

# PQ50/PQ50S/PQ50W Series

## High Power Signal Connectors for Industrial Machinery



Robust



Positive-Lock



Waterproof



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## General

The PQ Series is an interface connector designed to handle high power/signal connections in industrial machinery. Available in a waterproof or non-waterproof type, they are capable of handling up to 12.5A/pin (PQ50S/PQ50W) or 19A/pin (PQ50).



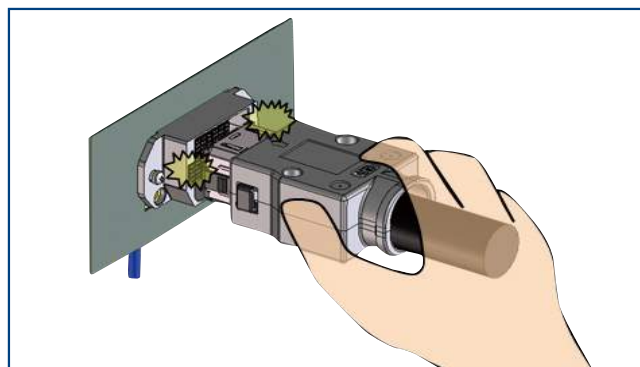
Variations

## Features

### [Non-Waterproof Type] PQ50/PQ50S Series

#### 1. Side locking spring design delivers a clear tactile click.

The left and right buttons disengage the mated lock. (Side locking system)  
The easy mating operation delivers a clear tactile click.



Side locking design emits a tactile click and produces a secure lock

#### 2. Strengthened cable clamps

Cable clamp strength is 98N or more. (Actual value is 400N or more)  
The design prevents the mated connector and clamp from detaching against excessive forces.

#### 3. Different cover options. A robust, enhanced, shielded die-cast shell is available on the PQ50 Series or a engineered, light weight plated plastic resin shell for the PQ50S Series.

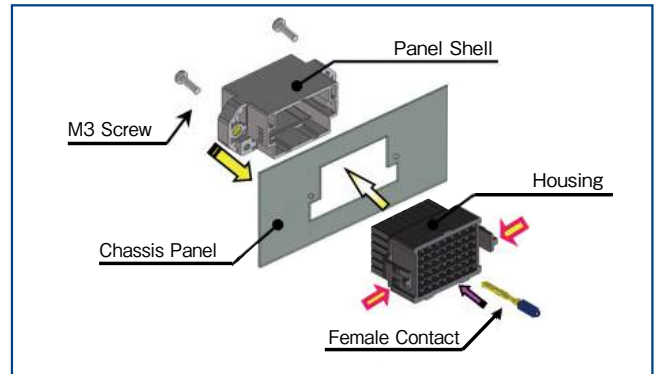
The die cast shell delivers an enhanced EMI shield on the PQ50 Series and the plated plastic resin of the PQ50S Series' cover case and panel shell ensure ESD and EMI performance.

#### 4. Coding key system provides flexibility with multiple options

The coding key system prevents incorrect mating and has multiple variations available.

#### 5. Rear mounted panel shell is available.

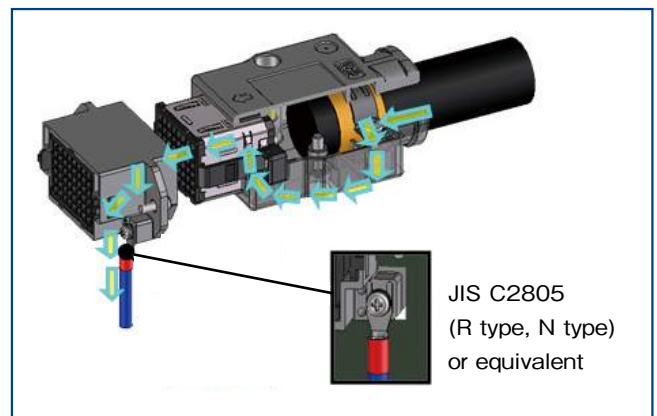
After attaching the panel shell to the chassis, it is possible to install or remove the crimp housing.



It is possible to insert the terminated housing from the rear.

#### 6. Reliable ground connection design.

The crimp contacts can be mounted directly onto the panel shell with screws which enhances the grounding connections.



Easy and Reliable Ground Connection

#### 7. Supports NFPA79 compliant cables (with 600V capability).

(PQ50 Series)

Due to restrictions on the AWM cables by NFPA79 revision, the requirements of listed cables has increased for wires used in industrial machines in the U.S.A. This product complies with the restrictions and requirements of NFPA79.

## [Waterproof Type] PQ50W Series

### 1. Water resistant (IP65)

Rated at IP65 when in the mated condition.

### 2. Special locking design.

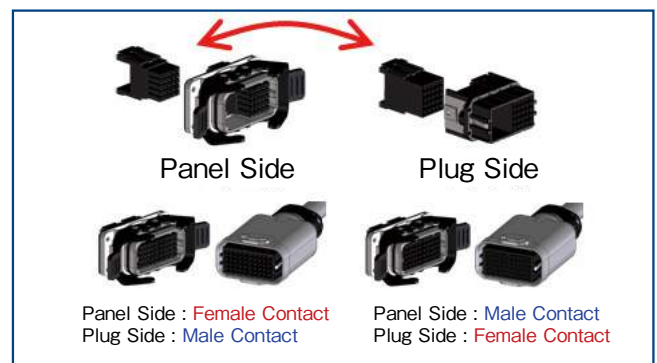
Special lever and cam design delivers easier operation and assists with the insertion and extraction of this connector.



Unique Lever Lock Design

### 3. Rear mounted unit offers easy operations.

Male and Female plastic crimp case can be installed from both the panel side metal shell and plug side.



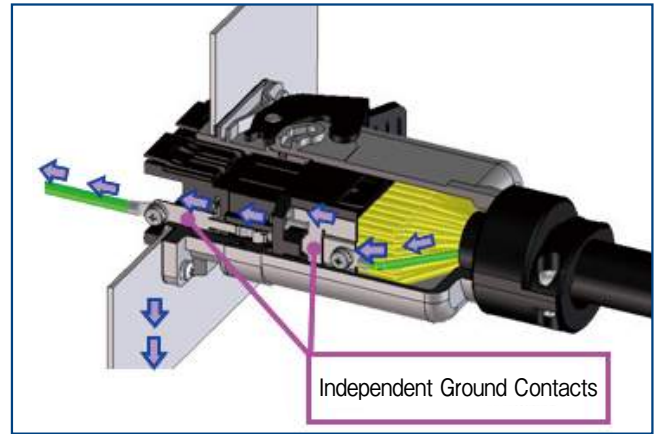
Supports Rear Mounting of Unit

### 4. Metal plated cover with engineering plastic resin adds strength and EMI protection.

This robust connector uses a metal plated material with specially engineered plastic for the cover and panel shell to ensure high ESD and EMI performance.

## 5. Independent ground contact design.

Secure grounding is accomplished by use of the plated plastic cover and the independent ground contacts.



Independent ground contact design.

## 6. Coding key system provides flexibility with multiple options

The coding key system prevents incorrect mating and has multiple variations available.

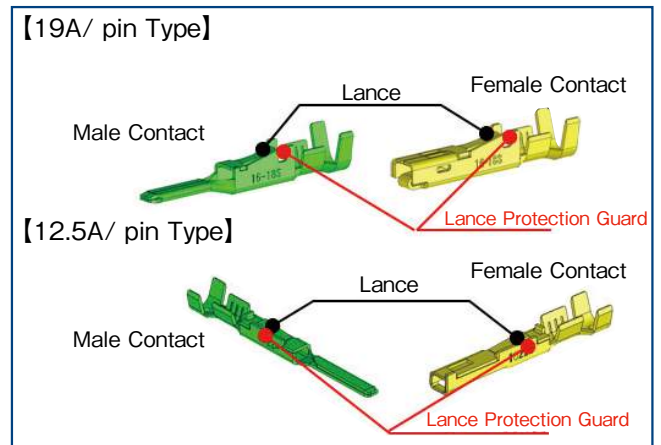
## [Contact Variations]

### 1. Available contact options

Two styles are available; one with 19A/ pin contacts or one with 12.5A/ pin contacts.

### 2. Lance protection design

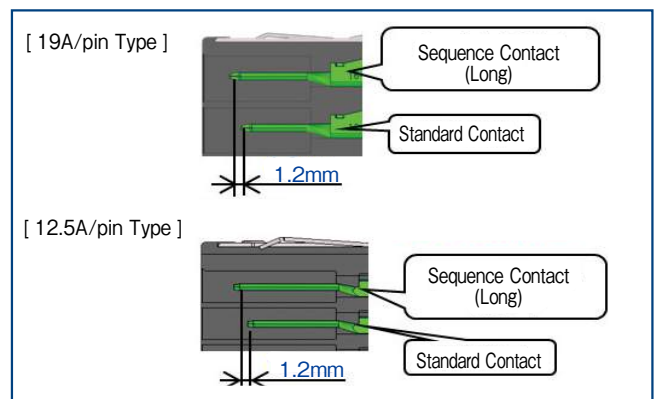
The side wall of the contact prevents lance deformation and helps to prevent tangled wires.



