



# SERIES BNC

## COAXIAL MINIATURE CONNECTORS 75 Ω

### Description

SUHNER BNC Series featuring a two stud bayonet coupling mechanism which is particularly useful for frequently coupled and uncoupled RF connections. Within the internationally standardized BNC mating face dimensions a perfect 75Ω characteristic impedance cannot be realized. However, at frequencies up to 1 GHz the small impedance deviation is negligible for any application. A typical VSWR of 1.15 at 1 GHz is achieved.

### Compatibility

All 75Ω BNC connectors and 50Ω connectors are intermateable without any restrictions.

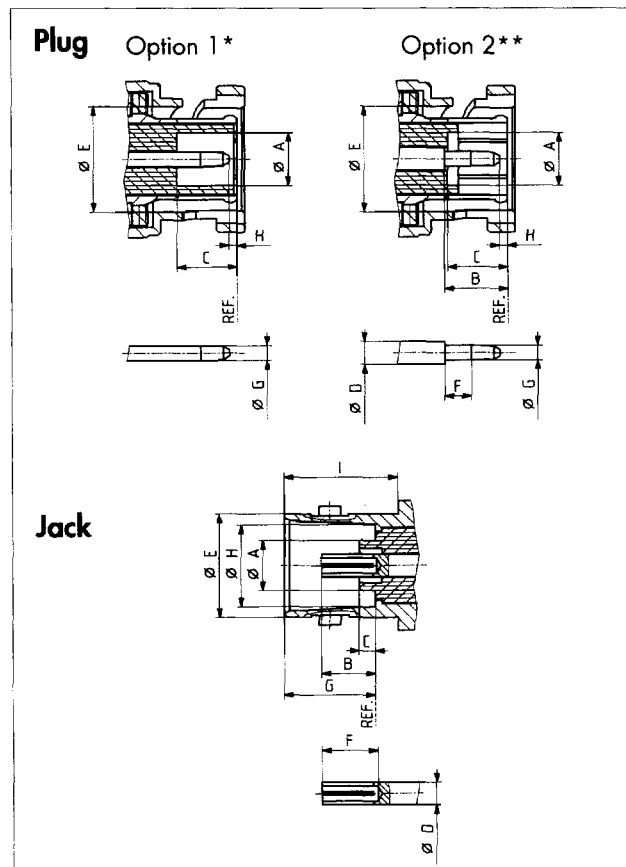
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### Interface Dimensions

### Interface Dimensions in mm / inches



	Plug		Jack	
	min.	max.	min.	max.
A	4.83/.190	—	—	4.72/.186
B	5.33/.210	5.84/.230	4.72/.186	5.23/.206
C	5.28/.208	5.79/.228	1.50/.059 nom.	
D	2.06/.081	2.21/.087	2.06/.081	2.21/.087
E	9.78/.385	9.91/.390	9.60/.378	9.70/.382
F	1.98/.078	—	4.95/.195	—
G	1.32/.052	1.37/.054	8.31/.327	8.51/.335
H	0.08/.003	—	8.10/.319	8.15/.321
I	—	—	10.52/.414	—

\* Option 1: with soldered centre contact mainly

\*\* Option 2: with crimped centre contact mainly

### Standards

Interface dimensions conform to  
**IEC 169-8**  
**MIL-STD-348A/301**  
**CECC 22120**  
**BS 9210 N 0004**

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## Technical Data

ELECTRICAL DATA	REQUIREMENTS
Impedance	75 $\Omega$
Frequency range	DC ... 1 GHz (see also Appendix page 436)
RF-leakage (measured at 1 GHz)	$\geq 55$ dB
Dielectric withstanding voltage (at sea level)	1.5 kV rms, 50 Hz
Working voltage (at sea level)	$\leq 500$ V rms, 50 Hz
Insulation resistance	$\geq 5 \cdot 10^3$ M $\Omega$
Contact resistance	
– centre contact	$\leq 1.5$ m $\Omega$
– outer contact	$\leq 1$ m $\Omega$

MECHANICAL DATA	REQUIREMENTS
Coupling nut torque	7 Ncm ... 28 Ncm / 0.6 in.-lbs ... 2.5 in.-lbs
Coupling nut retention force	$\geq 450$ N / 101.2 lbs
contact captivation	$\geq 27$ N / 6.1 lbs
Cable retention force <sup>1)</sup>	see pages 36 – 41
Durability (matings)	$\geq 500$

1) value considers maximum load of the cables without irreversible variations of specifications.

ENVIRONMENTAL DATA	TEST CONDITIONS
Temperature range	$-65^{\circ}\text{C} \dots +165^{\circ}\text{C}$ / $-85^{\circ}\text{F} \dots +329^{\circ}\text{F}$
Climatic category acc. to IEC	55/155/21
Thermal shock	MIL-STD-202, Method 107, Condition B
Moisture resistance	MIL-STD-202, Method 106
Corrosion	Saltspray test acc. to MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition B
Shock	MIL-STD-202, Method 213, Condition G

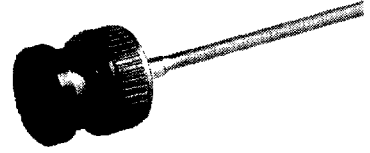
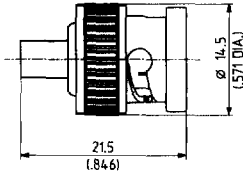
MATERIAL DATA			
CONNECTOR PART	STANDARDS	MATERIAL	SURFACE/PLATING
Bodies	QQ-B-626	brass	SUCOPLATE® gold plated
Pin contact			
Socket contact	QQ-C-530	beryllium-copper, hardened	gold plated
Crimp ferrules	SUHNER® specification	copper	SUCOPLATE®
Insulators	ASTM-D-1457, BS 4271 Grade B	PTFE	
Gaskets	ASTM-M-E 1418 PS 1	silicone rubber	

Some connectors may have a specification that differs from the above mentioned data.

