PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

IX Series

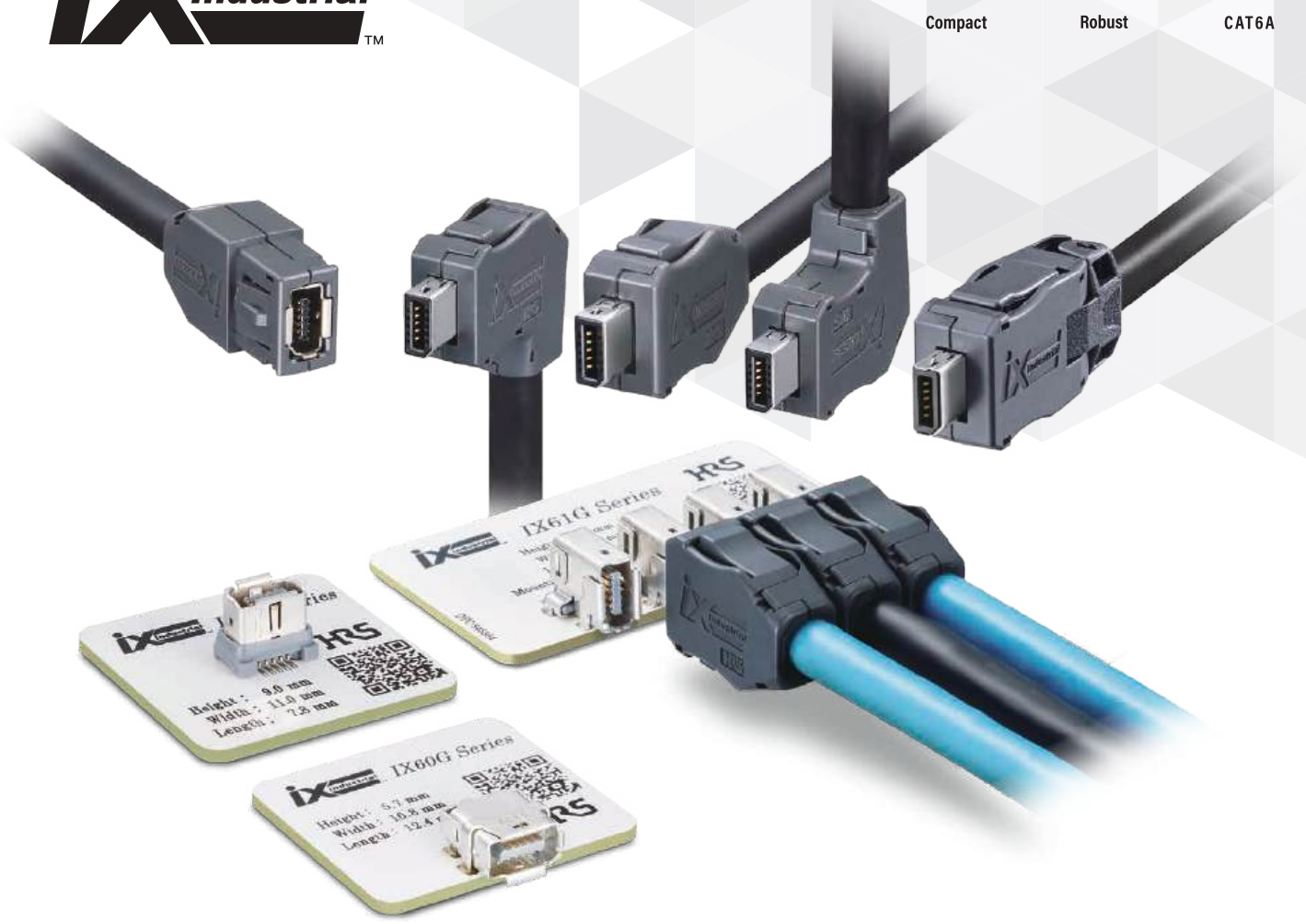
IEC Standard Compliant
Next-Generation Industrial Transmission Connector

iX Industrial™

Compact

Robust

CAT6A



Product page
https://www.hirose.com/product/en/products/IX/

Special features page
https://www.hirose.com/product/en/pr/ix_industrial/

Jul. 2025

Advance with ix Industrial™

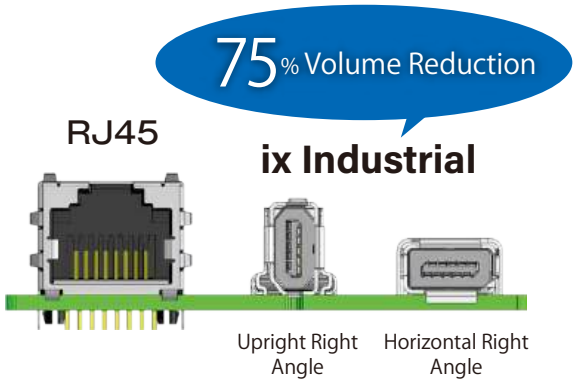
Overview

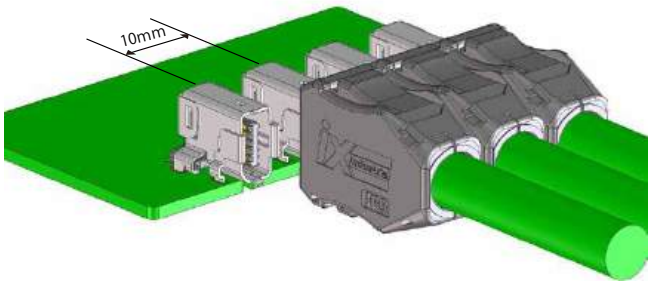
・Multi-purpose, compact I/O connector for industrial machinery.
・IEC Standard IEC 61076-3-124 compliant
・Compact, robust and supports high speeds
・High EMC resistance

Features

1. Smaller Size, Greater Design Freedom

The ix Industrial offers a size reduction of 75% compared to the RJ45. The right angle receptacle provides an even greater height reduction. Furthermore, it allows for 10mm pitch parallel mounting. The ix Industrial enables greater board design flexibility and is ideal for space reduction.

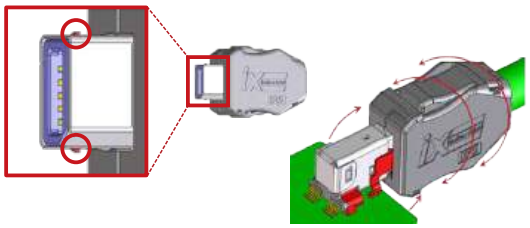




Note: Field-Assembly type cannot be used with 10mm pitch. 11.6mm pitch or more is required.

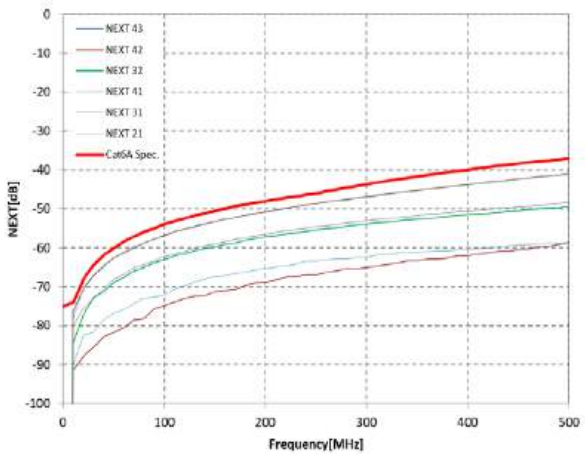
2. Breakage Prevention

The metal lock latches won't break, and the shell is through-hole mounted. The design reduces stress to the SMT leads while preventing breakage from prying. The ix Industrial was designed with vibration and impact resistance.



3. Supports a Wide Range of Transmission Speeds

Supports Cat.5e (1Gbps/4 Pairs) and Cat.6A (10Gbps/4 Pairs) stable high speed transmission. It is used in a variety of applications, from Ethernet in FA equipment to medical devices.

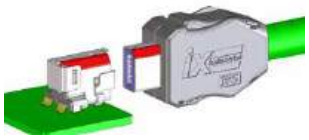


4. Ethernet and others

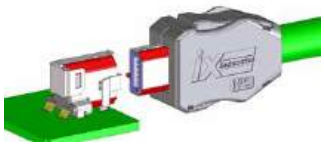
Use the Type A/C for Ethernet communications and the Type B for Non-Ethernet communications. The ix Industrial enables a variety of connections.

Type A
Ethernet Communication

Type B
Non-Ethernet Communication

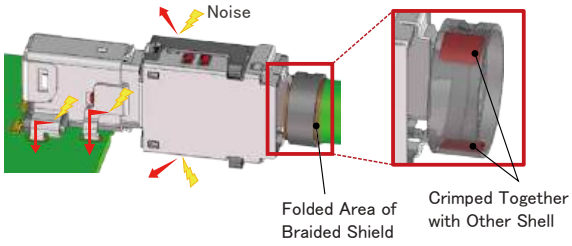


Type C
Ethernet Communication



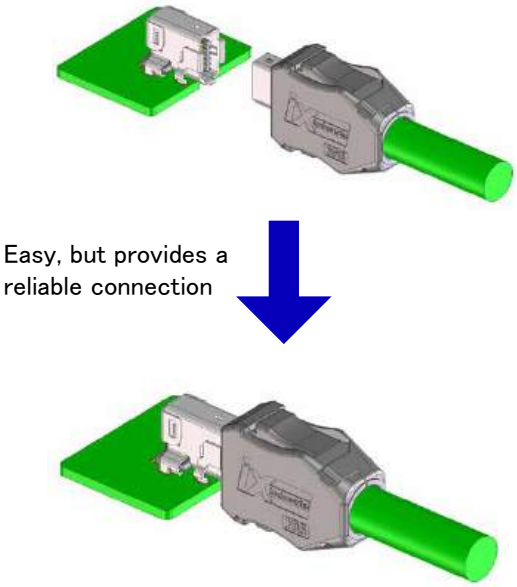
5. Superior Noise Resistance

The shell is crimped together and comes into direct contact with the receptacle's ground spring for shielding. The ix Industrial can be used safely in any operating environment.



