DOCUMENT CHANGE REQUEST

DCR number 553	Changes required for: N/A	Originator: Alain Blanchard
Date: 2009/11/11	Date sent: 2009/11/11	Organisation: CNES
Status: IMPLEMENTED		

Title:	RF Coaxial Connectors Type SMA 50 Ohms (Male Contact)		
Number:	3402/001	Issue:	1

Other documents affected:

3402/002-2, 3402/003-1

Page:

Figure 2(b) variants 01-02-03-04

Paragraph:

Figure 2(b) variants 01-02-03-04

Original wording:

Proposed wording:

Rapid change in temperature :200°C

Operating temperature range : -65 to +165°C

Modification are detailled in attached file (12)

Justification:

Harmonisation of temperature range for all connectors without resin for center contact immobilisation.
Example ESCC specification 3402/001 Issue 1
As the variants 05 to 08,variants 01-02-03-04 are used to be assembled on flexible or semi rigid cables.
The construction, material and processes are identical than the variants 05 to 08 defined in figure 2(b).

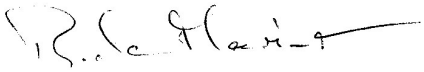
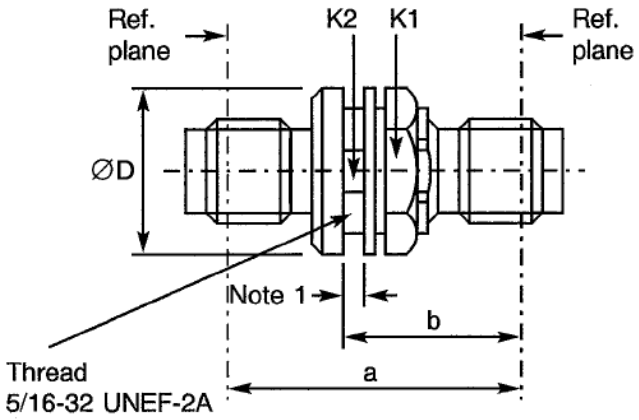
Attachments:
Demande_modification_variantes_ESCC3402-001.pdf, Demande_modification_variantes_ESCC3402-002.pdf, Demande_modification_variantes_ESCC3402-003.pdf, null
Modifications:
Other Documents Affected – For ESCC 3402/002 Issue:2, in addition to Variants 01-02-03-04-09 and 10 Variants 42, 68 and 69 are affected. The following wording replaces the original “Proposed Wording of Change” above: Rapid Change of Temperature = +180degC for Variant 42 of ESCC 3402/002 and +200degC for all other Variants. Operating Temperature Range of ESCC 3402/001 Variants 01-02-03-04 and ESCC 3402/002 Varaints 01-02-03-04-09-10-42-68-69 = -65 to +165 degC. Operating Temperature Range of ESCC 3402/003 Variant 07 -40 to +165 degC. Modifications are detailed in the attached file.
Approval signature:

Date signed:
2009-11-11

Figure 2(b) – VARIANTS (CONTINUED)

Variant 07– HERMETIC ADAPTOR FEMALE-FEMALE



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	18.50	18.90	
b	11.70	13.20	
ØD	12.90	14.20	
K1	-	10.00	Hex.
K2	-	7.50	1 flat

NOTES

1. Maximum panel thickness: 4.30mm.

All dimensions are in mm

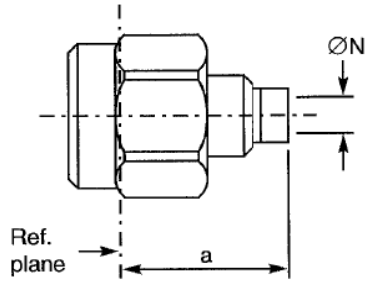
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 12.4	GHz
Maximum voltage standing wave ration (VSWR)	1.10 + 0.015 x F (GHz)	-
Maximum insertion loss	0.15√F (GHz)	dB
RF leakage	- [95 – F (GHz)]	dB
Voltage proof	1000	Vrms
Corona level	Not applicable	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	Not Applicable	N
Mini cable retention torque value	Not Applicable	N.cm
Maximum weigth	6.5	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+180	°C
Operating temperature range	-40 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Not Applicable	-
Soldering proof	Not Applicable	-
Cable used	Not Applicable	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 01 – STRAIGHT PLUG, SOLDER TYPE FOR SEMI-RIGID CABLE Ø2.20mm (0.085")



SYMBOL	MILLIMETRES	
	MIN.	MAX.
a	8.40	8.70
ØN	2.25	2.35

NOTES
1. Removable coupling nut.