Lance protection design

### 3. Sequential contacts of different length are available

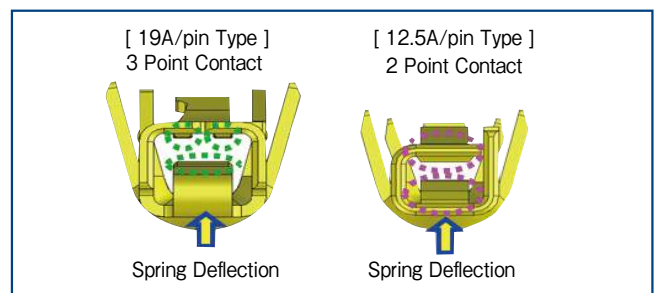
Two types of different contact length are available for the male contact.



Sequential Contacts with Differing Lengths

### 4. Highly reliable contact design

The female contact provides a reliable connection through multiple contact points and a unique spring design.



Multiple contact points and flexible spring design

## Product Specifications

### [Non-waterproof Type] PQ50 Series

Rated Current	with UL1015, 16 AWG (Note)	Operating Temperature	-40 to +105°C
	19A	Storage Temperature Range	-55 to +85°C
Rated Voltage	600V AC/DC		

Note : Depending on current capacity of the cable used.

Items	Specifications	Conditions
Contact Resistance	10m Ω Max. (Excluding conductor resistance of the cable.)	Measured at 100mA
Insulation Resistance	Minimum of 5,000M Ω	Measured at 500V DC
Withstand Voltage	No flashover or breakdown.	Apply 2,200V AC for 1 min.
Mating Durability	Contact resistance : Increase by 20m Ω or less from the initial value.	Perform 500 mating cycles.
Vibration Resistance	No electrical discontinuity of 10 μ s or more. No broken, cracked or loosened parts.	Frequency 10 to 55 Hz (5 min/cycle). With half amplitude 0.75mm, 2 hours each for 3 directions.
Shock Resistance		Acceleration 490m/s <sup>2</sup> , duration 11ms, half-sine wave, 3 times each for 6 axial directions.
Temperature Cycles	Change of contact resistance : 20m Ω or less No broken, cracked or loosened parts.	Temperature : -55 → +15 to 35 → +105 → +15 to +35°C Time : 30 → 2 to 3 → 30 → 2 to 3 min. Subjected to 5 cycles of time and temp as noted.
Moisture Resistance in Steady State	Change of contact resistance : 20m Ω Max. Insulation resistance: minimum of 1,000M Ω (after drying). No breakage, cracks or loosened parts.	Left in environment of 60°C± 2 and humidity of 90 to 95% for 96 hours.
Salt Water Spray	No significant corrosion or damage that impairs functioning.	5% concentration of salt water spray for 48 hours.(in mated condition)

Note : For test methods not described here, JIS C 5402 is applied.

## [Non-waterproof Type] PQ50S Series

Rated Current	with UL1007, 18 AWG (Note)	Operating Temperature	-40 to +105°C
	12.5A	Storage Temperature Range	-55 to +85°C
Rated Voltage	300V AC/DC		

Note: Depending on current capacity of the cable used.

Items	Specifications	Conditions
Contact Resistance	5mΩ Max. (Excluding conductor resistance of the cable.)	Measured at 100mA
Insulation Resistance	Minimum of 5,000MΩ	Measured at 500V DC
Withstand Voltage	No flashover or breakdown.	Apply 2,200V AC for 1 min.
Mating Durability	Contact resistance : Increase by 10mΩ or less from the initial value.	Perform 500 mating cycles.
Vibration Resistance	No electrical discontinuity of 10 μs or more. No broken, cracked or loosened parts.	Frequency 10 to 55 Hz (5 min/cycle) With half amplitude 0.75mm, 2 hours each for 3 directions.
Shock Resistance		Acceleration 490m/s <sup>2</sup> , duration 11ms, half-sine wave, 3 times each for 6 axial directions.
Temperature Cycles	Change of contact resistance : 10mΩ or less No broken, cracked or loosened parts.	Temperature : - 55 → +15 to 35 → +105 → +15 to +35°C Time : 30 → 2 to 3 → 30 → 2 to 3 min. Subjected to 5 cycles of time and temp. as noted.
Moisture Resistance in Steady State	Change of contact resistance : 10mΩ or less Insulation resistance : Minimum of 1,000MΩ (after drying). No broken, cracked or loosened parts.	Left in environment of 60°C± 2 and humidity of 90 to 95% for 96 hours.
Salt Water Spray	No significant corrosion or damage that impairs functioning.	5% concentration of salt water spray for 48 hours. (in mated condition)

Note : For test methods not described here, JIS C 5402 is applied.



## [Waterproof Type] PQ50W Series

Rated Current	with UL1007, 18 AWG (Note)	Operating Temperature	-40 to +105°C
	12.5A	Storage Temperature Range	-55 to +85°C
Rated Voltage	300V AC/DC		

Note: Depending on current capacity of the cable used. (With 12.5A/pin type contacts)

Items	Specifications	Conditions
Contact Resistance	5m Ω max (Excluding conductor resistance of the cable.)	Measured at 100mA
Insulation Resistance	Minimum of 5,000M Ω	Measured at 500V DC
Withstand Voltage	No flashover or breakdown.	Apply 2,200V AC for 1 min..
Mating Durability	Contact resistance : Increase by 10m Ω or less from the initial value.	Perform 500 mating cycles.
Vibration Resistance	No electrical discontinuity of 10 μ s or more. No broken, cracked or loosened parts.	Frequency 10 to 55 Hz (5 min/cycle) With half amplitude 0.75mm, 2 hours each for 3 directions.
Shock Resistance		Acceleration 490m/s <sup>2</sup> , duration 11ms, half-sine wave, 3 times each for 6 axial directions.
Temperature Cycles	Change of contact resistance : 10m Ω or less No broken, cracked or loosened parts.	Temperature : -55 → +15 to 35 → +105 → +15 to +35°C Time : 30 → 2 to 3 → 30 → 2 to 3 min. Subjected to 5 cycles of time and temp. as noted.
Moisture Resistance in Steady State	Change of contact resistance : 10m Ω or less Insulation resistance : 1,000M Ω or more (after drying) No broken, cracked or loosened parts.	Left in environment of 60°C± 2 and humidity of 90 to 95% for 96 hours.
Salt Water Spray	No significant corrosion or damage that impairs functioning.	5% concentration of salt water spray for 48 hours. (in mated condition)
Water Resistance	IP65	

Note : For test methods not described here, JIS C 5402 is applied.

## Materials / Finish

### ● PQ50 Series

Item	Parts	Materials	Finish	Remarks
Receptacle	Crimp Case	PBT Resin	Black	UL94V-0
	Panel Shell	Zinc Die Cast	Nickel Plating	-
Plug	Crimp Case	PBT Resin	Black	UL94V-0
	Crimp Case Shell	Stainless Steel	Nickel Plating	-
	Cover Case	Zinc Die Cast		
	M4 Pan Head Machine Screw	Steel		
	Clamp Metal	Steel		
In-line Plug	Crimp Case	PBT Resin	Black	UL94V-0
	In-line Plug Shell	Zinc Die Cast	Nickel Plating	-
	In-line Cover Case			
	M4 Pan Head Machine Screw	Steel		
	Clamp Metal	Steel		

### ● PQ50S Series

Item	Parts	Materials	Finish	Remarks
Receptacle	Crimp Case	PBT Resin	Black	UL94V-0
	Panel Shell	Heat-resistant Engineering Plastic Resin	Nickel Plating	-
	M4 Insert Nut	Brass		
Plug	Crimp Case	PBT Resin	Black	UL94V-0
	Crimp Case Shell	Stainless Steel	Nickel Plating	-
	Cover Case	Heat-resistant Engineering Plastic Resin		UL94V-0
	M4 Pan Head Machine Screw	Steel		-
	Clamp Metal	Steel		
	M4 Insert Nut	Brass		

### ● PQ50W Series

Item	Parts	Materials	Finish	Remarks
Crimp case	Crimp Case	PBT Resin	Black	UL94V-0
Receptacle	Panel Shell	Heat-resistant Engineering Plastic Resin	Nickel Plating	UL94V-0
	Ground Contact	Stainless Steel		-
	O-ring for Mating	NBR	Black	-
	Lock Lever	PA Resin		
	Rubber Packing	NBR		
Plug	Plug Shell	Heat-resistant Engineering Plastic Resin	Black	UL94V-0
	Ground Contact	Stainless Steel	Nickel Plating	-
	M2 Tapping Screw	Steel	Trivalent Chromate	
	Cover Case		Nickel Plating	
	Gasket	NBR	Red	
	Clamp Metal (Body)	Heat-resistant Engineering Plastic Resin	Black	UL94V-0
	Cable Clamp			
	M3 Insert Nut	Brass	Nickel Plating	-
M3 Pan Head Machine Screw	Steel			

