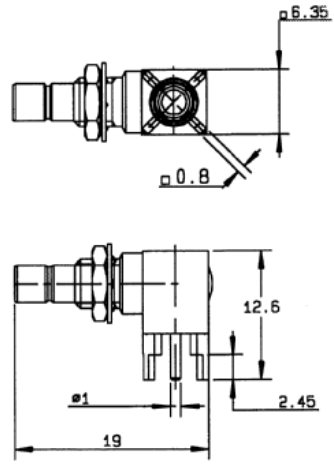


Fig. 4

Part number	Fig.	Dimensions (mm)		Captive center contact	Assembly instructions	Panel drilling	Finish	Note
		A	B					
R114 664 000	1			yes	M15		Gold	SMT / packaging 100p reel
R114 664 100								SMT / packaging 500p reel
R114 664 120								
R114 665 000	2	12.6	4	yes	P03		Nickel	
R114 665 020								
R114 665 110								11.6
R114 673 020*	3						Nickel	rear mount
R114 673 120	4						Gold	

* Packaging: unit

ADAPTERS

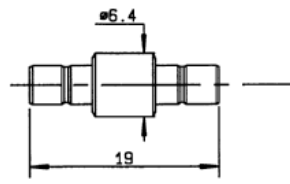


Fig. 1

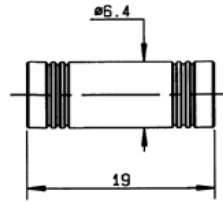


Fig. 2

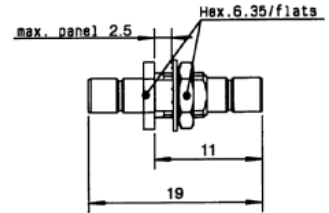


Fig. 3

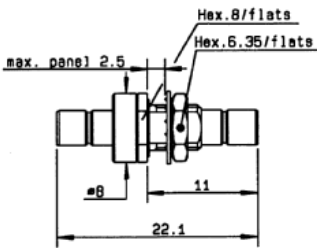


Fig. 4

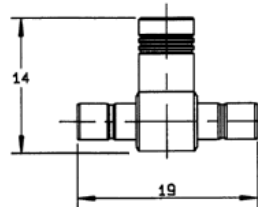


Fig. 5

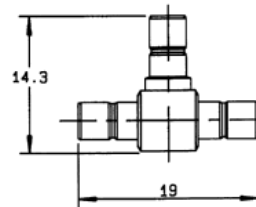


Fig. 6

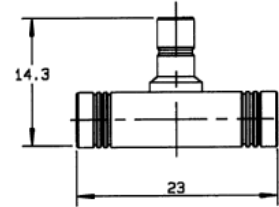
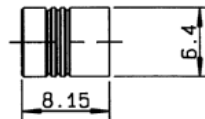


Fig. 7

Part number	Fig.	Captive center contact	Panel drilling	Finish	Note
R114 703 000	1	yes	P10	Gold	male - male
R114 704 000	2				female - female
R114 720 000	3			bulkhead male - male	
R114 720 020				Nickel	bulkhead male - male
R114 753 000	4			Gold	hermetically sealed male - male
R114 780 000	5			Nickel	tee female / male - male
R114 780 020				Nickel	tee female / male - male
R114 781 000	6			Gold	tee male / male - male
R114 783 000*•	7	Gold	tee male / female - female		

SHORT CIRCUIT PLUG CAP



Part number	Captive center contact	Finish
R114 880 000	yes	Gold

• Upon request

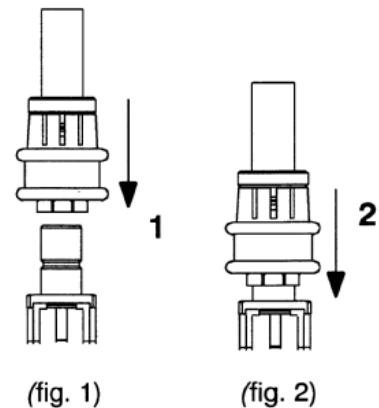
* Packaging: unit

RADIALL proposes new **SMB LOCK** plugs with a 2 step connection system :

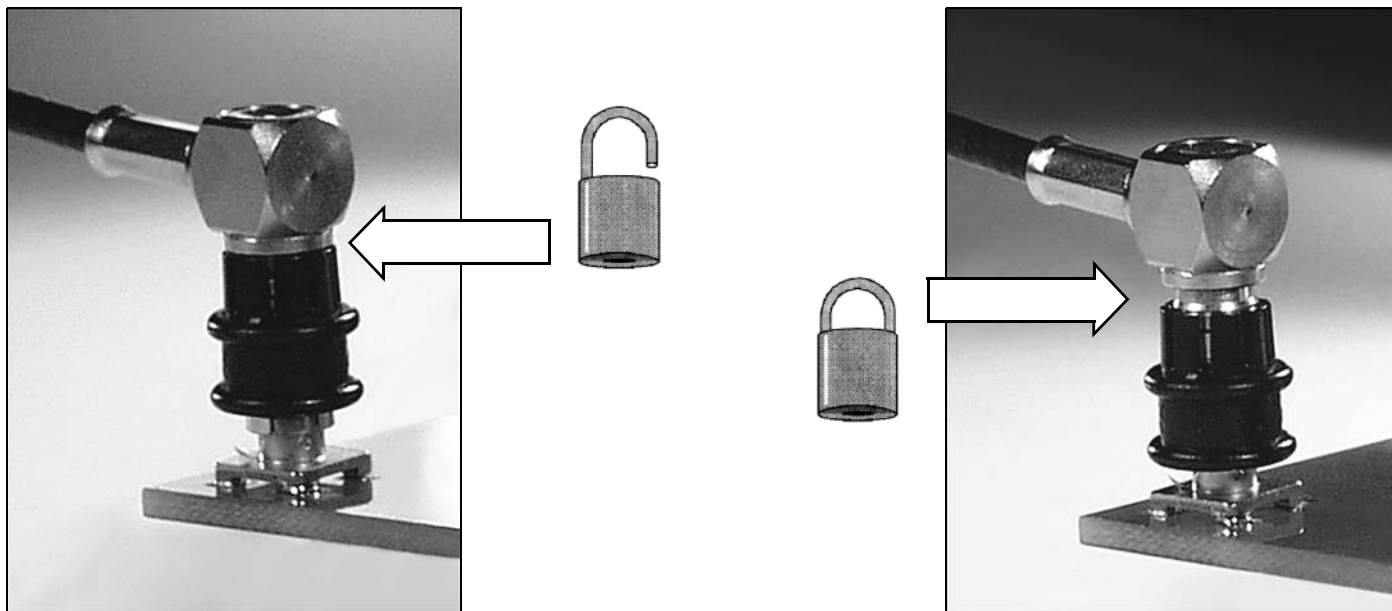
- 1 **Snap** the plug on the male connector (fig. 1),
- 2 **Lock** the couple by pushing down the coupling nut (fig. 2).

This new range

- ➔ is **totally intermateable** with the standard **SMB** male connectors,
- ➔ benefits from a low intermodulation,
- ➔ replace the standard SMB and screw-on connectors in all applications requiring:
 - a fast connection
 - a reliable lock-on connection
 - long durability.



► Possibility to visually control the locking system.

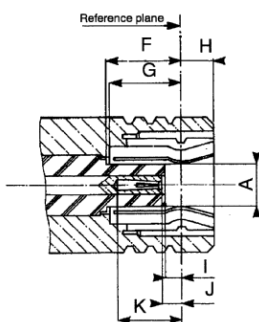


► The connector allows a 360° cable rotation.

► Coupling nut.

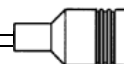
The coupling nut is made with POM (halogen free). Its standard color is black.