All dimensions are in mm

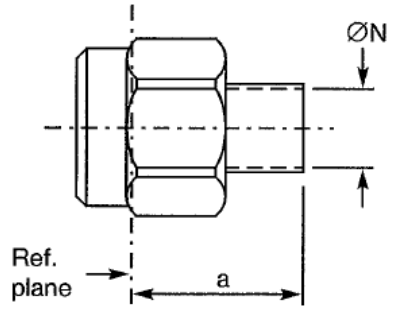
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.07 + 0.008 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	750	Vrms
Corona level	190	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	200	N
Mini cable retention torque value	11.5	N.cm
Maximum weigth	2.3	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS1, RG405/U, (Ø2.20mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 02 – STRAIGHT PLUG, SOLDER TYPE FOR SEMI-RIGID CABLE Ø3.58mm (0.141")



SYMBOL	MILLIMETRES	
	MIN.	MAX.
a	8.40	8.70
ØN	3.65	3.75

NOTES
1. Removable coupling nut.

All dimensions are in mm

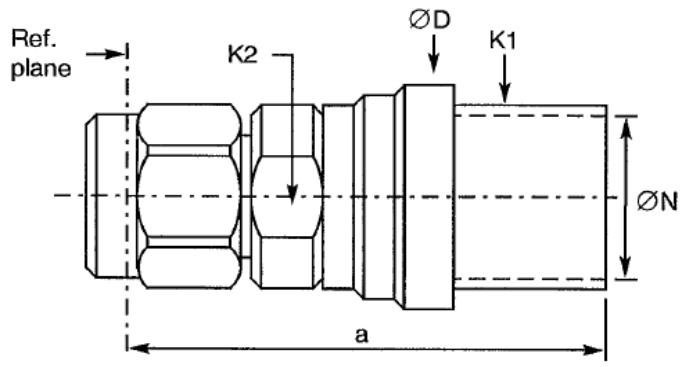
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.004 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	500	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	2.4	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS2, RG402/U, (Ø3.58mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 03 – STRAIGHT PLUG WITH CABLE CLAMP, SOLDER TYPE FOR SEMI-RIGID CABLE Ø6.35mm (0.250")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	21.50	22.50	
ØD	10.90	11.00	
K1	-	10.00	2 flats
K2	-	8.00	2 flats
ØN	6.45	6.70	

All dimensions are in mm

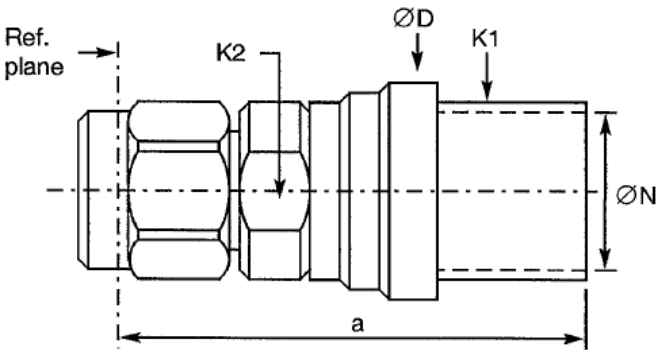
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.015 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [95-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	300	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	8.2	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	On centre contact only	-
Soldering proof	Not Applicable	-
Cable used	KS3, RG401/U, (Ø6.35mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 04 – STRAIGHT PLUG WITH CABLE CLAMP, SOLDER TYPE FOR SEMI-RIGID CABLE MICROPOROUS Ø6.35mm (0.250")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	-	22.50	
ØD	10.90	11.10	
K1	-	10.00	2 flats
K2	-	8.00	2 flats
ØN	6.45	6.70	

All dimensions are in mm

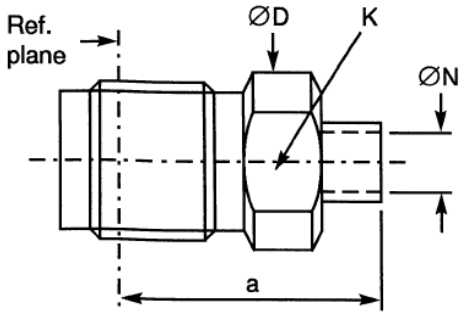
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.015 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [95-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	300	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	8.2	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	On centre contact only	-
Soldering proof	Not Applicable	-
Cable used	Microporous Ø6.35mm	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 01 – STRAIGHT JACK, SOLDER TYPE FOR SEMI-RIGID CABLE Ø2.20mm (0.085")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	10.50	11.00	
ØD	6.60	6.80	
K	-	6.00	2 flats
ØN	2.25	2.35	

