

50 Ω	DC - 4 GHz recommended DC - 11 GHz maximum
75 Ω	DC - 1 GHz recommended DC - 1,5 GHz maximum

GENERAL

- Coaxial connectors standardised worldwide
- Bayonet coupling
- Cable clamp or crimp attachment
- Good RF performance
- Proven strength and reliability

APPLICABLE STANDARDS

- MIL-C-39012
- CEI 169-8
- CECC 22120
- NF-C-93564 KBN Series
- UTE-C-93564

APPROVALS

- CCQ
- QPL (MIL-C-39012 – MIL-A-55339)
- GAM Listed
- MUAHAG Listed



APPLICATIONS

- Military & Civil Radio Telecommunication Equipments
- Radio Telephone
- Computers
- Videocommunications
- General Electronics

This catalogue offers the different ranges of **RADIALL BNC** series.

QPL 50 Ω and **BNC 75 Ω** ranges for professional use cover a large number of civil and military applications. Moreover, excellent quality / price ratio is given by **COMMERCIAL BNC** range for video communication, data processing, portable radio system, automotive industry applications . . .

Finally, **BNC QPL-MIL** range meets QPL qualified products for military use according to MIL-C-39012 and MIL-A-55339 specifications.

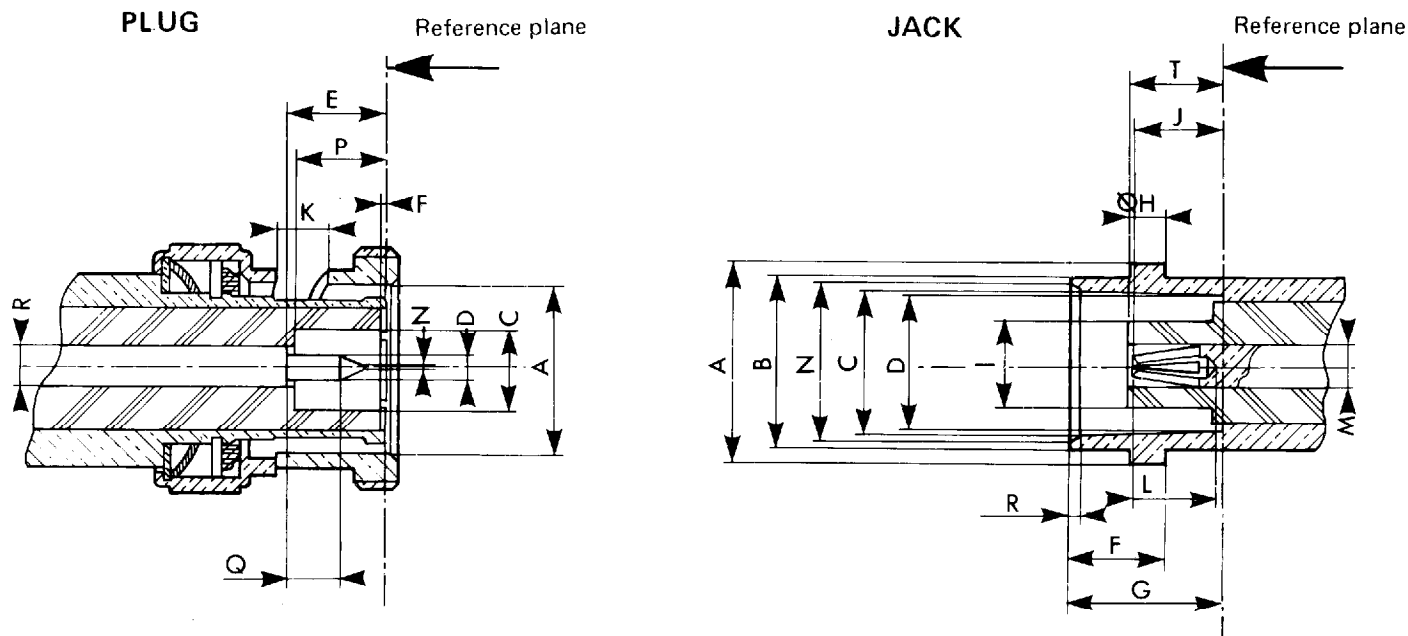
50 Ω connectors are intermateable with 75 Ω ones.