INTERFACE



PLUG (with female contact)

Letter	mm		mm	
	min.	max	min.	max
DIA A		2.06		.081
F	3.58		.141	
G	3.58		.141	
H		1.63		.064
I	0.18		.007	
J	0.18	0.94	.007	.037
K	2.97		.117	



TEST/CHARACTERISTICS	VALUES/REMARKS
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ELECTRICAL CHARACTERISTICS

Impedance		50 Ω		
Operating frequency		DC to 4 GHz		
Typical V.S.W.R.	Straight models	.085"	2 GHz 1.15	4 GHz 1.20
		Ø 2.6/50	1.20	1.25
	Right angle models	.085"	1.05	1.15
		Ø 2.6/50	1.15	1.25
RF insertion loss.	Straight models	.085"	0.20 \sqrt{F} (GHz)	
		Ø 2.6/50	0.25 \sqrt{F} (GHz)	
	Right angle models	.085"	0.25 \sqrt{F} (GHz)	
		Ø 2.6/50	0.50 \sqrt{F} (GHz)	
Testing voltage (V RMS)	.085"	750		
	Ø 2.6/50	1000		
Working voltage (V RMS)	.085"	335		
	Ø 2.6/50	335		
Insulation resistance (MΩ)		1000		

ENVIRONMENTAL CHARACTERISTICS

Temperature range	-35°C / +125°C
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MECHANICAL CHARACTERISTICS

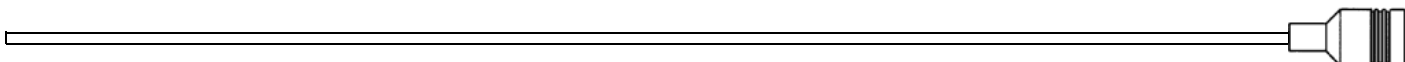
Life		500 matings min
Cable retention force	.085"	220 N
	Ø 2.6/50	110 N
	Ø 5/50 S	110 N
Coupling nut retention force		50 N min
Vibrations		MIL STD 202 F method 240D, contidion B

MATERIALS

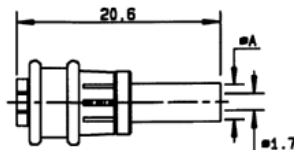
Bodies	Brass
Center contact	Beryllium copper
Outer contact	Bronze
Insulator	PTFE
Coupling nut	POM (halogen free)

PLATING

Bodies	BBR*
Center contact	Gold

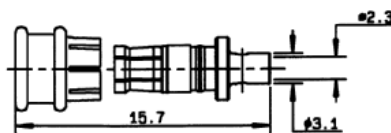
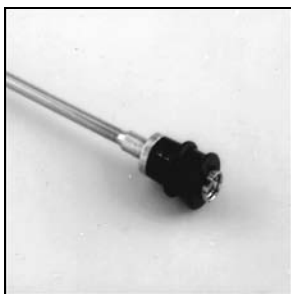


STRAIGHT PLUGS FULL CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable	Part number	Dimensions (mm) A	Captive center contact	Assembly instructions
2.6 / 50 / S	RG174-188-316	R117 082 807	3.25	yes	M10
2.6 / 50 / D	RD316	R117 083 807	3.5		
5 / 50 / S	RG 58 - 141 / ECO 142*	R117 086 827 •	5.55		
5 / 50 / D	RG 142 - 223 - 400	R117 087 827 •			

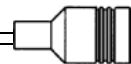
STRAIGHT PLUG SOLDER TYPE FOR SEMI-RIGID CABLE



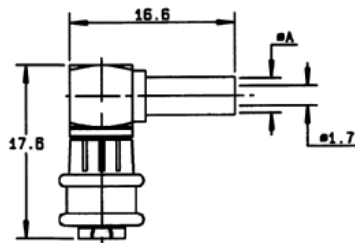
Cable group	Cable	Part number	Captive center contact	Assembly instructions
.085"	RG 405/U	R117 053 807	no	M12

* These RADIALL cables are "low loss-low cost" option to RG cables. Their main advantages are : **low loss level, low intermod level, high shielding effectiveness, halogen free**. Part number : ECO 316 : C291 999 904 - ECO 316D : C291 999 905 - ECO 142 : C291 325 290.

• Upon request

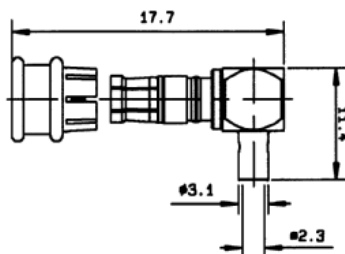


RIGHT ANGLE PLUGS CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable	Part number	Dimensions (mm) A	Assembly instructions	Captive center contact
2.6 / 50 / S	RG174-188-316	R117 186 807	3.25	M11	yes
2.6 / 50 / D	RD316	R117 187 807	3.5		
5 / 50 / S	RG 58 - 141 / ECO 142*	R117 178 827*	5.55		
5 / 50 / D	RG 142 - 223 - 400	R117 179 827*			

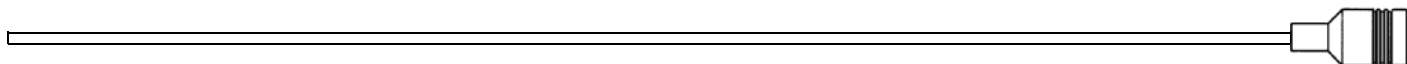
RIGHT ANGLE PLUG SOLDER TYPE FOR SEMI-RIGID CABLE



Cable group	Cable	Part number	Assembly instructions	Captive center contact
.085"	RG 405/U	R117 152 807	M13	yes

* These RADIALL cables are "low loss-low cost" option to RG cables. Their main advantages are : **low loss level, low intermod level, high shielding effectiveness, halogen free.** Part number : ECO 316 : C291 999 904 - ECO 316D : C291 999 905 - ECO 142 : C291 325 290.

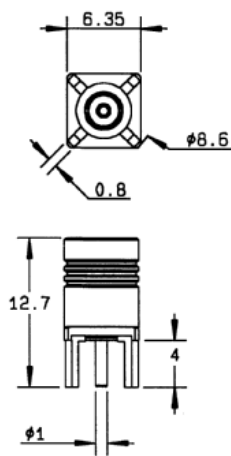
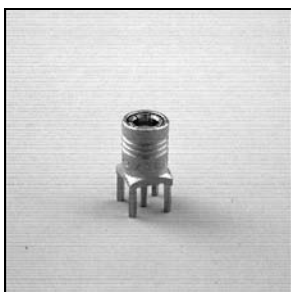
• Upon request



- Lower mating/unmating force (from 2.5 N to 6N).
- Receptacles intermateable with SMB connectors.
- Gold finish.

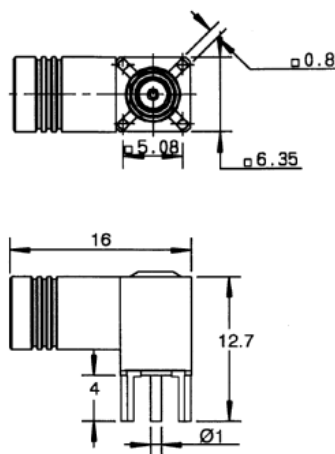
The SMB limited detent connectors have the same electrical characteristics as standard SMB connectors.

STRAIGHT PCB RECEPTACLES (female center contact)



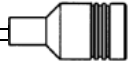
Part number	Captive center contact	Panel drilling	Finish
R115 427 000	yes	P05	Gold

RIGHT ANGLE PCB RECEPTACLES (female center contact)



Part number	Captive center contact	Panel drilling	Finish
R115 666 000	yes	P04	Gold

Standard packaging: unit



Slide on connectors (mating/unmating force: 2.2 N to 4.9 N).

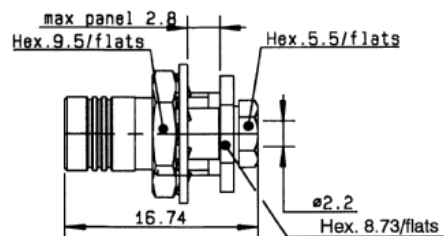
The design is suitable for **back plane and blind mate applications**. In this case, we recommend the association of a mobile connector (floating jack / receptacle) with a fixed connector (panel plug / jack, receptacle). Please see the available combinations in the table below.

The SMB slide-on connectors are completely intermateable with standard SMB and SMB limited detent connectors and in this regard, they can be used for **test applications**.

The SMB slide-on connectors have the same electrical characteristics as standard SMB connectors.