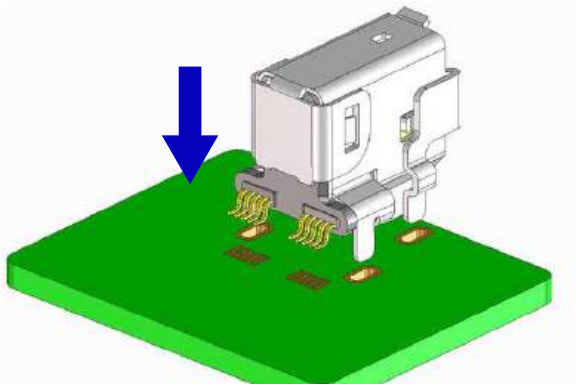
6. Easy, but Provides a Reliable Connection

Locking is completed simply by inserting the plug into the receptacle. Simple operation that the lock can be released easily by pushing on the buttons while pulling out. Clear tactile click prevents incomplete mating.



7. THR (Through-Hole Mounting) Compatible

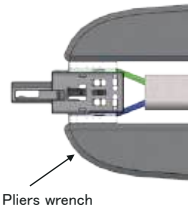
The receptacle shell is mounted in the through-holes for enhanced PCB mounting strength. THR mounting enables simultaneous reflow mounting with the signal contact SMT, for reduced board mounting time.



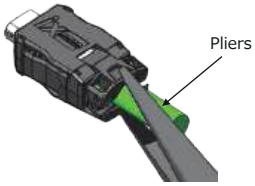
8. Field-assembly type is also available that can be used with standard tools. *Field-Assembly Plug only

Enables secure IDC termination and clamping using standard tools (pliers wrench, pliers). Contributes to the improvement of workability when the cable length is changed at on-site termination according to specifications of the equipment.

IDC Process



Clamping Process



Product Specifications

Rated Current	All Pins	1.5A/pin	Operating Temperature (Note 1)	-40 to +85℃
	Pin No.1,2,6 and 7	3A/pin	Storage Temperature Range	-30 to +60℃
Rated Voltage	50V AC / 60V DC			

Item	Specification	Conditions
Contact Resistance	Signal: 30m Ω Max. (Note 2) Shield: 100m Ω Max. (Note 2)	Measured at 100mA
Insulation Resistance	500M Ω Min.	Measured at 500V DC
Withstanding Voltage	No flashover or breakdown	Voltage of 500V DC applied for 1 min. (G2 and GF2 type between signal and Shield, voltage of 2,250 V DC is applied for 1 minute)
Mating Durability	Signal: 80m Ω Max. (Note 2) Shield: 100m Ω Max. (Note 2)	5,000 insertion/extraction cycles
Vibration Resistance	No electrical discontinuity of 1 μs or more. (Note 3) No damage, crack or loosened parts	10 to 500Hz, Half Amplitude 0.35mm, Acceleration of 50m/s^2.
Shock Resistance	No electrical discontinuity of 1 μs or more. (Note 3) No damage, crack or loosened parts Signal: 80m Ω Max. (Note 2) Shield: 100m Ω Max. (Note 2)	300m/s^2, 11ms Duration, 3 Axis in Both Directions, 3 Times Each
Fretting Corrosion Resistance	No electrical discontinuity of 1 μs or more. (Note 3) No damage, crack or loosened parts	490m/s^2, 30 times/min, 1000 times

Note 1: Includes temperature rise due to current flow.
Note 2: Conductor resistance of the cable is not included.
Note 3: Electrical performance applicable to signal contact and Shield except Contact No. 3.8.

Materials / Finish

●Receptacle

Component	Materials	Color/Finish	Remarks
Insulator	Liquid Crystal Polymer, PA Rasin	Gray	UL94V-0
Contact	Copper Alloy	Partially Gold Plated	-
Shielding Plate	Stainless Steel	-	-
Shell	Stainless Steel	Tin Plated	-
Suction Cap	PA Resin	Black	UL94V-0

●Plug

Component	Materials	Color/Finish	Remarks
Contact	Copper Alloy	Partially Gold Plated	-
Insulator	Polyamide Resin	Black, Dark Gray	UL94V-0
Shielding Plate	Stainless Steel	-	-
Insulator Case	Polyamide Resin	Black	UL94V-0
Guide	Polycarbonate Resin	Transparent, Transparent Yellow, Transparent Blue	UL94V-0
Shield Case	Stainless Steel	Nickel Plated	-
Shield Shell	Stainless Steel	Nickel Plated	-
Cover Case	Polycarbonate Resin	Dark Gray	UL94V-0

●In-line Jack

Component	Materials	Color/Finish	Remarks
Contact	Copper Alloy	Partially Gold Plated	UL94V-0
Insulator Case	Polyamide Resin	Black	UL94V-0
Retention Plate	Polyamide Resin	Black	UL94V-0
Shielding Plate	Stainless Steel	-	-
Shell	Stainless Steel	Nickel Plated	-
Shield Case A	Stainless Steel	Nickel Plated	-
Shield Case B	Stainless Steel	Nickel Plated	-
Cover Case	Polycarbonate Resin	Dark Gray	UL94V-0

●Plug for Field-Assembly

Component	Materials	Color/Finish	Remarks
Contact	Copper Alloy	Partially Gold Plated	—
Insulator	Polyamide Resin	Black, Dark Gray	UL94V-0
Shielding Plate	Stainless Steel	—	—
Insulator Case	Polyamide Resin	Black, Dark Gray	UL94V-0
Guide	Polycarbonate Resin	Transparent, Transparent Yellow	UL94V-0
Shield Case	Stainless Steel	Nickel Plated	—
Shield Shell	Stainless Steel	Nickel Plated	—
Cover Case A	Polycarbonate Resin	Black	UL94V-0
Cover Case B1	Polycarbonate Resin	Black	UL94V-0
Cover Case B2	Polycarbonate Resin	Black	UL94V-0
Blister Pack	Polyethylene Terephthalate Resin	Transparent	—

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

■ Receptacle

IX 61G # - A - 10 P (##)
❶ ❷ ❸ ❹ ❺ ❻ ❾

❶ Series Name	IX Series	❹ Mating Key/ Application	A: Type A/Ethernet Communication B: Type B/Non-Ethernet Communication C: Type C/Ethernet Communication
❷ Mounting/ Assembly Method	61G: Upright Right Angle SMT 60G: Horizontal Right Angle SMT 80G: Vertical SMT	❺ Maximum Number of Usable Positions	10: 10pos.
		❻ Contact Gender	P: Male Contact
❸ Version	Blank: Ver.1 2: Ver.2	❾ Plating Specifications	Blank: Gold Plated (01): Palladium-Nickel Plated + Gold Plated

■ Plug

IX 40 G - A - 10 S - CV (7.0) (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶ Series Name	IX Series	❺ Maximum Number of Usable Positions	10: 10pos. 8 (Note): 8pos.
❷ Mounting/ Assembly Method	40: Hand Solder 30: IDC (26 to 28 AWG, Insulator Outer Diameter ϕ 0.95 to 1.05mm) 31: IDC (24 to 25 AWG, Insulator Outer Diameter ϕ 1.1 to 1.25mm) 32: IDC (22 AWG, Insulator Outer Diameter ϕ 1.4 to 1.6mm)	❻ Contact Gender	S: Female Contact
		❼ Plug Cover Cabling Direction	CV: Straight CVL1: Downward Cabling CVL2: Upward Cabling
❸ Gigabit Ethernet Support	G	❽ Applicable Cable Diameter	(7.0): Sheath Outer Diameter ϕ 6.3 to 7.2mm
❹ Mating Key/ Application	A: Type A/Ethernet Communication B: Type B/Non-Ethernet Communication C: Type C/Ethernet Communication	❾ Plating Specifications	Blank: Gold Plated (01): Palladium-Nickel Plated+Gold Plated

Note: Contacts No.3 and 8 do not have a hole to pass the wire through the IDC guide.

■ In-line Jack

IX 40 G - A - 10 P - JC (7.0) (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶ Series Name	IX Series	❻ Contact Gender	P: Male Contact
❷ Mounting/ Assembly Method	40: Hand Solder	❼ In-line Jack Cover Cabling Direction	JC: Straight
❸ Gigabit Ethernet Support	G		
❹ Mating Key/ Application	A: Type A/Ethernet Communication B: Type B/Non-Ethernet Communication	❽ Applicable Cable Diameter	(7.0): Sheath Outer Diameter ϕ 6.3 to 7.2mm
❺ Maximum Number of Usable Positions	10: 10pos.	❾ Plating Specifications	Blank: Gold Plated (01): Palladium-Nickel Plated + Gold Plated

■ Plug for Field-Assembly

IX 30GF 2 - A - 10 S - CV (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

❶ Series Name	IX Series	❺ Number of Positions	10: 10pos.
❷ Mounting/ Assembly Method	30GF: IDC Field-Assembly (26 to 28 AWG, Insulator Outer Diameter ϕ 0.95 to 1.05mm) 31GF: IDC Field-Assembly (24 to 25 AWG, Insulator Outer Diameter ϕ 1.1 to 1.25mm)	❻ Contact Gender	S: Female Contact
		❼ Plug Cover Cabling Direction	CV: Straight
❸ Version	2: Ver.2	❽ Plating Specifications	Blank: Gold Plated
❹ Mating Key/ Application	A: Type A/Ethernet Communication B: Type B/Non-Ethernet Communication		

Connector Mating Combination Diagram

●Receptacle

Upright Right Angle

IX61G2-#-10P(##)

Horizontal Right Angle

IX60G-#-10P(##)

Vertical

IX80G-#-10P(##)

In-line Jack

IX40G-#-10P-JC(7.0)(##)

●Plug

Straight

IX30G-#-10S-CV(7.0)(##)
IX31G-#-10S-CV(7.0)(##)
IX32G-#-8S-CV(7.0)(##)
IX40G-#-10S-CV(7.0)(##)

Right Angle, Downward Cabling

IX30G-#-10S-CVL1(7.0)(##)
IX31G-#-10S-CVL1(7.0)(##)
IX32G-#-8S-CVL1(7.0)(##)
IX40G-#-10S-CVL1(7.0)(##)

Right Angle, Upward Cabling

IX30G-#-10S-CVL2(7.0) (##)
IX31G-#-10S-CVL2(7.0) (##)
IX32G-#-8S-CVL2(7.0) (##)
IX40G-#-10S-CVL2(7.0) (##)