## ● Contacts (PQ50/PQ50S/PQ50W)

Part No.	Parts	Materials	Finish
PQ50-15PCFA	Male Contact	Copper Alloy	Gold Plating (Contact Area) + Tin Plating (Barrel Area)
PQ50A-15PCFA			
PQ50-15SCFA	Female Contact		
PQ50-1618PCFA	Male Contact		
PQ50A-1618PCFA			
PQ50-1618SCFA	Female Contact		
PQ50-2022PCFA	Male Contact		
PQ50A-2022PCFA			
PQ50-2022SCFA	Female Contact		
PQ50S-1822PCFA	Male Contact		
PQ50SA-1822PCFA			
PQ50S-1822SCFA	Female Contact		
PQ50S-2428PCFA	Male Contact		
PQ50SA-2428PCFA			
PQ50S-2428SCFA	Female Contact		

## 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.

### ■ Crimp Housing

#### PQ 50 W S - 25 P - UNIT

① ② ③ ④ ⑤ ⑥ ⑦

① Series Name	PQ	⑤ Shell Size	20 : 20pos. unit 25 : 25pos. unit 48 : 48pos. unit
② Wiring Style	Crimping	⑥ Contact Type	P : Male Contact S : Female Contact
③ Connector Specifications	W : Waterproof Type None : Non-waterproof Type	⑦ Shapes	UNIT : Rear mount multiple unit (PQ50W) None : (PQ50, PQ50S)
④ Contact Size	S : Small Contact (12.5A/pin) Type None : Standard Contact (19A/pin) Type		

### ■ Crimp Contact

#### PQ 50 S A - 1822 PC F A

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series Name	PQ	⑤ Applicable Cable Type	15 : 14 to 15 AWG 1618 : 16 to 18 AWG 1822 : 18 to 22 AWG 2022 : 20 to 22 AWG 2428 : 24 to 28 AWG
② Wiring Style	Crimping	⑥ Contact Type	PC : Male Contact SC : Female Contact
③ Contact Size	S : Small Contact (12.5A/pin) Type None : Standard Contact (19A/pin) Type	⑦ Contact Shapes	F : End-to-end Contacts (on reel) None : Discrete Contacts
④ Contact Usage	A : Sequence Contact (Long Contact) None : Standard Contact	⑧ Contact Plating Type	A : Gold Plating (Contact Area)

### ■ Clamp Metal

#### PQ W - CM (17.5)

① ② ③ ④

① Series Name	PQ	④ Applicable Cable Diameter	(15.0) : For applicable cable diameter $\phi$ 15.0 (17.5) : For applicable cable diameter $\phi$ 17.5 (22.0) : For applicable cable diameter $\phi$ 22.0
② Connector Specifications	W : Waterproof Type None : Non-waterproof Type		
③ Clamp Name	CM : Clamp Metal		

## ■ PQ50/PQ50S Series

### PQ 50 S - 48 P - PC M

- ① ② ③ ④ ⑤ ⑥ ⑦

① Series Name	PQ	⑤ Contact Type	P : Male Contact S : Female Contact
② Wiring Style	Crimping	⑥ Case Type	PC : Plug Cover Case JC : In-line Plug Cover Case FL : Panel Shell DS : In-line Plug Shell
③ Contact Size	S : Small Contact (12.5A/pin) Type None : Standard Contact (19A/pin) Type		
④ Shell Size	20 : 20pos. Shell Type 48 : 48pos. Shell Type	⑦ Case Material	M : Heat-resistant Engineering Plastic Resin None : Zinc Die Cast

## ■ PQ50W Series

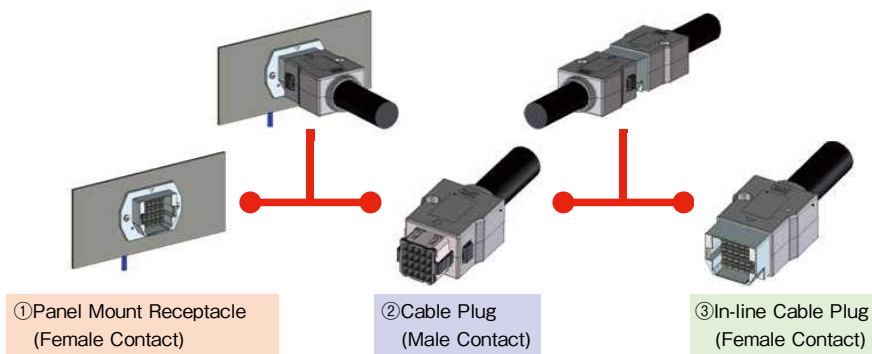
### PQ 50 W - 50 - PC

- ① ② ③ ④ ⑤

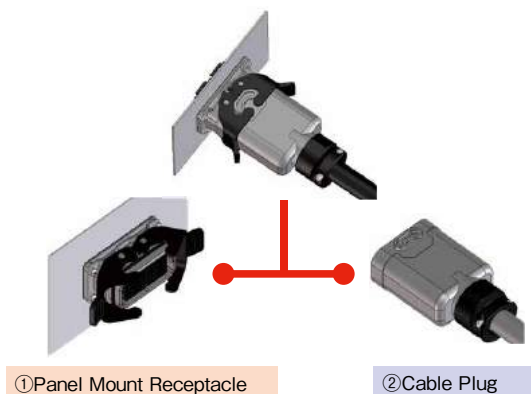
① Series Name	PQ	④ Shell Size	50 : 50pos. Shell Type
② Wiring Style	Crimping	⑤ Case Type	PC : Plug Cover Case FL : Panel Shell
③ Connector Specifications	Waterproof Type		

## Functional Diagram

### ● PQ50/PQ50S Series



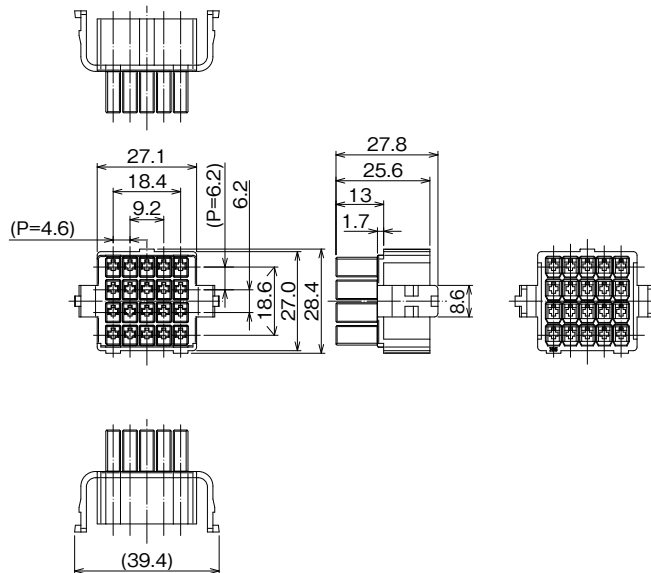
### ● PQ50W Series



## Panel Mount Receptacle

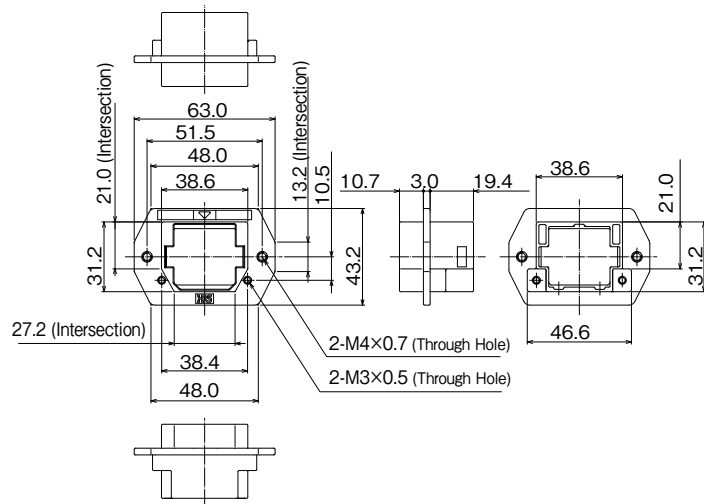
### PQ50 Series

#### ●Crimp Case (19A/pin for Female Contact)



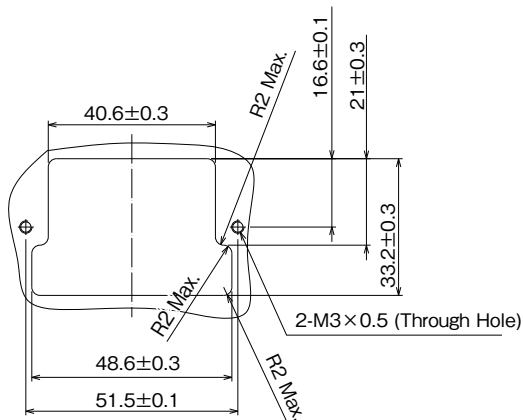
Part No.	HRS No.	Purchase Unit
PQ50-20S	CL0236-2014-2-00	50pcs per tray
PQ50-20S(01)	CL0236-2014-2-01	1pcs per box

## ● Panel Shell

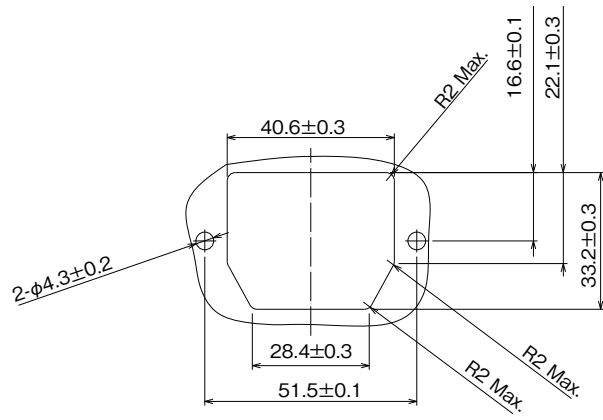


### Panel Mounting Dimensions

Recommended panel dimensions for attaching panel shell from panel's front side.



