

NT Series



Waterproof equivalent to IP-X6

RoHS

Overview

- Waterproof and oilproof connectors for machine tools.
- Safety design with ground contact for a wide variety of machines including various molding machines.

Feature

RoHS	RoHS Directive compliant
Waterproof	Waterproof connector 【 Waterproof function equivalent to IP-X6 when coupled 】
Lock method	Thread lock
Features of mechanism/ material	<ul style="list-style-type: none"> ○ Made of aluminum for light weight and robust. ○ Use of NBR packing for high oil resistance. ○ Safety design with ground contact.
Cable termination	Soldering

Characteristics

Shell size	Contact	Insulation resistance (M Ω)	Contact resistance (m Ω)	Withstand voltage (V r.m.s.)
50	4	DC 1,000V 5,000 min.	3 max.	3,000
	10			2,500
	12			
	15			

(Waterproof) No trace of water exposure after being tested to the protection degree 6 in the coupled state in its normal state of use.



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.

NT Series

Product No. designation

NT - 50 ■ - **PM** □

- ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series designation
- ② Shell size
- ③ Number of contacts
- ④ Shell shape
- ⑤ Contact shape < pin (male) contact : M , socket (female) contact : F >
- ⑥ Guide position change symbol (X , Y , Z) 《 Required only when changing the guide position 》
- ⑦ Symbol indicating cable packing size. 《 Plug require symbol to be specified. 》

《Option》

- When using a plural number of same products at the same time, the guide position can be changed in order to prevent mis-insertion. (For applicable products, see below.)
- Product name example : NT-5012-PF**Z**16
- Guide position change symbol (X, Y, Z) in the **red character part**.

Cable termination : Soldering

Operating temperature range

-40°C to +85°C

Material and Finish

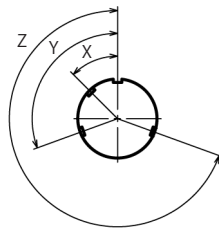
	Material	Finish
Shell	Aluminum alloy	Chrome plating
Insulator	Epoxy resin	—
Contact	Copper alloy	Silver plating
Packing	Oil-resistant rubber	—

To change the guide position

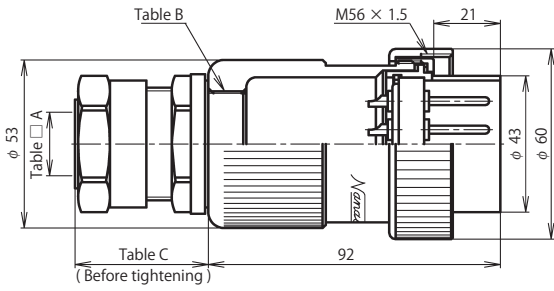
Number of Contacts	Guide Position Symbol		
	X	Y	Z
4	45°	110°	250°
10			
12			
15			

An image of guide position change

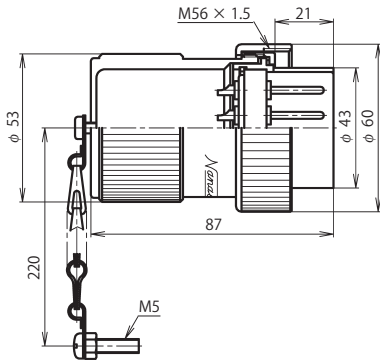
< When viewed from the pin (male) contact side coupling face >



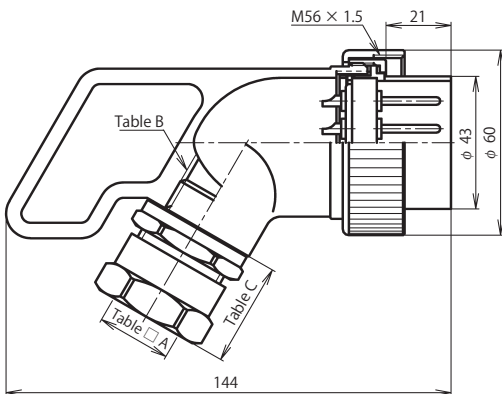
【 Power receiving side 】 < Pin (male) contact used >



NT-50 ■ -PM □

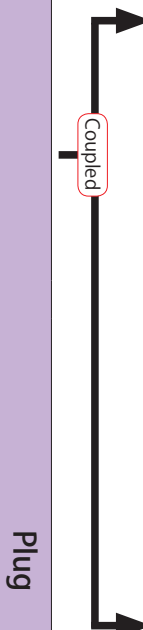


NT-50 ■ -SPM □



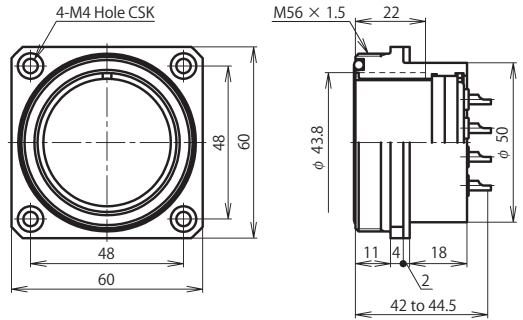
NT-50 ■ -LPM □

G Type

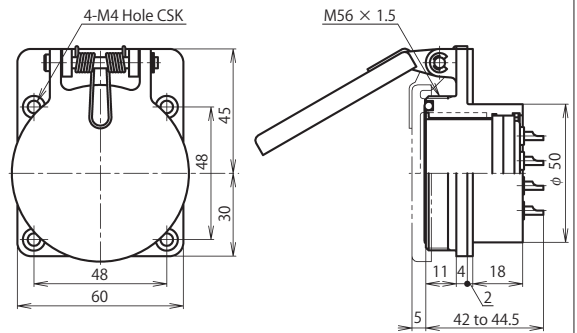


Plug

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



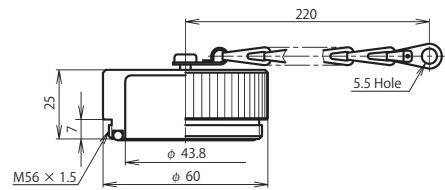
NT-50 ■ -RF



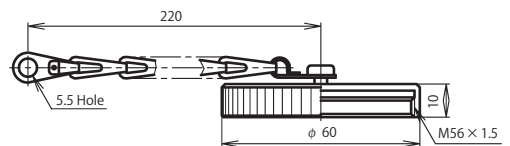
Receptacle with cap: NT-50 ■ -CRF

The water resistance of the CR cap part is equivalent to IPX4.