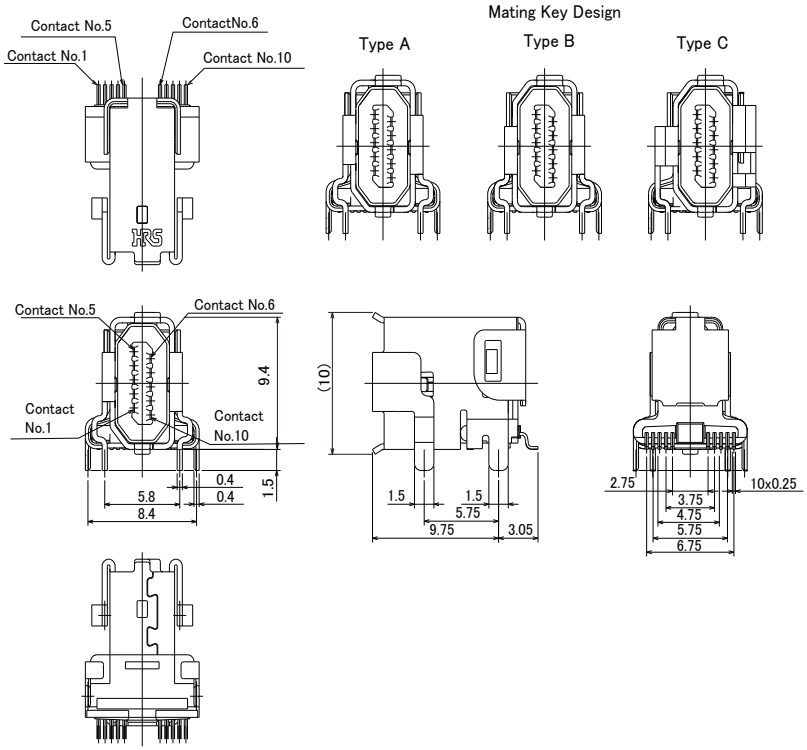
Field-Assembly

IX30GF2-#-10S-CV(##)
IX31GF2-#-10S-CV(##)

Note: Please use the same mating key (Type A, B) for both the plug and receptacle.

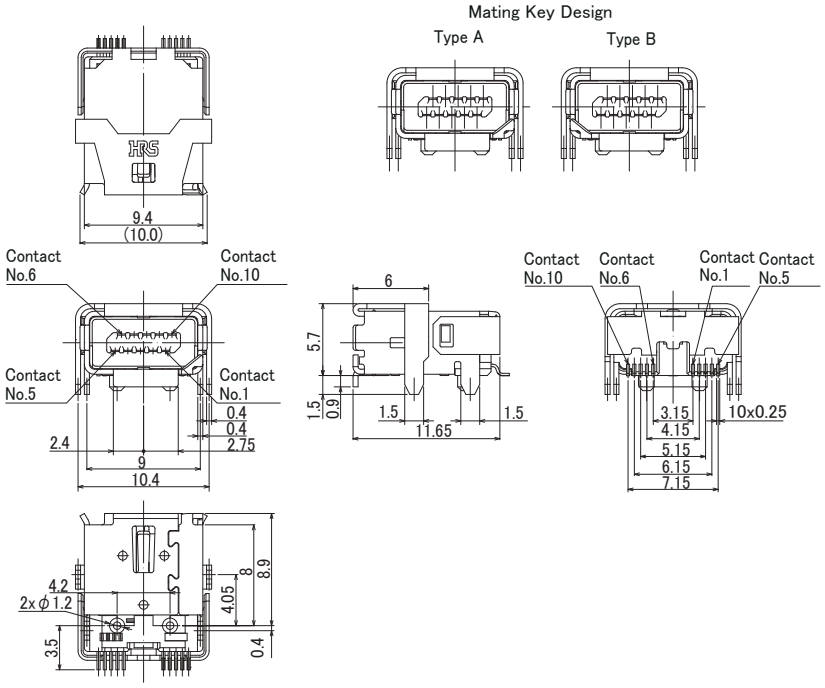
Receptacle

Upright Right Angle



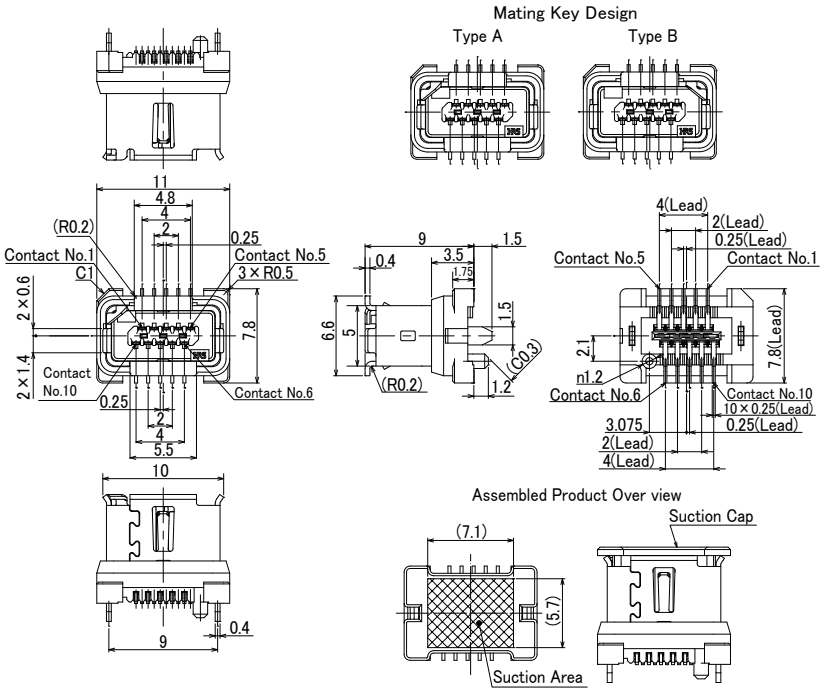
Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX61G2-A-10P	CL0251-0087-0-00	Gold Plated 0.2 μm	400pcs per reel
IX61G2-A-10P(01)	CL0251-0087-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX61G2-B-10P	CL0251-0088-0-00	Gold plated 0.2 μm	
IX61G2-B-10P(01)	CL0251-0088-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX61G2-C-10P	CL0251-0089-0-00	Gold Plated 0.2 μm	
IX61G2-C-10P(01)	CL0251-0089-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Horizontal Right Angle



Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX60G-A-10P	CL0251-0016-0-00	Gold Plated 0.2 μm	550pcs per reel
IX60G-A-10P(01)	CL0251-0016-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX60G-B-10P	CL0251-0017-0-00	Gold Plated 0.2 μm	
IX60G-B-10P(01)	CL0251-0017-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Vertical

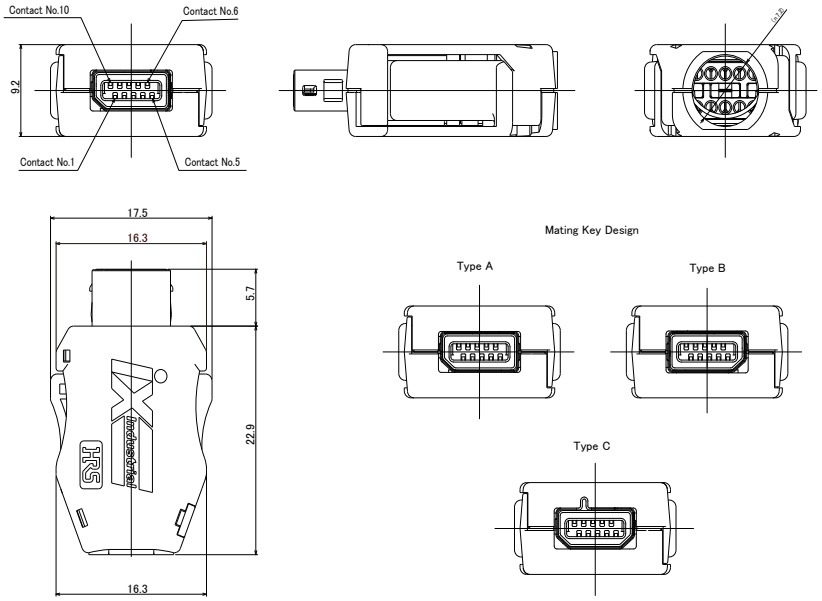


Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX80G-A-10P	CL0251-0018-0-00	Gold Plated 0.2 μm	450pcs per reel
IX80G-A-10P(01)	CL0251-0018-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX80G-B-10P	CL0251-0019-0-00	Gold Plated 0.2 μm	
IX80G-B-10P(01)	CL0251-0019-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Note : This product is delivered with a cap for Pick & Place mounting.
Please remove the cap before use.