Part number	Description	Center contact	R116 303 330	R116 556 000
			Bulkhead floating jack clamp type for 2/50/S cable	Straight bulkhead floating receptacle (front mount)
R116 003 900	Bulkhead plug clamp type for 2/50/S cable	female	*	
R116 056 000	Bulkhead plug solder type for .085 cable			
R116 425 010	Straight PCB receptacle	male		
R116 426 000				
R116 426 030				
R116 553 000	Straight bulkhead receptacle (front mount)			*
R116 665 000	Right angle PCB receptacle	female	*	
R116 666 030				

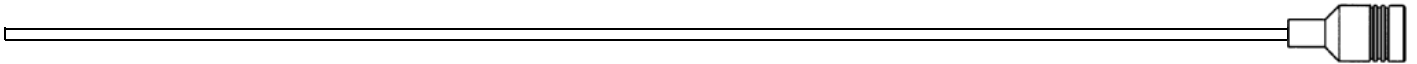
STRAIGHT BULKHEAD PLUG CLAMP TYPE FOR FLEXIBLE CABLE



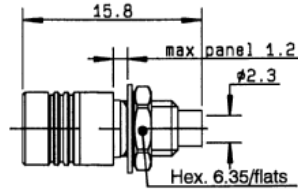
Cable	Part number	Captive center contact	Assembly instructions	Panel drilling	Finish	Note
2 / 50 / S	R116 003 900*	yes	M01	P12	Gold	conical braid clamp

* Upon request

Standard packaging: unit

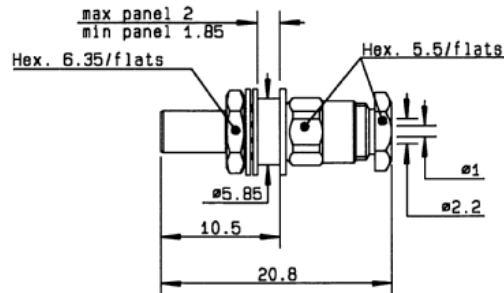


STRAIGHT BULKHEAD PLUG SOLDER TYPE FOR SEMI-RIGID CABLE



Cable group	Part number	Captive center contact	Assembly instructions	Panel drilling	Finish
.085"	R116 056 000 •	no	M08	P08	Gold

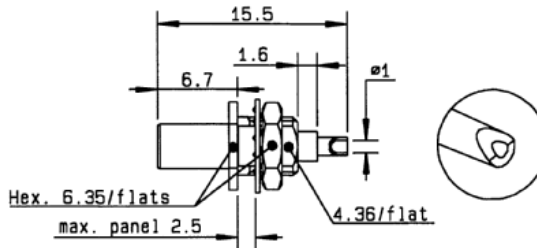
STRAIGHT BULKHEAD FLOATING JACK CLAMP TYPE FOR FLEXIBLE CABLE



Cable group	Part number	Captive center contact	Assembly instructions	Panel drilling	Finish	Note
2 / 50 / S	R116 303 330 •	yes	M01	P09	Gold	conical braid clamp

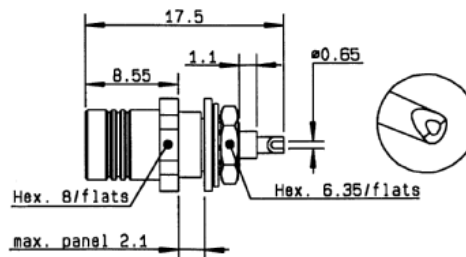
• Upon request

STRAIGHT BULKHEAD RECEPTACLE (male center contact)



Part number	Captive center contact	Panel drilling	Finish	Note
R116 553 000	yes	P10	Gold	front mount

STRAIGHT BULKHEAD RECEPTACLE (female center contact)



Part number	Captive center contact	Panel drilling	Finish	Note
R116 556 000	yes	P09	Gold	Floating type

STRAIGHT PCB RECEPTACLES

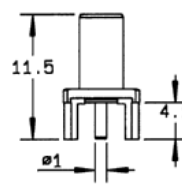
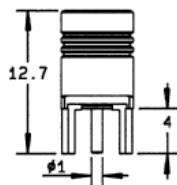
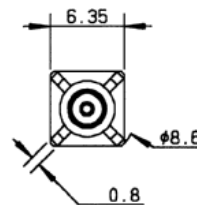
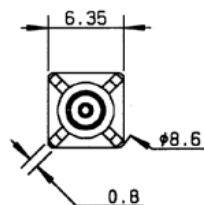
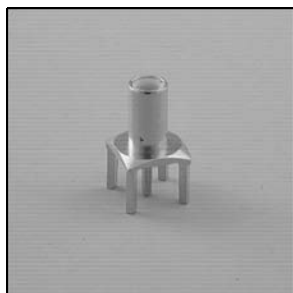


Fig. 1

Fig. 2

Part number	Fig.	Captive center contact	Panel drilling	Finish	Note
R116 425 010*	1	yes	P05	Gold	female center contact
R116 426 000	2		P03		male center contact
R116 426 030*					male center contact / packaging 100

RIGHT ANGLE PCB RECEPTACLES

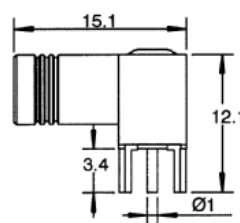
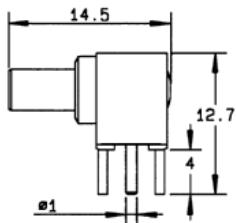
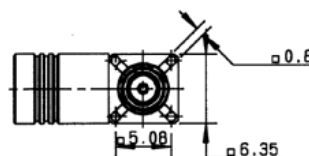
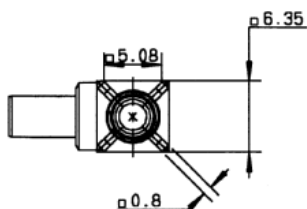
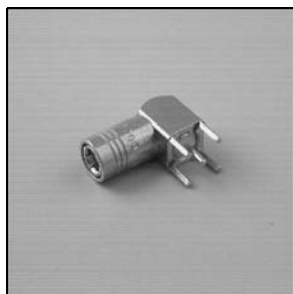


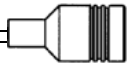
Fig. 1

Fig. 2

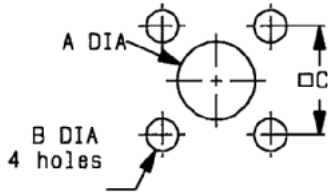
Part number	Fig.	Captive center contact	Panel drilling	Finish	Note
R116 665 000*	1	yes	P03	Gold	male center contact
R116 666 030*	2		P04		female center contact

* Upon request

Standard packaging: unit

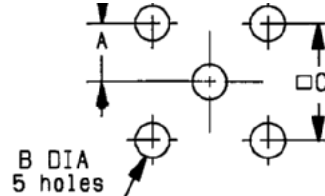


P01



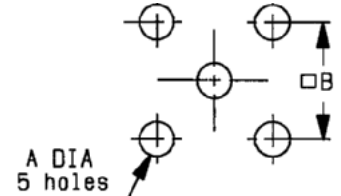
MM		
	maxi	mini
A	3.3	3.2
B	2.3	2.1
C	7.05	6.95

P02



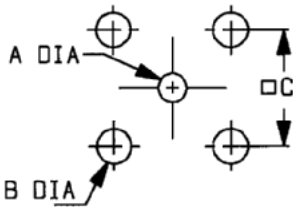
MM		
	maxi	mini
A	2.565	2.515
B	1.09	0.94
C	5.105	5.055

P03



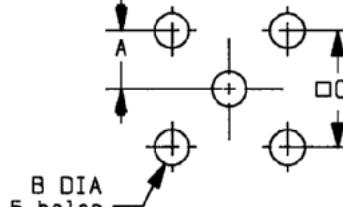
MM		
	maxi	mini
A	1.4	1.3
B	5.13	5.03

P04



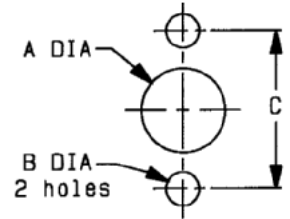
MM		
	maxi	mini
A	1.29	1.19
B	1.8	1.7
C	5.13	5.03

P05



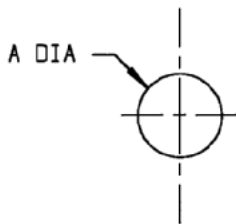
MM		
	maxi	mini
A	2.56	2.52
B	1.5	1.4
C	5.13	5.03

P06



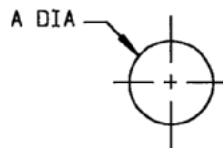
MM		
	maxi	mini
A	3.25	3.2
B	2.4	2.2
C	9.95	9.85