All dimensions are given in inches (mm)

BNC

CHARACTERISTICS

REQUIREMENT	MIL - C - 39012 C Paragraph	GENERAL SPECIFICATIONS
ELECTRICAL		
Impedance		50Ω 75Ω
Operating Frequency		recommended 0 - 4 GHz 0 - 1 GHz maximum 0 - 11 GHz 0 - 1.5 GHz
V.S.W.R.	3 - 14	straight types : 1,30 max ; elbow types : 1,35 max
Insertion loss	3 - 27	straight types : 0,2 dB max. at 3 GHz elbow types : 0,3 dB max. at 3 GHz
RF leakage	3 - 26	- 55 dB min. from 2 - 3 GHz
Insulation Resistance	3 - 11	5000 MΩ min.
Contact Resistance	3 - 16	
		Initial After test
		Centre Contact (mΩ) 1,5 2
		Outer Conductor (mΩ) 0,2 -
Voltage rating (V R.M.S.)		Sea level : 500 V RMS max. ; at 21,000 m : 125 V RMS max.
Dielectric withstanding voltage	3 - 17	Sea level : 1500 V RMS ; at 21,000 m : 375 V RMS
RF High Potential withstanding voltage (frequency 5 MHz)	3 - 23	Sea level : 1000 V RMS
MECHANICAL		
Connector durability	3 - 15	500 matings
Engagement and separation force	3 - 5 - 1	axial : 13,6 N max. ; coupling : 28,6 N.cm
Recommended Coupling Torque		Not applicable
Coupling Proof Torque		Not applicable
Coupling Nut Retention Force	3 - 25	44,5 daN
Cable Retention Force	3 - 24	.197 (5)/50 cable : 227 N ; .236 (6)/75 cable : 340 N
Contact Captivation		axial : 27 N
ENVIRONMENTAL		
Operating Temperature		standard connectors : - 65°C + 165°C Hermetic connectors : - 65°C + 100°C connectors for semi-rigid cable : - 65°C + 105°C
Temperature cycling	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
Vibration	3 - 18	MIL - STD - 202, method 204, condition B
Shock	3 - 19	MIL - STD - 202, method 213, condition G
Moisture resistance	3 - 21	MIL - STD - 202, method 106
Low Pressure	3 - 22	not applicable
Hermeticity		MIL - STD - 202, method 112, condition C vacuum 10 ⁻⁶ Hg mm (Torr) leakage rate < 10 ⁻⁶ atm/cm ³ /s pressure < 20 bars pressure test : 3,5 bars ; duration : 2 mn ; temperature : 15°C to 2
Barometric pressure		
MATERIALS		
Bodies and Male Centre Contacts		Brass following QQ - B - 626
Female Centre Contacts		Bronze or heat treated Beryllium following QQ - C - 530
Ferrules		Brass
Insulators		PTFE Teflon
Gaskets		Silicon
PLATING		
Bodies		Nickel to satisfy corrosion requirements
Centre contacts		Gold