# Cable Connectors for Semi-Rigid Cables

## straight plugs

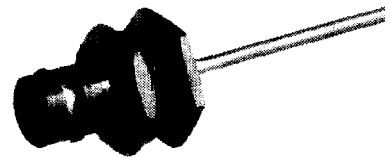
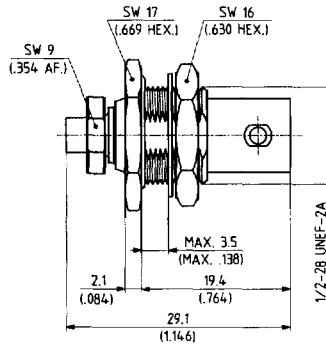
- > cable entry soldered
- > centre contact soldered



SUHNER TYPE	Ident. no.	Cable group (example)	Assembly instruction	Weight	Notes
11 BNC-75-3-26	642405	Y6 (EZ 141-75)	9106	9.0 g/.315 oz.	

## bulkhead jacks

- > cable entry soldered
- > with panel seal
- > suitable for insulated mounting
- > insulating washers see page 425



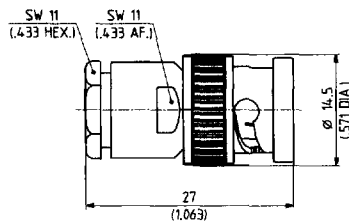
SUHNER TYPE	Ident. no.	Cable group (example)	Assembly instruction	Mounting hole	Weight	Notes
24 BNC-75-3-11	642697	Y6 (EZ 141-75)	9005	ML 4	17.0 g/.595 oz.	

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# Cable Connectors for Flexible Cables

## straight plugs

- > cable entry clamp
- > centre contact soldered



SUHNER TYPE	Ident. no.	Cable group (example)	Assembly instruction	Weight	Notes
11 BNC-75-2-1	543768	U5 (RG 187 A/U)	3005	18.0 g/.630 oz.	
11 BNC-75-2-12	544277	U6 (S 02133)	3005	18.0 g/.630 oz.	

- centre contact captivated

cable groups see pages 36

assembly tools see page 403

mounting holes see page 441

- > cable entry clamp
- > centre contact soldered

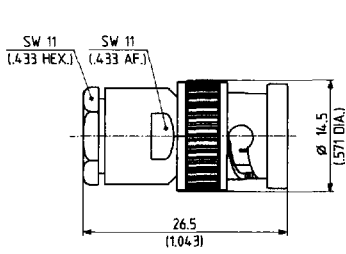


Fig. 1

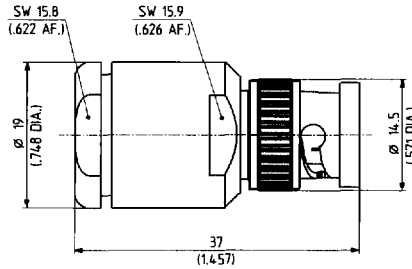
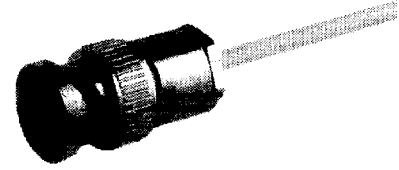


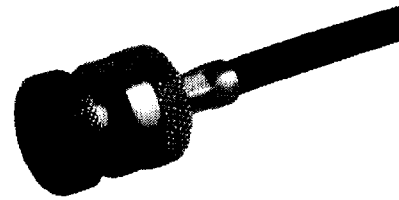
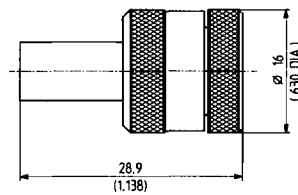
Fig. 2



SUHNER TYPE	Ident. no.	Cable group (example)		Assembly instruction	Weight	Fig.	Notes
11 BNC-75-3-11	• 540711	U14 (G 03233 D)		3005	16.0 g/.560 oz.	1	
11 BNC-75-4-2	• 540755	U15 (RG 59 B/U)		3004	16.0 g/.560 oz.	1	
11 BNC-75-4-3	• 540758	U15 (RG 59 B/U)		3005	16.0 g/.560 oz.	1	
11 BNC-75-4-5	• 540763	U18 (G 04233 D)		3005	16.0 g/.560 oz.	1	
11 BNC-75-5-2	• 540794	U21 (G 05273-5)		3005	14.5 g/.508 oz.	1	
11 BNC-75-7-1	• 540806	U37 (RG 216/U)		3008	37.0 g/1.295 oz.	2	
11 BNC-75-7-2	• 540808	U35 (RG 11 A/U)		3008	37.0 g/1.295 oz.	2	

### straight plug with screw-locking device

- > SUHNER® full crimp
- > taper sleeves see page 423
- > bayonet coupling can be screw locked



SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Weight	Notes
11 BNC-75-4-16	• 540780	U16 (RG 59 B/U)	2 C	3015	17.0 g/.595 oz.	

- centre contact captivated

## straight plugs

- > SUHNER® full crimp
- > taper sleeves see page 423

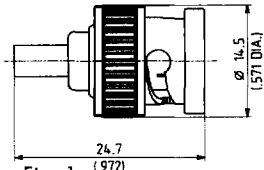
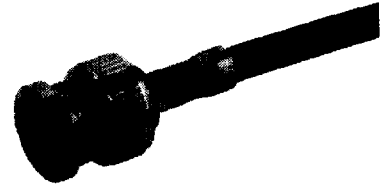


Fig. 1

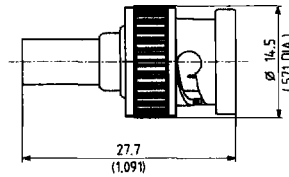


Fig. 2

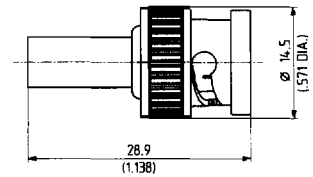


Fig. 3

SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Weight	Fig.	Notes
11 BNC-75-2-15	• 641685	U5 (RG 187 A/U)	1 A	9068	10.0 g/.350 oz.	1	
11 BNC-75-2-21	• 644358	R6 (G02133D-05)	1/4.95	27001	10.0 g/.350 oz.	2	
11 BNC-75-3-8	• 540707	U12 (G 03233)	2 B	3015	10.5 g/.368 oz.	3	
11 BNC-75-3-9	• 540709	U14 (G 03233 D)	2 B	3015	10.5 g/.368 oz.	3	
11 BNC-75-4-4	• 540761	U16 (RG 59 B/U)	2 C	3015	11.0 g/.385 oz.	3	
11 BNC-75-4-6	• 540765	U18 (G 04233 D)	2 C	3015	11.0 g/.385 oz.	3	
11 BNC-75-4-20	• 544636	U17 (S 04233)	2 C	3015	11.0 g/.385 oz.	3	
11 BNC-75-5-6	• 540799	U24 (G 05133 D)	*	3015	11.0 g/.385 oz.	3	* 76 Z-0-5-21
11 BNC-75-5-7	• 540800	U21 (G 05273-5)	*	3015	11.0 g/.385 oz.	3	* 76 Z-0-5-21

