

















N type Coaxial Connectors

N Series

■ Features

1. 50 ohms wide varieties standard connectors
2. Screw on locking
3. High durability
4. Applicable standard: MIL-C-39012/MIL STD 348-304

■ Products guide

Plugs	In-line adapters	Jacks
<p>Straight plug for flexible cable UG-21D/U(40)</p> 	<p>Right angled jack-plug type UG-27C/U(40)</p> 	<p>Straight jack for flexible cable UG-23D/U(40)</p> 
<p>Straight plug for semi-rigid cable N-P-141(40)</p> 	<p>Straight plug-plug type UG-57B/U(40)</p> 	<p>Panel mount jack for flexible cable N-PJ-58/U(40)</p> 
<p>Right angled plug for flexible cable N-LP-5DW(40),N-LP-58U(40)</p> 	<p>Straight jack-jack type UG-29B/U(40)</p> 	<p>Panel mount receptacle UG-58A/U(40)</p> 
	<p>Panel mount adapter</p> <p>Jack-jack type N-PA(40)</p> 	<p>Terminator N-TMP-1-1(40)</p> 
<p>T-type adapter</p> <p>Jack-plug-jack type UG-107B/U(40)</p> 	<p>IP67 protected cap</p> <p>With a chain MX-913/U(40)</p> 	<p>In-line attenuator</p> <p>Plug-jack type AT-4**</p> 
<p>Jack-jack-jack type UG-28A/U(40)</p> 	<p>Without a chain MX-913/U(45)</p> 	

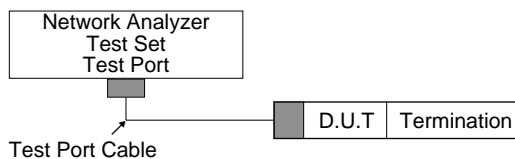
Product Specifications

Ratings	Nominal characteristic impedance Frequency range	50 ohms DC to 10GHz	Operating temperature range Operating humidity	-30°C to +60°C 95%RH max.
---------	---	------------------------	---	------------------------------

Item	Specification	Conditions
1. Contact resistance	3 m Ω max.	100 mA max.
2. Insulation resistance	1000 M Ω min.	500 V DC
3. Withstanding voltage	No flashover or insulation breakdown.	1500 V AC / 1 minute
4. V.S.W.R.*	1.2 max.	Up to 2GHz
5. Durability (mating / un-mating, with corresponding plug)	10 m Ω max.	500 cycles
6. Vibration	No electrical discontinuity of 1 μs min.	Frequency: 10 to 500 Hz, single amplitude of 0.75mm, acceleration of 98m/s ² , for 10 cycles in the direction of each of the 3 axis.
7. Shock	No damage, cracks or parts dislocation.	Acceleration of 490 m/s ² , 11ms duration, sine half-wave waveform, 3 cycles in each of 3 axes.
8. Humidity (Steady state)	No damage, cracks or parts dislocation.	96 hours at temperature of 40°C and humidity of 80% to 96%.
9. Temperature cycle	No damage, cracks or parts dislocation.	Temperature: -55°C → +25 to +65°C → +85°C → +5 to +35°C Time: 30min. → 5min. → 30min. → 5min. 5 cycles
10. Salt spray	No excessive corrosion	5% salt water solution, 48 hours

*V.S.W.R. Measurement System

The above V.S.W.R. standard values were measured using the measurement connection shown below.



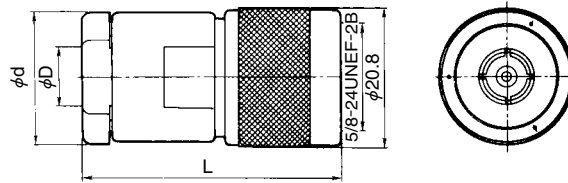
Note 1: Connectors for use with cable are measured with 10 cm of suitable cable attached at both ends.

