NET Series

Non-waterproof

RoHS

Safety standard certified products available

Overview

- Power connectors compliant with safety standards and also certified by UL・CSA standards.
- Used in a wide variety of FA equipment and semiconductor equipment.

Feature

RoHS	RoHS Directive compliant
Waterproof	Non
Lock method	Thread lock
Features of mechanism/ material	○ Protection circuit structure：Ground contact of sequence structure (prioritized contact) that connects with metal shells. ○ Installation in a small space enabled by use of the L za.
Standards	○ Safety standard certified connectors available. (EN61984 compliant , TÜV certified) ○ UL・CSA standard certified connectors available.（ UL : UL1977　CSA : C22.2 No.182.3 ）
Cable termination	Soldering

Characteristics

Number of contacts

Shell size	Contact	Insulation resistance (M Ω)	Contact resistance (m Ω)	Withstand voltage (V r.m.s.)
20	3	DC 500V　2,000 min.	3 max.	1,500
24	3	DC 500V　2,000 min.	3 max.	1,500
	4			
28	4	DC 500V　2,000 min.	3 max.	1,500
	8			
32	3	DC 500V　2,000 min.	3 max.	2,000
	4			

The pin contact type has an exposed electrode. If it is used on the [power supply] side, it may cause electric shock or short-circuit accidents. To prevent such accidents, use the socket contact type on the [power supply] side and the pin contact type on the [equipment] side.

NET Series

Product No. designation

NET - 24 ■ - P M
① ② ③ ④ ⑤

① Series designation
② Shell size
③ Number of contacts
④ Shell shape
⑤ Contact shape < Pin (male) contact : M , Socket (female) contact : F >

All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

Cable termination : Soldering

Material and Finish

	Material	Finish
Shell	Shell size 20 , 24 : Zinc alloy Shell size 28 , 32 : Aluminum alloy	Crape chrome plating
Insulator	Synthetic resin	—
Contact	Copper alloy	Silver plating

Operating temperature range

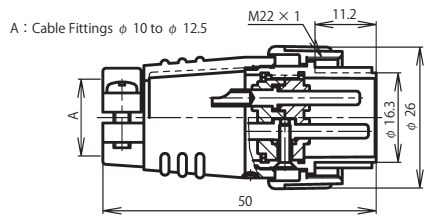
Shell size	Number of Contacts	Operating temperature range	Upper limit of ambient temperature at rated current (Note)
20	3	-25℃ to +85℃	+80℃
24	3	-40℃ to +100℃	+70℃
	4		+80℃
28	4		+70℃
	8		+93℃
32	3		+70℃
	4		

(**Note**) Max.ambient temp. at rated current
(Based on TÜV certification test results)

G Type

【Power receiving side】< Pin (male) contact used >

Plug

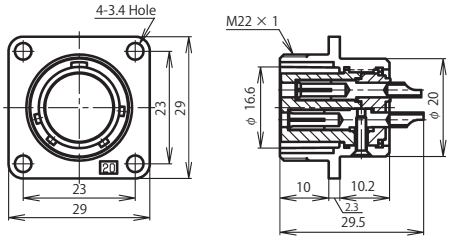


NET-20 ■ -PM

Coupled

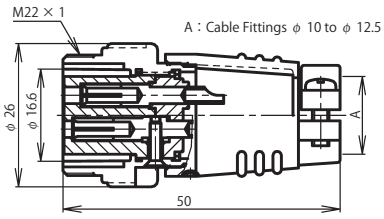
【Power supply side】< Socket (female) contact used >

Receptacle

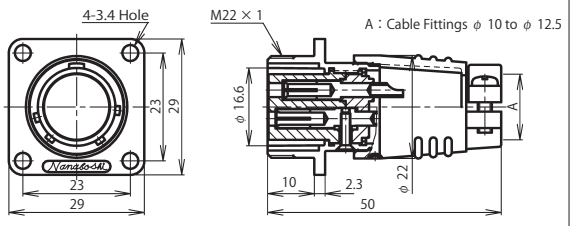


NET-20 ■ -RF

Adapter

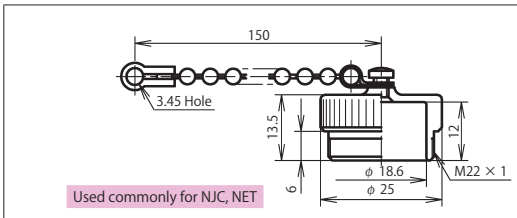


NET-20 ■ -AdF

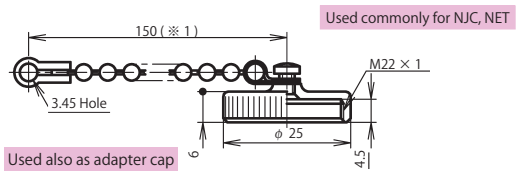


NET-20 ■ -Ad(F)F

Accessory

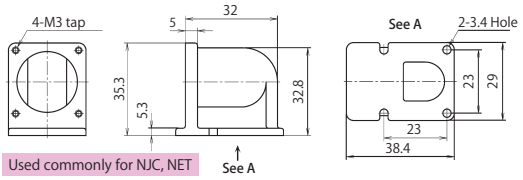


Plug cap：NJC-20-PCa



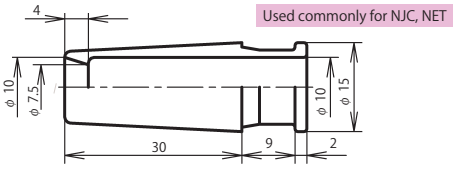
(※ 1) Length 70 mm also available. (Example：NJC-20-RCa L70)

Receptacle cap：NJC-20-RCa

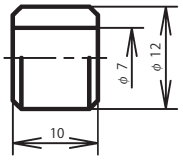


NJC-20-L za

Accessory

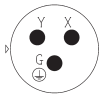


Cable bushing：NJC-20-CB



Cable bushing：CBAS-12-7

■ indicates the number of contacts.