- > SUHNER® full crimp
- > taper sleeves see page 423

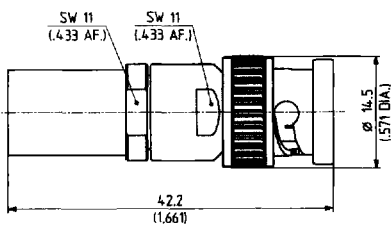
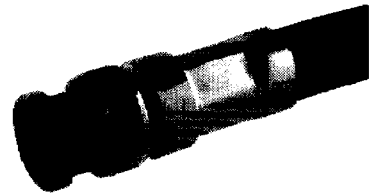


Fig. 1

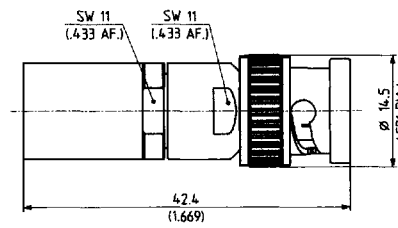


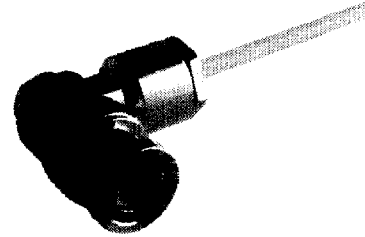
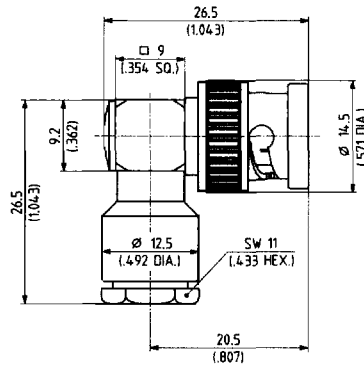
Fig. 2

SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Weight	fig.	Notes
11 BNC-75-6-2	• 540802	U26 (G 06133-6)	*	9030	20.0 g/.700 oz.	1	* 76 Z-0-6-21
11 BNC-75-7-5	• 540811	U34 (RG 11 A/U)	2 D	9120	20.0 g/.700 oz.	2	
11 BNC-75-7-6	• 543960	U36 (RG 216/U)	2 D	9120	20.0 g/.700 oz.	2	

- centre contact captivated

## right angle plug

> cable entry clamp



SUMNER TYPE	Ident. no.	Cable group (example)		Assembly instruction	Weight	Notes
16 BNC-75-4-2	• 540836	U15 (RG 59 B/U)		3024	24.0 g/.840 oz.	

> cable entry crimp  
 > centre contact soldered  
 > taper sleeves see page 423

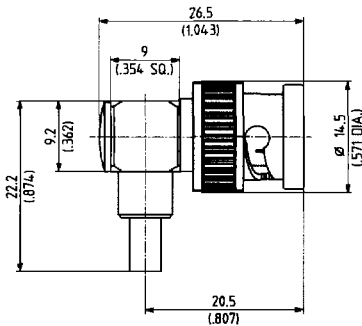


Fig. 1

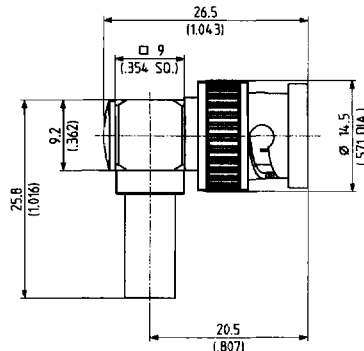
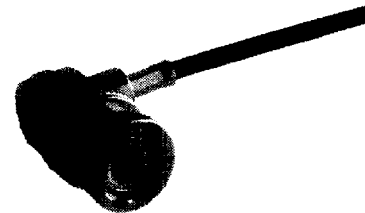


Fig. 2



SUMNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Weight	Fig.	Notes
16 BNC-75-2-3	• 540820	U5 (RG 187 A/U)	A	3079	17.0 g/.595 oz.	1	
16 BNC-75-3-3	• 543780	U12 (G 03233)	B	3058	17.5 g/.613 oz.	2	
16 BNC-75-3-4	• 543781	U14 (G 03233 D)	B	3058	17.5 g/.613 oz.	2	
16 BNC-75-4-4	• 540840	U16 (RG 59 B/U)	C	3058	17.5 g/.613 oz.	2	
16 BNC-75-4-5	• 540842	U18 (G 04233 D)	C	3058	17.5 g/.613 oz.	2	

• centre contact captivated

## straight jacks

- > SUHNER® full crimp
- > taper sleeves see page 423

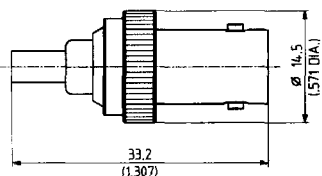


Fig. 1

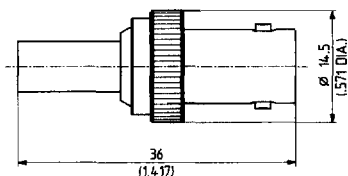
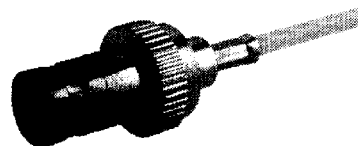


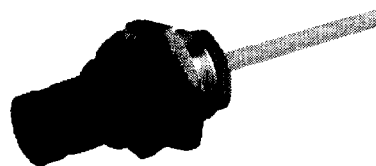
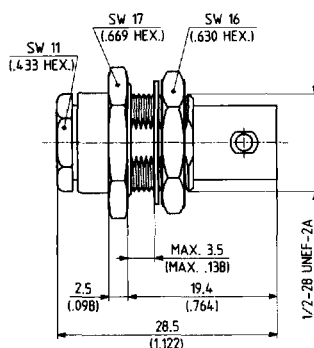
Fig. 2



SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Weight	Fig.	Notes
21 BNC-75-2-5	• 641780	U5 (RG 187 A/U)	1 A	9068	13.5 g/.473 oz.	1	
21 BNC-75-3-4	• 540859	U12 (G 03233)	2B	3015	14.0 g/.490 oz.	2	
21 BNC-75-3-5	• 540861	U14 (G 03233 D)	2B	3015	14.0 g/.490 oz.	2	
21 BNC-75-4-4	• 540872	U16 (RG 59 B/U)	2C	3015	14.0 g/.490 oz.	2	
21 BNC-75-4-5	• 540874	U18 (G 04233 D)	2C	3015	14.0 g/.490 oz.	2	

## straight bulkhead jacks

- > cable entry clamp
- > centre contact soldered
- > with panel seal
- > suitable for insulated mounting
- > insulating washers see page 425



SUHNER TYPE	Ident. no.	Cable group (example)	Assembly instruction	Mounting hole	Weight	Notes
24 BNC-75-2-1	• 540909	U5 (RG 187 A/U)	3005	ML 4	21.5 g/.753 oz.	
24 BNC-75-4-2	• 540928	U15 (RG 59 B/U)	3005	ML 4	19.0 g/.665 oz.	

- centre contact captivated

- > SUHNER® full crimp
- > with panel seal
- > suitable for insulated mounting
- > insulating washers see page 425
- > taper sleeves see page 423

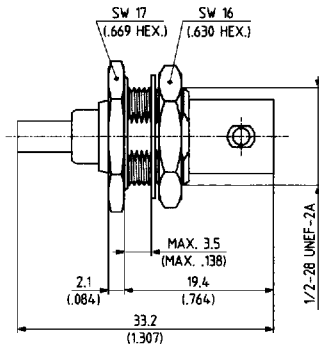


Fig. 1

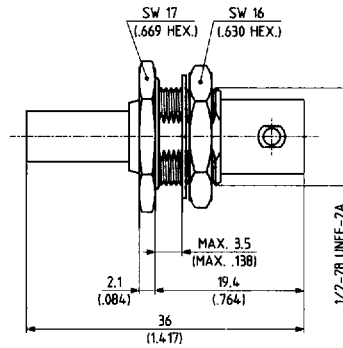
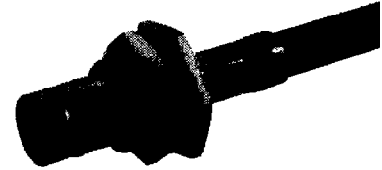


Fig. 2



SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Mounting hole	Weight	Fig.
24 BNC-75-3-6	• 641786	U5 (RG 187 A/U)	1 A	9068	ML 4	17.0 g / .595 oz.	1
24 BNC-75-3-4	• 540917	U12 (G 03233)	2 B	3015	ML 4	17.5 g / .613 oz.	2
24 BNC-75-3-5	• 540920	U14 (G 03233 D)	2 B	3015	ML 4	17.5 g / .613 oz.	2
24 BNC-75-4-3	• 540930	U16 (RG 59 B/U)	2C	3015	ML 4	18.0 g / .630 oz.	2
24 BNC-75-4-4	• 540932	U18 (G 04233 D)	2C	3015	ML 4	18.0 g / .630 oz.	2
24 BNC-75-4-15	• 641769	U17 (S 04233)	2C	3015	ML 4	18.0 g / .630 oz.	2
24 BNC-75-5-3	• 540942	U24 (G 05133 D)	*	3015	ML 4	18.0 g / .630 oz.	2

\*76 Z-0-5-21

- centre contact captivated

## straight panel jacks

- > cable entry clamp
- > centre contact soldered
- > fastening screws see page 424

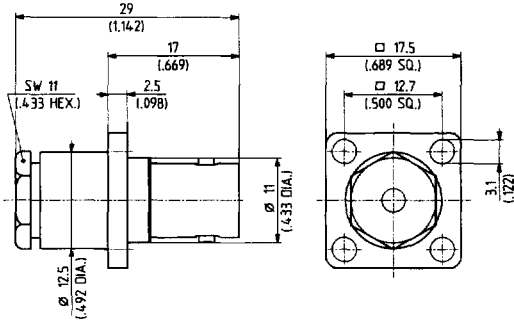
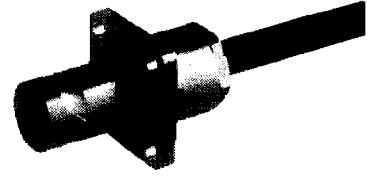


Fig. 1

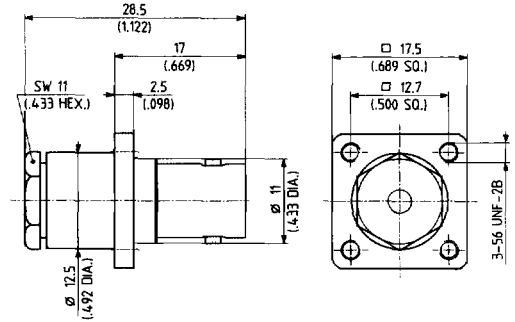
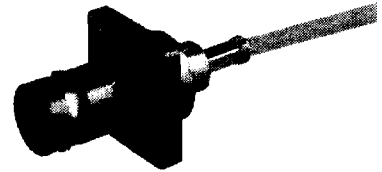


Fig. 2

SUHNER TYPE	Ident. no.	Cable group (example)	Assembly instruction	Mounting hole	Weight	Fig.
25 BNC-75-2-1	540947	U5 (RG 187 A/U)	3005	ML 8	19.5 g/ .682 oz.	1
25 BNC-75-4-2	540975	U15 (RG 59 B/U)	3005	ML 8	18.0 g/ .630 oz.	2 *

\* mounting also possible with screws ISO M 2.5

- > SUHNER® full crimp
- > fastening screws see page 424
- > taper sleeves see page 423



