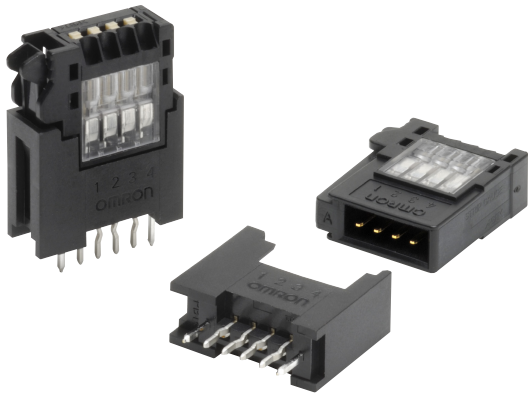
Easy-wire Connectors for Industrial Components

XN2

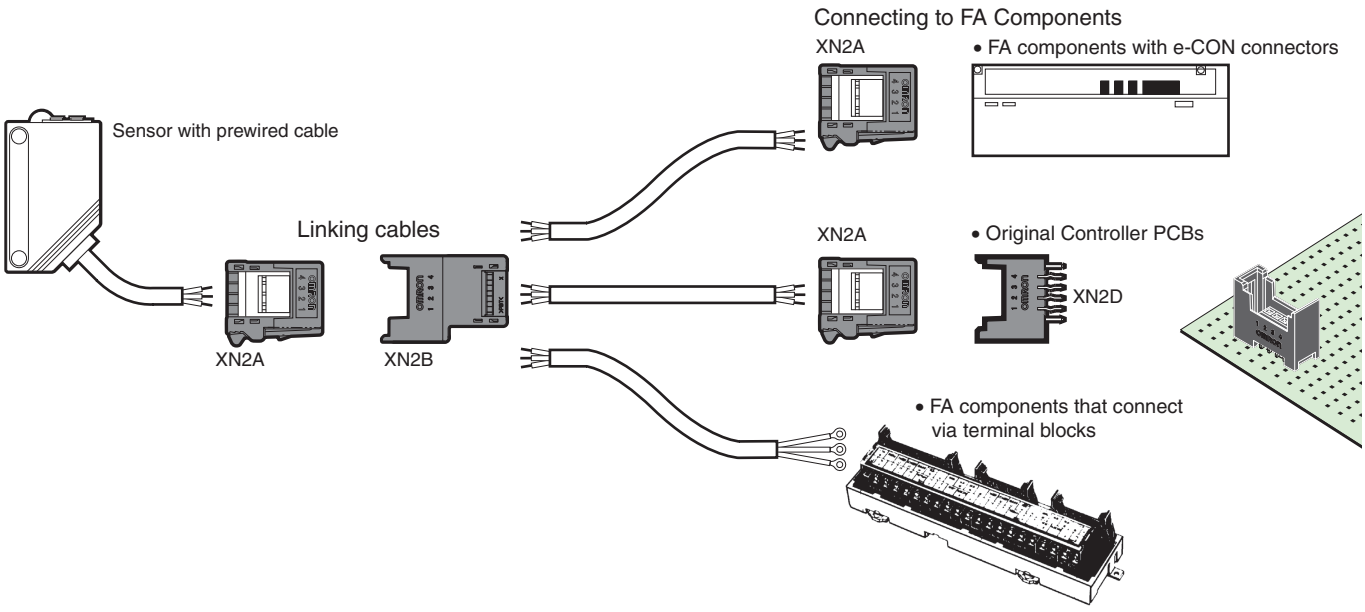
Easy-wire Connectors with *e-CON* * Specifications; Ideal for Connecting Sensors.

- Use industry-proven spring clamps for wiring.
- No special tools required for easy wiring.
- Rewiring (repairing) is possible.
- Each Connector accepts any wire size from stranded wire AWG28 (0.08 mm^2) to AWG20 (0.5 mm^2). (External sheath diameter: 1.5 mm max.)

Note: *E-con specifications are currently being promoted for standardization by manufacturers of FA components and connectors. Connector specifications are disclosed only for the mating portions.