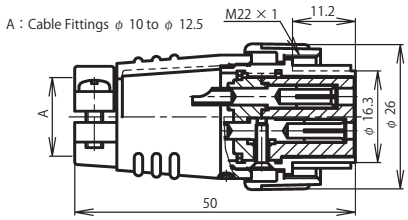
Shell size	Number of Contacts	3
20	Contact arrangement <When viewed from the pin (male) contact coupling side>	
	Safety standard (Note-1)	UL・CSA , TÜV
	Rating	250V
		15A
	Withstand voltage (V r.m.s.)	1,500
	Wire size AWG	#14

The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

S Type

【Power supply side】< Socket (female) contact used >

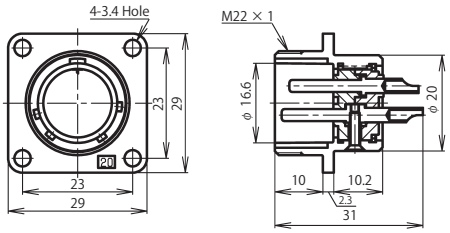


Plug

NET-20 ■ -PF

Coupled

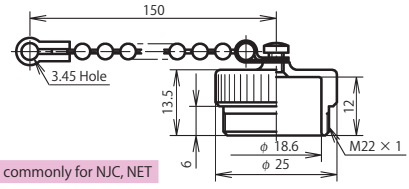
【Power receiving side】< Pin (male) contact used >



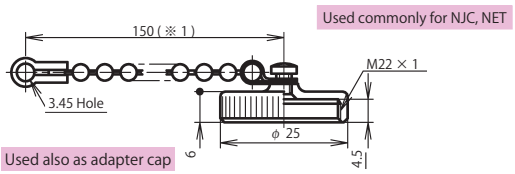
Receptacle

NET-20 ■ -RM

Accessory

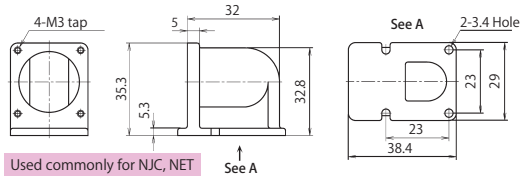


Plug cap : NJC-20-PCa



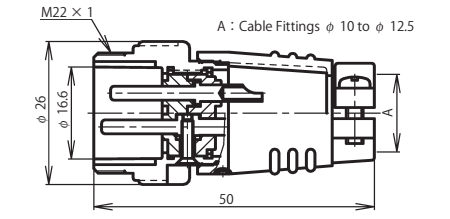
(※ 1) Length 70 mm also available. (Example : NJC-20-RCa L70)

Receptacle cap : NJC-20-RCa

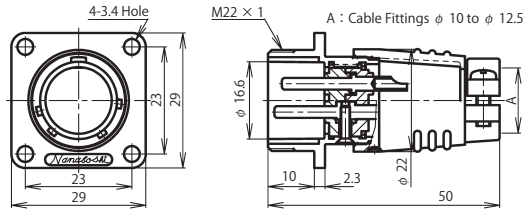


NJC-20-L za

Adapter

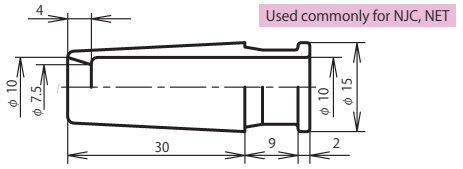


NET-20 ■ -AdM

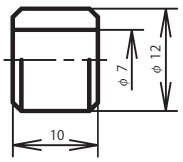


NET-20 ■ -Ad(F)M

Accessory

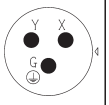


Cable bushing : NJC-20-CB



Cable bushing : CBAS-12-7

■ indicates the number of contacts.

Shell size	Number of Contacts	3
20	Contact arrangement <When viewed from the pin (male) contact coupling side>	
	Safety standard (Note-1)	UL・CSA , TÜV
	Rating	250V
		15A
	Withstand voltage (V r.m.s.)	1,500
	Wire size AWG	#14

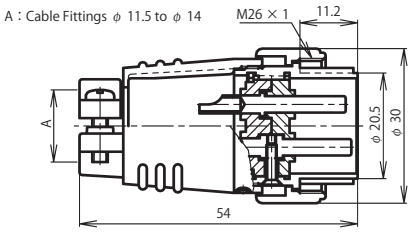
The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

G Type

【Power receiving side】< Pin (male) contact used >

Plug

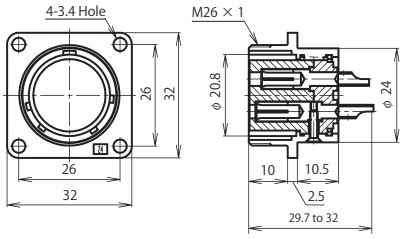


NET-24 ■ -PM

Coupled

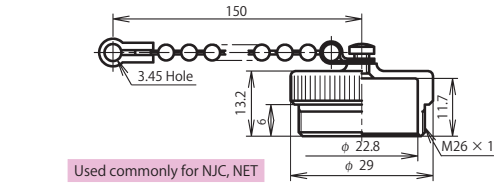
【Power supply side】< Socket (female) contact used >

Receptacle

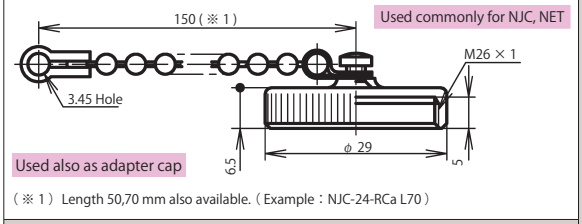


NET-24 ■ -RF

Accessory

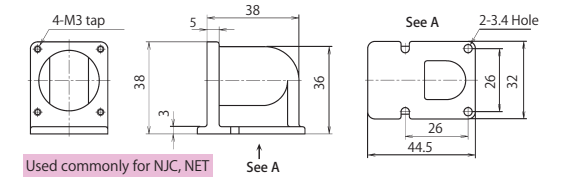


Plug cap : NJC-24-PCa



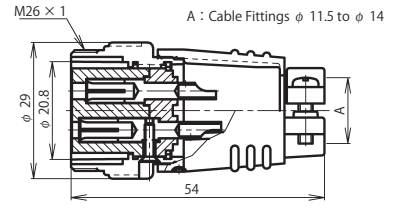
(※ 1) Length 50,70 mm also available. (Example : NJC-24-RCa L70)

Receptacle cap : NJC-24-RCa

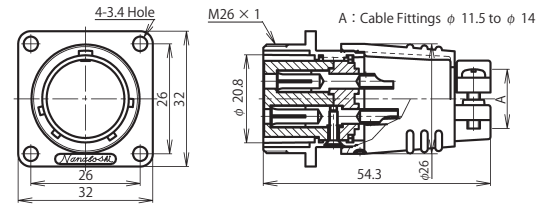


NJC-24-L za

Adapter

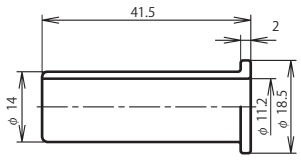


NET-24 ■ -AdF



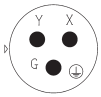
NET-24 ■ -Ad(F)F

Accessory



Cable bushing : NJC-24-CB

■ indicates the number of contacts.