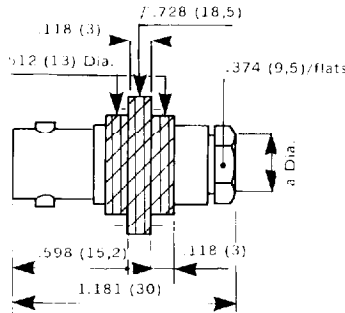
BNC

PLUG				JACK			
mm		Inch		mm		Inch	
min.	max.	min.	max.	min.	max.	min.	max.
9.78	9.91	.385	.390	10.97	11.07	.432	.436
-	-	-	-	9.60	9.70	.378	.382
4.83	-	.190	-	8.31	8.46	.327	.333
1.32	1.37	.052	.054	8.10	8.15	.319	.321
5.33	5.84	.210	.230	-	-	-	-
0.15	-	.006	-	5.18	5.28	.204	.208
-	-	-	-	8.31	8.51	.327	.335
-	-	-	-	1.91	2.06	.075	.081
-	-	-	-	-	4.74	-	.186

Letter	PLUG				JACK			
	mm		Inch		mm		Inch	
	min.	max.	min.	max.	min.	max.	min.	max.
J	-	-	-	-	4.72	5.23	.186	.206
K	2.31	2.46	.091	.097	-	-	-	-
L	-	-	-	-	4.95	-	.195	-
M	-	-	-	-	2.06	2.21	.081	.087
∅N	-	0.61	-	.025	8.79	9.04	.346	.356
P	5.28	5.79	.208	.228	-	-	-	-
Q	1.98	-	.078	-	-	-	-	-
R	2.06	2.21	.081	.087	0.38	0.76	.015	.030
T	-	-	-	-	4.78	5.28	.188	.208

INSULATED SQUARE FLANGE JACK

CABLE DIA.	.197 (5)	.236 (6)
Ω	50	75 +93
PART NUMBER	R 141 256	R 141 264
a dia. max.	.220 (5,6)	.256 (6,5)
Captive contact	NO	NO
Flange holes	4 holes .102 dia. (Ø2,6)	
Assembly	M 01	M 01

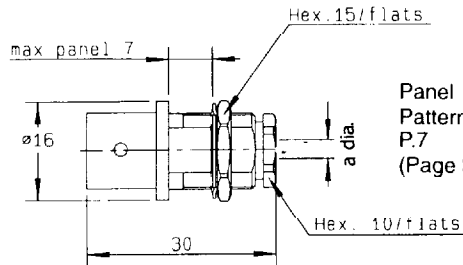


Panel Pattern P.4 (Page 31)



STRAIGHT BULKHEAD JACK

CABLE DIA.	.102 (2,6)	
Ω	50 + 75	
PART NUMBER	R 141 304	
a dia. max.	.116 (2,95)	
Captive contact	YES	
Assembly	M 04	

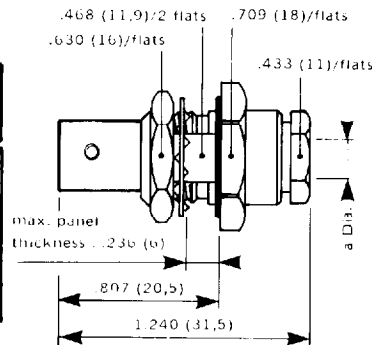


Panel Pattern P.7 (Page 31)



STRAIGHT BULKHEAD JACK WITH PANEL SEAL

CABLE DIA.	.079 (2)	.102 (2,6)
Ω	50	50 + 75
PART NUMBER	R 141 323	R 141 324
a dia. max.	.087 (2,2)	.116 (2,95)
Captive contact	YES	YES
Assembly	M 04	M 04

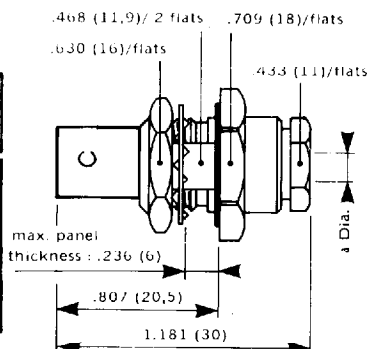


Panel Pattern P.7 (Page 31)