All dimensions are in mm

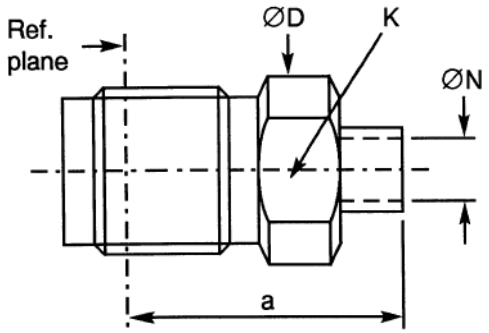
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.10 + 0.01 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	750	Vrms
Corona level	190	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	200	N
Mini cable retention torque value	11.5	N.cm
Maximum weigth	1.5	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS1, RG405/U, (Ø2.20mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 02 – STRAIGHT JACK, SOLDER TYPE FOR SEMI-RIGID CABLE Ø3.58mm (0.141")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	10.60	11.00	
ØD	6.60	6.80	
K	-	6.00	2 flats
ØN	3.65	3.75	

All dimensions are in mm

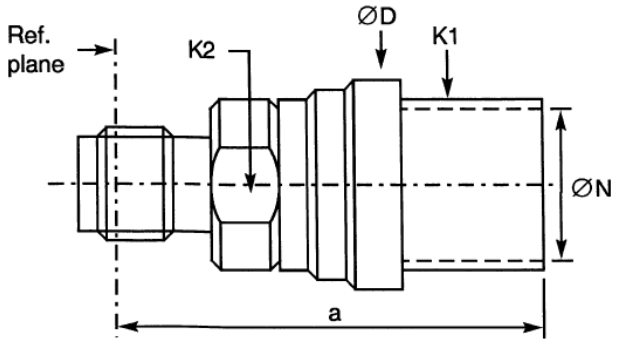
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.04 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	500	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	1.6	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS2, RG402/U, (Ø3.58mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 03 – STRAIGHT JACK WITH CABLE CLAMP, SOLDER TYPE FOR SEMI-RIGID CABLE Ø6.35mm (0.250")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	21.50	22.50	
ØD	10.90	11.10	
K1	-	10.00	2 flats
K2	-	8.00	2 flats
ØN	6.45	6.70	

All dimensions are in mm

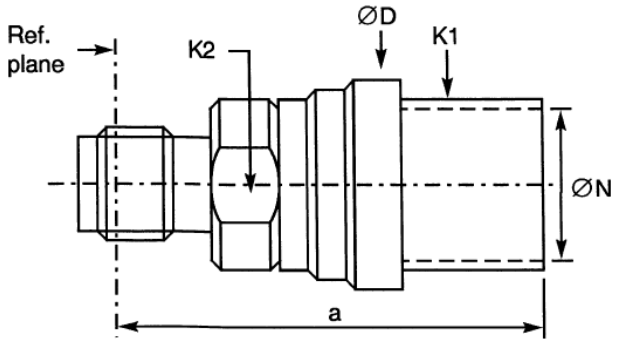
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.015 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [95-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	300	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	7.8	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	On centre contact only	-
Soldering proof	Not Applicable	-
Cable used	KS3, RG401/U, (Ø6.35mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 04 – STRAIGHT JACK WITH CABLE CLAMP, SOLDER TYPE FOR SEMI-RIGID CABLE MICROPOROUS Ø6.35mm (0.250")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	21.50	22.50	
ØD	10.90	11.10	
K1	-	10.00	2 flats
K2	-	8.00	2 flats
ØN	6.45	6.70	