Material

Part	Material	Finish	Remark
Shell	Brass	Silver plated/Nickel plated	—
Male contact	Brass	Silver plated/Gold plated	—
Female contact	Beryllium copper	Silver plated/Gold plated	—
Insulator	Tetrafluoride resin	—	Flame retardant
Packing	Silicone rubber	—	Flame retardant

■ Straight Plug

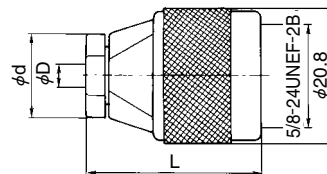
● flexible cable



Unit : mm

Part number	CL No.	Applicable cable	ϕD	ϕd	L
UG-18C/U(40)	301-0002-7-40	RG-5/U, RG-6/U, RG-21/U	8.7	19.0	38.0
UG-21D/U(40)	301-0003-0-40	RG-8/U, RG-9/U	11.1	19.0	38.0
UG-204C/U(40)	301-0022-4-40	RG-14/U	14.1	22.2	45.0
JUG-536/U(40)	301-0001-4-40	RG-58/U	5.4	19.0	38.0
N-P-3DV(40)	301-0078-9-40	3D-2V	6.3	12.7	35.0
N-P-5DV(40)	301-0120-3-40	5D-2V	8.6	18.0	45.5
N-P-8DV(40)	301-0116-6-40	8D-2V	12.6	23.0	51.0
N-P-5DW(40)	301-0199-3-40	5D-2W	9.3	18.0	46.0
N-P-5DFB(40)	301-0205-4-40	5D-FB	8.6	18.0	46.0
N-P-10DFB(40)	301-0206-7-40	10D-FB	14.5	23.0	55.0

● Semi rigid cable type

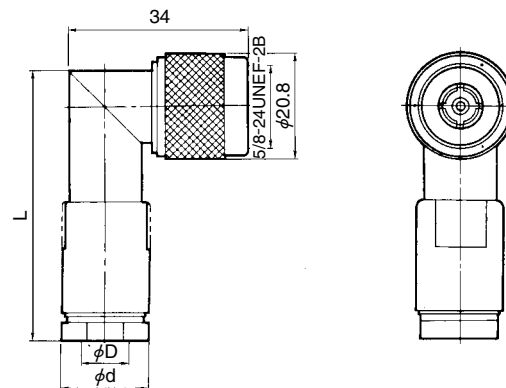


Unit : mm

Part number	CL No.	Applicable cable	ϕD	ϕd	L
N-P-141(40)	301-0162-3-40	UT-141A	3.63	13	27.3
N-P-141-2(A)(40)	301-0262-8-40	UT-141A	3.63	5	25.7
N-P-250(A)(41)	301-0261-5-41	UT-250	6.5	14	34.9

■ Right angle plug

● flexible cable type

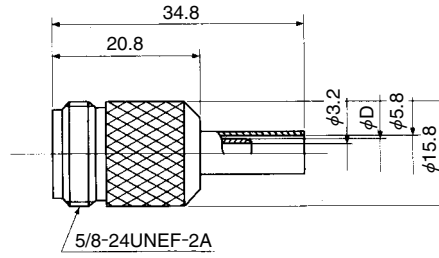


Unit : mm

Part number	CL No.	Applicable cable	ϕD	ϕd	L	Remarks
N-LP-5DW(40)	301-0007-0-40	5D-2W	9.3	17.5	52.4	Nickel-plated except for center conductor
N-LP-58U(40)	301-0076-3-40	RG-58/U	5.3	15.5	44.0	_____