BNC 75

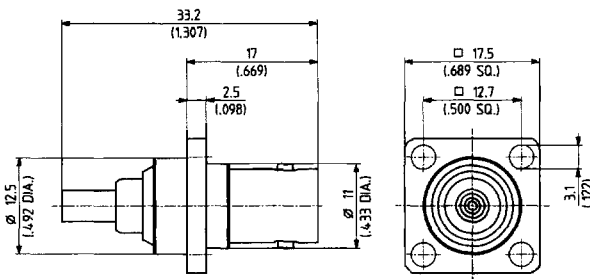


Fig. 1

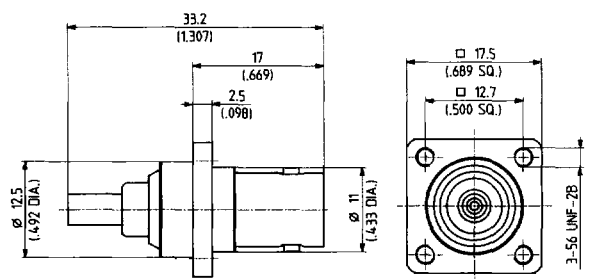


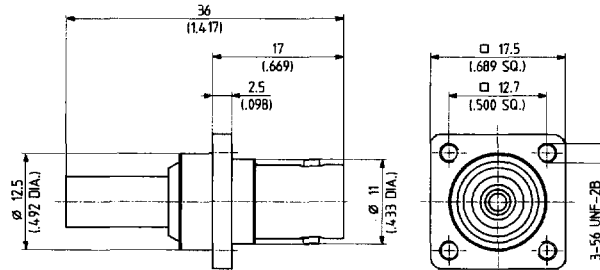
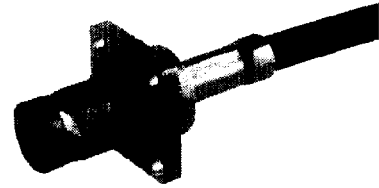
Fig. 2

SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Mounting hole	Weight	Fig.
25 BNC-75-2-7	641790	U5 (RG 187 A/U)	1 A	9068	ML 8	16.5 g/ .578 oz.	1
25 BNC-75-2-8	641791	U5 (RG 187 A/U)	1 A	9068	ML 8	16.5 g/ .578 oz.	2 *

\* mounting also possible with screws ISO M 2.5

- centre contact captivated

- > SUHNER® full crimp
- > fastening screws see page 424
- > taper sleeves see page 423



SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Mounting hole	Weight	Notes
25 BNC-75-3-7	• 540959	U14 (G 03233 D)	2 B	3015	ML 8	17.0 g/ .595 oz.	*

\* mounting also possible with screws ISO M 2.5

- > SUHNER® full crimp
- > fastening screws see page 424
- > taper sleeves see page 423

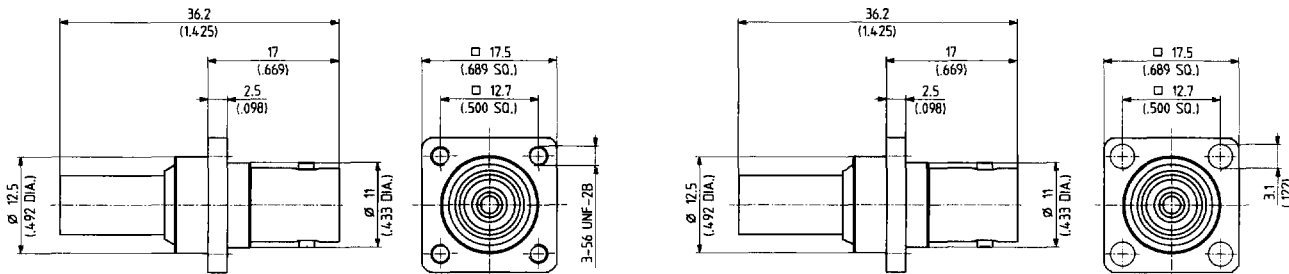
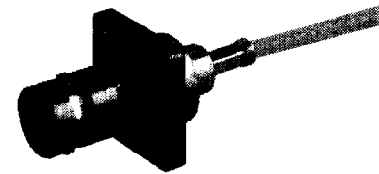


Fig. 1

Fig. 2

SUHNER TYPE	Ident. no.	Cable group (example)	Crimp insert	Assembly instruction	Mounting hole	Weight	Fig.
25 BNC-75-4-8	• 540982	U16 (RG 59 B/U)	2 C	3015	ML 8	17.0 g/ .595 oz.	1 *
25 BNC-75-4-9	• 540984	U16 (RG 59 B/U)	2 C	3015	ML 8	17.0 g/ .595 oz.	2

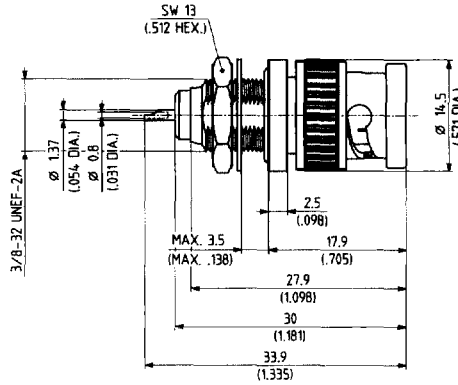
\* mounting also possible with screws ISO M 2.5

- centre contact captivated

# Receptacles with Solder End

## receptacle, male

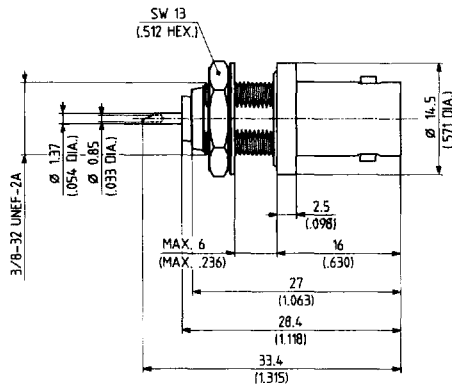
- > bulkhead mounted
- > with panel seal
- > solder tags see page 426
- > insulating washers see page 425



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
12 BNC-75-0-1	540814	ML 2	16.5 g/.578 oz.	suitable for insulated mounting

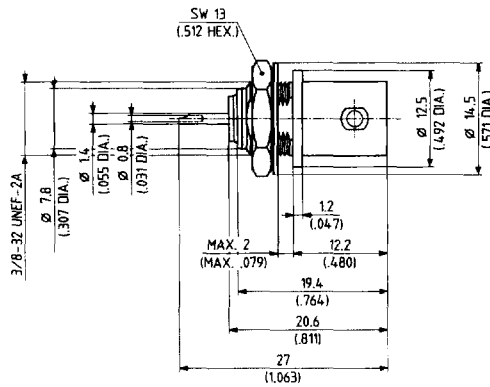
## receptacles, female

- > bulkhead mounted
- > with panel seal
- > solder tags see page 426
- > insulating washers see page 425