P07



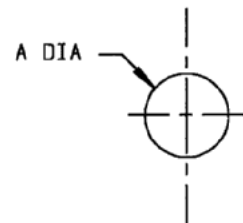
MM		
	maxi	mini
A	9.7	9.6

P08



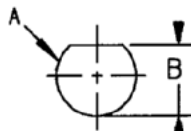
MM		
	maxi	mini
A	5.05	4.95

P09



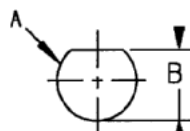
MM		
	maxi	mini
A	6.45	6.05

P10



MM		
	maxi	mini
A	5	4.9
B	4.55	4.45

P11



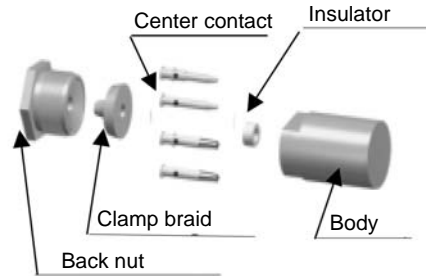
MM		
	maxi	mini
A	5	4.9
B	4.58	4.46

P12

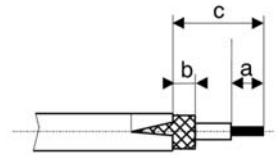


MM		
	maxi	mini
A	7.3	7.2
B	6.5	6.4

M 01

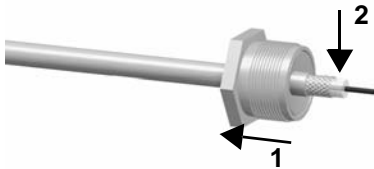


STIPPING DIMENSIONS



Part number	Stripping length (mm)			Recommended coupling torque
	a	b	c	
R114 003 133 R114 005 133 R114 203 133 R114 205 133 R114 303 133 R114 305 133 R116 003 900 R116 303 330	2	1	1	70 N.cm

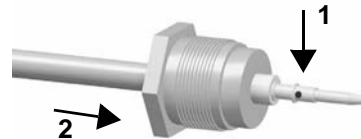
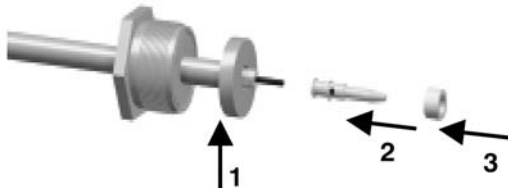
- 1**
- Slide the clamp nut onto the cable.
 - Strip the cable.
 - Cut 2 slots in the jacket necessary.
- 3**
- Solder the center contact onto the inner conductor.
 - Slide the back nut over the clamp assembly.



- 2**
- Slide the clamp braid sleeve between the cable dielectric and the braid.



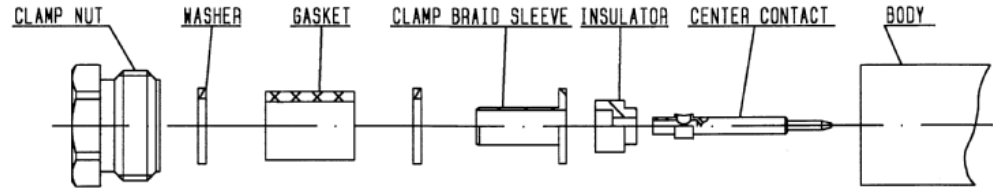
- 3**
- Cut the braid flush with the clamp braid sleeve.
 - Slide the spacer onto the cable.
 - Slide the centre contact on until it bottoms against the cable dielectric.



- 4**
- Screw the sub-assembly into the conductor body with adapted wrench.



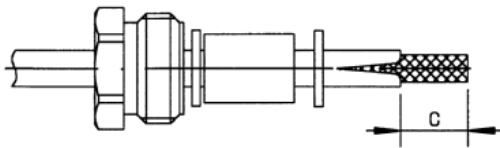
M 02



Part number	Stripping length (mm)			Recommended coupling torque
	a	b	c	
R114 003 000 R114 005 000 R114 203 000 R114 205 000 R114 303 000 R114 305 000	2.5	1.2	4.5	40N.cm

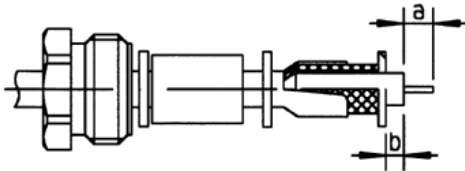
1

- Slide the clamp nut, first washer, gasket, and the second washer onto the cable.
- Strip the cable.
- Cut 2 slots in the jacket if necessary.



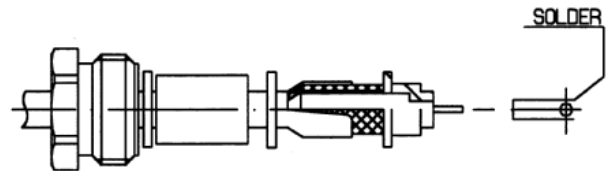
2

- Slide the clamp braid sleeve between the cable dielectric and braid.
- Cut the braid flush with the clamp braid sleeve.



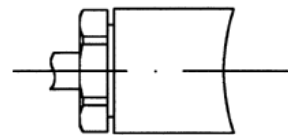
3

- Slide the first insulator onto the cable.
- Solder the center contact onto the cable center conductor.
- Mount the second insulator.

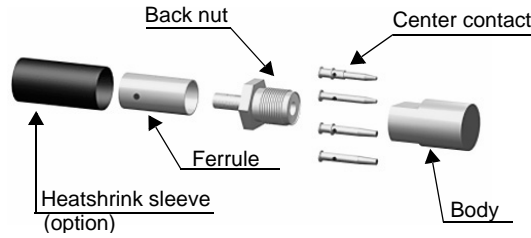


4

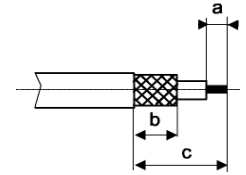
- Screw the sub-assembly into the conductor body.



M 03

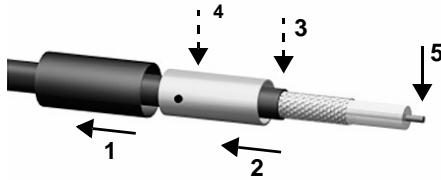


STRIPPING DIMENSIONS

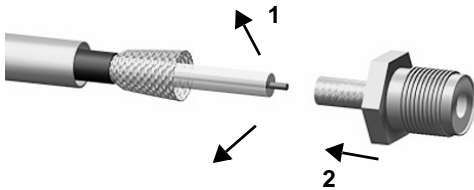


Part number	Stripping length (mm)			Hex.	Dies included	Crimp tools MIL standard R282 293 000 (M22520/5-01) + dies	Recommended coupling torque
	a	b	c				
R114 073 000	2.2	7.9	5.4	2.67	R282 211 000	R282 235 003 (M22520/5-03)	40 N.cm
R114 073 134				70 N.cm			
R114 075 000				40 N.cm			
R114 075 134				70 N.cm			
R114 237 000							2.67
R114 239 000							3.25
R114 311 000							2.67
R114 312 000 R114 316 000 R114 316 020							3.25

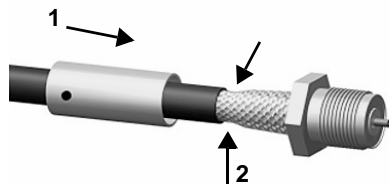
- 1**
- Slide the heatshrink sleeve onto the cable (Option).
 - Slide the ferrule onto the cable.
 - Position the ferrule's hole at the front if soldering.
 - Position the ferrule's hole at the back if crimping.
 - Strip the cable.



- 2**
- Fan the braid.
 - Slide the cable into the back nut.



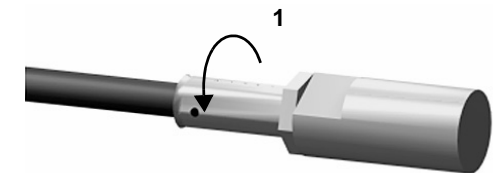
- 3**
- Slide the ferrule over the braid.
 - Crimp the ferrule with crimping tool (see table).



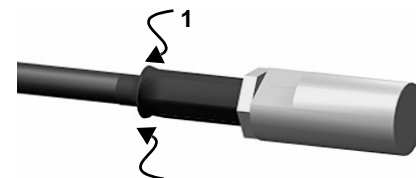
- 4**
- Slide the centre contact on until it bottoms against the insulator back nut.
 - Solder or crimp the contact (see table).