Plug

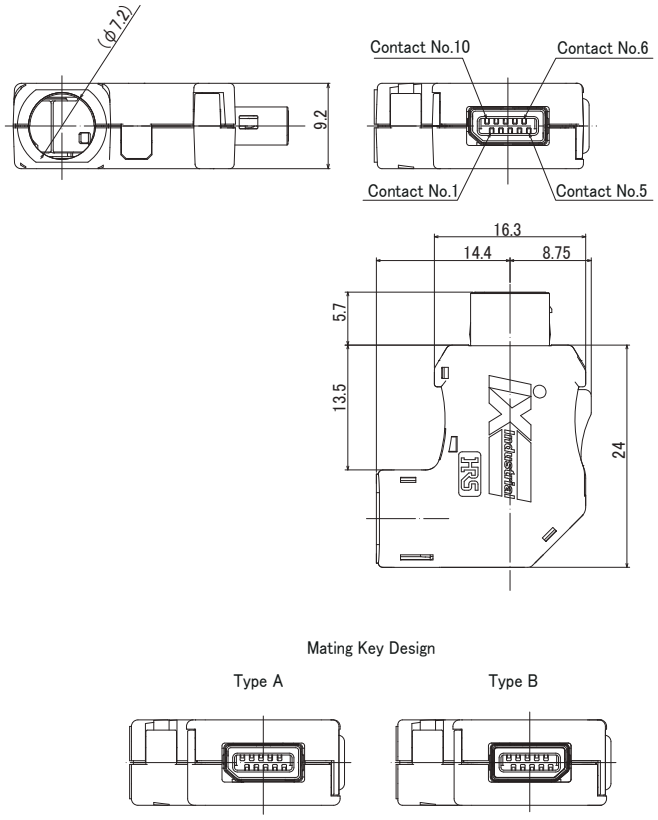
Straight



Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX30G-A-10S-CV(7.0)	CL0251-0020-0-00	Gold Plated 0.2 μm	100pcs per tray
IX30G-A-10S-CV(7.0)(01)	CL0251-0020-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX30G-B-10S-CV(7.0)	CL0251-0025-0-00	Gold Plated 0.2 μm	
IX30G-B-10S-CV(7.0)(01)	CL0251-0025-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX30G-C-10S-CV(7.0)	CL0251-0090-0-00	Gold Plated 0.2 μm	
IX30G-C-10S-CV(7.0)(01)	CL0251-0090-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX31G-A-10S-CV(7.0)	CL0251-0023-0-00	Gold Plated 0.2 μm	100pcs per tray
IX31G-A-10S-CV(7.0)(01)	CL0251-0023-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX31G-B-10S-CV(7.0)	CL0251-0024-0-00	Gold Plated 0.2 μm	
IX31G-B-10S-CV(7.0)(01)	CL0251-0024-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX31G-C-10S-CV(7.0)	CL0251-0091-0-00	Gold Plated 0.2 μm	
IX31G-C-10S-CV(7.0)(01)	CL0251-0091-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX32G-A-8S-CV(7.0) (Note)	CL0251-0042-0-00	Gold Plated 0.2 μm	100pcs per tray
IX32G-A-8S-CV(7.0)(01) (Note)	CL0251-0042-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX32G-B-8S-CV(7.0) (Note)	CL0251-0043-0-00	Gold Plated 0.2 μm	
IX32G-B-8S-CV(7.0)(01) (Note)	CL0251-0043-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX32G-C-8S-CV(7.0) (Note)	CL0251-0092-0-00	Gold Plated 0.2 μm	
IX32G-C-8S-CV(7.0)(01) (Note)	CL0251-0092-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-A-10S-CV(7.0)	CL0251-0022-0-00	Gold Plated 0.2 μm	100pcs per tray
IX40G-A-10S-CV(7.0)(01)	CL0251-0022-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-B-10S-CV(7.0)	CL0251-0032-0-00	Gold Plated 0.2 μm	
IX40G-B-10S-CV(7.0)(01)	CL0251-0032-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-C-10S-CV(7.0)	CL0251-0093-0-00	Gold Plated 0.2 μm	
IX40G-C-10S-CV(7.0)(01)	CL0251-0093-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Note : Cable assembly for IX32G is possible up to 8 positions.
Contacts No. 3 and 8 do not have a hole to pass the wire though the IDC guide.

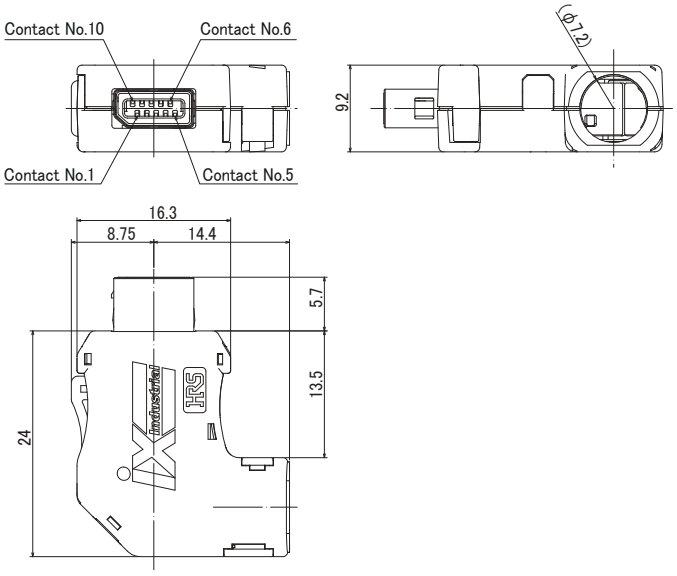
Right Angle, Downward Cabling



Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX30G-A-10S-CVL1(7.0)	CL0251-0063-0-00	Gold Plated 0.2 μm	100pcs per tray
IX30G-A-10S-CVL1(7.0)(01)	CL0251-0063-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX30G-B-10S-CVL1(7.0)	CL0251-0064-0-00	Gold Plated 0.2 μm	
IX30G-B-10S-CVL1(7.0)(01)	CL0251-0064-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX31G-A-10S-CVL1(7.0)	CL0251-0067-0-00	Gold Plated 0.2 μm	100pcs per tray
IX31G-A-10S-CVL1(7.0)(01)	CL0251-0067-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX31G-B-10S-CVL1(7.0)	CL0251-0068-0-00	Gold Plated 0.2 μm	
IX31G-B-10S-CVL1(7.0)(01)	CL0251-0068-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX32G-A-8S-CVL1(7.0)(Note)	CL0251-0071-0-00	Gold Plated 0.2 μm	100pcs per tray
IX32G-A-8S-CVL1(7.0)(01)(Note)	CL0251-0071-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX32G-B-8S-CVL1(7.0)(Note)	CL0251-0072-0-00	Gold Plated 0.2 μm	
IX32G-B-8S-CVL1(7.0)(01)(Note)	CL0251-0072-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX40G-A-10S-CVL1(7.0)	CL0251-0075-0-00	Gold Plated 0.2 μm	100pcs per tray
IX40G-A-10S-CVL1(7.0)(01)	CL0251-0075-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	
IX40G-B-10S-CVL1(7.0)	CL0251-0076-0-00	Gold Plated 0.2 μm	
IX40G-B-10S-CVL1(7.0)(01)	CL0251-0076-0-01	Palladium-Nickel Plated 0.75 μm+ Gold Plated 0.05 μm	

Note : Cable assembly for IX32G is possible up to 8 positions.
Contacts No. 3 and 8 do not have a hole to pass the wire though the IDC guide.

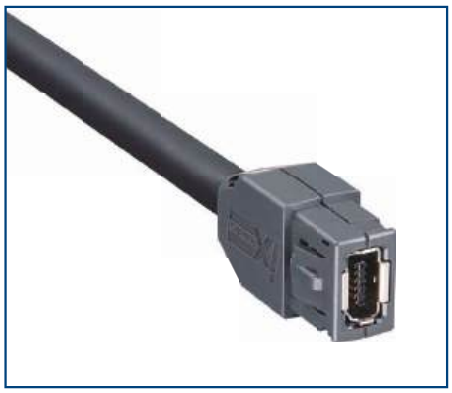
Right Angle, Upward Cabling

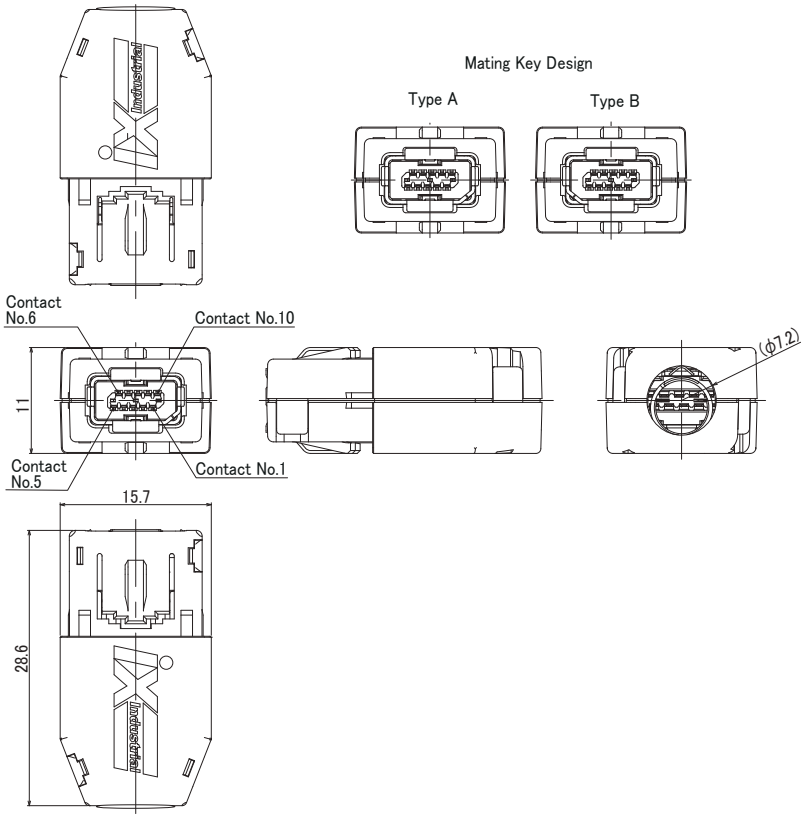


Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX30G-A-10S-CVL2(7.0)	CL0251-0065-0-00	Gold Plated 0.2 μm	100pcs per tray
IX30G-A-10S-CVL2(7.0)(01)	CL0251-0065-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX30G-B-10S-CVL2(7.0)	CL0251-0066-0-00	Gold Plated 0.2 μm	
IX30G-B-10S-CVL2(7.0)(01)	CL0251-0066-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX31G-A-10S-CVL2(7.0)	CL0251-0069-0-00	Gold Plated 0.2 μm	100pcs per tray
IX31G-A-10S-CVL2(7.0)(01)	CL0251-0069-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX31G-B-10S-CVL2(7.0)	CL0251-0070-0-00	Gold Plated 0.2 μm	
IX31G-B-10S-CVL2(7.0)(01)	CL0251-0070-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX32G-A-8S-CVL2(7.0)(Note)	CL0251-0073-0-00	Gold Plated 0.2 μm	100pcs per tray
IX32G-A-8S-CVL2(7.0)(01)(Note)	CL0251-0073-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX32G-B-8S-CVL2(7.0)(Note)	CL0251-0074-0-00	Gold Plated 0.2 μm	
IX32G-B-8S-CVL2(7.0)(01)(Note)	CL0251-0074-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-A-10S-CVL2(7.0)	CL0251-0077-0-00	Gold Plated 0.2 μm	100pcs per tray
IX40G-A-10S-CVL2(7.0)(01)	CL0251-0077-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-B-10S-CVL2(7.0)	CL0251-0078-0-00	Gold Plated 0.2 μm	
IX40G-B-10S-CVL2(7.0)(01)	CL0251-0078-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Note : Cable assembly for IX32G is possible up to 8 positions.
Contacts No. 3 and 8 do not have a hole to pass the wire though the IDC guide.