Recommended panel dimensions for attaching panel shell from panel's back side.

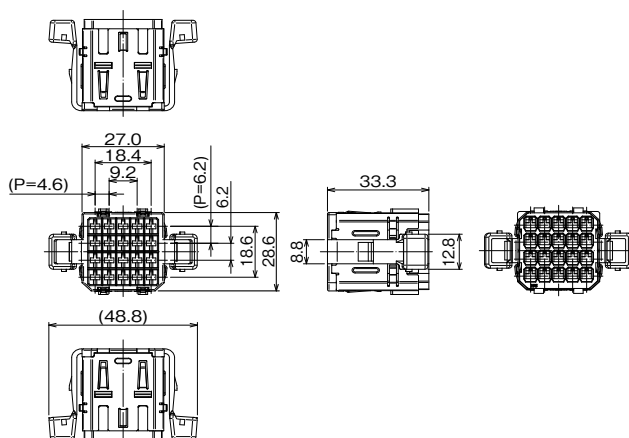


Part No.	HRS No.	Purchase Unit
PQ50-20S-FL	CL0236-2001-0-00	50pcs per tray
PQ50-20S-FL(01)	CL0236-2001-0-01	1pcs per box

## Cable Plug

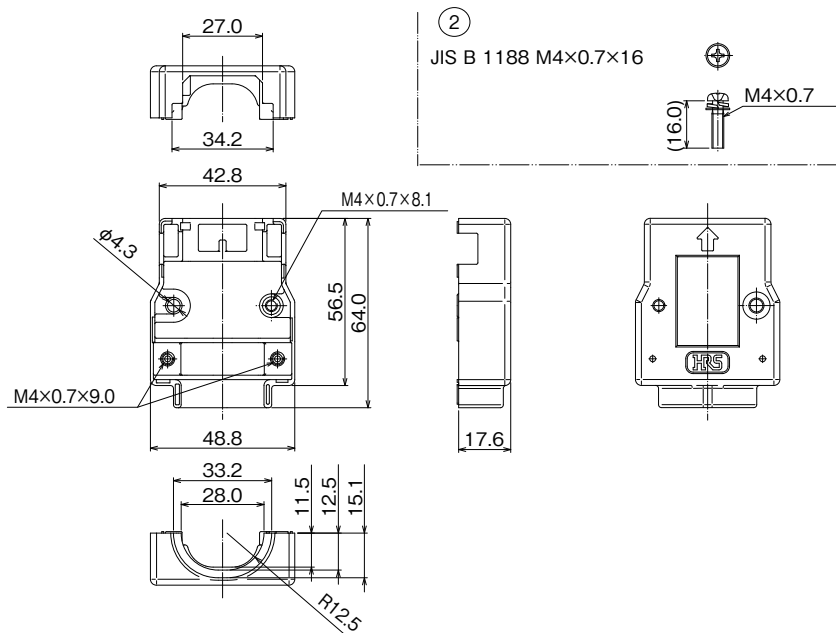
### PQ50 Series

#### ●Crimp Case (19A/pin for Male Contact)



Part No.	HRS No.	Purchase Unit
PQ50-20P	CL0236-2011-4-00	50pcs per tray
PQ50-20P(01)	CL0236-2011-4-01	1pcs per box

#### ●Plug Cover Case



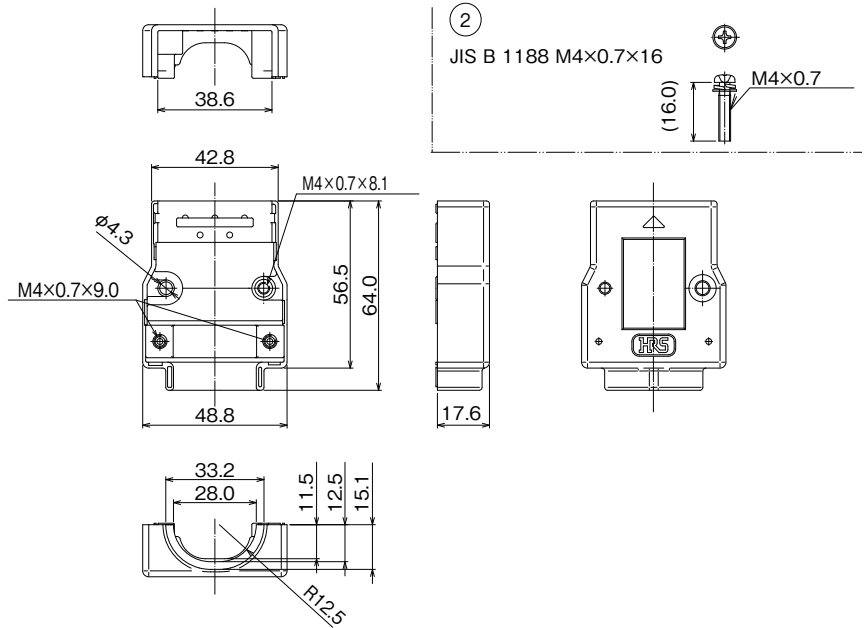
Part No.	HRS No.	Purchase Unit
PQ50-20P-PC	CL0236-2000-8-00	100pcs per tray
PQ50-20P-PC(01)	CL0236-2000-8-01	1pcs per box



## In-Line Cable Plug

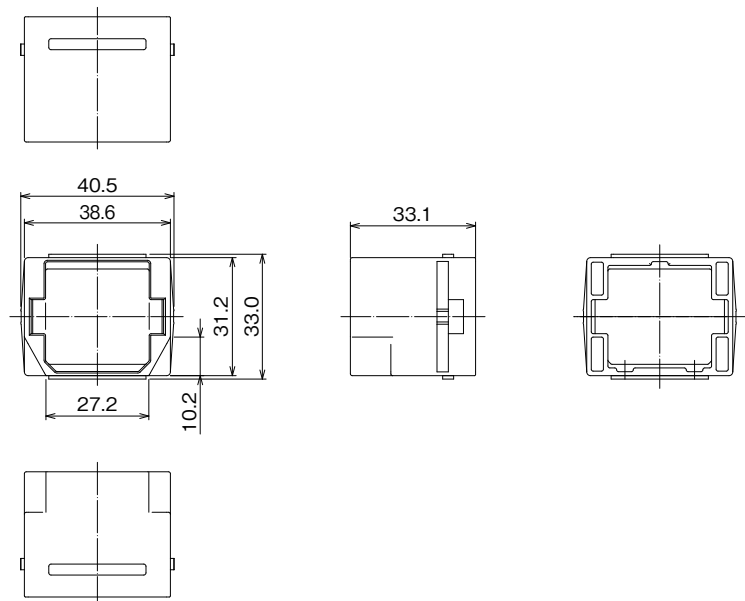
### PQ50 Series

#### ● In-line Plug Cover Case



Part No.	HRS No.	Purchase Unit
PQ50-20S-JC	CL0236-2002-3-00	100pcs per tray
PQ50-20S-JC(01)	CL0236-2002-3-01	1pcs per box

#### ● In-line Plug Shell

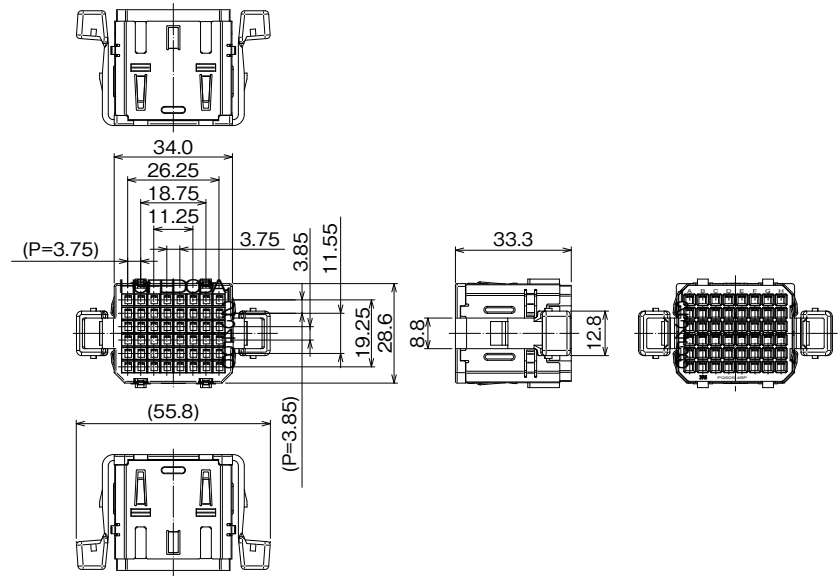


Part No.	HRS No.	Purchase Unit
PQ50-20S-DS	CL0236-2015-5-00	50pcs per tray
PQ50-20S-DS(01)	CL0236-2015-5-01	1pcs per box