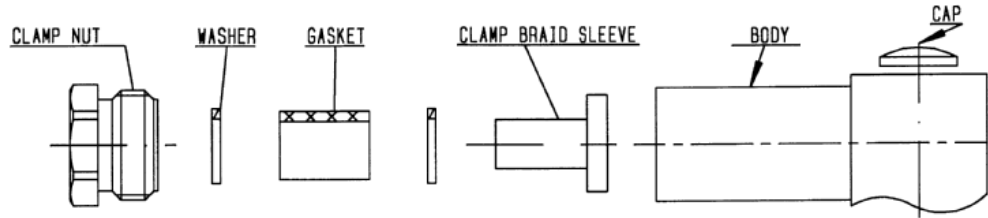
- 5**
- Screw the back nut into the connector body with the adapted wrench.
 - Recommended coupling torque (see table).



- 5**
- Slide the sleeve over the ferrule and heatshrink it in place (Option).



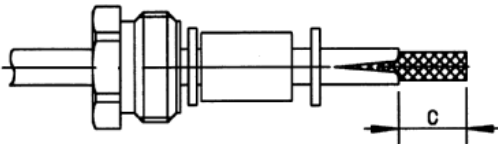
M 04



Part number	Stripping length (mm)			Recommended coupling torque
	a	b	c	
R114 163 000 R114 165 000	1.5	2	4	40 N.cm

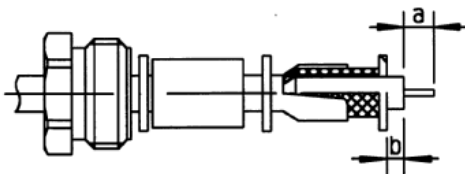
1

- Slide the clamp nut, first washer, gasket, and the second washer onto the cable.
- Strip the cable.
- Cut 2 slots in the jacket if necessary.



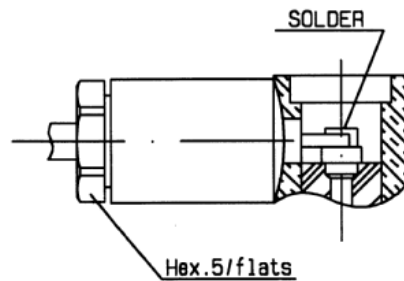
2

- Slide the clamp braid sleeve between the cable dielectric and braid.
- Cut the braid flush with the clamp braid sleeve.



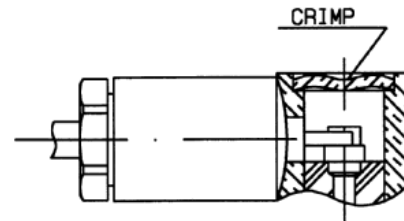
3

- Screw the sub-assembly into the conductor body.
- Solder the cable inner conductor.



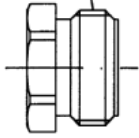
4

- Press the cap flush or slightly below surface of body assembly.

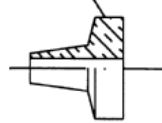


M 05

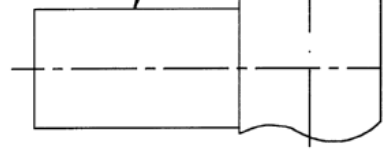
CLAMP NUT



CLAMP BRAID SLEEVE



BODY

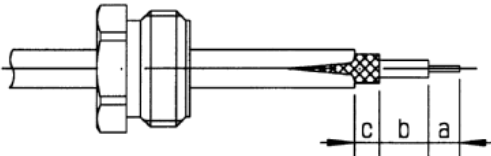


CAP

Part number	Stripping length (mm)			Recommended coupling torque
	a	b	c	
R114 163 133 R114 165 133	2	4	1	70 N.cm

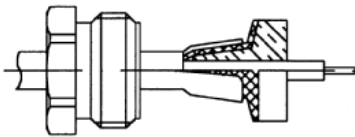
1

- Slide the clamp nut onto the cable.
- Strip the cable.
- Cut 2 slots in the jacket if necessary.



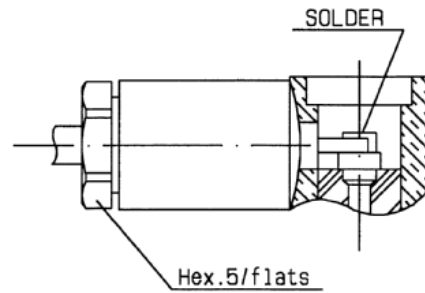
2

- Slide the clamp braid sleeve between the cable dielectric and braid.
- Cut the braid flush with the clamp braid sleeve.



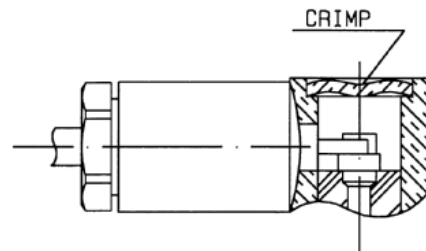
3

- Screw the sub-assembly into the conductor body.
- Solder the cable inner conductor.

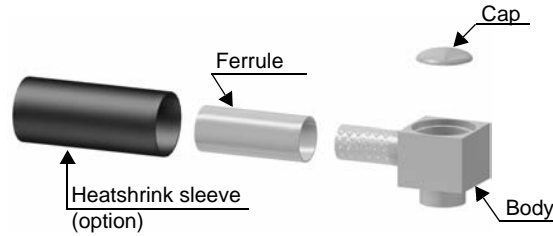


4

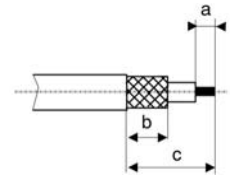
- Press the cap flush or slightly below surface of body assembly.



M 06

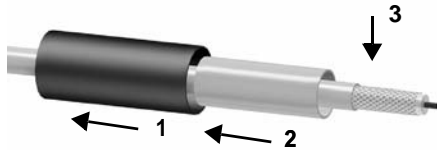


STRIPPING DIMENSIONS



Part number	Stripping length (mm)			Hex.	Dies included	Crimp tools MIL standard R282 293 000 (M22520/5-01) + dies		
	a	b	c					
R114 182 000	1.5	2.7	5.4	3.25	R282 211 000	R282 235 003 (M22520/5-03)		
R114 183 000 R114 183 020				2.67				
R114 185 000 R114 185 020		2.5	4.5	3.25				
R114 186 000 R114 186 020		2.7	5.4	4.53				
R114 191 300				3.25				
R114 373 020				3.84				
R114 373 120							R282 271 000	R282 235 037 (M22520/5-37)

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



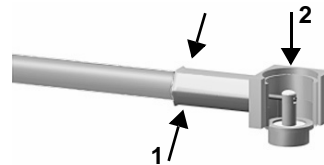
- 2**
- Fan the braid.



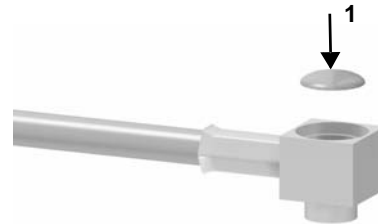
- 3**
- Push the connector body under the braid.
 - Slide the ferrule over the braid.



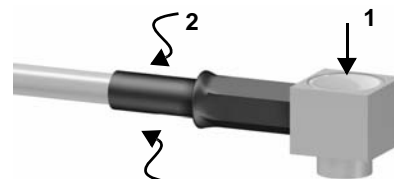
- 4**
- Crimp the ferrule with crimping tool (see table).
 - Solder the inner conductor.



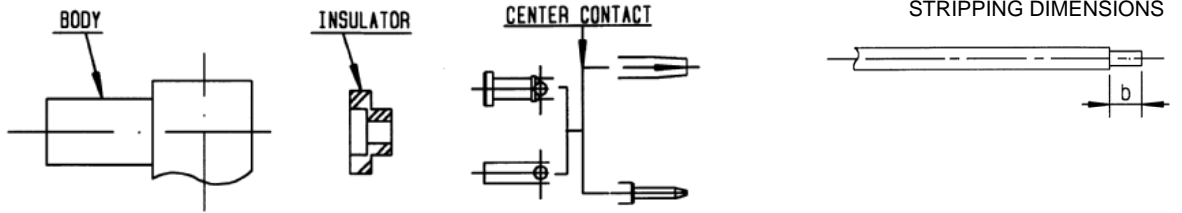
- 5**
- Place the cap into the body.