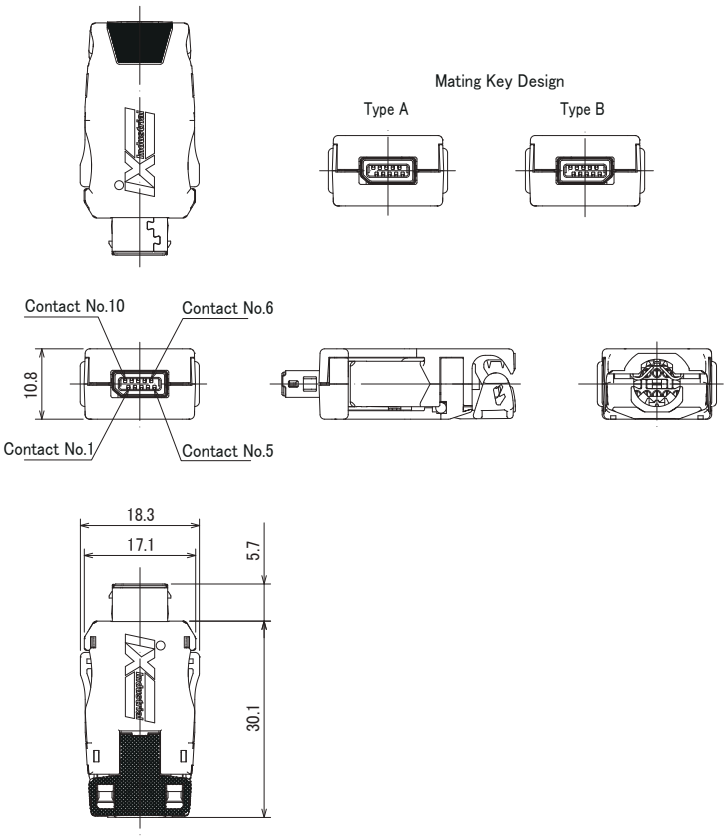
In-line Jack





Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX40G-A-10P-JC(7.0)	CL0251-0109-0-00	Gold Plated 0.2 μm	100pcs per tray
IX40G-A-10P-JC(7.0)(01)	CL0251-0109-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	
IX40G-B-10P-JC(7.0)	CL0251-0111-0-00	Gold Plated 0.2 μm	
IX40G-B-10P-JC(7.0)(01)	CL0251-0111-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	

Plug for Field-Assembly



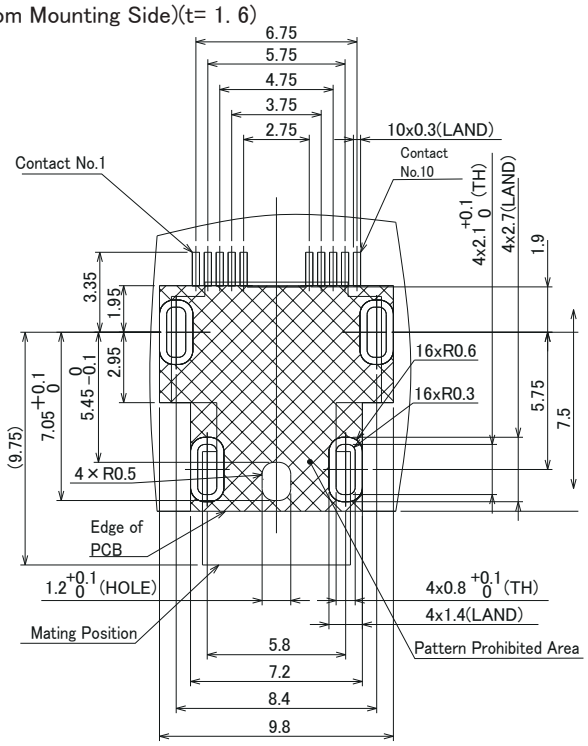
Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX30GF2-A-10S-CV	CL0251-0167-0-00	Gold Plated 0.2 μ m	1 Pack
IX30GF2-B-10S-CV	CL0251-0186-0-00	Gold Plated 0.2 μ m	
IX31GF2-A-10S-CV	CL0251-0012-0-00	Gold Plated 0.2 μ m	
IX31GF2-B-10S-CV	CL0251-0187-0-00	Gold Plated 0.2 μ m	

Note: Field-Assembly type cannot be used with 10mm pitch. 11.6mm pitch or more is required.

Recommended Land Pattern Dimensions

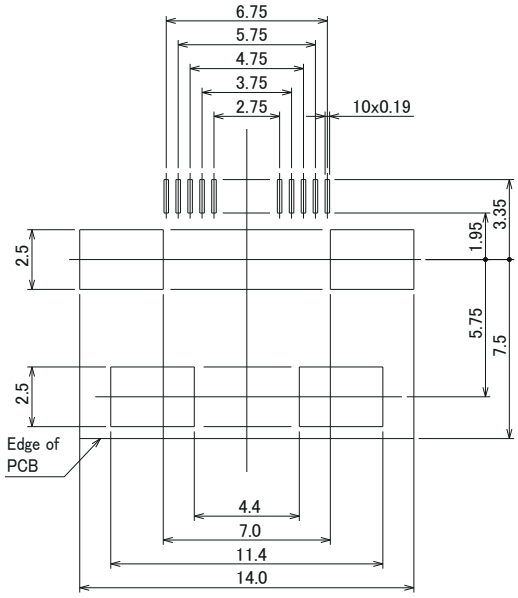
● IX61G2-#-10P

Reference Board Mounting Dimensions
(From Mounting Side)(t= 1. 6)



Note : Dimension tolerances not listed are ±0.05.

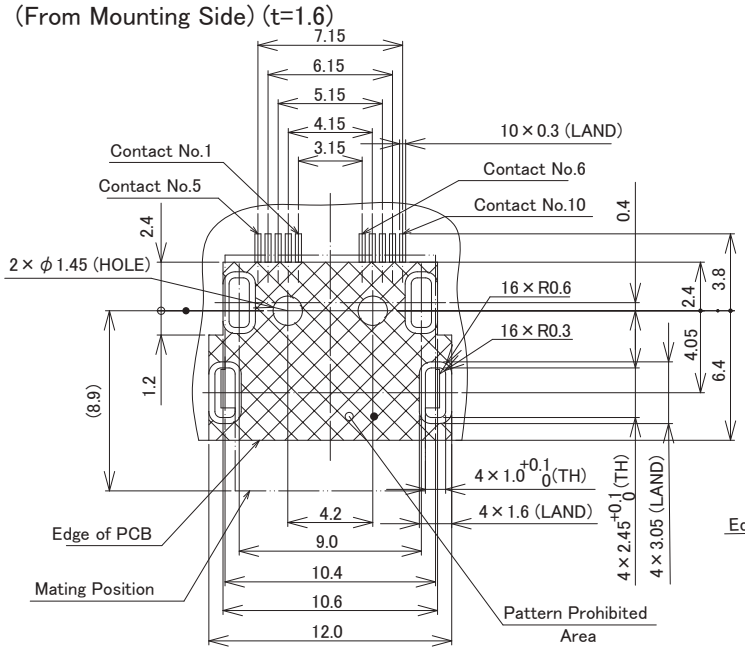
Recommended Metal Mask Pattern
(t=0.15)



Note : Dimension tolerances not listed are ±0.02.

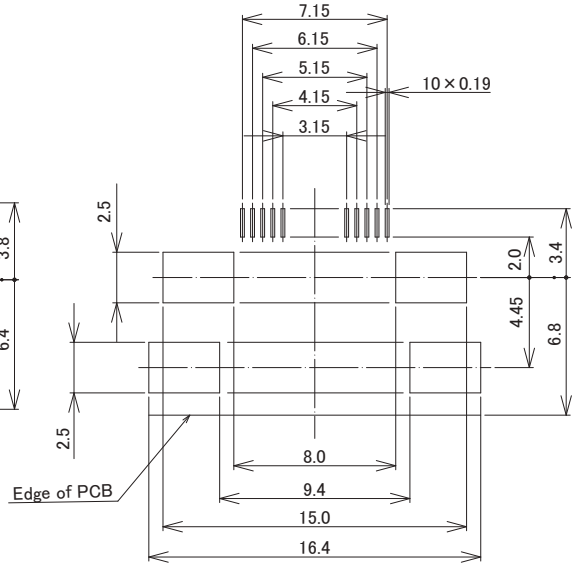
● IX60G-#-10P

Reference Board Mounting Dimensions
(From Mounting Side) (t=1.6)



Note : Dimension tolerances not listed are ±0.05.

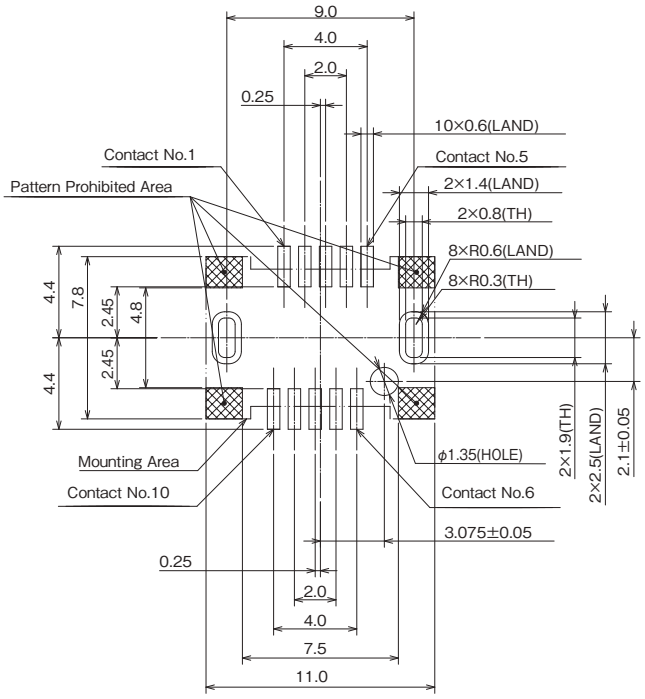
Recommended Metal Mask Pattern
(t=0.15)



Note : Dimension tolerances not listed are ±0.02

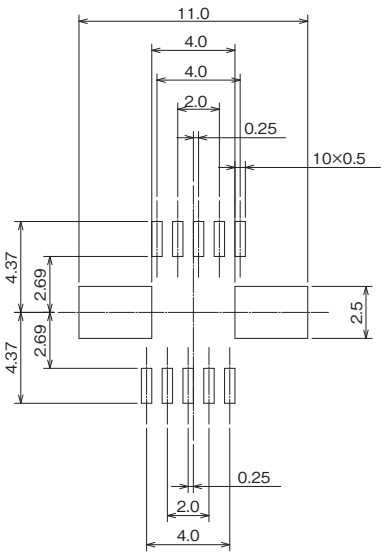
● IX80G-#-10P

Reference Board Mounting Dimensions (From Mounting Side) (t=1.6)



Note : Dimension tolerances not listed are ±0.05.