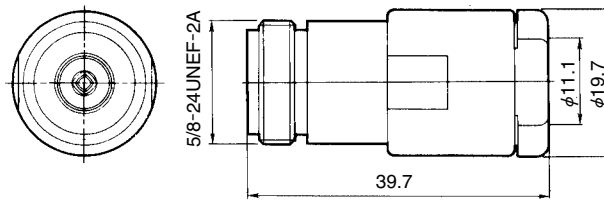
■Straight jack

●flexible cable type



Unit : mm

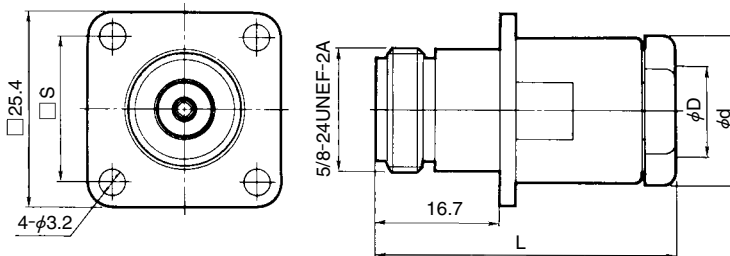
Part number	CL No.	Applicable cable	φD
N-J-3DV(40)	301-0180-5-40	3D-2V	5.1



Part number	CL No.	Applicable cable
UG-23D/U(40)	301-0008-3-40	RG-8/U, RG-9/U

■Panel mount jack

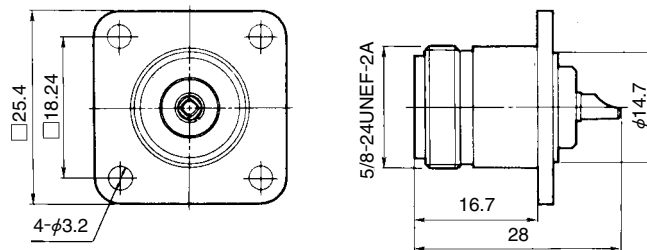
●flexible cable type



Unit : mm

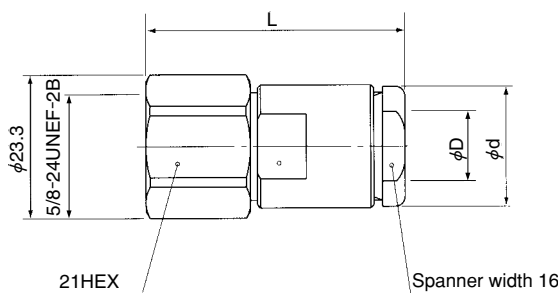
Part number	CL No.	Applicable cable	φD	φd	L	□S
UG-22D/U(40)	301-0010-5-40	RG-8/U, RG-9/U	11.1	19.0	39.7	18.24
N-PJ-58/U(40)	301-0011-8-40	RG-58/U	5.4	14.6	41.5	18.2

■Receptacle



Part number	CL No.
UG-58A/U(40)	301-0012-0-40

■Straight plug(waterproof type)

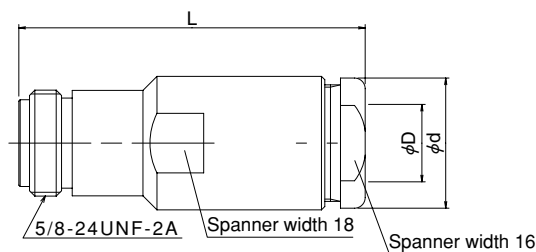


Unit : mm

Part number	CL No.	Applicable cable	ϕD	ϕd	L
N-P-5DFXL(41)	301-0235-5-41	5D-FXL	8.6	18	47.2
N-P-8DGXC(40)	301-0228-0-40	8D-GXC	11.6	19.5	49.9

* IP67 compliant

■Straight jack(waterproof type)



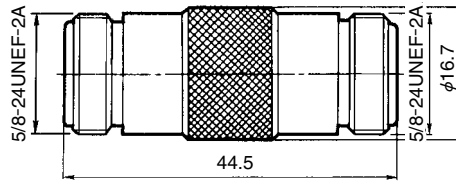
Unit : mm

Part number	CL No.	Applicable cable	ϕD	ϕd	L
N-J-5DFXL(40)	301-0237-0-40	5D-FXL	8.6	18	49.1
N-J-8DGXC(40)	301-0229-2-40	8D-GXC	11.6	19.5	51.9