STRAIGHT BULKHEAD JACK WITH PANEL SEAL

CABLE DIA.	.197 (5)	.236 (6)
Ω	50	75 +93
PART NUMBER	R 141 327	R 141 329
a dia. max.	.220 (5,6)	.260 (6,6)
Captive contact	NO	NO
Assembly	M 02	M 02

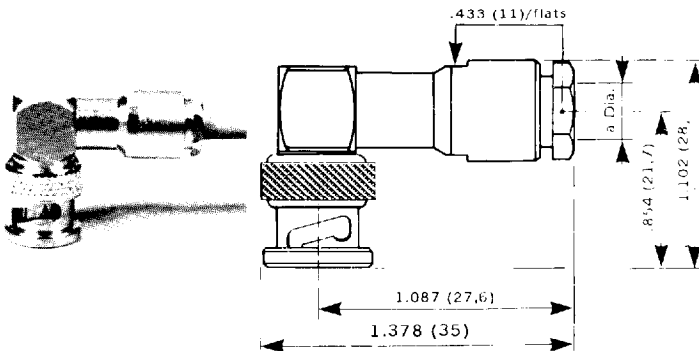


Panel Pattern P.7 (Page 31)



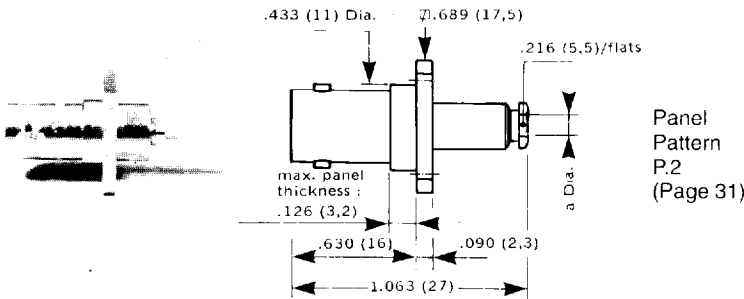
CABLE CLAMP FOR FLEXIBLE CABLES

RIGHT ANGLE PLUG



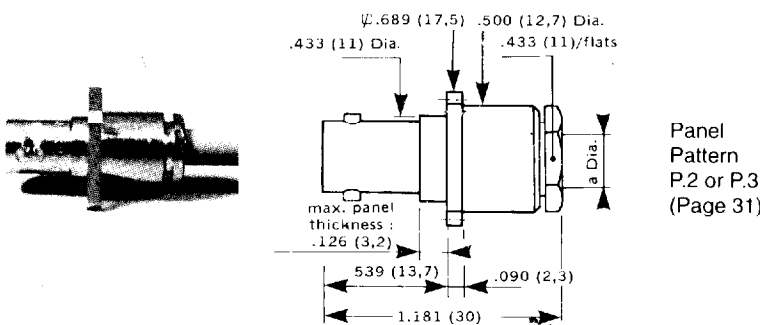
CABLE DIA. Ω	.102 (2,6)	.236 (6)
	75 75 + 93	
PART NUMBER	R 142 154	R 142 157
a dia. max.	.118 (3)	.260 (6,6)
Captive contact	YES	YES
Assembly	M 04	M 02

SQUARE FLANGE JACK



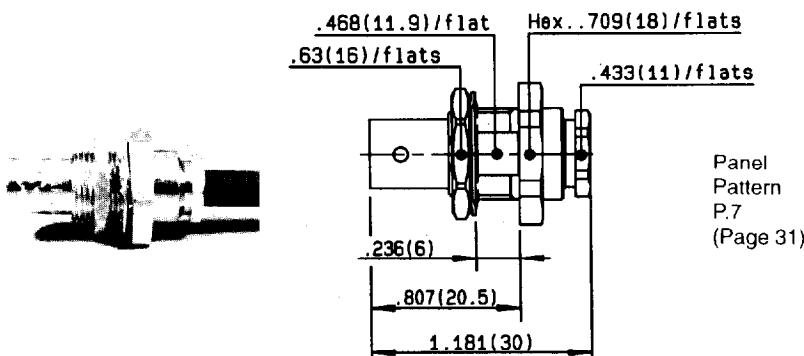
CABLE DIA. Ω	.102 (2,6)	
	75	
PART NUMBER	R 142 202	
a dia. max.	.118 (3)	
Captive contact	NO	
Flange holes	4 holes N° 3.56 UNF.2B (M 2,5 x 0,45)	
Assembly	M 10	