All dimensions are in mm

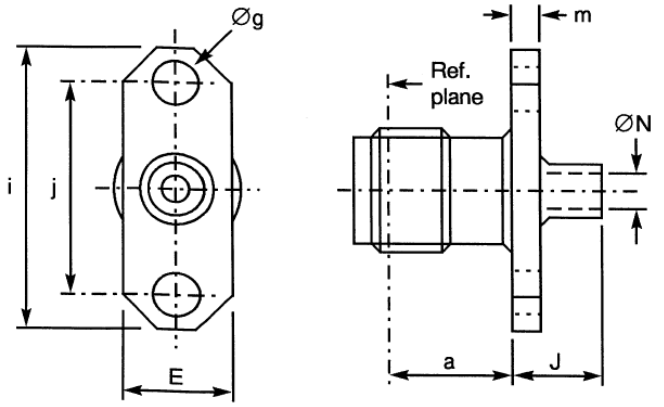
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.015 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [95-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	300	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	7.8	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	On centre contact only	-
Soldering proof	Not Applicable	-
Cable used	Microporous Ø6.35mm	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 09 – STRAIGHT JACK, SOLDER TYPE, BACK MOUNTING, 2 HOLE, FLANGE-MOUNTED FOR SEMI-RIGID CABLE Ø2.20mm (0.085")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	5.87	6.12	
E	5.50	5.80	
Øg	2.55	2.70	2 holes
i	15.90	16.10	
j	12.10	12.30	
J	4.60	5.00	
m	1.40	1.80	
ØN	2.25	2.35	

NOTES
1. Maximum panel thickness: 2.30mm.

All dimensions are in mm

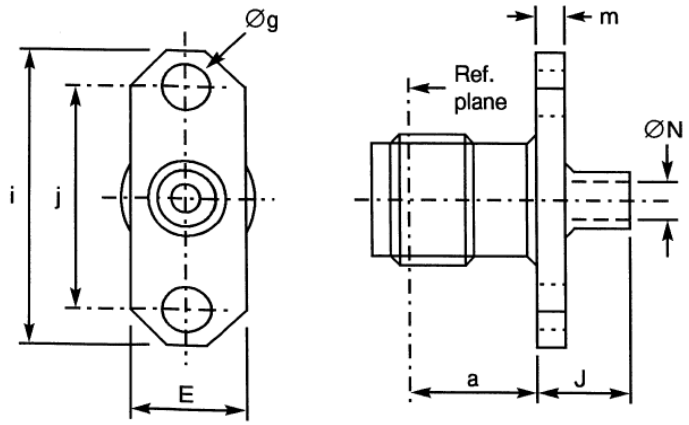
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.10 + 0.01 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	750	Vrms
Corona level	190	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	200	N
Mini cable retention torque value	11.5	N.cm
Maximum weigth	3.0	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS1, RG405/U, (Ø2.20mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 10 – STRAIGHT JACK, SOLDER TYPE, BACK MOUNTING, 2 HOLE, FLANGE-MOUNTED FOR SEMI-RIGID CABLE Ø3.58mm (0.141")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	5.87	6.12	2 holes
E	5.50	5.80	
Øg	2.55	2.70	
i	15.90	16.10	
j	12.10	12.30	
J	4.60	5.00	
m	1.40	1.80	
ØN	3.65	3.75	

NOTES
1. Maximum panel thickness: 2.30mm.

All dimensions are in mm

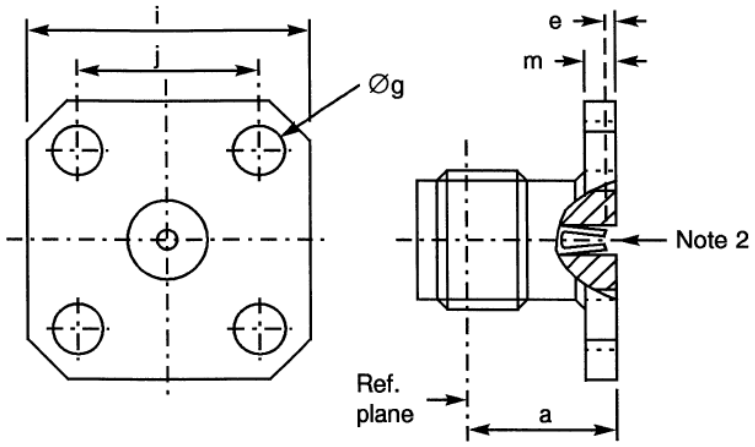
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.04 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage(2)	- [100-F(GHz)]	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	500	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	3.0	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS2, RG402/U, (Ø3.58mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 42 – SQUARE FLANGE RECEPTACLE LOW RF LEAKAGE



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	7.50	7.70	
e	0.18	0.41	
Øg	2.55	2.70	4 holes
i	12.60	12.80	
j	8.59	8.69	
m	1.40	1.80	

All dimensions are in mm

ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR) (1)	1.06 + 0.007 x F (GHz)	-
Maximum insertion loss (1)	0.03√F (GHz)	dB
RF leakage(2)	-120 at 10 GHz	dB
Voltage proof	1000	Vrms
Corona level	Not Applicable	Vrms