Recommended Metal Mask Pattern (t=0.15)

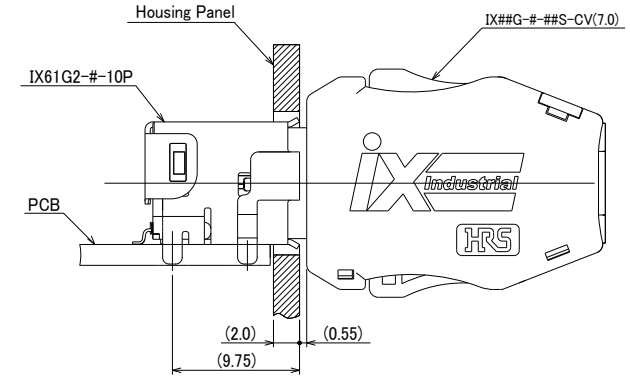


Note : Dimension tolerances not listed are ±0.02.

Panel Mounting Dimensions Diagram

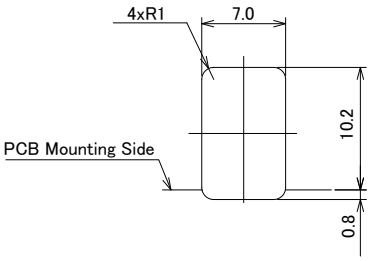
● IX61G2-#-10P

Mated Condition



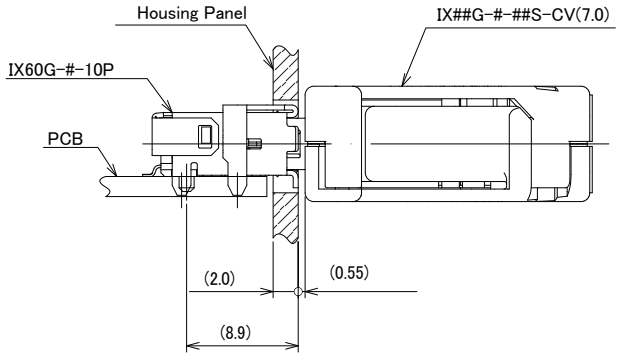
Reference Panel Cut-out Dimensions

Note : Dimensions are for reference.



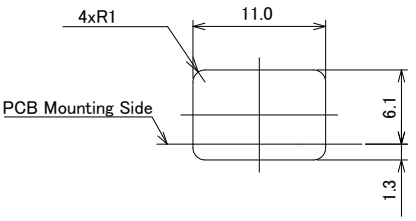
● IX60G-#-10P

Mated Condition



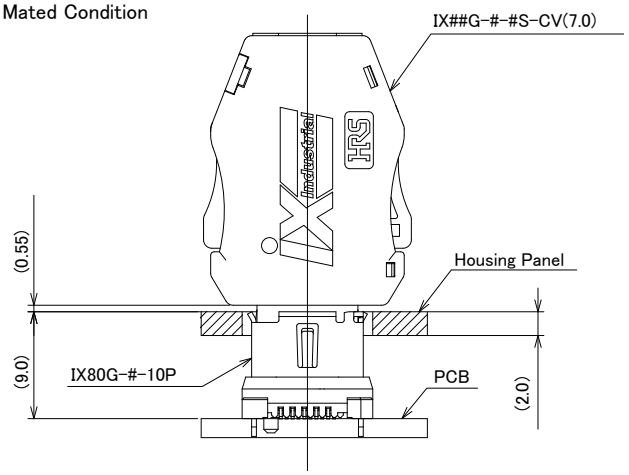
Reference Panel Cut-out Dimensions

Note : Dimensions are for reference.



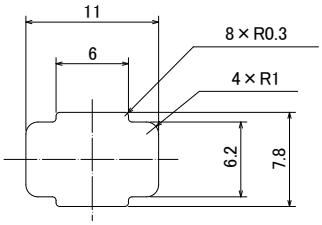
● IX80G-#-10P

Mated Condition



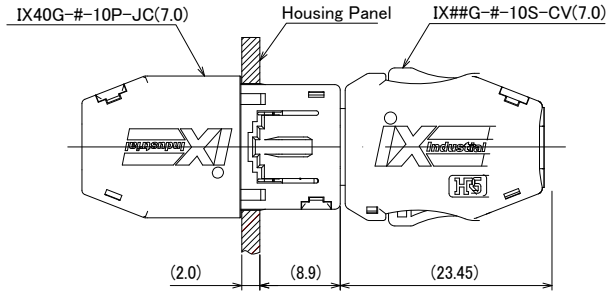
Reference Panel Cut-out Dimensions

Note : Dimensions are for reference.



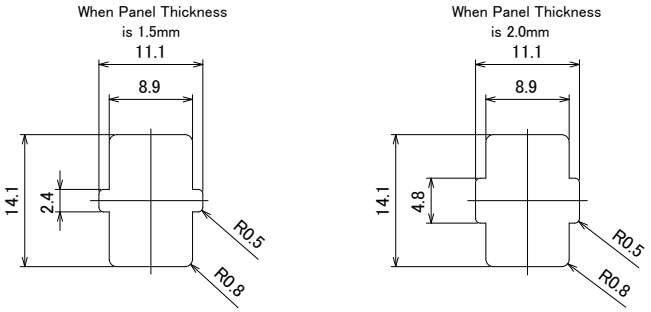
●IX40G-#-10P-JC

Mated Condition



Reference Panel Cut-out Dimensions

Note : Dimensions are for reference.



A chamfer of C0.1 is required in order to prevent scrappage to the cover case during panel installation. Number of panel installation can be used up to 10 times.

Cable Assembly Tools

Part No.	HRS No.	Applicable Connector	Target Product
HT803/IXG-8/10S-63-72	CL0902-2218-0-00	IX##G-#-##S-CV(7.0)(##)	Straight Plug
HT803/IXG-10S-CVL-70	CL0902-2223-0-00	IX##G-#-##S-CVL1(7.0)(##) IX##G-#-##S-CVL2(7.0)(##)	Right Angle
HT803/IX40G-10P-JC70	CL0902-2228-0-00	IX40G-#-10P-JC(7.0)(##)	In-line Jack

Adapter for Cabling Certification Testing

This adapter requires the DSX CableAnalyzer™ from Fluke Networks for use.

Part No.	HRS No.
DSX-CHA-5-IX-S	CL0251-1001-0-00

(Note) DSX CableAnalyzer™ is a registered trademark of Fluke Networks.

Applicable Cables List

A list of applicable cables is available on the Hirose website.
(https://www.hirose.com/product/en/pr/ix_industrial/applicable_cable_list/)

While Taking into Consideration

Specifications mentioned in this catalog are reference values.
When considering to order or use this product, please review the Drawing and Product Specifications sheets.
Use an appropriate cable when using the connector in combination with cables.
If considering usage of a non-specified cable, please contact your sales representative.
If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.
If considering usage for below mentioned applications, please contact your sales representative.
In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

HIROSE ELECTRIC CO.,LTD. 2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
https://www.hirose.com

PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

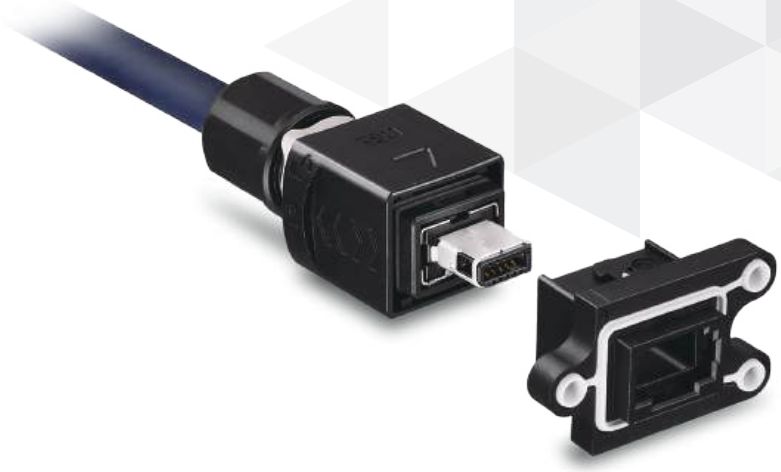
IX Series

IEC Standard Compliant Next-Generation Industrial Communication Connector Compact Waterproof Push-Pull Type

Push / Pull

Waterproof

CAT6A



NEW

Product page
https://www.hirose.com/en/product/series/IX

Jun. 2025

Advance with ix Industrial

Overview

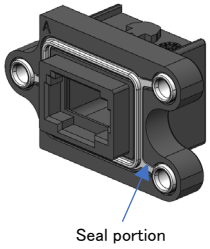
・Multi-purpose, compact I/O connector for industrial machinery.
・Compliant with IEC 61076-3-124
・Compact, robust, high-speed, waterproof, and dustproof
・High EMC resistance

Features

1. IP65, IP67 Compliant

Compliant with IP65 and IP67 standards when mated, the connector offers excellent waterproof and dustproof performance. An optional dust cap is also available to provide additional protection against dust, dirt, and humidity, further enhancing reliability.