Shell size	Number of Contacts	3	4
24	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		20A	15A
	Withstand voltage (V r.m.s.)	1,500	
	Wire size AWG	#12	#14

The cable to use should have a conductor cross sectional area shown in the left-side table.

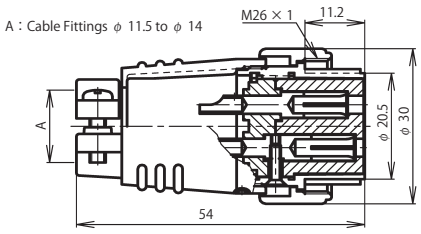
Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

【 Power supply side 】< Socket (female) contact used >

S Type

【 Power receiving side 】< Pin (male) contact used >

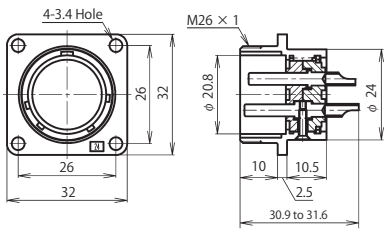
Plug



NET-24 ■ -PF

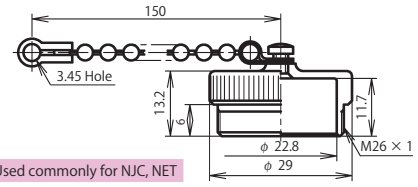
Coupled

Receptacle

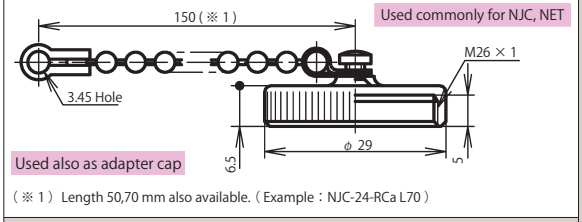


NET-24 ■ -RM

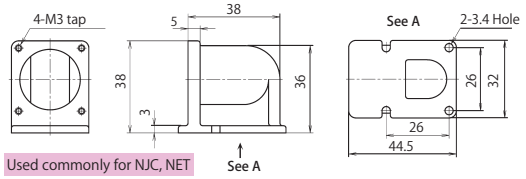
Accessory



Plug cap : NJC-24-PCa

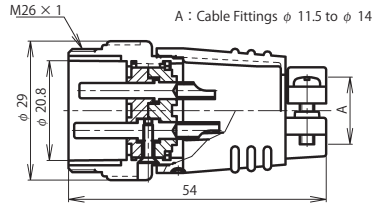


Receptacle cap : NJC-24-RCa

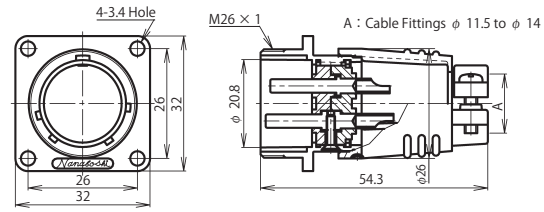


NJC-24-L za

Adapter

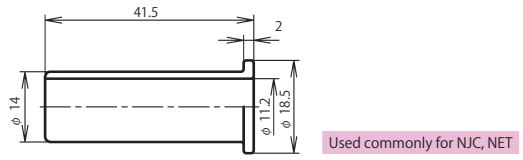


NET-24 ■ -AdM



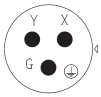
NET-24 ■ -Ad(F)M

Accessory



Cable bushing : NJC-24-CB

■ indicates the number of contacts.

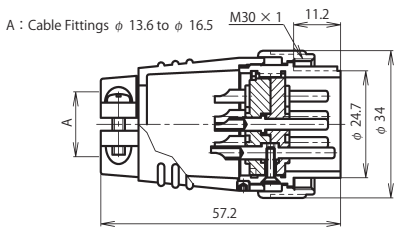
Shell size	Number of Contacts	3	4
24	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		20A	15A
	Withstand voltage (V r.m.s.)	1,500	
	Wire size AWG	#12	#14

The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

G Type

【Power receiving side】< Pin (male) contact used >



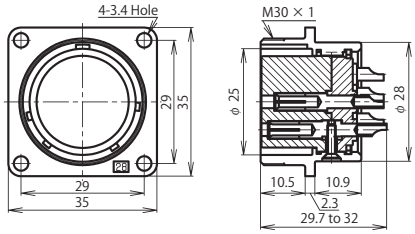
NET-28 ■ -PM

Plug

Coupled

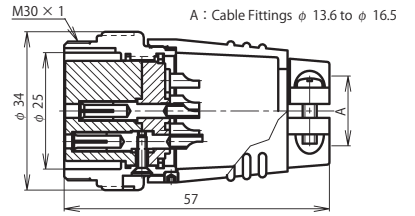
Receptacle

【Power supply side】< Socket (female) contact used >

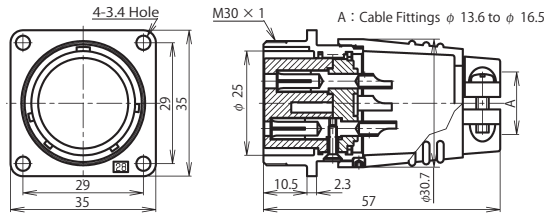


NET-28 ■ -RF

Adapter

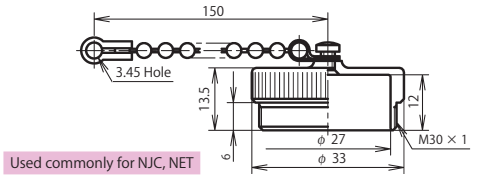


NET-28 ■ -AdF

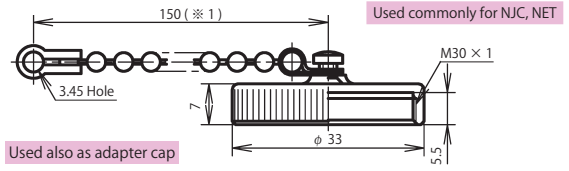


NET-28 ■ -Ad(F)F

Accessory

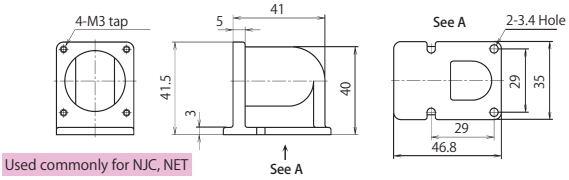


Plug cap : NJC-28-PCa



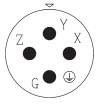
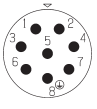
(※ 1) Length 70 mm also available. (Example : NJC-28-RCa L70)

Receptacle cap : NJC-28-RCa



NJC-28-L za

■ indicates the number of contacts.