* IP67 compliant

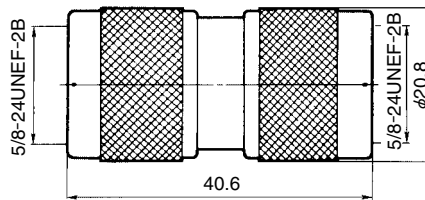
■Adapter

●Straight adapter (jack-jack type)



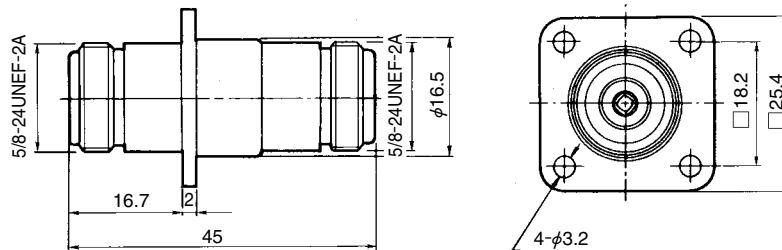
Part number	CL No.
UG-29B/U(40)	301-0035-6-40

(Plug-plug type)



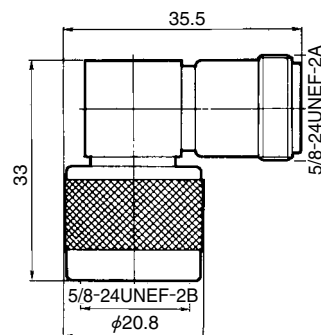
Part number	CL No.
UG-57B/U(40)	301-0018-7-40

●Panel mount adapter (jack-jack type)



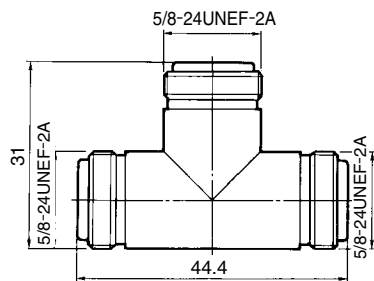
Part number	CL No.
N-PA(40)	301-0036-9-40

●Right angle adapter (Plug-jack type)



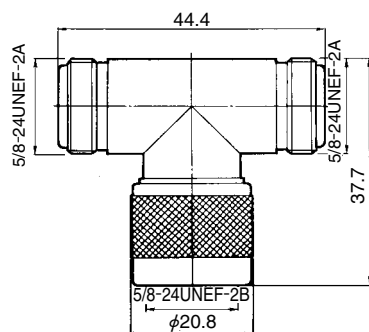
Part number	CL No.
UG-27C/U(40)	301-0015-9-40

● **T-shaped adapter**
(Jack-jack-jack type)



Part number	CL No.
UG-28A/U(40)	CL301-0017-4-40

(Jack-plug-jack)

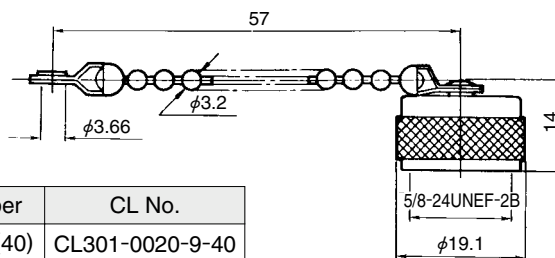


Part number	CL No.
UG-107B/U(40)	CL301-0016-1-40

■ **Conversion adapters**

Mating portion 1		Mating portion 2		Part No.	CL No.
Series name	Mating portion	Series name	Mating portion		
N	Plug	BNC	Plug	NP-BNCP(40)	311-0050-7-40
			Jack	JUG-201A/U(40)	311-0007-8-40
		M	Jack	NP-MJ(40)	311-0019-7-40
			Jack	N.P-S.J(40)	311-0245-6-40
		SMA (HRM)	Plug	HRM-555S(40)	311-0125-4-40
			Jack	HRM-554S(40)	311-0123-9-40
	Jack	BNC	Plug	UG-349/U(40)	311-0004-0-40
			Jack	NJ-BNCJ(40)	311-0005-2-40
				NJ-BNCJ-PA(40)	311-0014-3-40
		M	Plug	NJ-MP(40)	311-0018-4-40
			Jack	NJ-MJ(40)	311-0011-5-40
		TNC	Plug	N.J-TNC.P(40)	311-0225-9-40
		SMA (HRM)	Plug	HRM-553S	311-0121-3
				HRM-557SV	311-0272-9
Jack	HRM-552S		311-0119-1		
		HRM-556SV	311-0298-2		