- 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).



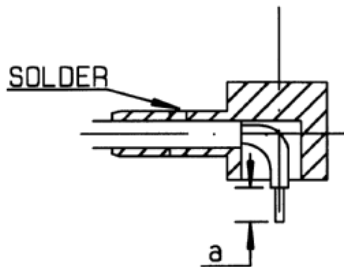
M 07



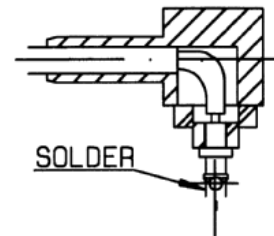
Part number	Stripping length (mm)		Recommended coupling torque
	a	b	
R114 169 000	2.5	7-8	70 N.cm

- 1** - Strip the outer conductor.

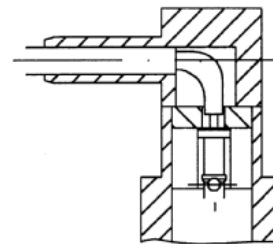
- 2** - Push the cable through the main housing.
 - Solder the body onto the semi-rigid.
 - Cut back the dielectric.



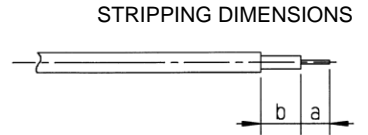
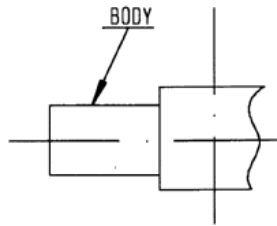
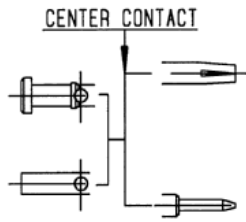
- 3** - Fit the rear insulator.
 - Solder the contact ensuring that the contact has been pushed home into the rear insulator.



- 4** - Fit the front insulator.
 - Fit the front body onto the sub-assembly.



M 08

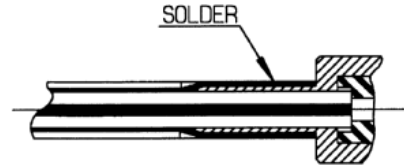
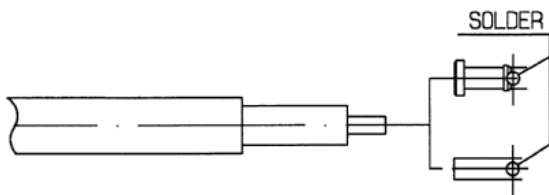


Part number	Stripping length (mm)	
	a	b
R114 053 000	2	1
R114 222 000	3	2
R116 056 000	2	1

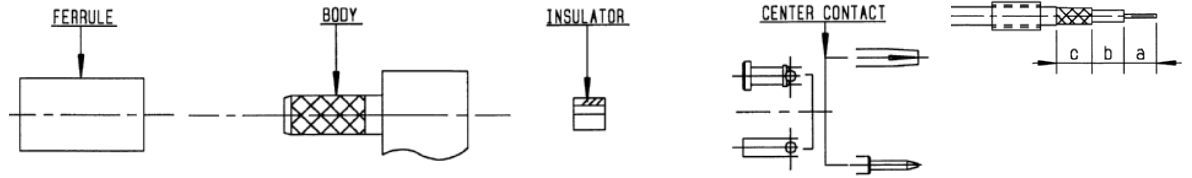
- 1** - Strip off the outer conductor and the dielectric.

- 3** - Put the assembly into the body.
- Solder the cable on the body.

- 2** - Solder the center contact.



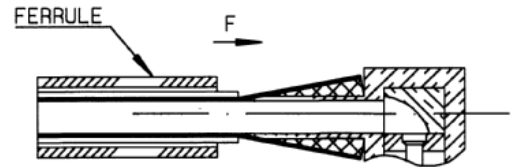
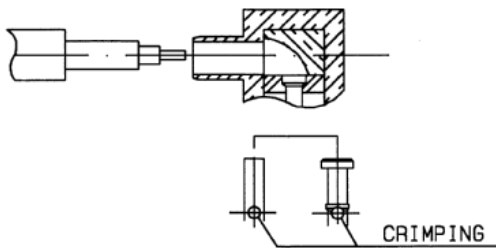
M 09



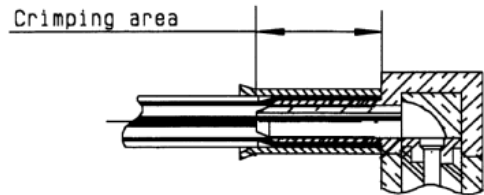
Part number	Stripping length (mm)			Hex.	Dies included	Ferrule crimp tool	Center contact crimp tool
	a	b	c			MIL standard R282 293 000 (M22520/5-01) + positioner	MIL standard R282 281 000 (M22520/2-01) + positioner
R114 187 000 R114 187 020	3.5	4.5	8	3.25	R282 211 000	R282 235 003	R282 983 000 Position 2

- 1** - Slide the ferrule nut onto cable.
- Strip the cable.
- 3** - Remove the cable to put the insulator abutment the half-body.

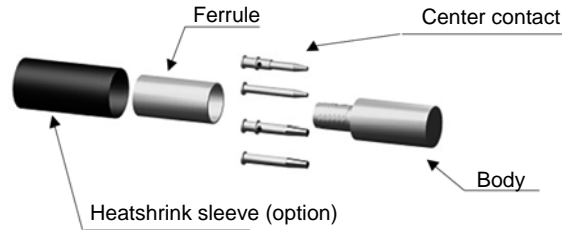
- 2** - Push the cable into the body of the connector, the jacket must be against the sleeve.
- Mount the insulator.
- Crimp the center contact against the insulator. 2x4 points crimping.



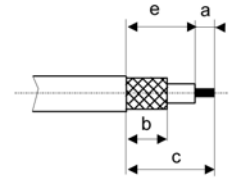
- 4** - Crimp the ferrule.
- Mount the front insulator on the center contact.
- Screw the front body into the cable assembly.



M 10



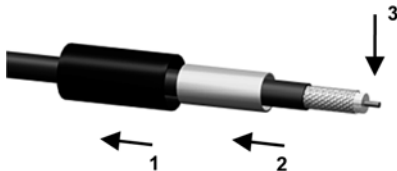
STRIPPING DIMENSIONS



Part number	Stripping length (mm)				Hex.	Ferrule crimp tool		Center contact crimp tool
	a	b	c	e		Dies included	MIL standard R282 293 000 (M22520/5-01) + positioner	MIL standard R282 281 000 (M22520/2-01) + positioner
R114 081 020	2.5	2.5	6					R282 983 000 (position 3) for 50 Ω cables (position 1) for 75 Ω cables
R114 082 000 R114 238 000 R114 082 020 R114 238 120 R114 083 000 R114 313 000 R114 083 020		3.1	5.4		3.25	R282 211 000	R282 235 003 (M22520/5-03)	
R114 313 020		3	4.5					
R117 083 807		3.6	5.4		3.85	R282 271 000	R282 235 037 (M22520/5-37)	
R117 082 807		5.4	11.5	9	3.25	R282 211 000	R282 235 003 (M22520/5-03)	
R117 086 827 R117 087 827	3	7	11	8	5.41	R282 223 000	R282 235 011 (M22520/5-11)	

1

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



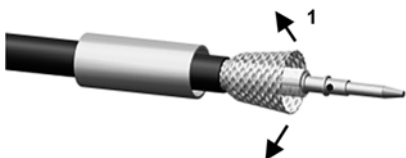
2

- Slide the centre contact on until it bottoms against the cable dielectric.
- **For connectors R117 086 827 and R117 087 827**
Solder the centre contact.
- **For connectors R117 082 807**
Crimp the centre contact with crimping tool.
- Clean solder area.



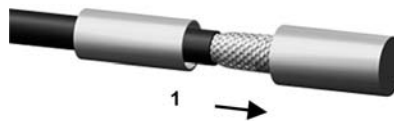
3

- Fan the braid.