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
22 BNC-75-0-1	540883	ML 1	11.5 g/.403 oz.	suitable for insulated mounting

- > bulkhead mounted
- > solder tags see page 426
- > insulating washers see page 425



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
22 BNC-75-0-4	540889	ML 2	8.0 g/.280 oz.	suitable for insulated mounting

• centre contact captivated

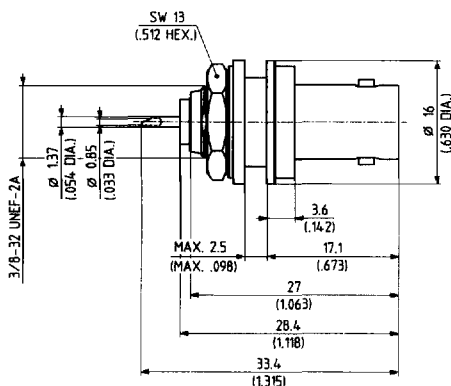
cable groups see pages 36

assembly tools see page 403

mounting holes see page 441

BNC 75

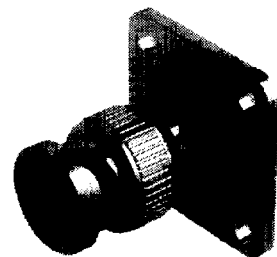
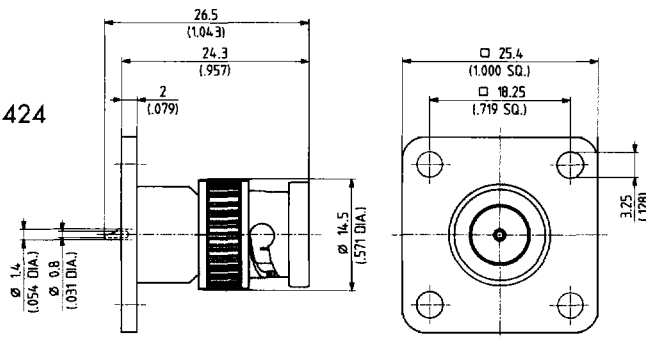
- > bulkhead mounted
- > solder tags see page 426
- > suitable for insulated mounting



SUMNER TYPE	Ident. no.	Mounting hole	Weight	Notes
22 BNC-75-0-5	540891	ML 102	12.0 g / .420 oz.	insulated mounting / equipped with insulating washers 77 Z-0-0-2 (not protected against rotation)

### receptacle, male

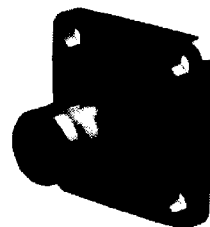
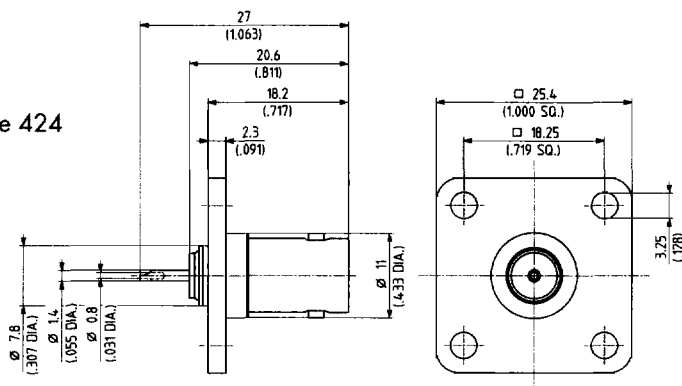
- > panel mounted
- > fastening screws see page 424



SUMNER TYPE	Ident. no.	Mounting hole	Weight	Notes
13 BNC-75-0-2	540817	ML 5	21.0 g / .735 oz.	suitable for SUCOBOX® applications, see page 428

### receptacles, female

- > panel mounted
- > fastening screws see page 424



SUMNER TYPE	Ident. no.	Mounting hole	Weight	Notes
23 BNC-75-0-7	540900	ML 5	17.0 g / .595 oz.	suitable for SUCOBOX® applications, see page 428

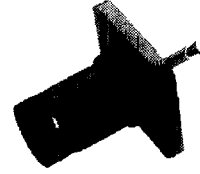
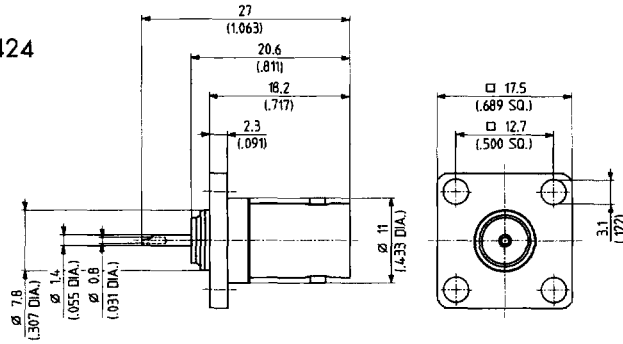
● centre contact captivated

cable groups see page 36

assembly tools see page 403

mounting holes see page 441

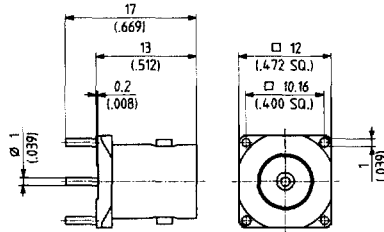
- > panel mounted
- > fastening screws see page 424



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
23 BNC-75-0-10	540906	ML 6	11.0 g/.385 oz.	

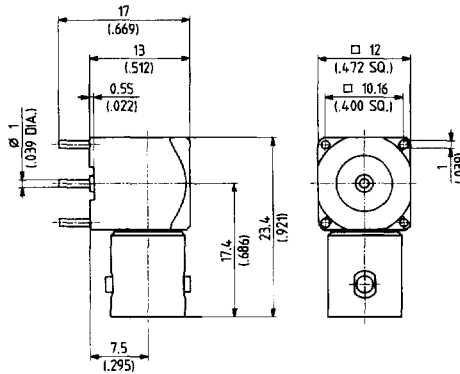
## PCB Connectors

### straight PCB jack



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
82 BNC-75-0-2	643586	ML 49	5.49 g/.189 oz.	