■ **Cap**
With a chain



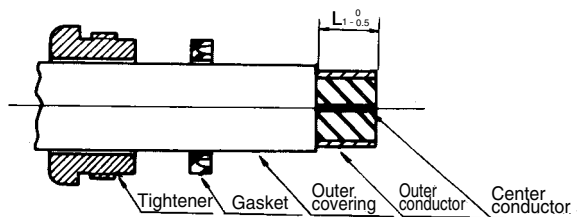
Part number	CL No.
MX-913/U(40)	CL301-0020-9-40

Without a chain

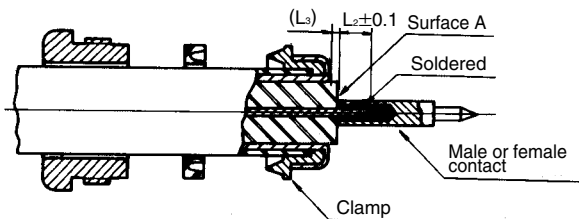


Part number	CL No.
MX-913/U(45)	CL301-0020-9-45

■ Cable assembly procedure



The cable ends are processed as shown in the drawing (refer to Table 1). For the end processing dimensions L_1 , refer to Table 1, End processing dimensions arranged by part number.



- (1) Insert clamp from tip of cable and fold outer conductor of cable back onto clamp. Using a knife, cut off excess outer conductor left at this time.
- (2) Cut off center conductor of cable at L_2 , from surface A of cable insulation. For end processing dimensions L_2 , L_3 , refer to Table 1, End processing dimensions arranged by part number, (L_3 is a reference dimension.)
- (3) Solder contact and center conductor. It is a good idea at this time to solder the contact preliminarily in advance. (Note: There must be no gap between the contact and the cable insulation.)

Insert cable and parts into shell and fit sharp end of clamp completely into V-shaped surface of gasket. Tighten tightening nut sufficiently.

■ Remarks

1. The cable end processing dimensions are those of general connectors based on the MIL and DSP standards. They may differ somewhat depending on the type of cable. In such cases, match the dimensions with the connectors.
2. Some clamps and gaskets are not V-shaped, but the connecting procedures are the same.

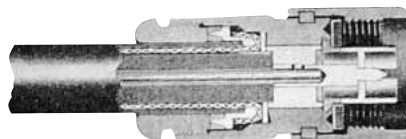
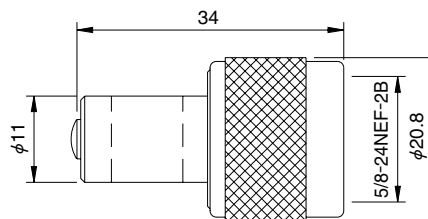


