

QR/P Series

# Rectangular, High Pin Count, Rack and Panel Crimp Connector



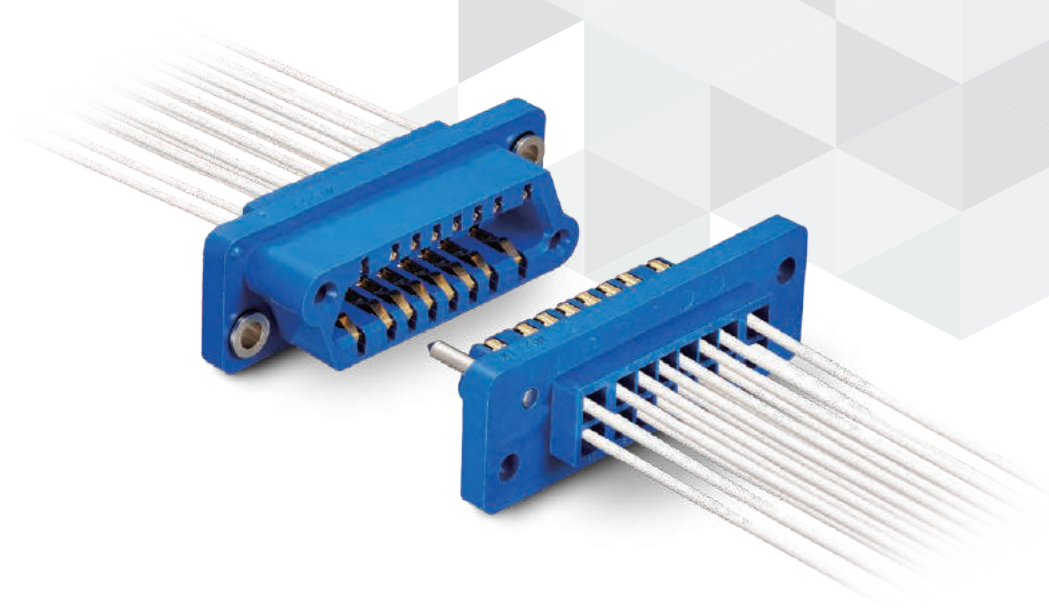
Multiple Position



Floating



Plug-In



## General

The QR/P Series is a plug-in, rectangular, multi-pin count rack and panel connector for the connection and disconnection of power and signal circuits between units and racks of various electronic equipment.

Five different pin counts are available: 4, 8, 12, 16 and 24. Wire connection is performed using crimp termination for easier workability and high reliability.

Hirose's unique ribbon-shaped, male and female dual-purpose contacts assure smooth insertion/removal, making this the ideal rack and panel connector for plug-in connections.

## Features

1. Margin in the effective mating length due to the plug-in design.
2. The males and female housings use the same contacts for a reduction in part procurement and management.
3. Floating bushing enables a floating design.
4. UL, CSA, TÜV certified.

## Product Specifications

Operating Temperature	-10 to +60°C	
Rated Current	Power	13A Max. (When using 14 AWG)
	Signal	7A Max. (When using 18 AWG)
Rated Voltage	Power	600V AC
	Signal	250V AC
Contact Resistance	10mΩ Max. (1A DC)	
Insulation Resistance	5000MΩ Min. (500V DC)	
Withstand Voltage	Power	3000V AC for 1 min.
	Signal	1000V AC for 1 min.

Safety Standard		UL	CSA		TÜV		
Operating Temperature		-10 to +60°C					
Rated Voltage	Power	120V AC	250V AC	600V AC	250V AC, 300V DC		
	Signal				125V AC, 150V DC		
Rated Current	14 AWG	10A	10A	-	10A		
	16 AWG		8A	1A			
	18 AWG	3A	3A	-	5A		
	20 AWG		2A		1A	2.5A	
	22 AWG					1A	1A
	24 AWG						

## Materials / Finish

Item	Material	Color/Finish	Remarks
Insulator	PBT	Blue	UL94V-0
Contact	Phosphor Bronze	Partial Gold Plating (Nickel Underplating)	—

## 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.

### Connector Unit

**QR/P - 8 P - C (21)**

①      ② ③      ④      ⑤

### Contact

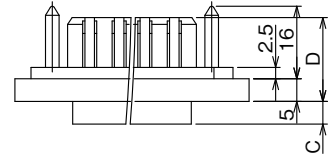
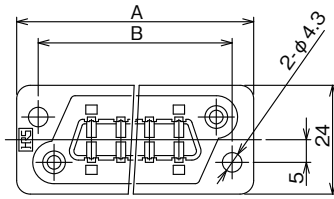
**QR/P - X C - 1 1 1**

①      ⑤ ④      ⑥ ⑦ ⑧

① Series Name	QR/P	⑥ Contact Type	1 : Loose Piece Contact 2 : Reel Contact
② No. of Pos.	4, 8, 12, 16, 24	⑦ Applicable Cable	1 : 14 to 16 AWG 2 : 18 to 24 AWG
③ Insulator Gender	P : Male Insulation Case S : Female Insulation Case	⑧ Surface Treatment	1 : Partial Gold Plating (Nickel Underplating)
④ Contact Connection Method	C : Crimping	⑨ Specification	(21) : UL, CSA, TÜV
⑤ Contact Type	X : Male and Female Dual-purpose Contact		