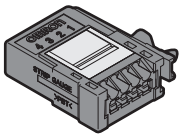
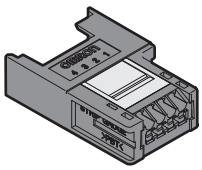
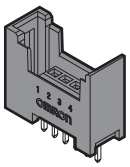
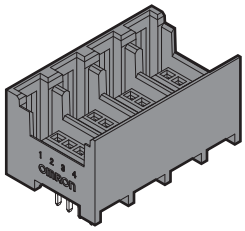


Wiring Configuration Example



Downloaded from Arrow.com.

Ordering Information

Type	Cable Plug Connector	Cable Socket Connector	Single-socket PCB Socket Connector	Four-socket PCB Socket Connector
Appearance				
No. of contacts	Model			
3	XN2A-1370	—	XN2D-1371	—
4	XN2A-1470	XN2B-1470	XN2D-1471	XN2D-4471
5	XN2A-1570	—	XN2D-1571	—
6	XN2A-1670	—	XN2D-1671	—
8	XN2A-1870	—	XN2D-1871	—

Ratings and Specifications

Rated current	3 A/pole (Using AWG20 wire) 2 A/pole (Using AWG22 wire) 1 A/pole (Using AWG24 wire) 0.5 A/pole (Using AWG26 or 28 wire)
Rated voltage	32 VDC
Contact resistance	30 mΩ max. (20 mVDC max., 100 mA max.)
Insulation resistance	1000 MΩ min. (at 500 VDC)
Dielectric strength	1,000 VAC for 60 s (leakage current: 1 mA max.)
Insertion durability	50 times
Ambient operating temperature	–30 to 75°C *1 (with no condensation or icing)
Applicable wires	Stranded wire 0.08 mm^2 (AWG28) to 0.5mm^2 (AWG20) *2 The external diameter of the cable sheath is 1.5 mm max.

*1. The temperature is limited, however, to the maximum operating temperature for the cables.
*2. Solid wires and pretinning wires cannot be used.

Materials and Finish

Item	Cable type	PCB type
Case	PBT (UL94 V-0)/Black	
Cover	PBT (UL94 V-0)/Black	—
Base	PC (UL94 V-2)/Transparent	—
Lever	PA (UL94 V-0)/natural	—
Contact	Copper alloy Mating end : Nickel base, gold plating Contact : Nickel base, tin plating Terminal : Nickel base, tin plating	
Spring	Stainless steel	—
Pin clamp	—	Copper alloy/nickel base with tin plating

Downloaded from Arrow.com.

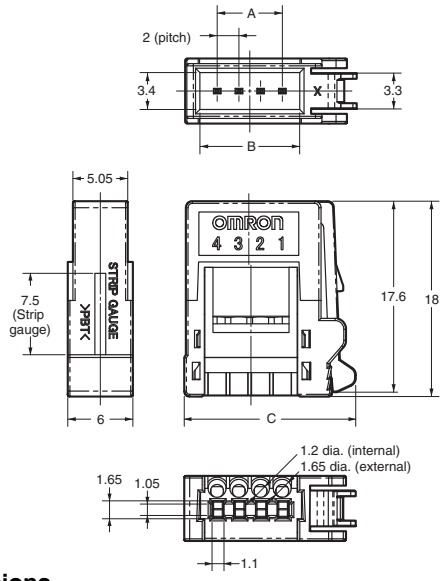
XN2

Dimensions

(Unit: mm)

Cable Plug Connector

XN2A-1□70

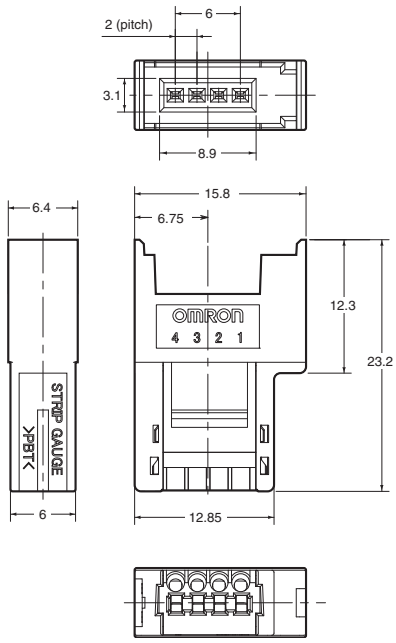


Dimensions

Dimension (mm) No. of contacts	A	B	C
3	4.0	7.2	13.8
4	6.0	9.2	15.8
5	8.0	11.2	17.8
6	10.0	13.2	19.8
8	14.0	17.2	23.8