●Flange



●Plug

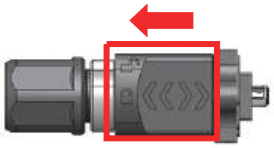
●Dust Cap for Flange

●Dust Cap for Plug

2. Push-Pull Lock

The connection is released by pulling the hood, while the security clip prevents accidental disconnection during operation. This design ensures a secure connection and high reliability.

Mated Condition



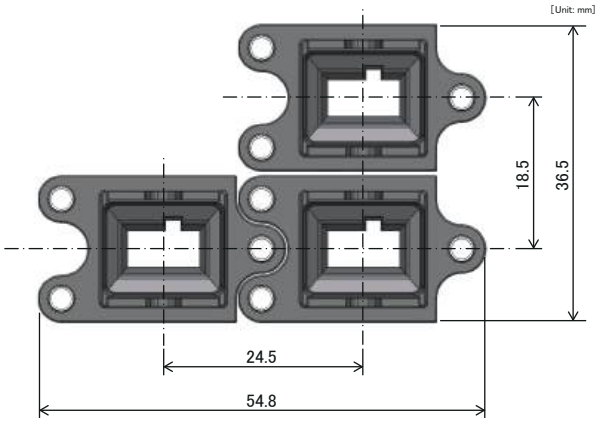
Unmated Condition

Locked Condition

Unlocked Condition

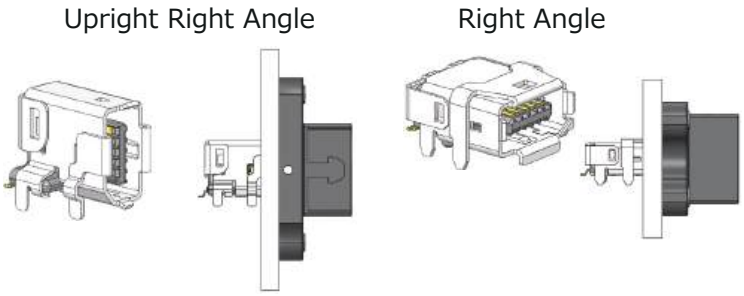
3. Supports High-Density Mounting

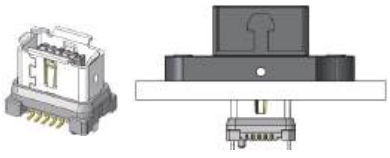
The interlocking flange design allows for flexible, puzzle-like configurations, helping to reduce overall system size and maximize the use of limited space.



4. Compatible with All Receptacle Types

The IX Series is designed to support a wide range of receptacle types, enabling easier system integration. This flexibility helps simplify product design and allows for greater customization.





Product Specifications

Rated Current	All Pins	1.5A/pin	Operating Temperature (Note 1)	-40～+70℃
	Pin No.1,2,6 and 7	3A/pin	Storage Temperature Range	-60～+85℃
Rated Voltage	50V AC / 60V DC			

Item	Specification	Conditions
Contact Resistance	Signal: 30mΩ Max. (Note 2) Shield: 100mΩ Max. (Note 2)	Measured at 100mA
Insulation Resistance	500MΩ Min.	Measured at 500V DC
Withstanding Voltage	No insulation breakdown	500V DC for 1 min.
Mating Durability	Signal: 80mΩ Max. (Note 2) Shield: 100mΩ Max. (Note 2)	750 insertion/extraction cycles
Insertion and Withdrawal Force	Insertion force 50N Max. Withdrawal force 50N Max.	Insertion/Extraction Speed: 50mm/min or less
Waterproof/Dustproof	IP65/67	
Vibration Resistance	No electrical discontinuity of 1 μs or more. (Note 3) No damage, crack or loosened parts	490m/s^2, 30 times/min, 1000 times

Note 1: Includes temperature rise due to current flow.
Note 2: Conductor resistance of the cable is not included.
Note 3: Electrical performance applicable to signal contact and shield except contact No.3 and 8.

Materials / Finish

●Plug

Component	Materials	Color/Finish
Female Contact	Copper Alloy	Gold-palladium plating (contact part) Tin plating (connection part)
Insulator	PA	Black
Insulator Case		Black
Shield Plate	Stainless Steel	-
Shell	Stainless Steel	Tin Plating (Clamp) Nickel Plating (Others)
Guide	PC	Transparent, Transparent orange
Push-Pull Cover	PBT	Black
Unlock Cover	PBT	Black
Clamp	PA	Black
Cap	PA	Black
O-ring	NBR	Black
Security Clip	PA	Gray
Clamp Part O-Ring	NBR	Black

●Flange

Component	Materials	Color/Finish
Flange	PBT	Black
Sealing	TPE-V	Gray

●Dust Cap for Plug

Component	Materials	Color/Finish
Dust Cap	PBT	Black

●Dust Cap for Flange

Component	Materials	Color/Finish
Dust Cap	PBT	Black
Strap	PA	Black
O-ring	NBR	Black

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

■ Plug

IX 30G WP - A - 10 S - CV X (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❾ ❿

❶ Series Name	IX Series	❻ Contact Gender	S: Female Contact
❷ Assembly Method	30G: IDC (26 to 28 AWG, Insulation Outer Diameter ϕ 1.2mm Max.) 32G: IDC (22 to 24 AWG, Insulation Outer Diameter ϕ 1.6mm Max.)	❼ Plug Cover Cabling Direction	CV: Straight
❸ Type	WP: Waterproof Push Pull Type	❾ Applicable Cable Diameter	X: Sheath Outer Diameter ϕ 5.5 to 7.5mm
❹ Mating Key/ Application	A: Type A/Ethernet Communications B: Type B/Non-Ethernet Communication	❿ Plating Specifications	(01): Palladium Nickel Plated + Gold plated
❺ Maximum Number of Usable Positions	10: 10pos. 8(Note): 8pos.		

(Note)In the case of IX32G, mated portion has 10pos., but contact No.3 and 8 cannot be connected because there is no hole to pass the core wire in IDC section guide.

■ Flange

IXG WP - FL
❶ ❷ ❸

❶ Series Name	IX Series	❸ Product Type	FL: Flange
❷ Type	WP: Waterproof Push Pull Type		

■ Dust Cap

IXG WP - FL - DC
❶ ❷ ❸ ❹

❶ Series Name	IX Series	❸ Mating counterpart	FL: Flange PLUG: Plug
❷ Type	WP: Waterproof Push Pull Type	❹ Product Type	DC: Dust Cap

Connector Mating Combination Diagram

●Receptacle

Upright Right Angle

IX61G2-#-10P(##)

Horizontal Right Angle

IX60G-#-10P(##)

Vertical

IX80G-#-10P(##)

●Flange

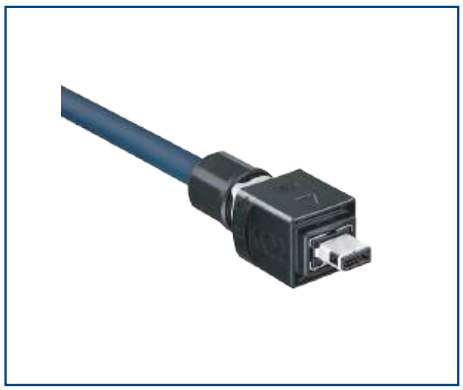
IXGWP-FL

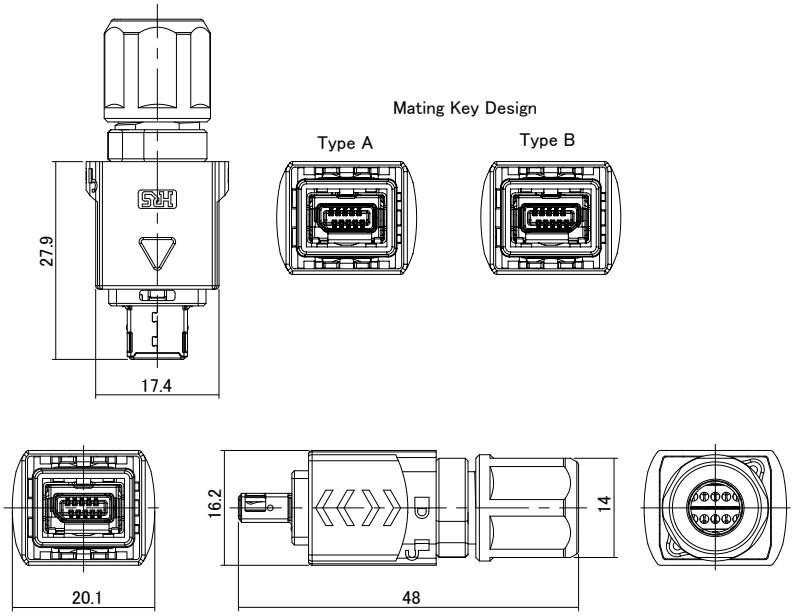
●Plug

IX30GWP-#-10S-CVX(01)
IX32GWP-#-8S-CVX(01)

Plug

Waterproof Push-Pull

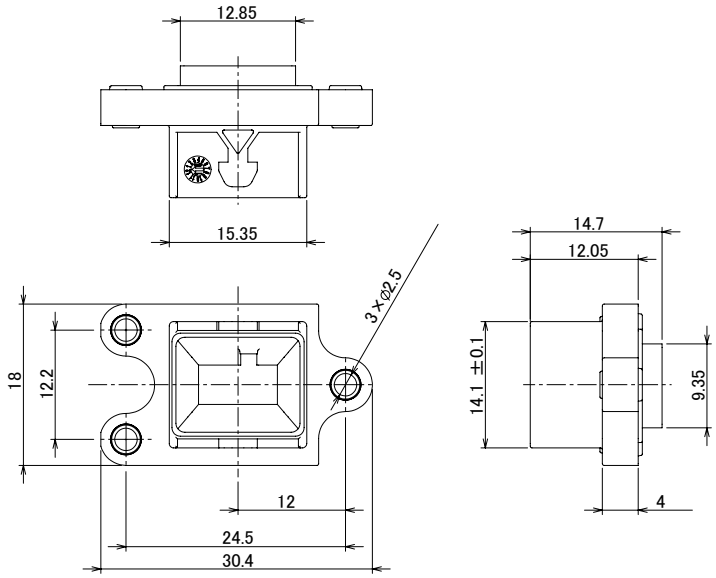




Unit : mm

Part No.	HRS No.	Contact Area Plating	Purchase Unit
IX30GWP-A-10S-CVX(01)	CL0251-0103-0-01	Palladium-Nickel Plated 0.75 μm + Gold Plated 0.05 μm	10pcs per box
IX30GWP-B-10S-CVX(01)	CL0251-0104-0-01		
IX32GWP-A-8S-CVX(01)	CL0251-0105-0-01		
IX32GWP-B-8S-CVX(01)	CL0251-0106-0-01		