Shell size	Number of Contacts	4	8
28	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		20A	15A
	Withstand voltage (V r.m.s.)	1,500	
	Wire size AWG	#12	#14

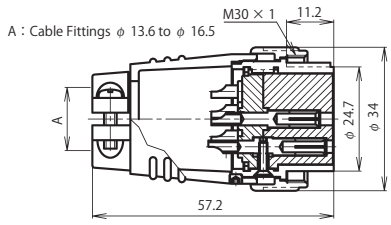
The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

S Type

【Power supply side】< Socket (female) contact used >

Plug

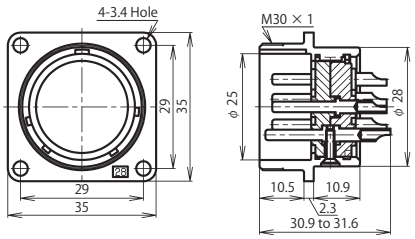


NET-28 ■ -PF

Coupled

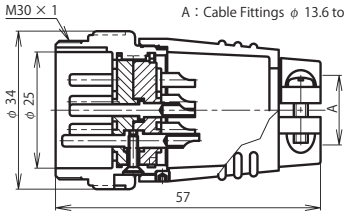
【Power receiving side】< Pin (male) contact used >

Receptacle

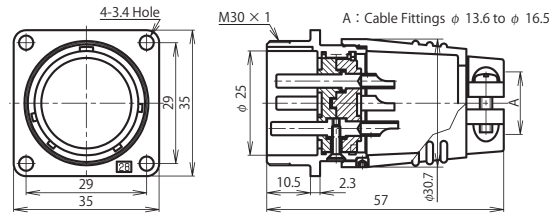


NET-28 ■ -RM

Adapter

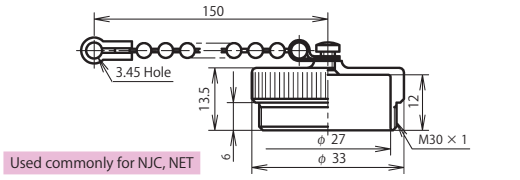


NET-28 ■ -AdM

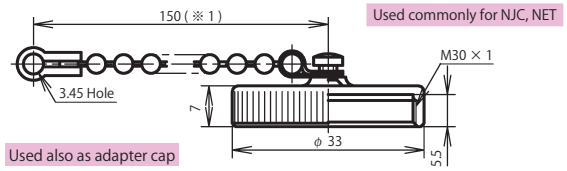


NET-28 ■ -Ad(F)M

Accessory

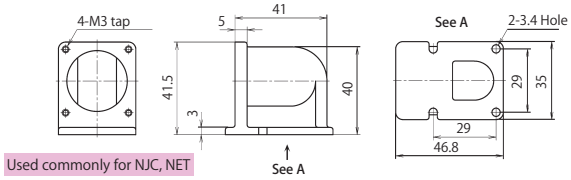


Plug cap : NJC-28-PCa



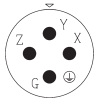
(※ 1) Length 70 mm also available. (Example : NJC-28-RCa L70)

Receptacle cap : NJC-28-RCa



NJC-28-L za

■ indicates the number of contacts.

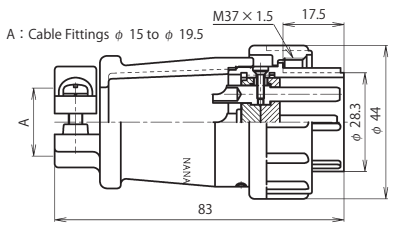
Shell size	Number of Contacts	4	8
28	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		20A	15A
	Withstand voltage (V r.m.s.)	1,500	
	Wire size AWG	#12	#14

The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

G Type

【Power receiving side】< Pin (male) contact used >



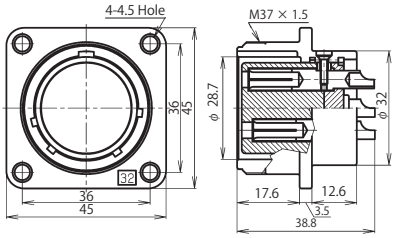
Plug

NET-32 ■ -PM

Coupled

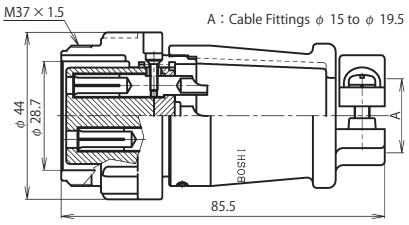
【Power supply side】< Socket (female) contact used >

Receptacle

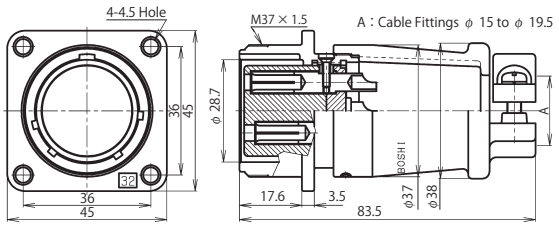


NET-32 ■ -RF

Adapter

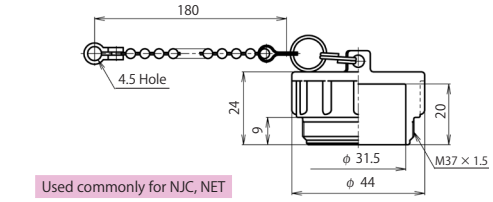


NET-32 ■ -AdF

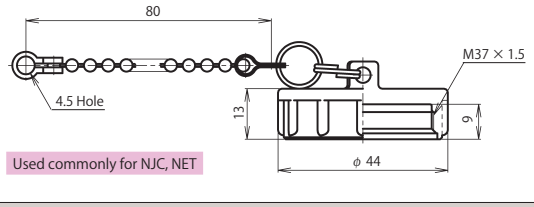


NET-32 ■ -Ad(F)F

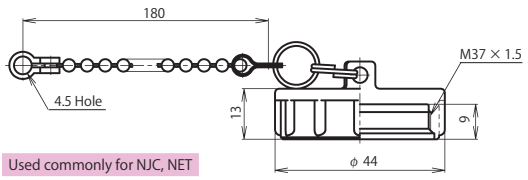
Accessory



Plug cap : NJC-32-PCa

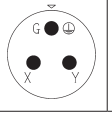


Receptacle cap : NJC-32-RCa



Adapter cap : NJC-32-AdCa

■ indicates the number of contacts.