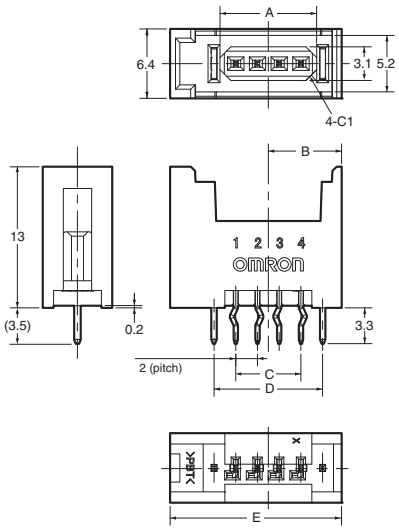
Cable Socket Connector

XN2B-1470

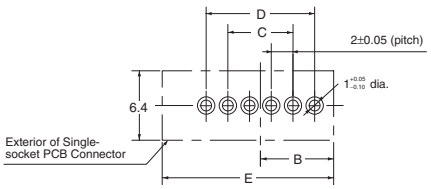


Single-socket PCB Socket Connector

XN2D-1□71



Applicable PCB Dimensions (Top View) t=1.6±0.2



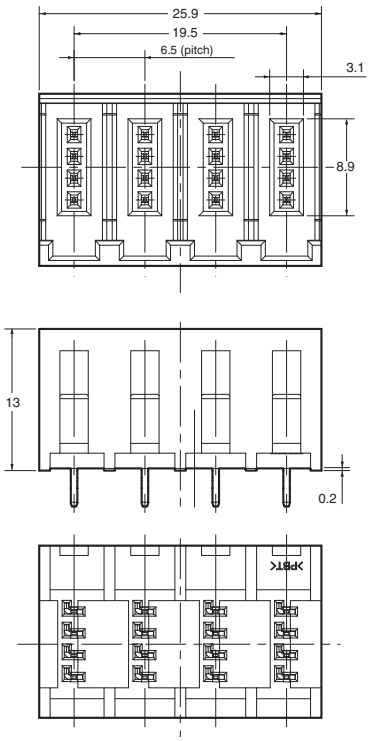
Dimensions

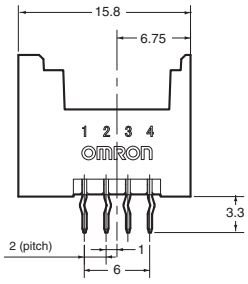
Dimension (mm) No. of contacts	A	B	C	D	E
3	6.9	5.8	4.0	8.0	13.8
4	8.9	6.8	6.0	10.0	15.8
5	10.9	7.8	8.0	12.0	17.8
6	12.9	8.8	10.0	14.0	19.8
8	16.9	10.8	14.0	18.0	23.8

Downloaded from Arrow.com.

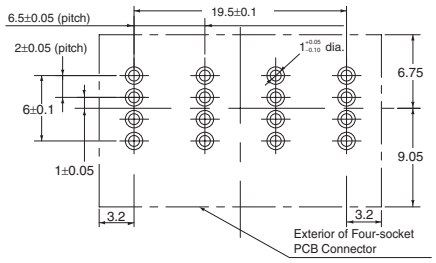
Four-socket PCB Socket Connector

XN2D-4471





Applicable PCB Dimensions (Top View) t=1.6±0.2



Tool Jig

Tool Jig for XN2A-1☐70 (except for those with 3 pins)/ XN2B-1470

With the simple tool Jig, assembly can be completed for 4 wires simultaneously.

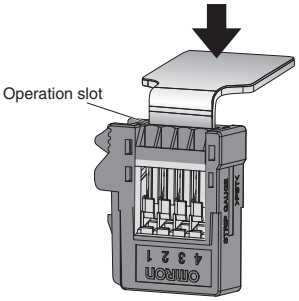
XN2Z-0001



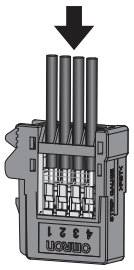
Model
XN2Z-0001

Assembly Instructions

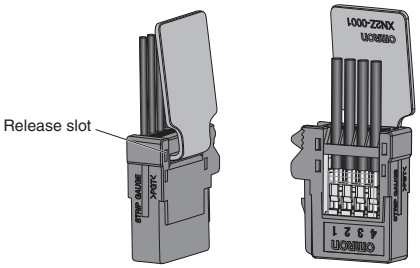
(1) Push in the operating lever at once until it is locked.