## Cable Plug

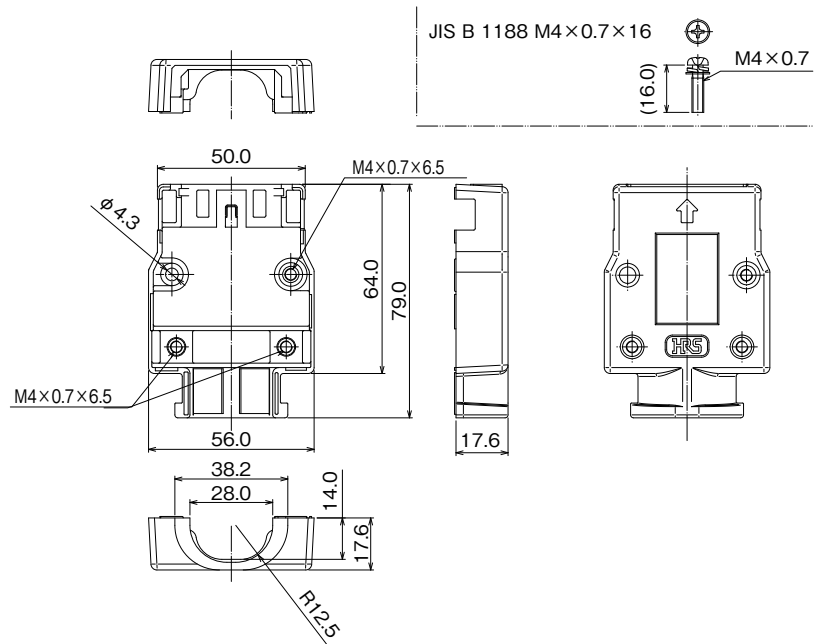
### PQ50S Series

#### ●Crimp Case (12.5A/pin for Male Contact)



Part No.	HRS No.	Purchase Unit
PQ50S-48P	CL0236-2023-3-00	60pcs per tray
PQ50S-48P(01)	CL0236-2023-3-01	1pcs per box

#### ●Plug Cover Case

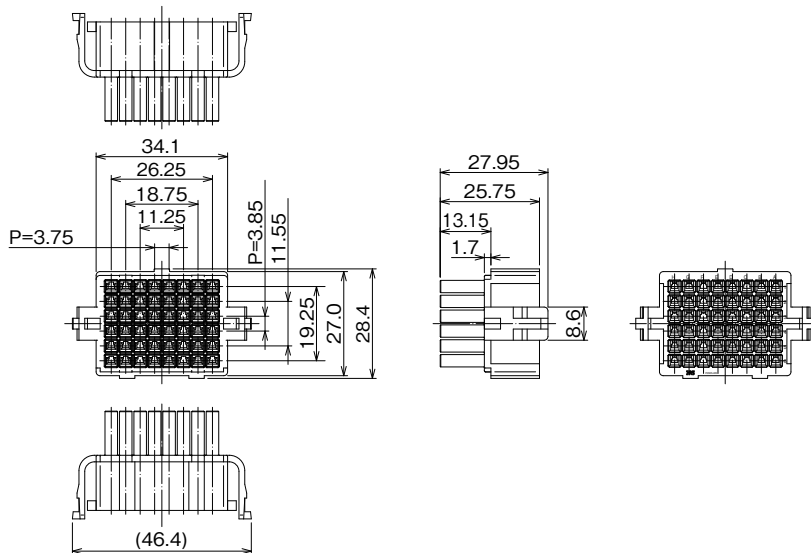


Part No.	HRS No.	Purchase Unit
PQ50S-48P-PCMA	CL0236-2129-0-00	60pcs per bag
PQ50S-48P-PCMA(01)	CL0236-2129-0-01	1pcs per box

## Panel Mount Receptacle

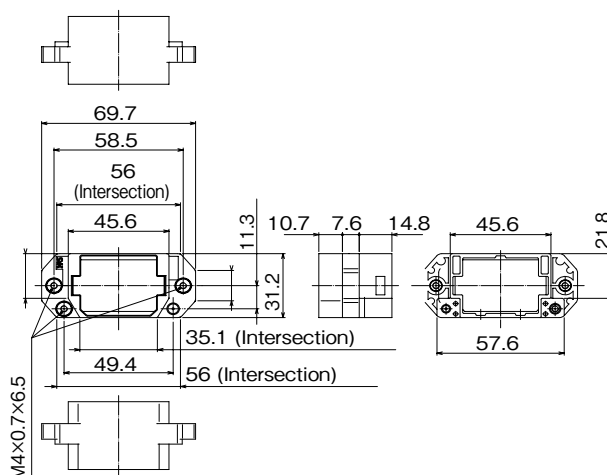
### PQ50S Series

#### ●Crimp Case (12.5A/pin for Female Contact)



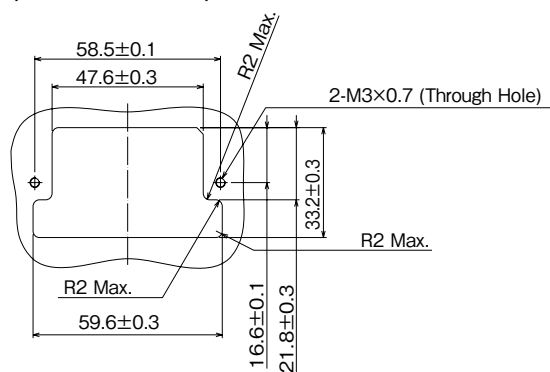
Part No.	HRS No.	Purchase Unit
PQ50S-48S	CL0236-2024-6-00	60pcs per tray
PQ50S-48S(01)	CL0236-2024-6-01	1pcs per box

## ● Panel Shell

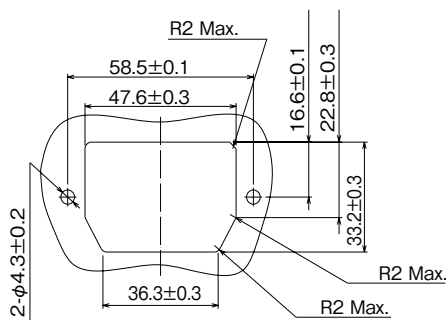


### Panel Mounting Dimensions

Recommended panel dimensions for attaching panel shell from panel's front side.



Recommended panel dimensions for attaching panel shell from panel's back side.

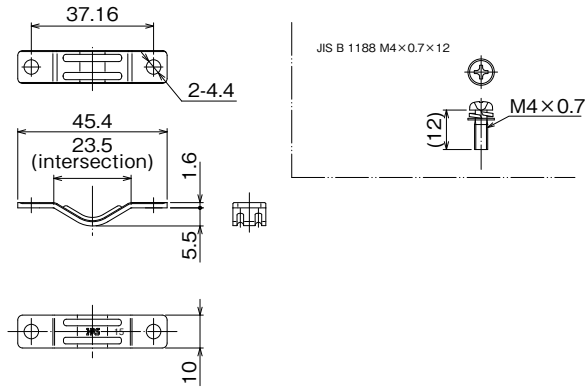


Part No.	HRS No.	Purchase Unit
PQ50S-48S-FLMA	CL0236-2130-0-00	60pcs per bag
PQ50S-48S-FLMA(01)	CL0236-2130-0-01	1pcs per box

## Clamp Metal

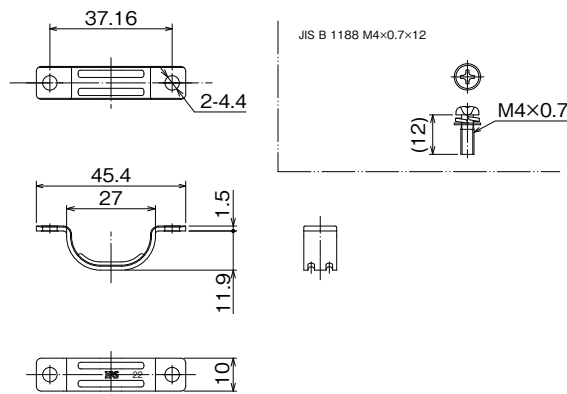
### PQ50/PQ50S Series

#### ● Clamp Metal for $\phi 15.0\text{mm}$ Cable Type



Part No.	HRS No.	Purchase Unit
PQ-CM(15.0)	CL0236-2005-1-00	60pcs per bag
PQ-CM(15.0)(01)	CL0236-2005-1-01	1pcs per box

#### ● Clamp Metal for $\phi 22.0\text{mm}$ Cable Type

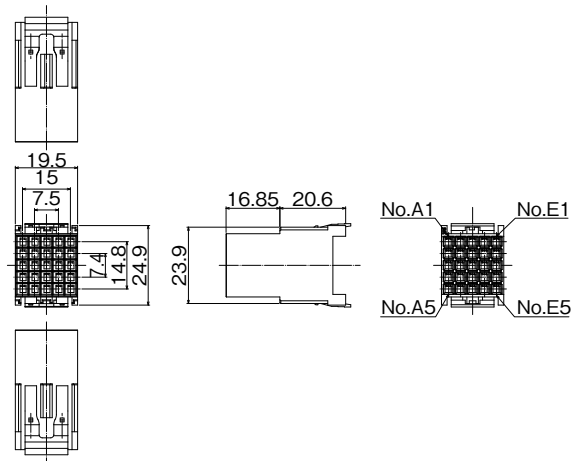


Part No.	HRS No.	Purchase Unit
PQ-CM(22.0)	CL0236-2013-0-00	50pcs per bag
PQ-CM(22.0)(01)	CL0236-2013-0-01	1pcs per box