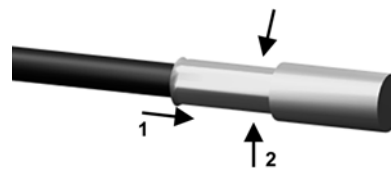
4

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



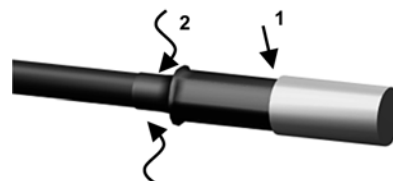
5

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

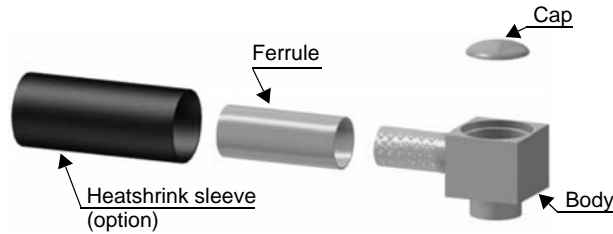


6

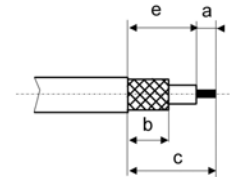
- Cut the excess of braid if necessary.
- Slide the sleeve over the ferrule and heatshrink it in place (option).



M 11

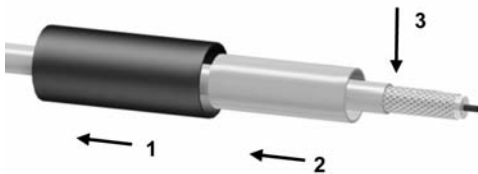


STRIPPING DIMENSIONS



Part number	Stripping length (mm)				Hex.	Dies included	Crimp tool
	a	b	c	e			
R114 372 020	1.5	5.4	9.6	8.1	2.67	R282 211 000	MIL standard R282 293 000 (M22520/5-01) + dies
R117 186 807			10.9	9.4	3.25		
R117 187 807					3.84		

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



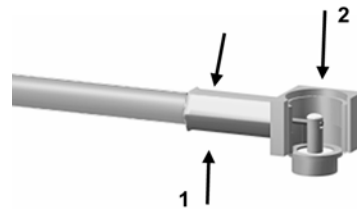
- 2**
- Fan the braid.



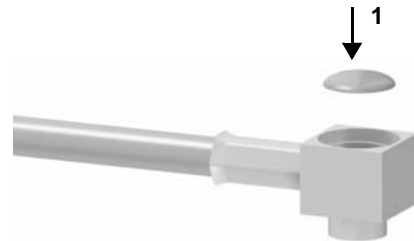
- 3**
- Push the connector body under the braid.
 - Slide the ferrule over the braid.



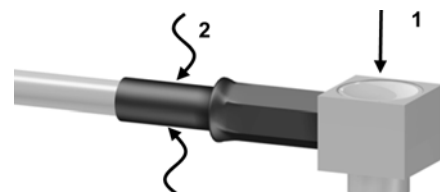
- 4**
- Crimp the ferrule with crimping tool (see table).
 - Solder the inner conductor.



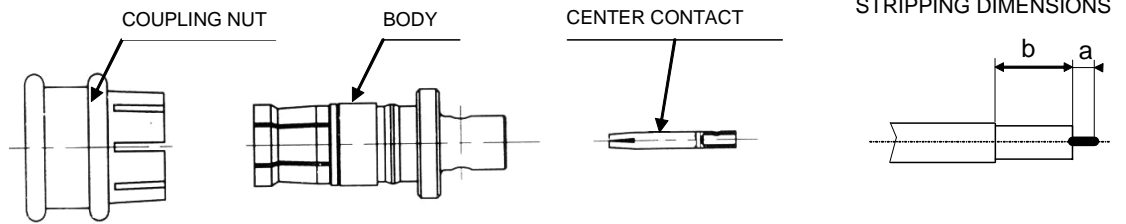
- 5**
- Place the cap into the body.



- 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 12



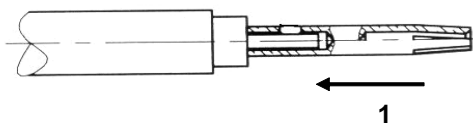
We recommend a thermal preconditioning cable

Part number	Stripping length (mm)		Assembly jig
	a	b	
R117 053 807	3	1	R282 740 000

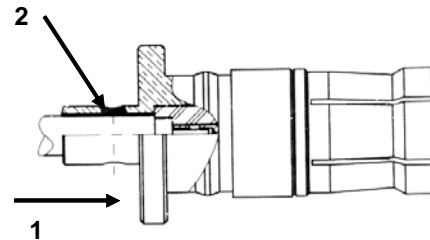
- 1** - Strip off the outer conductor and the dielectric.



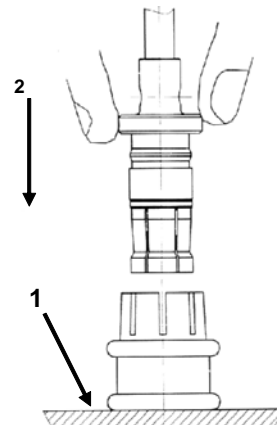
- 2** - Solder the center contact on the inner conductor of the cable.



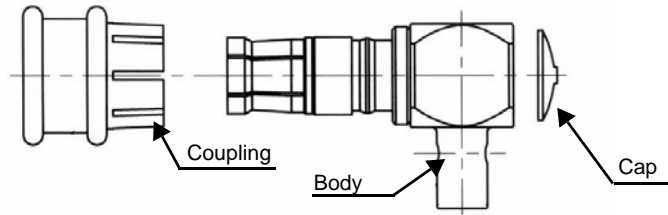
- 3** - Put the assembly into the body. Solder the body on the Semi-rigid cable.
NOTE: In order to ensure a correct positioning of the center contact, it is recommended that a receptacle is fitted to the plug prior to solder the body and thighten the assembly in the assembly jig.



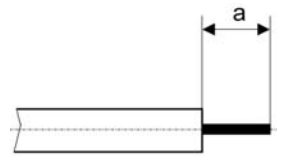
- 4** - Put the coupling nut on the Ref. plane.
- Insert the body into the coupling nut (in direction F).



M 13



STRIPPING DIMENSIONS

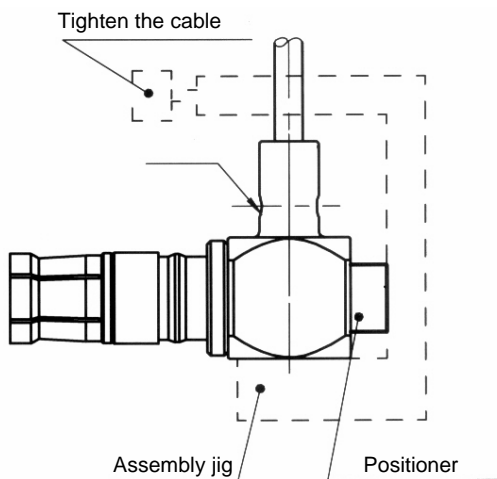


We recommend a thermal preconditioning cable

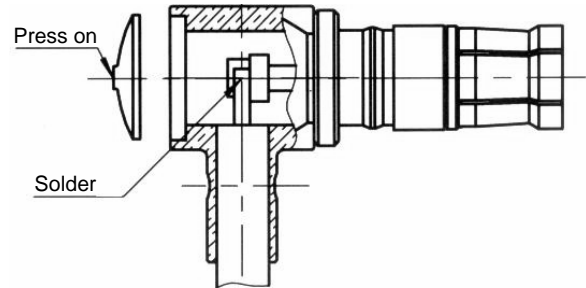
Part number	Stripping length (mm) a	Hex.	Stripping tool	Positioner 1	Positioner 2	Assembly jig
R117 152 807	2.3	3.25	R282 051 000	R282 063 000	R282 744 210	R282 740 000

- 1** - Strip the cable.

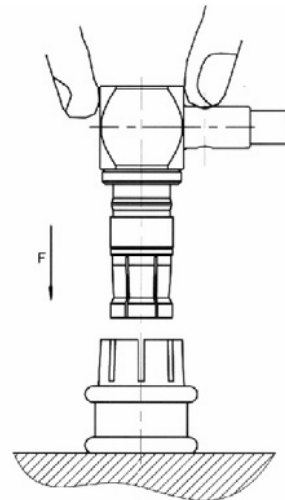
- 2**
- Mount the cable into the body.
 - Mount the positioner.
 - Place the sub-assembly into the assembly jig.
 - Solder body onto the cable.
 - Let the assembly cool down before removing it from the jig.



