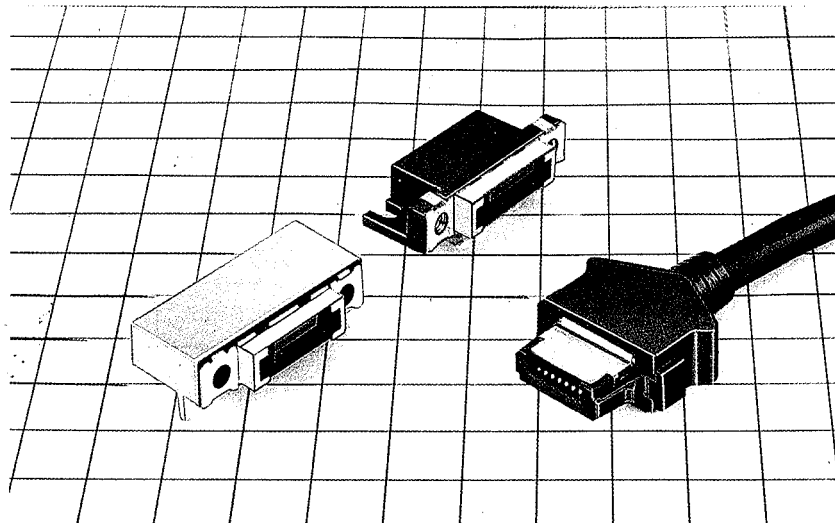


# 3100 SERIES LOW PROFILE CONNECTOR FOR PREVENTING EMI

## General

The 3100 series low profile I/O connectors for preventing EMI are perfect for today's compact electronic equipment.

Available in 6, 8, 12, 14 and 16 pins.



## Features

- (1) The metal shell guide structure for the receptacle connector reduces drastically the height for the substrate to 7mm.
- (2) The metal shell with a molded cover case is designed to shield it from electrostatic discharge (ESD).
- (3) The cantilever profile of the female contact ensures effortless coupling and long service life.
- (4) The effective engagement length is of sequence structure and sufficient to allow the shielded part to engage first when connecting.
- (5) The cable can be terminated efficiently just by crimping with a jig after passing the cable through the guide plate hole.
- (6) Cables AWG 26 to AGW 30 are applicable by partially changing the guide plate since the male connector adopts a U-slit type connection.
- (7) The side latching method of the molded cover assures easy locking of the plug connector.

## Application

Office Automation, Communications, Home Automation and Other equipment.

## Specification

Specification	
Current capacity	0.5A
Rated Voltage	AC 125V
Insulation Resistance	Min. 250MΩ at DC 100V
Contact Resistance	Max. 35mΩ at DC 1mA
Withstanding Voltage	AC 300Vr.m.s for 1 minute

Relation between guide plate and applicable coating O.D.			
Hole dia (mm) of Wire Configuration Guide Plate	φ 0.65	φ 0.85	φ 1
Applicable Cable Cut dia (mm)	φ 0.57~ φ 0.63	φ 0.75~ φ 0.83	φ 0.88~ φ 0.98

## Material & Finish

Material Finish			
Receptacle	Insulation	PBT resin	Black UL94V-0
	Contact	Brass	Selective gold plating
	Shell	Brass	Solder plating
Plug	Insulation	Polycarbonate Resin	White for AWG #28 Black for AWG #30
	Contact	Brass	Selective gold plating
	Guide Plate	Polycarbonate resin	Transparent
	Shell	Brass	Solder plating
	Cover	Polycarbonate resin	

## Ordering Information

### ● Receptacle

$\frac{3}{(1)} \frac{1}{(2)} \frac{1}{(3)} \frac{0}{(4)}$  —  $\frac{6}{(3)} \frac{S}{(4)} \frac{A}{(5)}$