Shell size	Number of Contacts	3	4
32	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		30A	
	Withstand voltage (V r.m.s.)	2,000	
	Wire size AWG	#10	

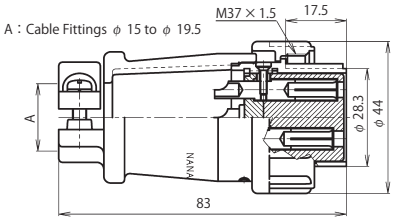
The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

S Type

【Power supply side】< Socket (female) contact used >

Plug

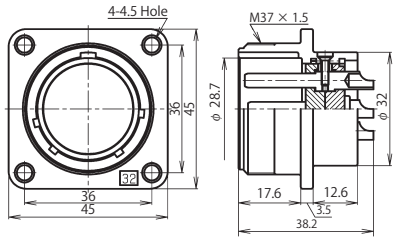


NET-32 ■ -PF

Coupled

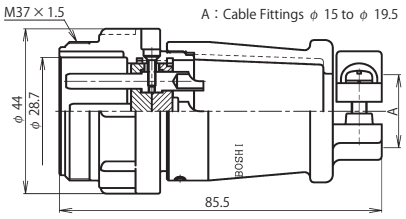
【Power receiving side】< Pin (male) contact used >

Receptacle

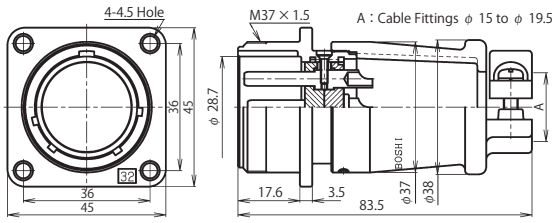


NET-32 ■ -RM

Adapter

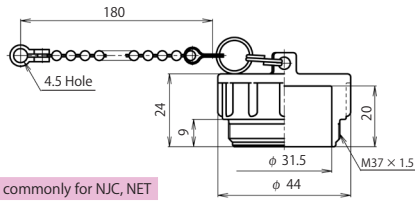


NET-32 ■ -AdM

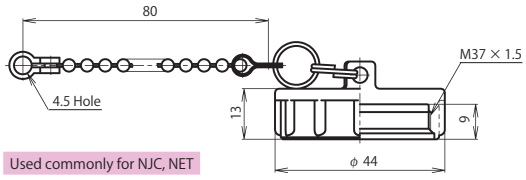


NET-32 ■ -Ad(F)M

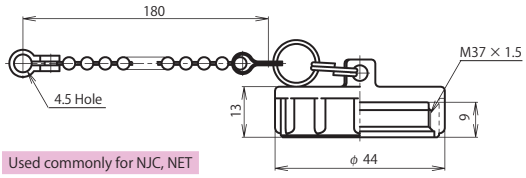
Accessory



Plug cap : NJC-32-PCa



Receptacle cap : NJC-32-RCa



Adapter cap : NJC-32-AdCa

■ indicates the number of contacts.

Shell size	Number of Contacts	3	4
32	Contact arrangement <When viewed from the pin (male) contact coupling side>		
	Safety standard (Note-1)	UL・CSA , TÜV	
	Rating	250V	
		30A	
	Withstand voltage (V r.m.s.)	2,000	
	Wire size AWG	#10	

The cable to use should have a conductor cross sectional area shown in the left-side table.

Note-1 : All connectors are UL・CSA , TÜV certified. Not necessary to specify a standard by a product name. For safety standards, see pp.127 and 130.

A List of Standards Acquired

UL・CSA certified products【Non-waterproof】

Applicable standard: UL standard UL1977

The UL standard is a safety assurance standard released by the most famous private testing laboratory (UL) in the U.S., that is intended to eliminate the risk of fire and personal accidents caused by electrical equipment. Thus, the UL certified products are considered to be reliable and usable safely by customers. Our file No. is E117868.

Applicable standard: CSA standard C22.2 No.182.3

The CSA standard is a safety standard in Canada applicable to electrical equipment and machinery. In Canada, it is required that electrical machinery and equipment that are connected to the power supply for use conform to the CSA standard.

The U.S. and Canada have concluded a mutual recognition agreement and the UL standard and the CSA standard are treated equivalent. Also the UL standard and the CSA standard are allowed for mutual recognition and the following list of standard certified products includes the products that have been recognized by the UL by use of the CSA standard and the products that have been recognized by the CSA by use of the UL standard. Please note that depending on differences of manners of acquiring certification, markings on products may differ.

Series	size	Number of contacts	PF	RM	AdM	Ad(F)M	PM	RF	AdF	Ad(F)F	Different guide ※ X	Different guide ※ Y	Different guide ※ Z	Rated current	Rated voltage	Wire size AWG (㎟)
NJC	16	3				●						●		10A	125V	#16 (-)
		5				●						●		5A		#20 (-)
	20	2 , 3				●					—			15A	250V	#14 (-)
		4 , 5				●					—			10A		#16 (-)
		7				●					●	—				
		10				●						●		5A		#20 (-)
		12				●					—					
	24	2 , 3				●					—			20A		#12 (-)
		4 , 5				●					—			15A		#14 (-)
		10				●						●		10A		#16 (-)
		14				●					—			5A		#20 (-)
		16				●						●				
	28	16				●						●		10A		#16 (-)
		24				●						●		5A		#20 (-)
	32	3 , 4 ,				●					—			30A		#10 (5.5,6)
		8 , 10 , 12				●					—			10A		#14 (2)
NR	20	2 , 3				●					—			15A		#14 (-)
		4 , 5 , 7				●					—			10A		#16 (-)
		10				●						●		5A		#20 (-)
		12				●					—					
	24	2 , 3				●					—			20A		#12 (3.5)
		4 , 5				●					—			15A		#14 (2)
		10				●						●		10A		#16 (1.25)
		14 , 16				●						●		5A		#20 (0.5)
NET	20	3				●					—			15A		#14 (2)
	24	3				●					—			20A		#12 (3.5)
		4				●					—			15A		#14 (2)
	28	4				●					—			20A		#12 (3.5)
		8				●					—			15A		#14 (2)
	32	3 , 4				●					—			30A		#10 (5.5,6)

※ "Different guide" column: The symbol ● indicates that products of different guide position are available.
The products other than the products of shapes shown in the table are not covered by the standards.