### right angle PCB jack



SUHNER TYPE	Ident. no.	Mounting hole	Weight	Notes
85 BNC-75-0-1	641623	ML 49	15.5 g/.543 oz.	

- centre contact captivated

cable groups see pages 36

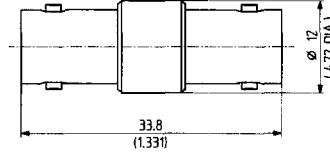
assembly tools see page 403

mounting holes see page 441

# Adaptors Within-Series

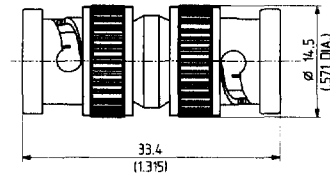
## straight adaptors

> jack to jack



SUHNER TYPE	Ident. no.	Weight	Notes
31 BNC-75-0-1	• 541003	13.0 g / .455 oz.	

> plug to plug



SUHNER TYPE	Ident. no.	Weight	Notes
32 BNC-75-0-1	• 541016	20.0 g / .700 oz.	

> jack to jack  
> bulkhead mounted

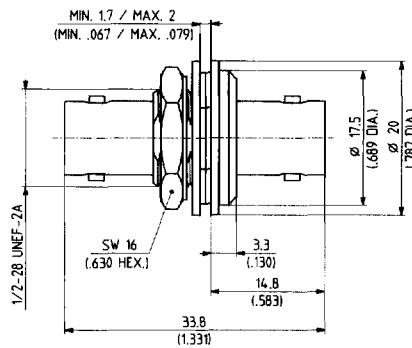
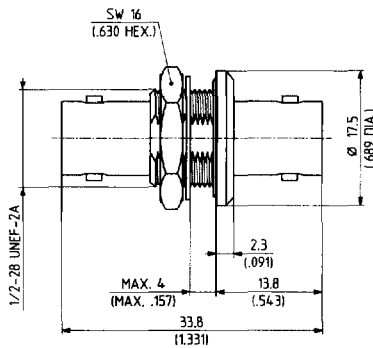


Fig. 1

Fig. 2

SUHNER TYPE	Ident. no.	Mounting hole	Weight	Fig.	Notes
34 BNC-75-0-1	• 541040	ML 4	18.0 g / .630 oz.	1	with panel seal
34 BNC-75-0-2	• 541042	ML 22	18.5 g / .648 oz.	2	for insulated mounting / equipped with insulating washers 77 Z-0-0-12 (protected against rotation)

• centre contact captivated

- > jack to jack
- > panel mounted
- > fastening screws see page 424

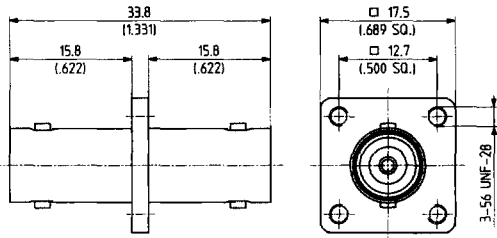
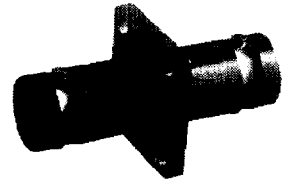


Fig. 1

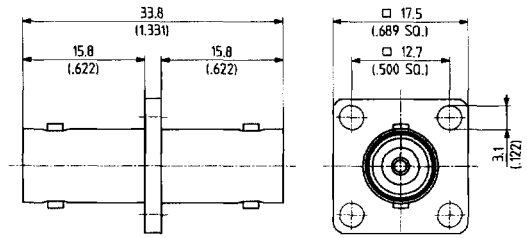
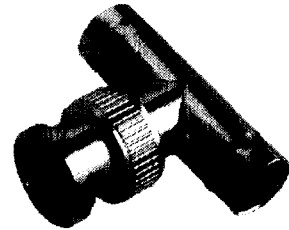
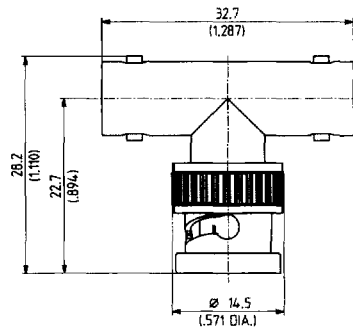


Fig. 2

SUMNER TYPE	Ident. no.	Mounting hole	Weight	Fig.	Notes
37 BNC-75-0-1	• 541045	ML 10	14.0 g / .490 oz.	1	mounting also possible with screws ISO M 2.5
37 BNC-75-0-2	• 541047	ML 10	13.5 g / .473 oz.	2	

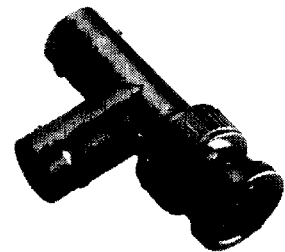
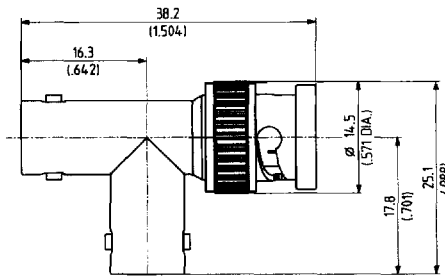
### T-adaptors

- > 2 jacks, 1 plug



SUMNER TYPE	Ident. no.	Weight	Notes
43 BNC-75-0-1	• 541049	19.0 g / .665 oz.	

- > 2 jacks, 1 plug

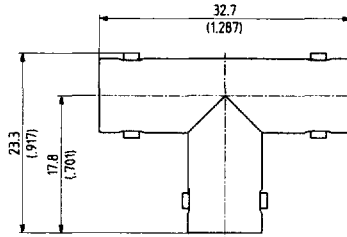


SUMNER TYPE	Ident. no.	Weight	Notes
45 BNC-75-0-1	• 541050	18.5 g / .648 oz.	