Accessory



Plug cap : NT-50-PCa



Receptacle cap : NT-50-RCa

For the plug , be sure to select □ (cable packing symbol).

Table □

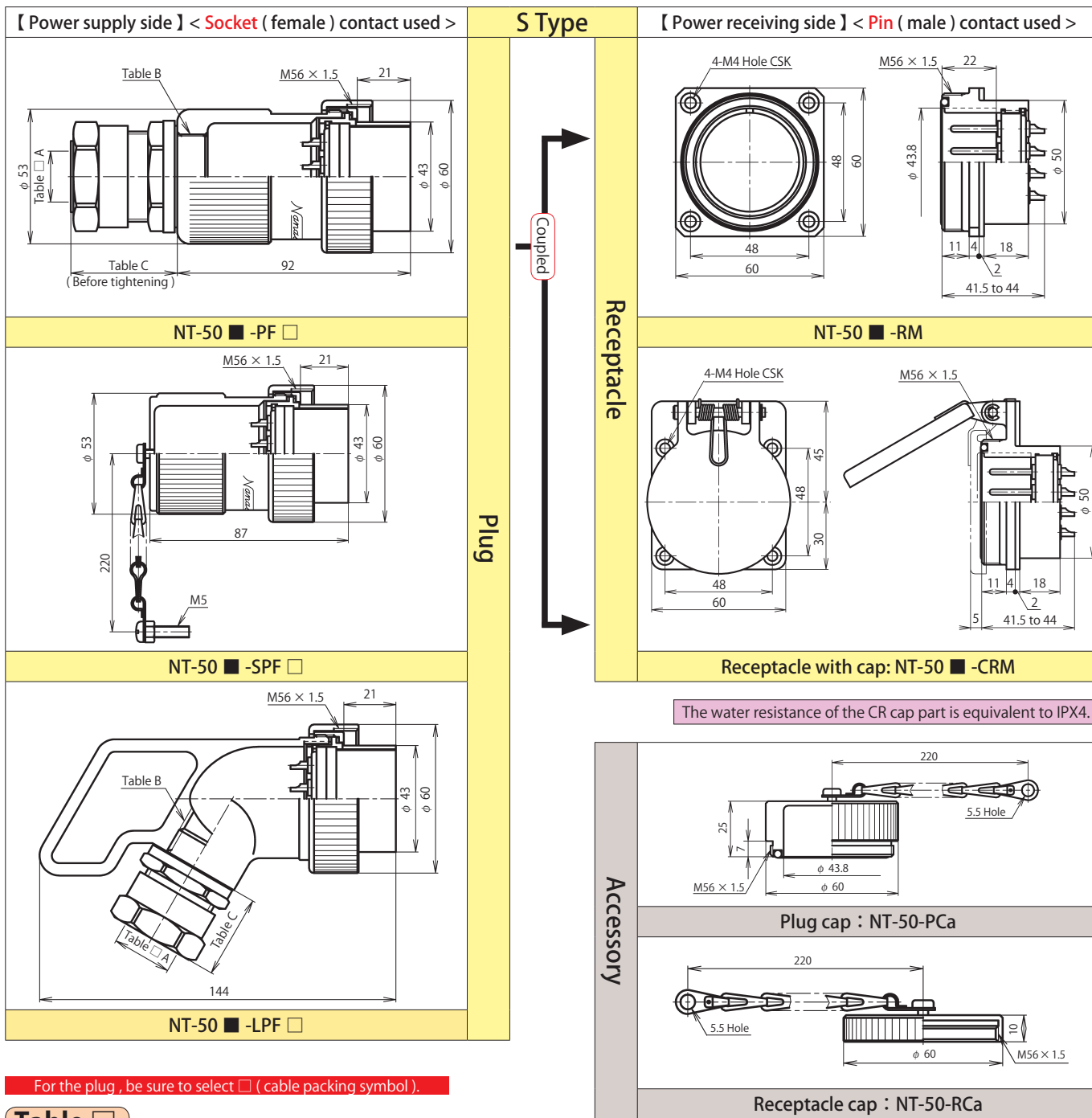
In order to secure the intended waterproof function, a cable to be used for the plug should have an appropriate specification and structure.

Shell size	Symbol □	A	B	C
50	12	φ 8.0 to φ 12.0	G 1/2	max.32
	16	φ 12.1 to φ 16.0	G 3/4	max.34
	20	φ 16.1 to φ 20.0		max.37
	24	φ 20.1 to φ 24.0	G 1	max.43

■ indicates the number of contacts. The conductor cross sectional area is less than the following value.

Shell size	Number of Contacts	4	10	12	15
50	Contact arrangement <When viewed from the pin (male) contact coupling side>				
	Rating	250V 30A	600V 15A	400V 5A	
	Limit operating voltage (Note-1)	600V		—	
	Withstand voltage (V r.m.s.)	3,000		2,500	
	Wire size (mm ²)	8	3.5	2	

Note-1: For the limit operating voltage, see p.131.



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Table □

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