A List of Standards Acquired

UL・CSA certified products【Waterproof】

Series	size	Number of contacts	PF	RM	AdM	Ad(F)M	PM	RF	AdF	Ad(F)F	Different guide ※ X	Different guide ※ Y	Different guide ※ Z	Applicable Cable OD Symbol					Rated current	Rated voltage	Wire size AWG (㎟)
NJW	16	3				●					●			9	11	—			10A	125V	#16 (-)
		5				●					●								5A		#20 (-)
	20	2 , 3				●					—			8	10	12	—		15A	250V	#14 (-)
		4 , 5 , 7				●					—								10A		#16 (-)
		10				●					●								5A		#20 (-)
		12				●					—										
	24	2 , 3				●					—			11	13	15	—		20A		#12 (-)
		4 , 5				●					—								15A		#14 (-)
		10				●					—								10A		#16 (-)
		14 , 16				●					—								5A		#20 (-)
	28	16				●					—			14	16	18	—		10A		#16 (-)
		24				●					—								5A		#20 (-)
	32	3 , 4 ,				●					—			16	20	—			30A		#10 (5.5,6)
		8 , 10 , 12				●					—								10A		#14 (2)
NRW	20	2 , 3		●		—		●		—	—			8	10	12	—		15A		#14 (-)
		4 , 5 , 7		●		—		●		—	—								10A		#16 (-)
		10		●		—		●		—	●								5A		#20 (-)
		12		●		—		●		—	—										
	24	2 , 3		●		—		●		—	—			11	13	15	—		20A		#12 (-)
		4 , 5		●		—		●		—	—								15A		#14 (-)
		10		●		—		●		—	—			11	13	15	—		10A		#16 (-)
		14 , 16		●		—		●		—	—								5A		#20 (-)
	28	16		●		—		●		—	●			10	12	14	16	18	10A		#16 (-)
		24		●		—		●		—	●								5A		#20 (-)
NAW	20	2 , 3				●					—			6	8	10	12	—	15A		#14 (-)
		4 , 5				●					—								10A		#16 (-)
		7				●					●	—									
		10 , 12				●					●								5A		#20 (-)
NEW	20	3		●		—		●		—	—			8	10	12	—		15A		#14 (2)
	24	3		●		—		●		—	—			11	13	15	—		20A		#12 (3.5)
		4		●		—		●		—	—								15A		#14 (2)
	28	4		●		—		●		—	—			10	12	14	16	18	20A		#12 (3.5)
		8		●		—		●		—	—								15A		#14 (2)

※ "Different guide" column: The symbol ● indicates that products of different guide position are available.
The products other than the products of shapes shown in the table are not covered by the standards.

A List of Standards Acquired

CSA NRTL/C

Applicable standard: CSA standard C22.2 No.182.3 , UL1977

Products that have been certified by the CSA as products that conform to the standards in both of Canada and U.S.

Series	size	Number of contacts	P	R	Ad	Ad(F)	GP □	PM	RF	AdF	GPM □	Rated current	Rated voltage	Wire size AWG S Type	Wire size AWG G Type
NCS	25	6	●		—			●		—		10A (S Type) , 5A (G Type)	265V	#14	#16
		7	●		—			●		—					
	30	3	●		—			●		—		15A			#14
		8	●		—			●		—		10A (S Type) , 5A (G Type)			#16
	40	8		●			—					20A		#10	—
		12		●			—					3pcs-10A , 9pcs-5A		3pcs-#14 , 9pcs-#16	
		16		●			—					3pcs-10A , 13pcs-5A		3pcs-#14 , 13pcs-#16	
		20		●			—					5A		#16	
	44	8			—				●		—	20A		—	#10
		12			—				●			3pcs-10A , 9pcs-5A			3pcs-#14 , 9pcs-#16
		16			—				●		—	3pcs-10A , 13pcs-5A			3pcs-#14 , 13pcs-#16
		20			—				●		—	5A			#16
	50	15		●			—					15A		#12	—
		25		●		—	●		—			4pcs-15A , 21pcs-5A		4pcs-#12 , 21pcs-#14	
	54	15			—				●		—	15A		—	#12
		25			—				●			4pcs-15A , 21pcs-5A			4pcs-#12 , 21pcs-#14
NWPC	60	30 , 40	●		—							5A		#14	—

Series	size	Number of contacts	PF	RM	AdM	Ad(F)M	PM	RF	AdF	Ad(F)F	Different guide ※ X	Different guide ※ Y	Different guide ※ Z	Applicable Cable OD Symbol					Rated current	Rated voltage	Wire size AWG (㎟)
NAW	16	3				●					●			5	7	8	9	11	10A	125V	#16
		5				●					●								5 A		#20
	24	2 , 3				●					—			8	11	13	15	—	20A	250V	#12
		4 , 5				●					—								15A		#14
		10				●					●								10A		#16
		14 , 16				●					●								5A		#20

※ "Different guide" column: The symbol ● indicates that products of different guide position are available.
The products other than the products of shapes shown in the table are not covered by the standards.

A List of Standards Acquired

TÜV certified products

Applicable standard: European standard EN 61984

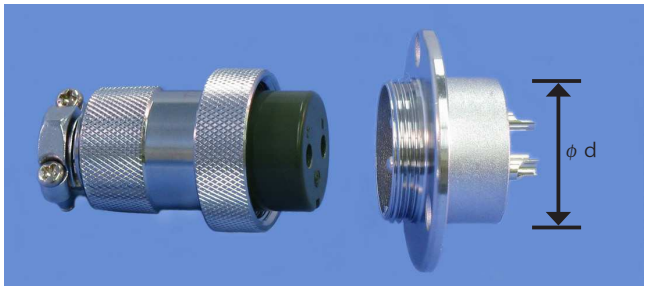
Products certified by TÜV Rheinland as the products that conform to European standard EN61984 that is applicable to multi-pole connectors for industrial application.