- 3**
- Solder the centre contact.
 - Press on the cap.

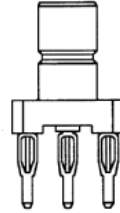


- 4**
- Put the coupling nut on the ref. plane.
 - Insert the body into the coupling nut (in direction F).



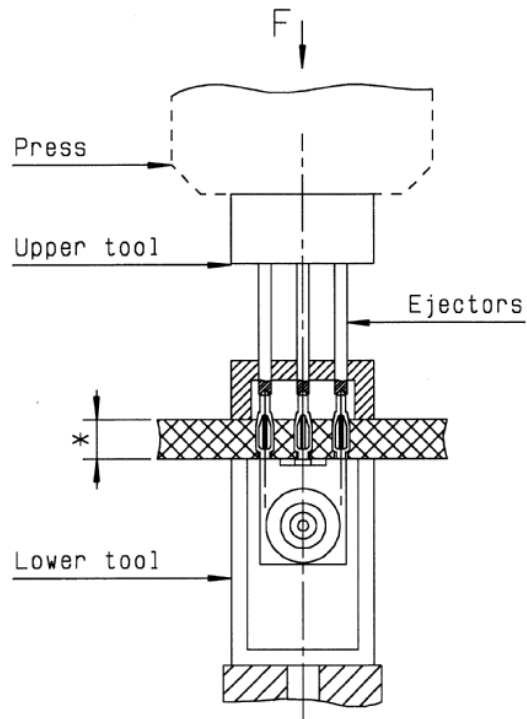
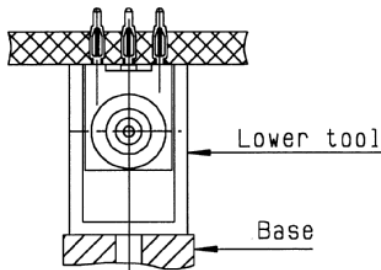
M 14(fl_g)

Extraction procedure



Part number	Upper tool	Lower tool
R114 416 020 R114 416 000	R282 878 513	R282 878 533

- 1** - Place correctly the PCB and the connector on lower tool.
- 2** - Place the upper tool at the back of the connector and place correctly the ejectors:
- on press-fit pins (if PCB thickness < 4.5mm)
 - in the holes of the PCB (if PCB thickness > 4.5mm)
- Press the back of the upper tool to remove the connector (about 500 N) into the connector slide down onto lower tool.



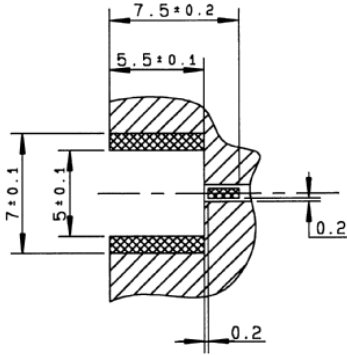
CAUTION !

It's impossible to use a COAXIPRESS a twice.

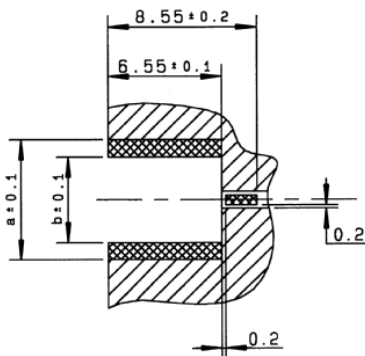
A plated hole of the PCB can't be used over 3 times.

* panel thickness : 1.6 to 7mm

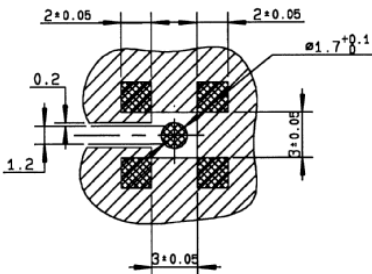
M 15



Part number
R114 423 000
R114 423 810
R114 423 820



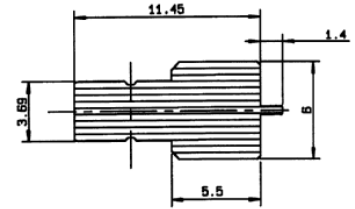
Part number	dim. a	dim. b
R114 423 800	7	5
R114 444 800	9	6.65



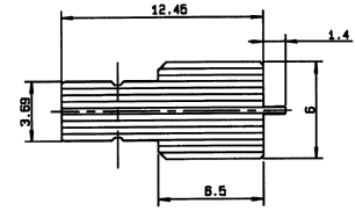
Part number	
R114 424 000	R144 664 100
R114 424 100	R114 664 120
R114 424 120	
R114 664 000	

VIDEO SHADOW

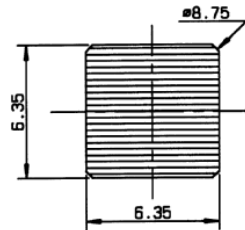
Part number
R113 423 000
R114 423 810
R114 423 820



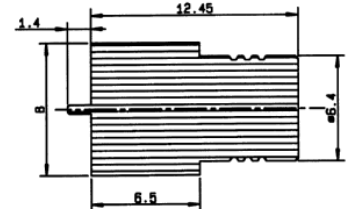
Part number
R114 423 800



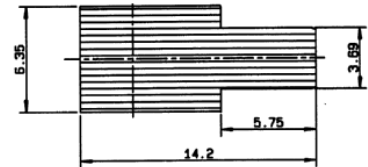
Part number
R114 424 000
R114 424 100
R114 424 120



Part number
R114 444 800

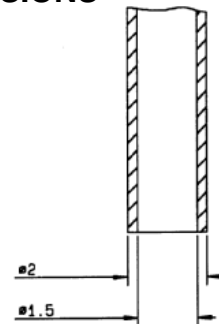


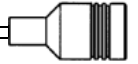
Part number
R114 664 000
R114 664 100
R114 664 120



VACCUM NOZZLE DIMENSIONS

Part number
R114 424 000





M 15(flq)

SOLDER PROCEDURE

1

Deposit solder paste 'Sn Ag4 Cu0.5' on mounting zone by screen printing application. We recommend a low residue flux. We advise a thickness of 150 micromm (5.850 microinch). Verify that the edges of the zone are clean.

2

Placement of the receptacle on the mounting zone with an automatic machine of 'pick and place' type. Video camera is preferred to check the positioning of the component. Adhesive agents are forbidden on the receptacle.

3

Soldering by infra-red reflow.

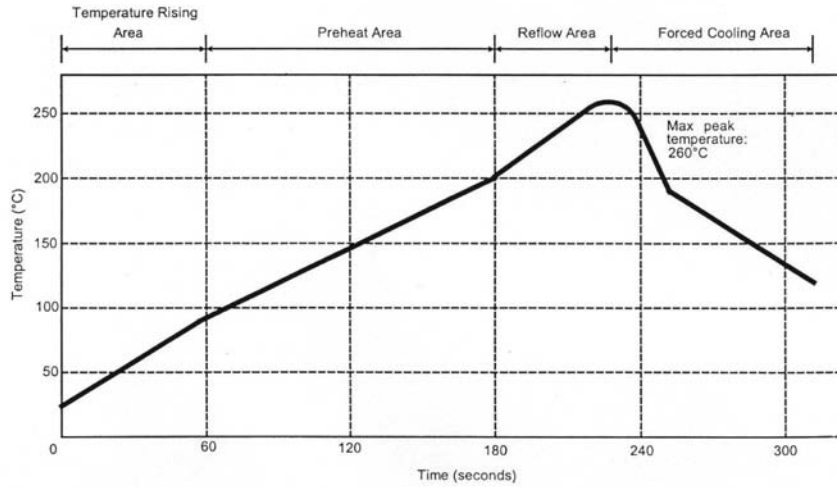
4

Cleaning of printed circuit boards.

5

Checking of solder joints and position of the component by visual inspection.

TEMPERATURE PROFILE



Parameter	Value	Unit
Temperature rising Area	1 - 4	°C/sec
Max Peak Temperature	260	°C
Max dwell time @260°C	10	sec
Min dwell time @235°C	20	sec
Max dwell time @235°C	60	sec
Temperature drop in cooling Area	-1 to -4	°C/sec
Max dwell time above 100°C	420	sec