## Cable Plug

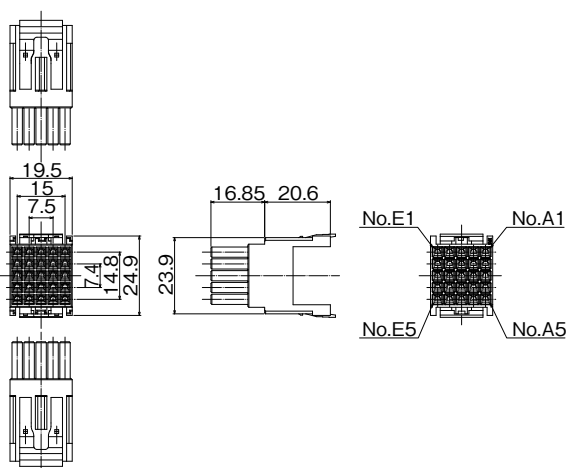
### PQ50W Series

#### ●Crimp Case (12.5A/pin for Male Contact)



Part No.	HRS No.	Purchase Unit
PQ50WS-25P-UNIT	CL0236-2021-8-00	50pcs per tray

#### ●Crimp Case (12.5A/pin for Female Contact)

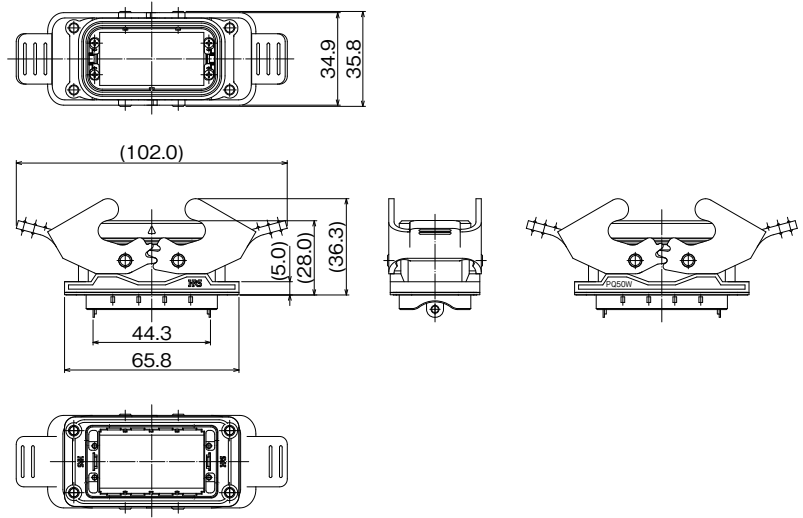


Part No.	HRS No.	Purchase Unit
PQ50WS-25S-UNIT	CL0236-2022-0-00	50pcs per tray

## Panel Mount Receptacle

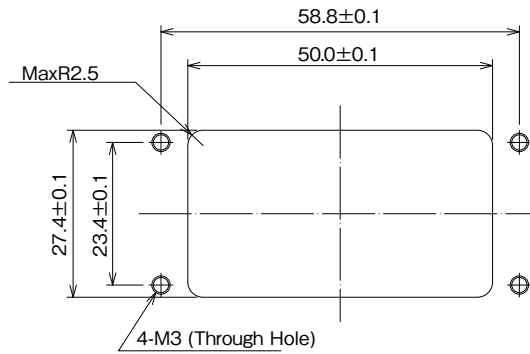
### PQ50W Series

#### ● Panel Shell



### Panel Mounting Dimensions

Panel dimensions for attaching panel shell from panel's front side.

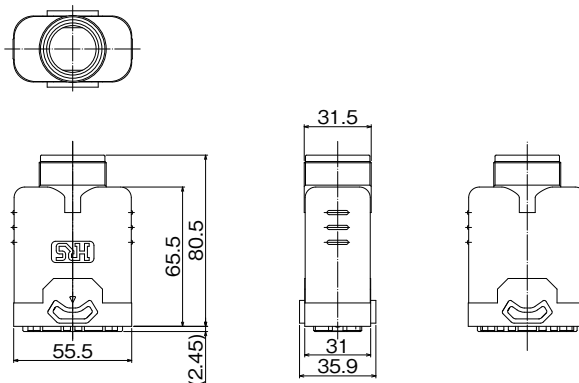


Part No.	HRS No.	Purchase Unit
PQ50W-50-FLA	CL0236-2132-0-00	20pcs per tray

## Cable Plug

### PQ50W Series

#### ●Cover Case

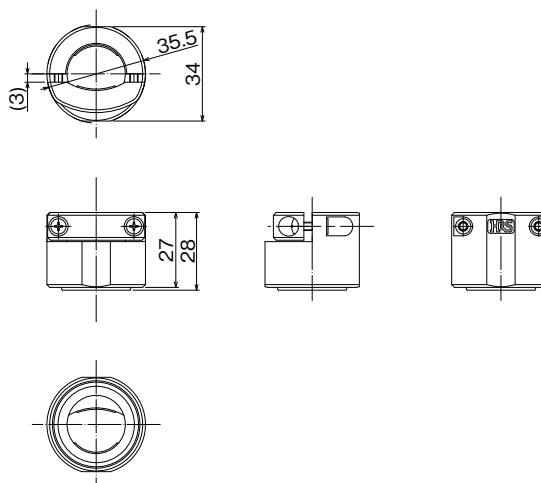


Part No.	HRS No.	Purchase Unit
PQ50W-50-PCA	CL0236-2133-0-00	10pcs per tray

## Metal Cable Clamp

### PQ50W Series

#### ●Cable Clamp for $\phi 17.5$ mm Cable Type

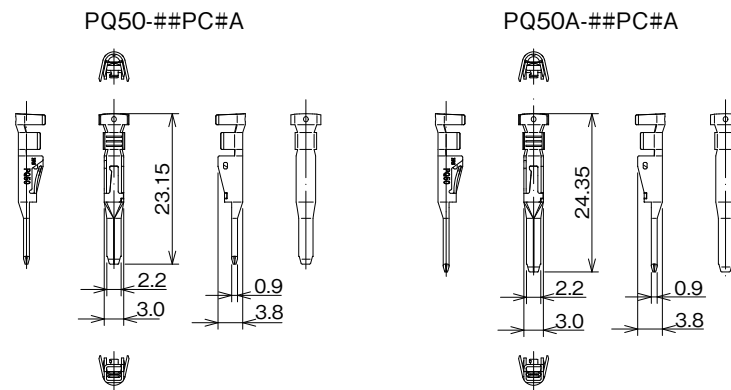


Part No.	HRS No.	Purchase Unit
PQW-CM(17.5)	CL0236-2019-6-00	100pcs per bag



## Crimp Contacts

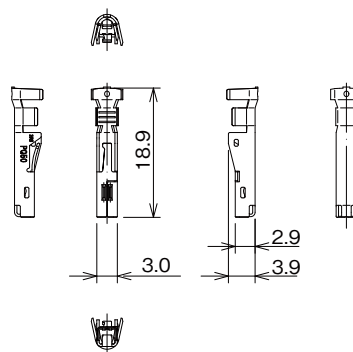
### ● Male Contact (19A/pin Type)



Part No.	HRS No.	Purchase Unit	Applicable Cables
PQ50-15PCFA (Note)	CL0236-2016-8-00	3,500pcs per reel	14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50A-15PCFA (Note)	CL0236-2073-1-00		14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-1618PCFA	CL0236-2006-4-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50A-1618PCFA	CL0236-2007-7-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-2022PCFA	CL0236-2031-1-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm
PQ50A-2022PCFA	CL0236-2032-4-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm
PQ50-15PCA	CL0236-2037-8-00	100pcs per bag	14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50A-15PCA	CL0236-2073-1-00		14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-1618PCA	CL0236-2038-0-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50A-1618PCA	CL0236-2040-2-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-2022PCA	CL0236-2039-3-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm
PQ50A-2022PCA	CL0236-2041-5-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm

Note: Please see ATAI-E2926 for details on UL1015, 14 AWG cable crimping.