Series	size	Number of contacts	PF	RM	AdM	Ad(F)M	PM	RF	AdF	Ad(F)F	Applicable Cable OD Symbol					Rated current	Rated voltage	Wire size AWG (㎟)
NJC	20	2 , 3				●					—					15A	250V	#14 (-)
		4				●					—					10A		#16 (-)
	24	2 , 3				●					—					20A		#12 (-)
		4 , 5				●					—					15A		#14 (-)
	32	3 , 4				●					—					30A		#10 (5.5,6)
NR	20	2 , 3				●					—					15A		#14 (-)
		4				●					—					10A		#16 (-)
	24	2 , 3				●					—					20A		#12 (-)
		4 , 5				●					—					15A		#14 (-)
NET	20	3				●					—					15A		#14 (2)
	24	3				●					—					20A		#12 (3.5)
		4				●					—					15A		#14 (2)
	28	4				●					—					20A		#12 (3.5)
		8				●					—					15A		#14 (2)
	32	3 , 4				●					—					30A		#10(5.5,6)
NRW	20	2 , 3	●		—		●		—		8	10	12	—		15A		#14 (-)
		4 , 5	●		—		●		—		8	10	12	—		10A		#16 (-)
	24	2 , 3	●		—		●		—		11	13	15	—		20A		#12 (-)
		4 , 5	●		—		●		—		11	13	15	—		15A		#14 (-)
NEW	20	3	●		—		●		—		8	10	12	—		15A		#14 (2)
	24	3	●		—		●		—		11	13	15	—		20A		#12(3.5)
		4	●		—		●		—		11	13	15	—		15A		#14(2)
	28	4	●		—		●		—		10	12	14	16	18	20A		#12(3.5)
		8	●		—		●		—		10	12	14	16	18	15A		#14(2)

Explanation of Terms

• **Shell size**

We use the outer diameter (ϕ d [mm]) of the panel inserting part of the receptacle to indicate the shell size.



Example：NCS-25 (Shell size)
ϕd

• **"Rated voltage" "Limit operating voltage"**

The "rated voltage" is the voltage defined by the technical standards in the Electrical Appliances and Materials Safety Act in order to eliminate variation in performance by manufacturers and the "limit operating voltage" is the voltage that indicates the performance that can be exhibited by the products of Nanaboshi Electric Mfg.

Both of them are continuously usable voltages and we show the same value for both of AC and DC.

• **Protection degree(JIS C 0920 , EN / IEC 60529)**

The degree of protection against the entry of foreign solid objects such as dust and dirt and the ingress of water, which is verified by standardized testing methods. This protection degree is designated by the form of "IP □■ ". A figure of degree of protection against the entry of foreign solid objects is shown in □ and a figure of degree of protection against the ingress of water is shown in ■ .

If there is no need of specification, an alphabet "X" is used.

Example: IP67, IPX7

Tests are applicable only to assigned degrees and the products of degree 7 do not necessarily satisfy the tests of degree 6 or below.

IP □ ■

First characteristic digit		
IP	Protection of electrical equipment	Protection of persons
	Entry of foreign solid objects	Access to hazardous parts
0	(No protection)	(No protection)
1	Diameter ≧ 50mm	Back of hand
2	Diameter ≧ 12.5mm	Finger
3	Diameter ≧ 2.5mm	Tool
4	Diameter ≧ 1.0mm	Wire
5★	Dust protected	Wire
6	Dust tight	Wire

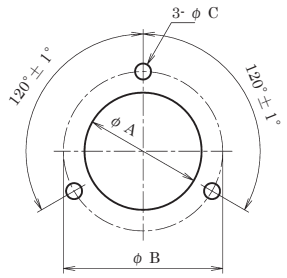
★ Category 1: Test with the inside under negative pressure.
Category 2: Test with the inside not under negative pressure.

Second characteristic digit	
IP	Protection of electrical equipment
	Harmful ingress of water
0	(No protection)
1	Vertically falling
2	Falling (at an degree of 15°)
3	Spraying
4	Splashing
5	Jetting
6	Powerful water jets
7	Temporary immersion (Watertight)
8	Continuous immersion (Submersible)

※ The testing method of numeral 8 is agreed between the parties concerned.

Installation Dimensions

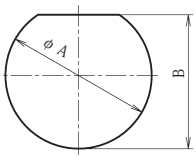
Round flange receptacle (3 holes)



(mm)

Series	Shell size	Shape	ϕ A $^{+1}_{0}$	ϕ B	ϕ C
NCS	14	R	15	23 ± 0.2	3.4 hole or M3 tap
	16	R RF	17	24 ± 0.2	
	25		26	34 ± 0.2	
	30		31	38 ± 0.2	
	40	R	41	50 ± 0.2	
	44	RF	45	56 ± 0.2	
	50	R	51	60 ± 0.2	
NWPC	14	R	15	26 ± 0.2	
	16	R RF	17	30 ± 0.2	
	25		26	36 ± 0.2	
	30		31	41 ± 0.2	
	40	R	41	52 ± 0.2	
	44	RF	45	60 ± 0.2	

NJW-16-RBM,RBF

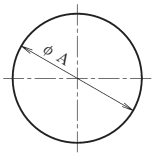


(mm)

Series	Shell size	Shape	ϕ A $^{+0.1}_{0}$	B $^{+0.1}_{0}$	Panel thickness
NJW	16	RBM RBF	16	15.4	2 to 5

Recommended tightening torque of mounting nut : 1.5 N・m

NCS-25・30-RBP



(mm)

Series	Shell size	Shape	ϕ A $^{+0.5}_{0}$	Panel thickness
NCS	25	RBP	28.5	2 to 3
	30		33.5	2 to 4

Recommended tightening torque of mounting nut : 2 N・m

Precautions for installing the waterproof type

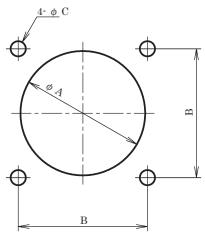
In order to secure water tightness, the installation part must be treated as below:

1. When the panel thickness is 10 mm or more, tap the panel directly and ensure that the thread hole does not penetrate from the installation panel surface to the back.
2. When the installation panel is thinner, either use a commercially available seal washer or mold the mounting nut part with resin.

※ The inside of the panel should be water tight.