## Housing

### Male Housing

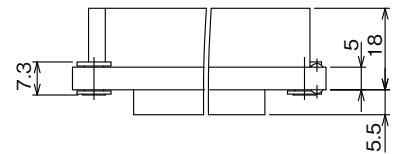
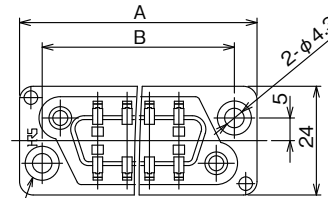


Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	Purchase Unit
QR/P-4P-C(21)	CL0221-0013-0-21	4	41.0	31.0	5.0	18.5	30pcs per bag
QR/P-8P-C(21)	CL0221-0001-0-21	8	52.0	42.0			
QR/P-12P-C(21)	CL0221-0002-3-21	12	61.0	51.0			
QR/P-16P-C(21)	CL0221-0003-6-21	16	70.0	60.0			
QR/P-24P-C(21)	CL0221-0004-9-21	24	86.5	77.0	5.5	18.0	20pcs per bag

Note : For 14-16 AWG compatible contacts, only 4 can be inserted (both sides). All contacts can be inserted for 4pos.

### Female Housing



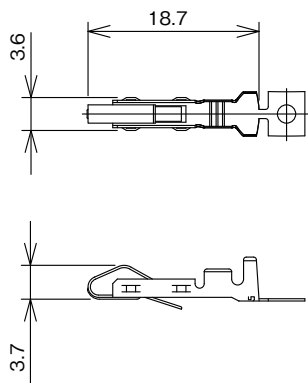
Floating Bushing  
(Floats 0.4mm Max. in Respect to Center)

Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Purchase Unit
QR/P-4S-C(21)	CL0221-0014-2-21	4	41.0	31.0	30pcs per bag
QR/P-8S-C(21)	CL0221-0005-1-21	8	52.0	42.0	
QR/P-12S-C(21)	CL0221-0006-4-21	12	61.0	51.0	
QR/P-16S-C(21)	CL0221-0007-7-21	16	70.0	60.0	
QR/P-24S-C(21)	CL0221-0008-0-21	24	86.5	77.0	20pcs per bag

Note : For 14-16 AWG compatible contacts, only 4 can be inserted (both sides). All contacts can be inserted for 4pos.

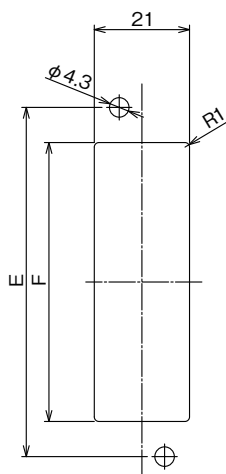
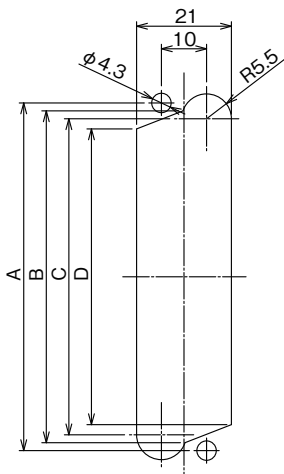
## Contact (Male and Female Dual-purpose Contact)



Part No.	HRS No.	Applicable Cable	Type of Packing	Purchase Unit
QR/P-XC-111(12)	CL0221-0009-2-12	14 to 16 AWG	Loose	100pcs per bag
QR/P-XC-211(12)	CL0221-0011-4-12		Reel	3,500pcs per reel
QR/P-XC-121(12)	CL0221-0010-1-12	18 to 24 AWG	Loose	100pcs per bag
QR/P-XC-221(12)	CL0221-0012-7-12		Reel	5,000pcs per reel

## Panel Mounting Dimensions

### Female Housing (QR/P-#S-C)



Attachment from Panel Rear Side

Attachment from Panel Front Side

Unit : mm

Type		4pos.	8pos.	12pos.	16pos.	24pos.
Rear Mount	A	31.0	42.0	51.0	60.0	77.0
	B	26.5	37.5	46.5	55.5	73.5
	C	23.0	34.0	43.0	52.0	70.0
	D	18.5	29.5	38.5	47.5	65.5
Front Mount	E	31.0	42.0	51.0	60.0	77.0
	F	15.5	26.5	35.5	44.5	62.5

Note : The panel mounting dimensions of the male housing are symmetrical to the female housing in respect to the vertical axis.

## Tools



Manual Crimp Tool


 Automatic Crimp Tool  
CM-105C


Extraction Tool

Type	Part No.	HRS No.	Applicable Contact
Manual Crimp Tool	TC-2100-111	CL0250-0027-0-00	QR/P-XC-111
	TC-2100-121	CL0250-0028-2-00	QR/P-XC-121
Automatic Crimp Tool Applicator	AP105-QR/P-XC-1	CL0901-2567-5-00	QR/P-XC-211
	AP105-QR/P-XC-2	CL0901-2531-8-00	QR/P-XC-221
Extraction Tool	TC-2100-21	CL0250-0009-8-00	-

## While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please confirm 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, assurance will not be given.

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.