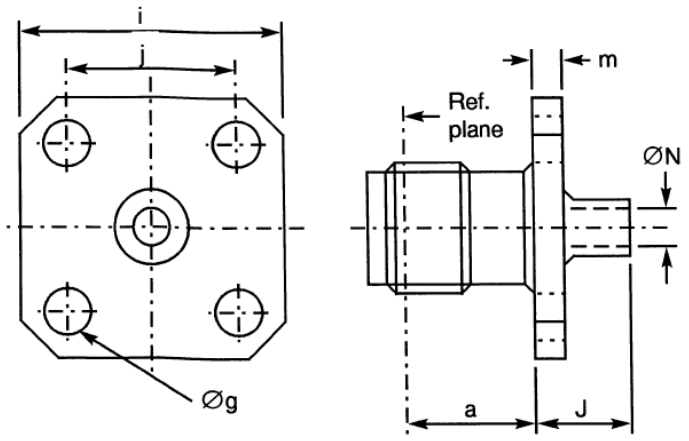
Notes:
1- For information only.
2- Contact engagement and separation forces shall be measured on the rear contact (see para. 4.3.8).

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	27	N
Mini centre contact retention torque	2.8	N.cm
Mini cable retention force	Not Applicable	N
Mini cable retention torque value	Not Applicable	N.cm
Maximum weigth	3.0	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+180	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Not Applicable	-
Soldering proof	Not Applicable	-
Cable used	Not Applicable	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 68 – STRAIGH JACK, SOLDER TYPE, BACK MOUNTING, FLANGE MOUNTED FOR SEMI-RIGID CABLE Ø2.20mm (0.085")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	5.87	6.12	4 holes
Øg	2.55	2.70	
i	12.60	12.80	
j	8.59	8.69	
J	4.60	5.00	
m	1.40	1.80	
ØN	2.25	2.35	

NOTES
1. Maximum panel thickness: 2.30mm.

All dimensions are in mm

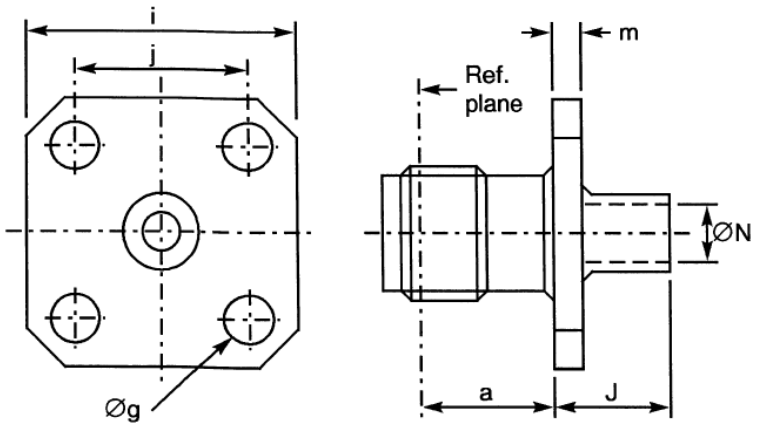
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.10 + 0.01 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage	-(100-F(GHZ))	dB
Voltage proof	750	Vrms
Corona level	190	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	200	N
Mini cable retention torque value	11.5	N.cm
Maximum weigth	4	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS1, RG405/U (Ø2.20mm)	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 69 – STRAIGH JACK, SOLDER TYPE, BACK MOUNTING, FLANGE MOUNTED FOR SEMI-RIGID CABLE Ø3.58mm (0.141")



SYMBOL	MILLIMETRES		NOTES
	MIN.	MAX.	
a	5.87	6.12	
Øg	2.55	2.70	4 holes
i	12.60	12.80	
j	8.59	8.69	
J	4.60	5.00	
m	1.40	1.80	
ØN	3.65	3.75	

NOTES
1. Maximum panel thickness: 2.30mm.

All dimensions are in mm

ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 18	GHz
Maximum voltage standing wave ration (VSWR)	1.05 + 0.04 x F (GHz)	-
Maximum insertion loss	0.02√F (GHz)	dB
RF leakage	-(100-F(GHZ))	dB
Voltage proof	1000	Vrms
Corona level	250	Vrms

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	Not Applicable	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	500	N
Mini cable retention torque value	39.6	N.cm
Maximum weigth	4	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+200	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Applicable	-
Soldering proof	Not Applicable	-
Cable used	KS2, RG402/U (Ø3.58mm)	-