Installation Dimensions

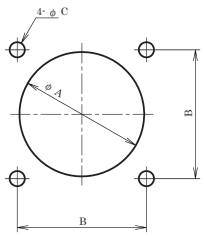
Square flange receptacle (4 holes)



(mm)

Series	Shell size	Shape	ϕ A $^{+1}_{0}$	B	ϕ C
NCS	25	R Kaku RF Kaku	26	24 ± 0.2	3.4 hole or M3 tap
	50	R	51	48 ± 0.3	5.5 hole or M5 tap
		R Kaku			
	54	RF	55	52 ± 0.3	
	60	R RF	61	56 ± 0.3	
	64	RF	65	62 ± 0.3	
NWPC	50	R	51	50 ± 0.3	
	54	RF	55	52 ± 0.3	
	60	R RF	61	56 ± 0.3	
	64	RF	65	62 ± 0.3	
NJC , NJW , NAW	16	RM RF L za	17	20 ± 0.2	3.4 hole or M3 tap
NJC , NR , NET NJW , NRW NAW , NEW	20		21	23 ± 0.2	
	24		25	26 ± 0.2	
NJC , NET , NJW NRW , NEW	28		29	29 ± 0.2	
NJC , NET , NJW	32	RM RF	33	36 ± 0.2	4.5 hole or M4 tap
NT	50	RM,RF CRM,CRF	51	48 ± 0.2	

NJC, NR Series receptacle Installed from back of panel



(mm)

Series	Shell size	Shape	ϕ A $^{+1}_{0}$	B	ϕ C	Panel thickness
NJC	16	RM RF	19	20 ± 0.2	3.4 hole	2 to 3
	20		23	23 ± 0.2		
	24		27	26 ± 0.2		
	28		31	29 ± 0.2		2 to 3.5
	32		38	36 ± 0.2	4.5 hole	2 to 6.5
NR	20	RM RF	23	23 ± 0.2	3.4 hole	2 to 3
	24		27	26 ± 0.2		

Precautions for installing the waterproof type

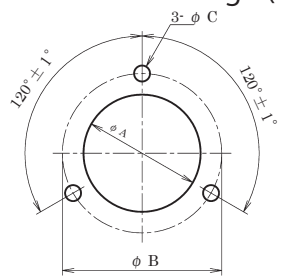
In order to secure water tightness, the installation part must be treated as below:

1. When the panel thickness is 10 mm or more, tap the panel directly and ensure that the thread hole does not penetrate from the installation panel surface to the back.
2. When the installation panel is thinner, either use a commercially available seal washer or mold the mounting nut part with resin.

※ The inside of the panel should be water tight.

Installation Dimensions

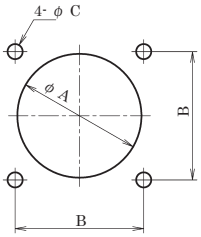
Adapter with round flange (3 holes)



(mm)

Series	Shell size	Shape	ϕ A $^{+1}_{0}$	ϕ B	ϕ C
NCS	16	Ad(F) AdF(F)	22.5	28 ± 0.2	3.4 hole or M3 tap
	25		29	35 ± 0.2	
	30		34	42 ± 0.2	
	40	Ad(F)	47	56 ± 0.2	
NWPC	16	Ad(F) AdF(F)	26	32 ± 0.2	
	25		33	39 ± 0.2	
	30		38	44 ± 0.2	

Adapter with square flange (4 holes)



(mm)

Series	Shell size	Shape	ϕ A $^{+1}_{0}$	B	ϕ C
NJC , NJW , NAW	16	Ad(F)M Ad(F)F GAd(F)M GAd(F)F Ad(F)MK Ad(F)FK	19.5	20 ± 0.2	3.4 hole or M3 tap
NJC , NR , NET, NJW , NAW	20		24	23 ± 0.2	
NJC , NR , NET, NJW , NAW	24		27	26 ± 0.2	
NJC , NET , NJW	28		32	29 ± 0.2	
NJC , NET , NJW	32		40	36 ± 0.2	4.5 hole or M4 tap

In the case of NJW and NAW Series, insert a connector through a panel hole with the clamp nut removed.
(Other than Size 32)

AWG Conversion Table

A W G	Wire Diameter (mm)	Wire size (mm^2)	A W G	Wire Diameter (mm)	Wire size (mm^2)
4/0	11.684	107.2	24	0.5106	0.2047
3/0	10.404	85.03	25	0.4547	0.1623
2/0	9.266	67.42	26	0.4049	0.1288
0	8.250	53.49	27	0.3606	0.1021
1	7.348	42.41	28	0.3211	0.08097
2	6.544	33.63	29	0.2859	0.06425
3	5.827	26.66	30	0.2546	0.05097
4	5.189	21.15	31	0.2268	0.04039
5	4.621	16.77	32	0.2019	0.03203
6	4.115	13.30	33	0.1798	0.02540
7	3.665	10.55	34	0.1601	0.02014
8	3.264	8.368	35	0.1426	0.01597
9	2.906	6.632	36	0.1270	0.01267
10	2.588	5.262	37	0.1131	0.01005
11	2.305	4.172	38	0.1007	0.007968
12	2.053	3.309	39	0.08969	0.006319
13	1.828	2.624	40	0.07987	0.005012
14	1.628	2.081	41	0.07113	0.003973
15	1.450	1.650	42	0.06334	0.003151
16	1.291	1.309	43	0.05641	0.002499
17	1.150	1.037	44	0.05023	0.001982
18	1.024	0.8226	45	0.04473	0.001572
19	0.9116	0.6529	46	0.03984	0.001246
20	0.8118	0.5174	47	0.03547	0.0009884
21	0.7229	0.4105	48	0.03159	0.0007838
22	0.6438	0.3256	49	0.02813	0.0006216
23	0.5733	0.2581	50	0.02505	0.0004929

Parallel Pipe Thread Conversion Table

JIS B 0202 (Parallel pipe thread)	
Specified in ISO	Not specified in ISO
$G^1/_2$	$PF^1/_2$
$G^3/_4$	$PF^3/_4$
G1	PF1
$G1^1/_4$	$PF1^1/_4$
$G1^1/_2$	$PF1^1/_2$

JIS C 8305 (Rigid steel conduits) Thick steel conduit pipe thread
CTG16
CTG22
CTG28
CTG36
CTG42

For designation of pipe threads, we use the expression of parallel pipe thread "G(PF)". For the thick steel conduit pipe thread (CTG) also, the above table can be used without problem.