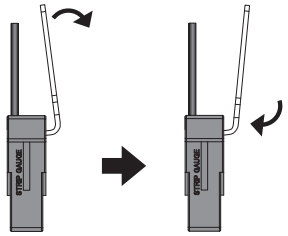
(2) Insert the 4 wires to insertion hole.



(3) Insert operation jig into lock release slot.



(4) Move the jig as follows and release operating lever at once.

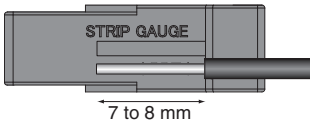


Downloaded from Arrow.com.

Assembly Instructions

Preparing the Cable

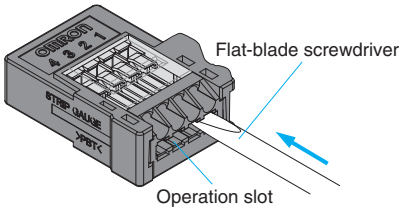
Align the cable with the guide marked STRIP GAUGE on the side of the Connector, strip 7 to 8 mm of the cable sheath, and then twist the wires several times.

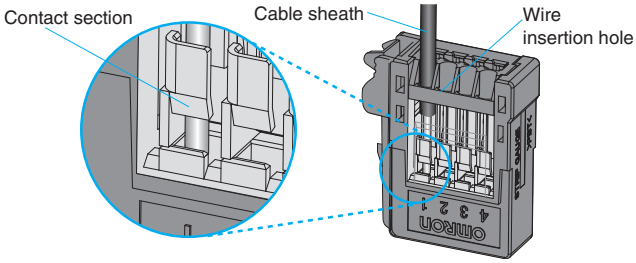


Connecting the Cable to the Connector

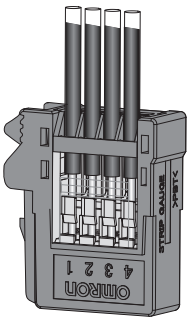
(1) Use a flat-blade screw-driver to push down the operating lever inside the operation slot until it locks.

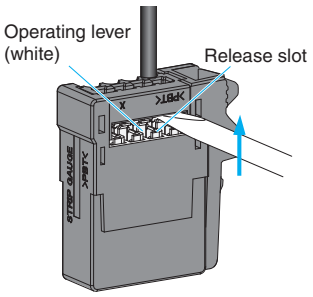
(2) Insert the wire fully to the back of the wire insertion hole. Make sure that the cable sheath is inserted into the hole, and that the end of the wire has passed through the contact section.





(3) Insert the screwdriver into the release slot, and gently pull back the lever until a click is heard by resetting the lever.





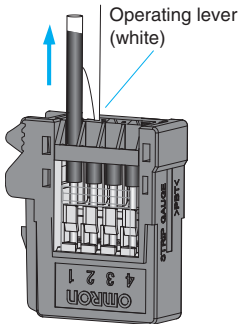
(4) Make sure that the following operations have been performed.

- Check that the operating lever is reset.
- Check that the procedure in step 2 has been followed. (Pull gently on the cable to make sure that there is resistance, indicating that the Connectors are wired correctly.)

Removing Cables from the Connector

(1) Press down on the operating lever to lock the lever before removing the cable.

(2) After removing the cable from the Connector, always reset the operating lever, except when rewiring the Connector. The Connector can be rewired without resetting the operating lever.



Safety Precautions

Precautions for Safe Use

- Do not pull on the Connectors or cables. Doing so may cause damage to the Connectors or cause the cables to disconnect.
- Install the Connectors in a location where they will not be stepped on, to prevent disconnection of the cables or damage to the Connectors. If the Connectors have to be installed in such a location, use a protective cover.
- Make sure that the Connectors are mated in the correct direction. Mating the Connectors incorrectly will damage to the Connectors.
- Do not use the Connectors if the lock lever is bent or broken. Doing so may cause the Connector to become loose or the device to malfunction.
- Before mounting Connectors to a PCB, make sure that the Connectors are positioned in the correct direction.
- Before bending a cable to connect it to a Connector, check the bending specifications of the cable to be used.
- Do not exceed the rated current of the cable. Always check the rated current of each cable to be used.
- Do not use pliers or other tools to remove the Connectors.
- Hold the Connectors firmly by hand when handling them. Do not use excessive force to push the Connectors. Forcing the Connectors may result in injury.
- These Connectors do not resist water. Do not use Connectors in places where water or oil may be sprayed onto the Connectors.