SQUARE FLANGE JACK



CABLE DIA. Ω	.236 (6)	
	75 + 93	
PART NUMBER	R 142 268	
Equival. MIL	UG. 262 D/U	
a dia. max.	.256 (6,5)	
Captive contact	NO	
Flange holes	4 holes N° 3.56 UNF.2B (M 2,5 x 0,45)	
Assembly	M 02	

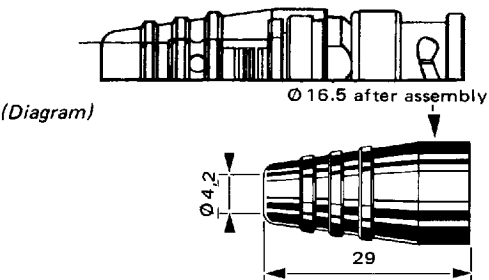
BULKHEAD JACK



CABLE DIA. Ω	.236 (6)	
	75 + 93	
PART NUMBER	R 142 329	
a dia. max.	.260 (6,6)	
Captive contact	YES	
Assembly	M 02	

splashproof sleeves for crimp connectors

These sleeves can be used with BNC and TNC series connectors of the full crimp style which have a separate back nut assembly (see diagram).

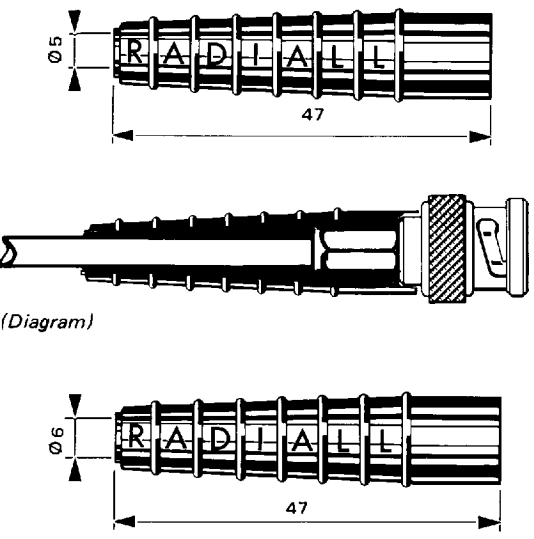


CODE No.	CABLE GROUP	COLOUR	MATERIAL	WEIGHT g.
R 280 555	5/50 + 6/75 Ω	Black	Neoprene Rubber	2,7

coloured taper sleeves for crimp connectors

These sleeves can be used with BNC, TNC and mQ series connectors and are fitted over the crimped ferrule (see diagram). A clean finish to the crimped assembly and colour coding in one operation.

IMPORTANT These sleeves are sold in units of 10. They can only be used with crimp connectors of the series mentioned above.



R 280 570	5/50 Ω	Black	PVC
R 280 571		Red	
R 280 572		Green	
R 280 573		Blue	
R 280 574		Yellow	
R 280 575		Grey	
R 280 576		White	
R 280 577		Brown	
R 280 578		Orange	
R 280 579		Violet	
R 280 580	Clear		
R 280 590	6/75 Ω + 93	Black	PVC
R 280 591		Red	
R 280 592		Green	
R 280 593		Blue	
R 280 594		Yellow	
R 280 595		Grey	
R 280 596		White	
R 280 597		Brown	
R 280 598		Orange	
R 280 599		Violet	
R 280 600	Clear		

COMMERCIAL BNC

Excellent QUALITY / price ratio, for video communication, data communication, instrumentation, telecommunication, portable radio systems, security systems, antenna systems, automotive industry application...
They are intermateable with all 50 and 75Ω BNC connectors.