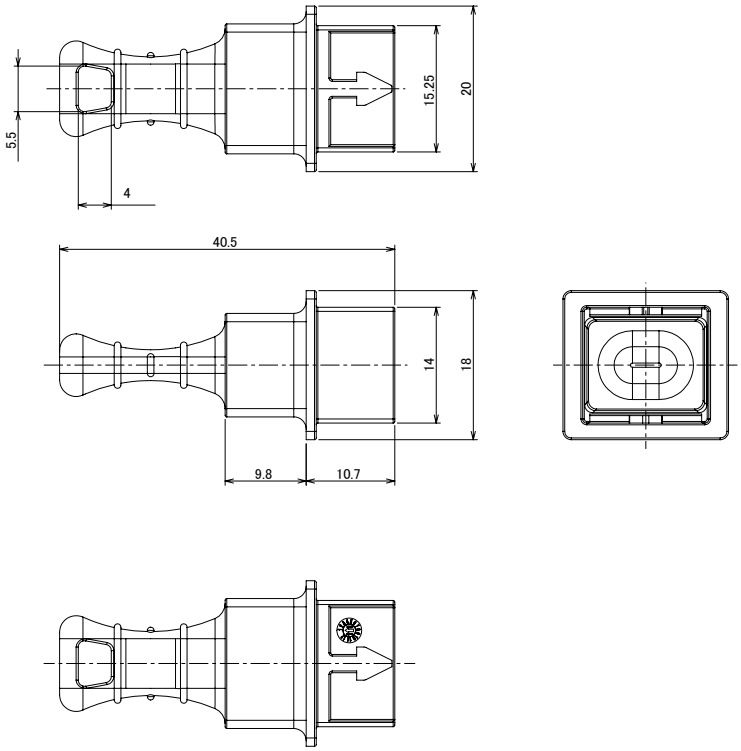
Flange



Unit : mm

Part No.	HRS No.	Purchase Unit
IXGWP-FL	CL0251-0100-0-00	10pcs per box

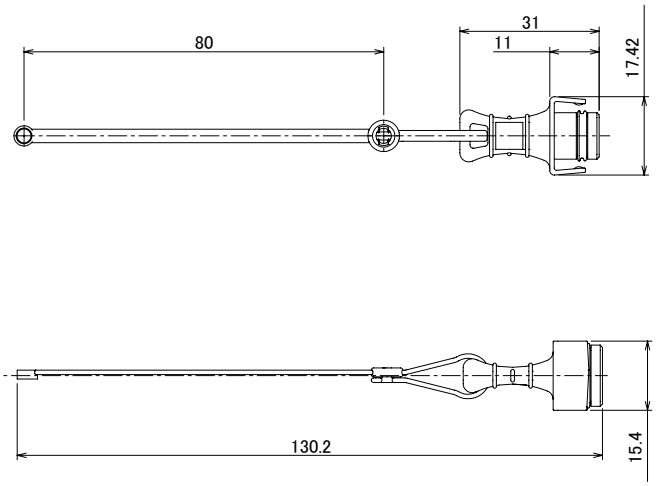
Dust Cap for Plug



Unit : mm

Part No.	HRS No.	Purchase Unit
IXGWP-PLUG-DC	CL0251-0107-0-00	10pcs per bpx

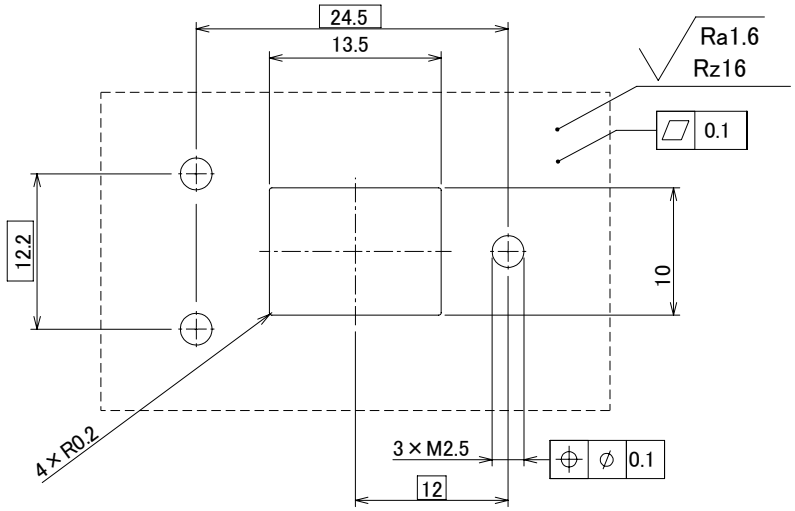
Dust Cap for Flange



Unit : mm

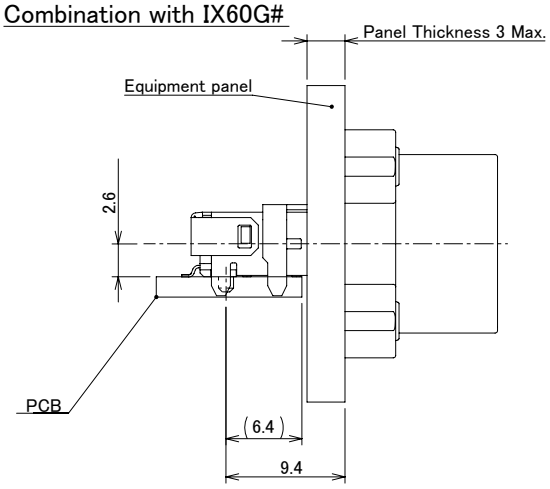
Part No.	HRS No.	Purchase Unit
IXGWP-FL-DC	CL0251-0108-0-00	10pcs per box

Reference Panel Cutout Dimensions (Free)

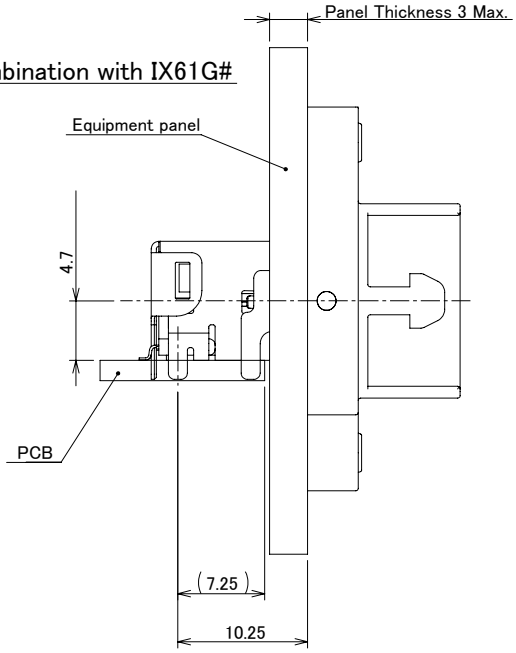


Panel Combination State Diagram

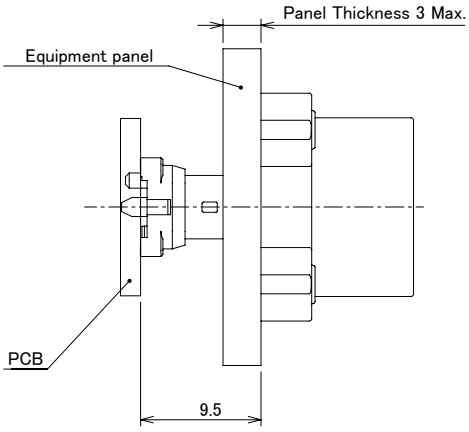
Combination with IX60G#



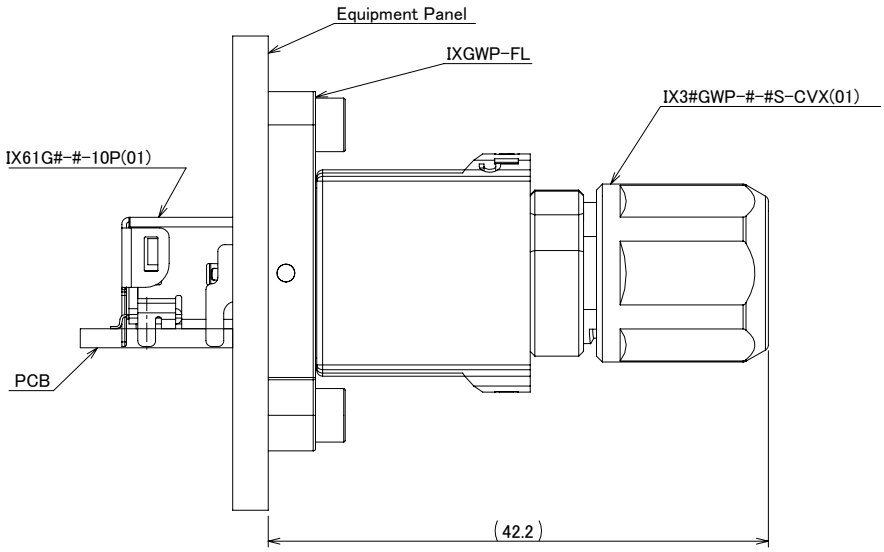
Combination with IX61G#



Combination with IX80G#



Mated Condition Diagram



Cable Assembly Tools

Part No.	HRS No.
HT604/IXGW-8/10S-73	CL0250-0300-0-00

Applicable Cables List

A list of applicable cables is available on the Hirose website.
(https://www.hirose.com/product/en/pr/ix_industrial/applicable_cable_list/)

While taking into consideration

Specifications mentioned in this catalog are reference values.
When considering to order or use this product, please review the Drawing and Product Specifications sheets.
Use an appropriate cable when using the connector in combination with cables.
If considering usage of a non-specified cable, please contact your sales representative.
If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.
If considering usage for below mentioned applications, please contact your sales representative.
In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

HIROSE ELECTRIC CO.,LTD. 2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
https://www.hirose.com