- centre contact captivated

BNC 75

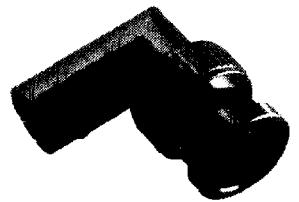
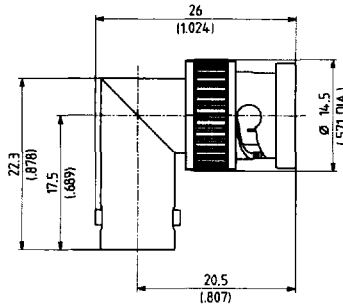
> 3 jacks



SUBSER TYPE	Ident. no.	Weight	Notes
46 BNC-75-0-1	541053	12.5 g/.438 oz.	

### right angle adaptor

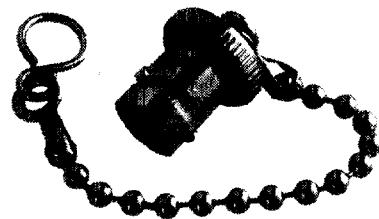
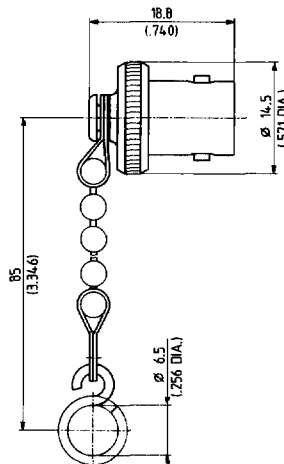
> plug to jack



SUBSER TYPE	Ident. no.	Weight	Notes
53 BNC-75-0-1	541055	16.5 g/.578 oz.	

## Protective Caps and Shorts

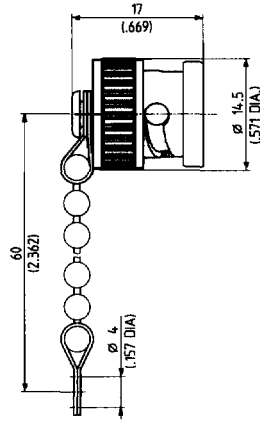
> protective cap for plugs



SUBSER TYPE	Ident. no.	MIL M	Weight	Notes
63 BNC-0-0-1	540660	39012/ 25-0008	9.0 g/.315 oz.	replaces CW 282/U

• centre contact captivated

> protective cap for jacks



SUHNER TYPE	Ident. no.	MIL M 39012/	Weight	Notes
62 BNC-0-0-1	540666	25-0006	8.5 g/.298 oz.	replaces CW 123/U

> protective caps for jacks

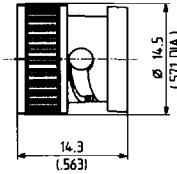
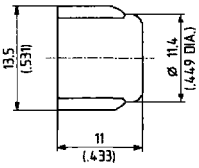


Fig. 1

Fig. 2

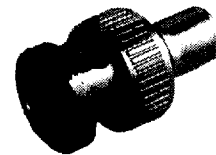
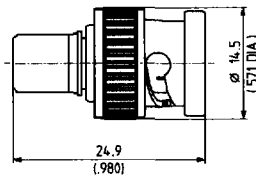
SUHNER TYPE	Ident. no.	MIL M 39012/	Weight	Fig.	Notes
62 BNC-0-0-2	540667		0.4 g/.014 oz.	1	made of plastic
62 BNC-0-0-3	540669	25-0015	6.5 g/.228 oz.	2	replaces CW 155/U

BNC 75

## Terminations

plug

0.5 Watt, DC – 1 GHz



SUHNER TYPE	Ident. no.	Impedance	VSWR 300 MHz	1 GHz	Power <sup>1)</sup>	Weight
62 BNC-75-4-7	650006	75Ω ± 1.5Ω	≤ 1.05	≤ 1.1	0.5 Watt	12.0 g/.420 oz.

1) at max. 30°C / 86°F ambient temperature, derated linearly to zero power at 130°C / 266°F

## plugs

1 Watt, DC – 2 GHz

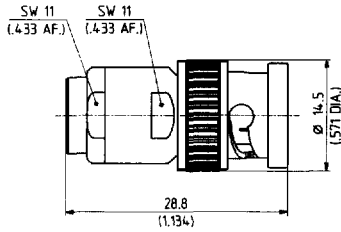


Fig. 1

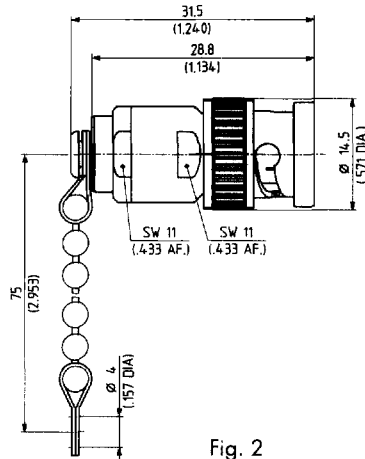


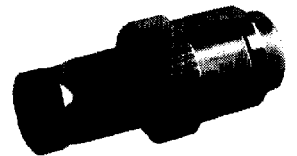
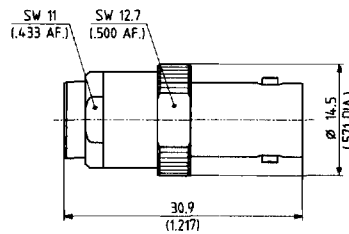
Fig. 2



SUHNER TYPE	Ident. no.	Impedance	VSWR			Power <sup>1)</sup>	Weight	Fig.
			1 GHz	1.5 GHz	2. GHz			
65 BNC-75-0-1	550055	75Ω ± 1.5Ω	≤ 1.1			1 Watt 800W peak <sup>2)</sup>	14.0 g/.490 oz.	1
65 BNC-75-0-2	550058	75Ω ± 1.5Ω	≤ 1.1			1 Watt 800W peak <sup>2)</sup>	16.0 g/.560 oz.	2

## jack

1 Watt, DC – 2 GHz



SUHNER TYPE	Ident. no.	Impedance	VSWR			Power <sup>1)</sup>	Weight
			1 GHz	1.5 GHz	2. GHz		
65 BNC-75-0-31	550036	75Ω ± 1.5Ω	≤ 1.1			1 Watt 800W peak <sup>2)</sup>	16.0 g/.560 oz.

1) at max. 30°C / 86°F ambient temperature, derated linearly to zero power at 130°C / 266°F

2) pulsed power with a duration of ≤ 10 ns, rise time ≥ 5 ns