ELECTRICAL CHARACTERISTICS

Impedance	50 Ω and 75 Ω	
Operating frequency	DC to 1.5 GHz	
V.S.W.R. (1.5 GHz)		
Straight models	∅ 2.6	1.21
	∅ 5	1.14
	∅ 6	1.05
Right angle models	∅ 5 & ∅ 6	1.17
Testing voltage (V RMS)	1500	
Operating voltage (V RMS)	500	
Insulation resistance (MΩ)	5000	
Contact resistance (MΩ)	10	

ENVIRONMENTAL CHARACTERISTICS

Temperature range	-25°C / +70°C
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PLATING

Body	Nickel
Center contact	Gold

MATERIALS

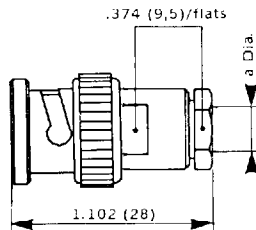
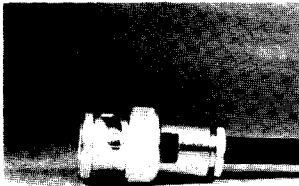
Coupling nut	Die cast zinc
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Packaging : In boxes of 100 units (same part number). Also available in unit packaging : change the last digit from 1 to 2. Ex. : **R141 007 162**.

All dimensions are given in mm.

CABLE CLAMP FOR FLEXIBLE CABLES

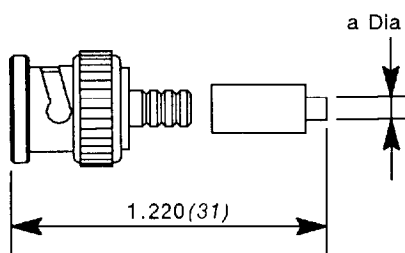
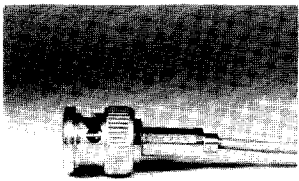
STRAIGHT PLUG



CABLE DIA. Ω	.197 (5) 50	.236 (6) 75 + 93
PART NUMBER	R 141 007 161	R 142 016 161
a dia. max.	.220 (5,6)	.260 (6,6)
Impedance	50 Ω	75 Ω
Captive contact	NO	YES
Assembly	M 01	M 01

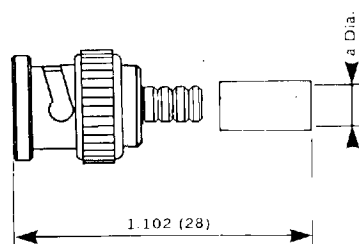
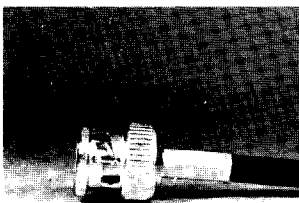
CRIMP PLUGS FOR FLEXIBLE CABLES

STRAIGHT PLUG



CABLE DIA. Ω	.102 (2,6) 50	.102 (2,6) 75
PART NUMBER	R 141 075 161	R 142 076 161
a dia. max.	.134 (3,4)	.134 (3,4)
Impedance	50 Ω	75 Ω
Captive contact	YES	YES
Assembly	M05	M05

STRAIGHT PLUG



CABLE DIA. Ω	.197 (5) 50	.236 (6) 75 + 93
PART NUMBER	R 141 082 161*	R 142 085 161
a dia. max.	.216 (5,5)	.260 (6,6)
Impedance	50 Ω	75 Ω
Captive contact	YES	YES
Assembly	M 03	M 03

* available also in right angle version : **R 141 182 161**