Precautions for Correct Use

Do not use the product in atmospheres or environments that exceed product ratings.

Wiring

- Insert one wire into each insertion hole. Inserting two or more wires into a single hole may cause unexpected problems.
- Make sure that no power is being supplied to a Connector before wiring, inserting, or removing the Connector. Doing so may result in electric shock.
- Follow the wiring diagrams for the device being used when wiring the cables.
- Strip the cables according to the instructions in the applicable operation manual, making sure not to damage the wires.
- Do not use a screwdriver with a tip larger than the specified width when wiring the Connectors.
- Make sure short-circuits are not created, e.g., by protruding wires.

Inserting and Removing Connectors

- When connecting or disconnecting Connectors, always hold the case of the Connector.
- When mating Connectors, insert the Connector fully into the back of the socket, and then make sure that the Connector will not become loose by lightly pulling it in the opposite direction.

Recommended Screwdriver

- Use a flat-blade screwdriver with a tip of 2 mm max. Do not use screwdrivers that gradually widen towards the base of the screwdriver.
- Using other screwdrivers may cause damage to the adjacent poles.

Downloaded from Arrow.com.

Precautions for Correct Use

For Mounting

- When mounting the connector by manual soldering, observe the following precautions to ensure contact reliability.
  (1) Conditions for manual soldering: 350±5°C 3±1 sec
  (2) PCB thickness: 1.6 mm
  (3) Do not apply an excessive amount of solder. Excessive solder will cause the flux to rise.
  (4) Do not apply the soldering iron to the mount attachments using force. Doing so may cause the connectors to change shape.
  (5) Do not apply the soldering iron to any parts of the connector other than the mount attachments. Doing so may cause the connector to change shape.
- Before soldering the Switch on a multilayer PCB, test to confirm that soldering can be performed properly. Otherwise the Switch may be deformed by the soldering heat on the pattern or lands of the multilayer PCB.

Automated Soldering Conditions (Jet Flow)

(1) Soldering temperature: 250 ±5°C
(2) Continuous soldering time: Within 5±1 s
(3) PCB thickness: 1.6 mm

- These conditions depend on the type of solder, the manufacturer, the amount of solder, the size of the circuit board, and the other mounting materials. You must check and select the actual conditions yourself.

Storage

- Do not store the connectors in locations subject to dust or high humidity.
- Do not store the connectors in locations close to sources of gasses such ammonia gas or sulfide gas.

Approval Standard

The approval rating values for overseas standards are different from the performance values determined individually. Confirm the values before use.

Model	Standard	File No.	Rating
XN2A-1□70	UL/C-UL certified product (Recognized)	E103202	28 AWG, 26 AWG: 30 VDC, 0.5 A 24 AWG: 30 VDC, 1 A 22 AWG: 30 VDC, 2 A 20 AWG: 30 VDC, 3 A
XN2B-1470	UL/C-UL certified product (Recognized)	E103202	28 AWG, 26 AWG: 30 VDC, 0.5 A 24 AWG: 30 VDC, 1 A 22 AWG: 30 VDC, 2 A 20 AWG: 30 VDC, 3 A
XN2D-1□71	UL/C-UL certified product (Recognized)	E103202	32 VDC, 3 A
XN2D-4471	UL/C-UL certified product (Recognized)	E103202	32 VDC, 1 A
XN2Z-0001	Non Approved Models	—	—

Downloaded from Arrow.com.

Please check each region's Terms & Conditions by region website.

OMRON Corporation
Device & Module Solutions Company

Regional Contact

Americas
https://components.omron.com/us

Europe
https://components.omron.com/eu

Asia-Pacific
https://components.omron.com/ap

China
https://components.omron.com.cn

Korea
https://components.omron.com/kr

Japan
https://components.omron.com/jp

© OMRON Corporation 2012-2025 All Rights Reserved.
In the interest of product improvement, specifications are subject to change without notice.

Cat. No. G044-E1-08
0325 (0412)

Downloaded from Arrow.com.