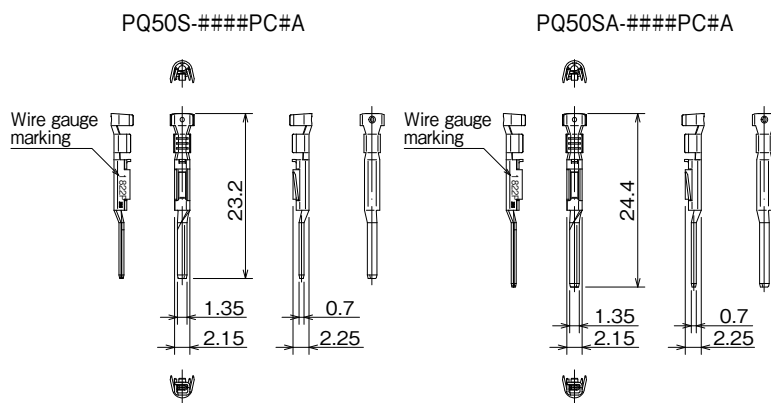
### ● Female Contact (19A/pin) Type



Part No.	HRS No.	Purchase Unit	Applicable Cables
PQ50-15SCFA (Note)	CL0236-2017-0-00	3,500pcs per reel	14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-1618SCFA	CL0236-2008-0-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-2022SCFA	CL0236-2010-1-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm
PQ50-15SCA	CL0236-2043-0-00	100pcs per bag	14 to 15 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-1618SCA	CL0236-2044-3-00		16 to 18 AWG insulator outer diameter Max. $\phi$ 3.3mm
PQ50-2022SCA	CL0236-2045-6-00		20 to 22 AWG insulator outer diameter Max. $\phi$ 2.7mm

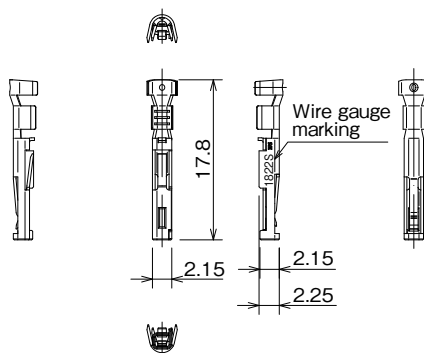
Note : Please see ATAI-E3038 for details on UL1015, 14 AWG cable crimping.

## ● Male Contact (12.5A/pin Type)



Part No.	HRS No.	Purchase Unit	Applicable Cables
PQ50S-1618PCFA	CL0236-2094-0-00	6,000pcs per reel	16 to 18 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-1822PCFA	CL0236-2025-9-00		18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50SA-1822PCFA	CL0236-2029-0-00		18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-2428PCFA	CL0236-2027-4-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm
PQ50SA-2428PCFA	CL0236-2030-9-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm
PQ50S-1822PCA	CL0236-2046-9-00	100pcs per bag	18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50SA-1822PCA	CL0236-2048-4-00		18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-2428PCA	CL0236-2047-1-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm
PQ50SA-2428PCA	CL0236-2049-7-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm

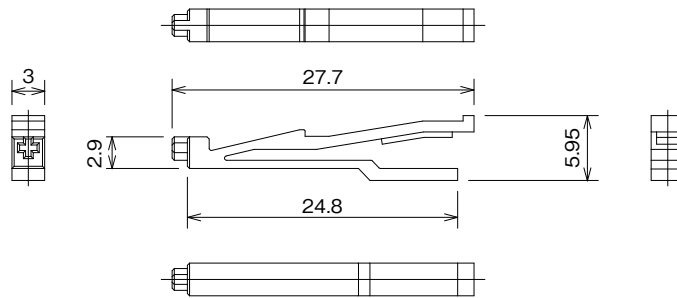
## ● Female Contact (12.5A/pin Type)



Part No.	HRS No.	Purchase Unit	Applicable Cables
PQ50S-1618SCFA	CL0236-2095-0-00	6,000pcs per reel	16 to 18 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-1822SCFA	CL0236-2026-1-00		18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-2428SCFA	CL0236-2028-7-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm
PQ50S-1822SCA	CL0236-2050-6-00	100pcs per bag	18 to 22 AWG insulator outer diameter Max. $\phi$ 2.25mm
PQ50S-2428SCA	CL0236-2051-9-00		24 to 28 AWG insulator outer diameter Max. $\phi$ 1.8mm

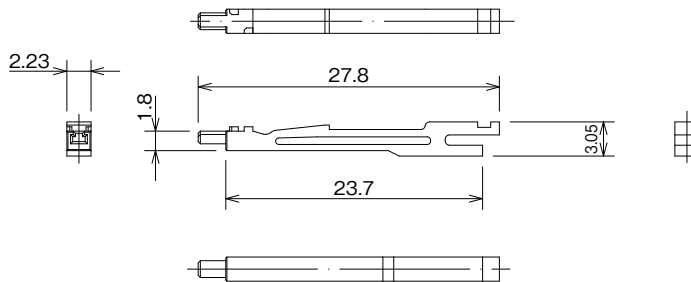
## Coding Key System

### ●For 19A/pin Type Crimp Case



Part No.	HRS No.	Purchase Unit
PQ50-SC-KY	CL0236-2009-2-00	100pcs per bag

### ●For 12.5A/pin Type Crimp Case

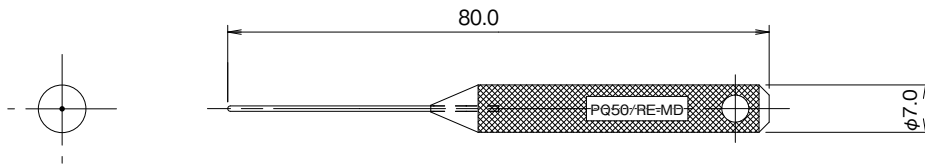


Part No.	HRS No.	Purchase Unit
PQ50S-SC-KY	CL0236-2033-7-00	100pcs per bag

## Tools

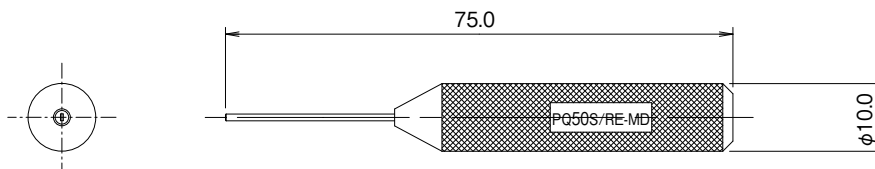
### ■ Extraction Tool

#### ● For 19A/pin Type Crimp Case



Part No.	HRS No.	Purchase Unit
PQ50/RE-MD	CL0902-2201-0-00	1pcs per box

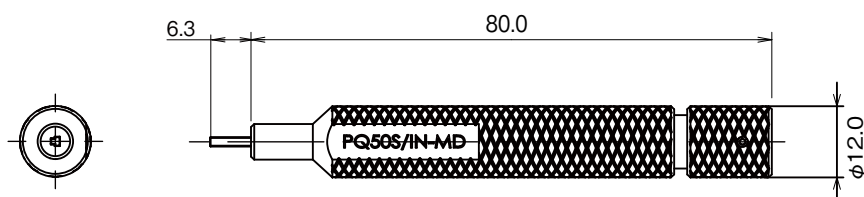
#### ● For 12.5A/pin Type Crimp Case



Part No.	HRS No.	Purchase Unit
PQ50S/RE-MD	CL0902-2202-2-00	1pcs per box

### ■ Pin Push Inspection Tool

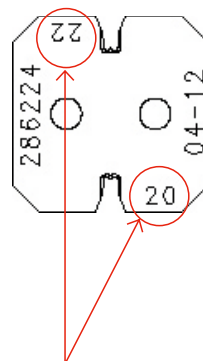
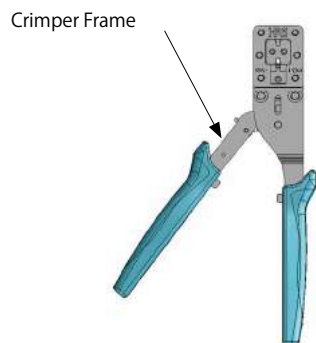
#### ● For 12.5A/pin Type Crimp Case



Part No.	HRS No.	Purchase Unit
PQ50S/IN-MD	CL0902-2538-0-00	1pcs per box

## ■ Hand Crimp Tool

Please purchase a compatible frame and tooth profile unit according to the cable you are using.



Switch wire crimper and insulation crimper die according to the wire size being used.

Part No.	HRS No.	Remarks
HT702	CL0250-1001-1-00	Frame only, tooth profile unit sold separately

## ● Tooth Profile Unit

You can choose to purchase only the tooth profile unit or a set of the tooth profile unit attached to the HT702 frame.

(Ex. 1) For Part No. PQ50-1618(1007)(00)/ HRS No. CL0250-1002-4-00, the insulation crimper, wire crimper, insulation anvil, wire anvil, contact holder A, contact holder B/C, crimper spacer and all component parts are included with purchase of just the tooth profile unit.

(Ex. 2) For Part No. PQ50-1618(1007)(01)/HRS No. CL0250-1002-4-01, the tooth profile unit (all 7 parts ) are already attached to the HT702 frame.