Table 1 and processing dimensions arranged by part number

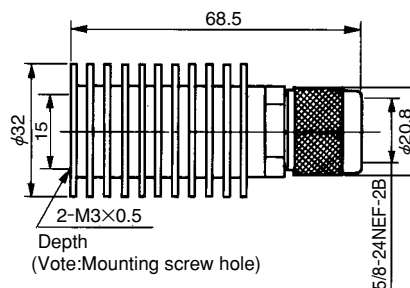
Unit : mm

Part number	CL No.	$L_1 \begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$	$L_2 \pm 0.1$	L_3
JUG-536/U(40)	301-0001-4-40	8.6	6	1
UG-18C/U(40)	301-0002-7-40	9.6	6	1
UG-21D/U(40)	301-0003-0-40	10.0	6	1
N-LP-5DW(40)	301-0007-0-40	11.5	4	3.5
UG-23D/U(40)	301-0008-3-40	8.5	5	1
UG-22D/U(40)	301-0010-5-40	8.5	5	1
N-PJ-58/U(40)	301-0011-8-40	7.4	3	3.2
UG-204C/U(40)	301-0022-4-40	11.5	6	2
N-LP-58U(40)	301-0076-3-40	9.2	4	3.6
N-P-3DV(40)	301-0078-9-40	12.3	6	4.8
N-P-8DV(40)	301-0116-6-40	12.3	5.5	3
N-P-5DV(40)	301-0120-3-40	11.1	6	1.5
N-P-5DW(40)	301-0199-3-40	12.0	6	1.5
N-P-5DFB(40)	301-0205-4-40	11.0	6	5
N-P-10DFB(40)	301-0206-7-40	11.0	6	5

■ Non-reflective Terminators (Coupling portion plug)

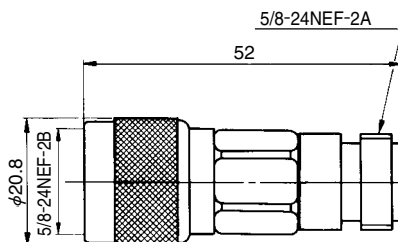


Part number	CL No.	Frequency range (GHz)	V.S.W.R.(Max)			Power (W)	Weight (g)
			DC~4GHz	4~6GHz	6~8GHz		
N-TMP-1-1(40)	353-0137-5-40	DC~8	1.10	1.15	1.20	1	59



Part number	CL No.	Frequency range (GHz)	V.S.W.R.(Max)		Power (W)	Weight (g)
			DC~2GHz	2~6GHz		
N-TMP-5(40)	353-0033-0-40	DC~6	1.15	1.20	5	113

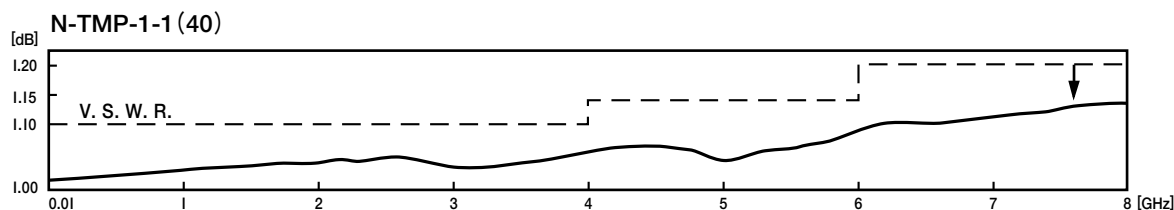
■ Fixed Attenuators(plug-jack)



Part number	CL No.	Frequency range (GHz)	V.S.W.R.(Max)			Attenuation(dB)			Power (W)	Weight (g)
			DC~2GHz	2~4GHz	4~13GHz	DC~2GHz	2~4GHz	4~13GHz		
AT-401(40)	354-0081-9-40	DC~13	1.15	1.20	1.25	1±0.3	1 ^{+0.5} _{-0.3}	1 ^{+0.6} _{-0.3}	2	77
AT-402(40)	354-0082-1-40					2±0.3	2 ^{+0.5} _{-0.3}	2 ^{+0.6} _{-0.3}		
AT-403(40)	354-0033-6-40					3±0.3	3 ^{+0.5} _{-0.3}	3 ^{+0.7} _{-0.3}		
AT-406(40)	354-0034-9-40					6±0.3	6 ^{+0.5} _{-0.3}	6 ^{+0.7} _{-0.3}		
AT-410(40)	354-0035-1-40					10±0.5	10 ^{+0.5} _{-0.3}	10 ^{+1.0} _{-0.5}		
AT-420(40)	354-0036-4-40					20±0.5	20 ^{+0.5} _{-0.3}	20 ^{+1.2} _{-0.7}		

■ Typical data

● Non-reflective Terminations



● Fixed Attenuator

