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HN



**HN Connectors**

## **HN Connector Series**

### **Description**

HN connectors are medium size weatherproof units designed for high voltage applications. HN connectors feature captivated contact design which prevents contact recession under temperature extremes and mechanical stresses. The coupling mechanism features a  $\frac{3}{4}$  -20 threaded interface.

### **Features/Benefits**

- Rugged construction for high voltage applications
- Captivated contacts prevent movement under temperature extremes
- Nickel plated bodies provide durable surface finish

### **Applications**

- Instrumentation
- Cable Assemblies
- Mil Aerospace
- Airframe
- Test & Measurement

## HN Specifications

### Electrical

Impedance	50 $\Omega$
Frequency range	DC - 4 GHz
Voltage rating (at sea level)	$\geq 7,000$ Vrms (depending on cable)
Contact resistance	center contact: $\leq 1$ m $\Omega$ outer contact: $\leq 0.2$ m $\Omega$
Insulation resistance	5,000 M $\Omega$ minimum
Insertion loss maximum	$\leq 0.15$ dB @ 10 GHz
Dielectric withstanding voltage	5,000 Vrms (at sea level)

### Mechanical

Mating	3/4 - 20 threaded coupling
Braid/Jacket cable affixment	Screw-thread nut / braid clamp
Captivated contacts	All, unless noted otherwise
Durability (matings)	500 cycles minimum

### Environmental

Temperature range	-65°C to +165°C
- copolymer of styrene:	-55°C to +85°C
Weatherproof	All, except as noted
Hermetic seals	Helium leak test, $2 \times 10^8$ cc/sec.
Pressurized	Compression seal

### Material

Body and outer contacts	Outer contact: brass, silver or gold plated
Male contact	Brass, silver or gold plated
Female contact	Beryllium copper, silver or gold plated
Other metal parts	Brass, nickel plated
Insulator	PTFE, copolymer of styrene, glass TFE (herm. sealed)
Gasket	Silicone or synthetic rubber (weatherproof)

### Plug

### Jack

Note: These characteristics are typical but may not apply to all connectors.

## Cable Connectors

### Straight Plugs



Cable		Plating		Termination		Description
Group	Part Number	Body	Contact	Body	Contact	
E	082-804	Nickel	Silver	Clamp	Solder	Lock wire Holes
H3	082-816-1000	Silver	Silver	Clamp	Solder	

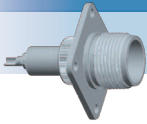
### Angle Plugs



Cable		Plating		Termination	
Group	Part Number	Body	Contact	Body	Contact
G4	082-6316	Nickel	Silver	Crimp	Solder
G4	082-856	Nickel	Silver	Clamp	Solder

## Receptacles

### Panel Jacks



Part Number	Body	Plating		Terminal Type	Description
		Contact			
082-805	Nickel	Silver		Solder Cup	4-Hole Flange, UG-560/U
082-92	Nickel	Silver		Solder Cup	4-Hole Flange, UG-496/U

### Bulkhead Jacks



Part Number	Body	Plating		Terminal Type	Description
		Contact			
082-843	Silver	Silver		Rear Mount/Spade	Bulkhead

## Adapters

### Angle Jack-Plug



Part Number	Body	Plating	
		Contact	
082-91	Nickel	Silver	

### Bulkhead Jack-Jack



Part Number	Body	Plating	
		Contact	
000-11050	Silver	Silver	

# Notes

Cable Group	Cable Type
A	RG-178, 196
B	RG-174, 188A, 316, Belden 7805
B1	RG-179, 187, Belden 9221
B2	RD-188/U, RD-316/U
B3	RD-179/U, AT&T 19224L2
C	RG-58, 58A, 58C, 141, 303, LMR195, Belden 7806A, 9907
C1	RG-55, 142, 223, 400
C2	LMR200, Belden 7807A
D	RG-58/U Plenum, Thinnet, RG-122/U, Belden 88240, 89907
E	RG-59, 62, 140, 210, Belden 8241, 8263, 8279, 9209
E1	RG-59/U 20 AWG center conductor, Belden 1426A, 1505A, 9100, 9278
E2	RD-59/U, Belden 8281, 9141, 9231
E3	RG-59/U Quad Shield, Belden 1152A
F	RG-59/U Plenum, Belden 1560A, 9259, 82259, 89259, 88241
F1	RG-59/U Plenum 20 AWG center conductor, Belden 82108
G1	RG-6, 143, 212
G2	8X, LMR240, Belden 7808A, 9258
G3	LMR400, Belden 7810A, 8214, 9913
G4	RG-8, 8A, 9, 87A, 213, 214, 225, 393
G5	RD-6/U
H	RG-11
H1	Belden 1694A, 9248
H2	Belden 1859A, 7731, 8213, 9292
H3	RG-54A/U
I	AT&T 734A, Belden 1505A
I2	AT&T 735A, Belden 735A1
J	Quad 59 headend cable
K	LMR600
K2	Belden 1695A
K3	RG-122, 180, 195, Belden 1855, 1865A, 8218
L	.141 semi-rigid, RG-402/U
L2	.085, .086, .087 semi-rigid, RG-405/U
L3	.250 semi-rigid
L4	.047 semi-rigid, Belden 1674
M	1/2 inch annular corrugated
M1	1 1/4 inch annular corrugated
M2	1 5/8 inch annular corrugated
M3	7/8 inch annular corrugated
N	1/4 Helical
N1	3/8 Helical
N2	1/2 Helical
N3	7/8 inch SFC
P1	.81 mm OD micro-cable
P2	1.13 mm OD micro-cable, TCB-068
P3	1.32 mm OD micro-cable
P4	1.37 mm OD micro-cable