Part No.	HRS No.	Applicable Contacts	Applicable Cables		Purchase Content Based on End Specification of Part No./HRS No.	
				AWG	(##) : (00)	(##) : (01)
PQ50-14(1015)(##)	CL0250-1019-7-##	PQ50-15PCA PQ50-15SCA	UL1015	14	Purchase of tooth profile unit only	Purchase of set with a tooth profile unit attached to the frame HT702
PQ50A-14(1015)(##)	CL0250-1021-9-##	PQ50-15PCA PQ50A-15PCA	UL1015	14		
PQ50-14(2517)(00)	CL0250-1020-6-00	PQ50-15PCA PQ50-15SCA	UL2517	14		
PQ50A-14(2517)(00)	CL0250-1022-1-00	PQ50-15PCA PQ50A-15PCA	UL2517	14		
PQ50-1618(1007)(##)	CL0250-1002-4-##	PQ50-1618PCA PQ50-1618SCA	UL1007	16/18		
PQ50-1618(1015)(##)	CL0250-1003-7-##		UL1015	16/18		
PQ50A-1618(1007)(##)	CL0250-1004-0-##	PQ50-1618PCA PQ50A-1618PCA	UL1007	16/18		
PQ50A-1618(1015)(##)	CL0250-1005-2-##		UL1015	16/18		
PQ50-2022(1007)(##)	CL0250-1006-5-##	PQ50-2022PCA PQ50-2022SCA	UL1007	20/22		
PQ50-2022(1015)(##)	CL0250-1007-8-##		UL1015	20/22		
PQ50A-2022(1007)(##)	CL0250-1008-0-##	PQ50-2022PCA PQ50A-2022PCA	UL1007	20/22		
PQ50A-2022(1015)(##)	CL0250-1009-3-##		UL1015	20/22		
PQ50S-1820(1007)(##)	CL0250-1010-2-##	PQ50S-1822PCA PQ50S-1822SCA	UL1007	18/20		
PQ50S-2022(1007)(##)	CL0250-1011-5-##		UL1007	20/22		
PQ50S-2223(2586)(00)	CL0250-1031-2-00	PQ50S-1822PCA PQ50S-1822SCA	Sunrex 10516 LF	22		
			Hiflon SD-SB/2586	23		
PQ50SA-1820(1007)(##)	CL0250-1012-8-##	PQ50SA-1822PCA	UL1007	18/20		
PQ50SA-2022(1007)(##)	CL0250-1013-0-##		UL1007	20/22		
PQ50SA-2223(2586)(00)	CL0250-1032-5-00	PQ50S-1822PCA PQ50SA-1822PCA	Sunrex 10516 LF	22		
			Hiflon SD-SB/2586	23		
PQ50S-2428(1007)(##)	CL0250-1029-0-##	PQ50S-2428PCA PQ50S-2428SCA	UL1007	24/26/28		
PQ50SA-2428(1007)(##)	CL0250-1030-0-##	PQ50SA-2428PCA	UL1007	24/26/28		

(Note) PQ50-14(2517)(00), PQ50A-14(2517)(00), PQ50S-2223(2586)(00), PQ50SA-2223(2586)(00), only the final specification (00) It will be.

## ●Component List of Tooth Profile Unit for Repair

The components included with the tooth profile unit can be purchased separately.

(Ex.) Purchase of the insulation crimper of the tooth profile unit PQ50-1618(1007) is arranged with Part No. 286191/  
HRS No. CL0250-1002-4-61.

Tooth Profile Unit Part No.	Insulation Crimper	Wire Crimper	Insulation Anvil	Wire Anvil	Contact Holder A	Contact Holder B/C	Crimper Spacer
PQ50-14(1015)	286629 CL0250-1019-7-61	286630 CL0250-1019-7-62	286631 CL0250-1019-7-63	286632 CL0250-1019-7-64	285994 CL0250-1019-7-65	285995 CL0250-1019-7-66	285996 CL0250-1019-7-67
PQ50A-14(1015)	286629 CL0250-1021-9-61	286630 CL0250-1021-9-62	286631 CL0250-1021-9-63	286632 CL0250-1021-9-64	285994 CL0250-1021-9-65	286192 CL0250-1021-9-66	285996 CL0250-1021-9-67
PQ50-14(2517)	286633 CL0250-1020-6-61	286630 CL0250-1020-6-62	286631 CL0250-1020-6-63	286632 CL0250-1020-6-64	285994 CL0250-1020-6-65	285995 CL0250-1020-6-66	285996 CL0250-1020-6-67
PQ50A-14(2517)	286633 CL0250-1022-1-61	286630 CL0250-1022-1-62	286631 CL0250-1022-1-63	286632 CL0250-1022-1-64	285994 CL0250-1022-1-65	286192 CL0250-1022-1-66	285996 CL0250-1022-1-67
PQ50-1618(1007)	286191 CL0250-1002-4-61	285991 CL0250-1002-4-62	285992 CL0250-1002-4-63	285993 CL0250-1002-4-64	285994 CL0250-1002-4-65	285995 CL0250-1002-4-66	285996 CL0250-1002-4-67
PQ50-1618(1015)	285990 CL0250-1003-7-61	285991 CL0250-1003-7-62	285992 CL0250-1003-7-63	285993 CL0250-1003-7-64	285994 CL0250-1003-7-65	285995 CL0250-1003-7-66	285996 CL0250-1003-7-67
PQ50A-1618(1007)	286191 CL0250-1004-0-61	285991 CL0250-1004-0-62	285992 CL0250-1004-0-63	285993 CL0250-1004-0-64	285994 CL0250-1004-0-65	286192 CL0250-1004-0-66	285996 CL0250-1004-0-67
PQ50A-1618(1015)	285990 CL0250-1005-2-61	285991 CL0250-1005-2-62	285992 CL0250-1005-2-63	285993 CL0250-1005-2-64	285994 CL0250-1005-2-65	286192 CL0250-1005-2-66	285996 CL0250-1005-2-67
PQ50-2022(1007)	286197 CL0250-1006-5-61	286194 CL0250-1006-5-62	285992 CL0250-1006-5-63	286196 CL0250-1006-5-64	285994 CL0250-1006-5-65	285995 CL0250-1006-5-66	285996 CL0250-1006-5-67
PQ50-2022(1015)	286193 CL0250-1007-8-61	286194 CL0250-1007-8-62	285992 CL0250-1007-8-63	286196 CL0250-1007-8-64	285994 CL0250-1007-8-65	285995 CL0250-1007-8-66	285996 CL0250-1007-8-67
PQ50-2022(1007)	286197 CL0250-1006-5-61	286194 CL0250-1006-5-62	285992 CL0250-1006-5-63	286196 CL0250-1006-5-64	285994 CL0250-1006-5-65	285995 CL0250-1006-5-66	285996 CL0250-1006-5-67
PQ50-2022(1015)	286193 CL0250-1007-8-61	286194 CL0250-1007-8-62	285992 CL0250-1007-8-63	286196 CL0250-1007-8-64	285994 CL0250-1007-8-65	285995 CL0250-1007-8-66	285996 CL0250-1007-8-67
PQ50A-2022(1007)	286197 CL0250-1008-0-61	286194 CL0250-1008-0-62	285992 CL0250-1008-0-63	286196 CL0250-1008-0-64	285994 CL0250-1008-0-65	286192 CL0250-1008-0-66	285996 CL0250-1008-0-67
PQ50A-2022(1015)	286193 CL0250-1009-3-61	286194 CL0250-1009-3-62	285992 CL0250-1009-3-63	286196 CL0250-1009-3-64	285994 CL0250-1009-3-65	286192 CL0250-1009-3-66	285996 CL0250-1009-3-67

Top Row : Part No.  
Bottom Row : HRS No.

Tooth Profile Unit Part No.	Insulation Crimper	Wire Crimper	Insulation Anvil	Wire Anvil	Contact Holder A	Contact Holder B/C	Crimper Spacer
PQ50S-1820(1007)	286219 CL0250-1010-2-61	286223 CL0250-1010-2-62	286225 CL0250-1010-2-63	286226 CL0250-1010-2-64	286233 CL0250-1010-2-65	286234 CL0250-1010-2-66	285996 CL0250-1010-2-67
PQ50S-2022(1007)	286220 CL0250-1011-5-61	286224 CL0250-1011-5-62	286225 CL0250-1011-5-63	286226 CL0250-1011-5-64	286233 CL0250-1011-5-65	286234 CL0250-1011-5-66	285996 CL0250-1011-5-67
PQ50S-2223(2586)	286999 CL0250-1031-2-61	286224 CL0250-1031-2-62	286225 CL0250-1031-2-63	286226 CL0250-1031-2-64	286233 CL0250-1031-2-65	286234 CL0250-1031-2-66	285996 CL0250-1031-2-67
PQ50SA-1820(1007)	286219 CL0250-1012-8-61	286223 CL0250-1012-8-62	286225 CL0250-1012-8-63	286226 CL0250-1012-8-64	286233 CL0250-1012-8-65	286235 CL0250-1012-8-66	285996 CL0250-1012-8-67
PQ50SA-2022(1007)	286220 CL0250-1013-0-61	286224 CL0250-1013-0-62	286225 CL0250-1013-0-63	286226 CL0250-1013-0-64	286233 CL0250-1013-0-65	286235 CL0250-1013-0-66	285996 CL0250-1013-0-67
PQ50SA-2223(2586)	286999 CL0250-1032-5-61	286224 CL0250-1032-5-62	286225 CL0250-1032-5-63	286226 CL0250-1032-5-64	286233 CL0250-1032-5-65	286235 CL0250-1032-5-66	285996 CL0250-1032-5-67
PQ50S-2428(1007)	286876 CL0250-1029-0-61	286877 CL0250-1029-0-62	286231 CL0250-1029-0-63	286232 CL0250-1029-0-64	287753 CL0250-1029-0-65	-	285996 CL0250-1029-0-67
PQ50SA-2428(1007)	286876 CL0250-1030-0-61	286877 CL0250-1030-0-62	286231 CL0250-1030-0-63	286232 CL0250-1030-0-64	286233 CL0250-1030-0-65	286235 CL0250-1030-0-66	285996 CL0250-1030-0-67

Top Row : Part No.

Bottom Row : HRS No.

## 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.



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