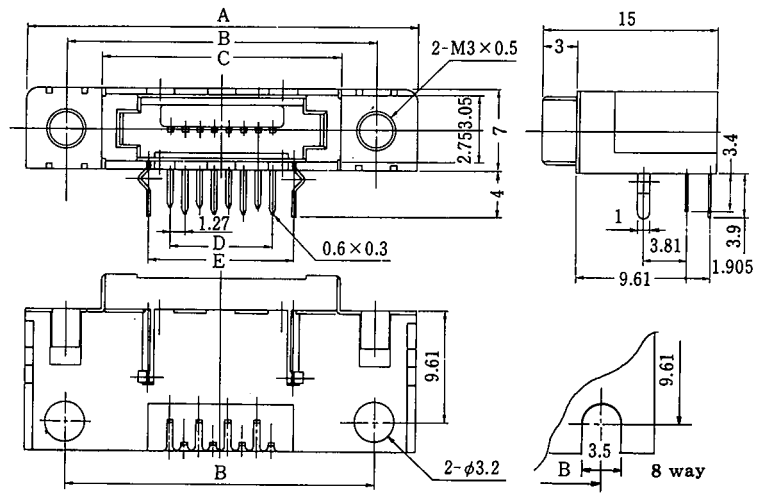
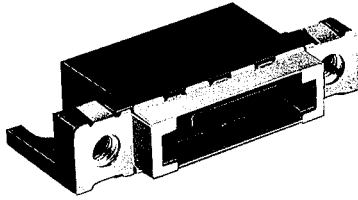
- (1) Series Number: 31
- (2) Type  
10: Right Angle Dip
- (3) No. of Pins: 6, 8, 12, 14, 16
- (4) Type of opening  
S: Receptacle
- (5) Additional Function  
Blank: Standard  
A: All Shield Type

### ● Plug

$\frac{3}{(1)} \frac{1}{(2)} \frac{3}{(3)} \frac{0}{(4)} \frac{A}{(5)}$  —  $\frac{6}{(4)} \frac{P}{(5)} \frac{A}{(6)}$  —  $\frac{C}{(7)}$

- (1) Series Number: 31
- (2) Type  
30: AWG28, 26 IDC  
31: AWG30, IDC
- (3) Hole dia. of Wire Configuration Tube Plate  
Black:  $\phi 1.0$  ( $\phi 0.88 \sim \phi 0.98$ )  
A:  $\phi 0.85$  ( $\phi 0.75 \sim \phi 0.83$ )  
B:  $\phi 0.65$  ( $\phi 0.57 \sim \phi 0.63$ )
- (4) No. of Pins: 6, 8, 12, 14, 16
- (5) Type of opening  
P: Plug
- (6) Cover Type  
Blank: Straight Cable Exit  
A: Side Cable Exit
- (7) Cover  
C: Standard

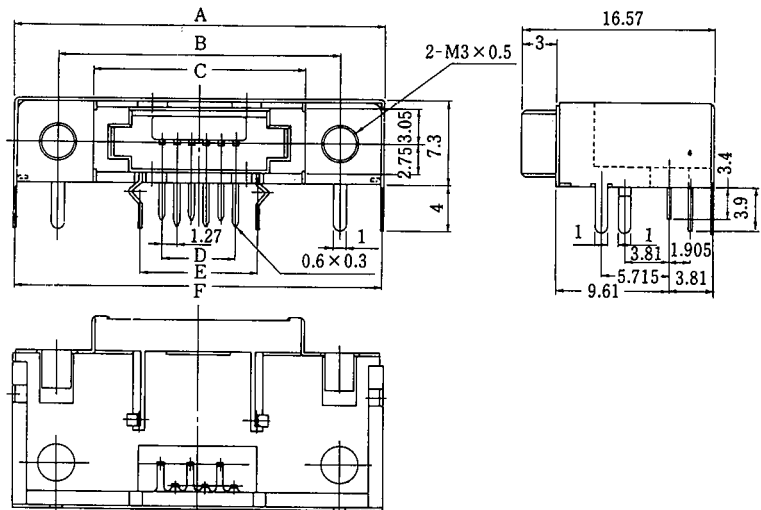
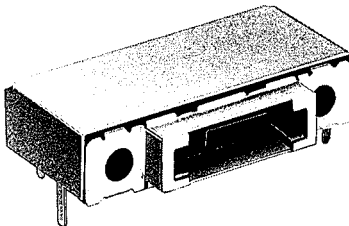
## Receptacle (Standard)



Unit:mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E
CL231-3006-8	6	3110-6S	30.96	23.96	17.91	6.35	9.96
CL231-3001-4	8	3110-8S	33.5	26.5	20.45	8.89	12.5
CL231-3008-3	12	3110-12S	38.58	31.58	25.53	13.97	17.58
CL231-0018-0	16	3110-16S	43.66	36.66	30.61	19.05	22.66

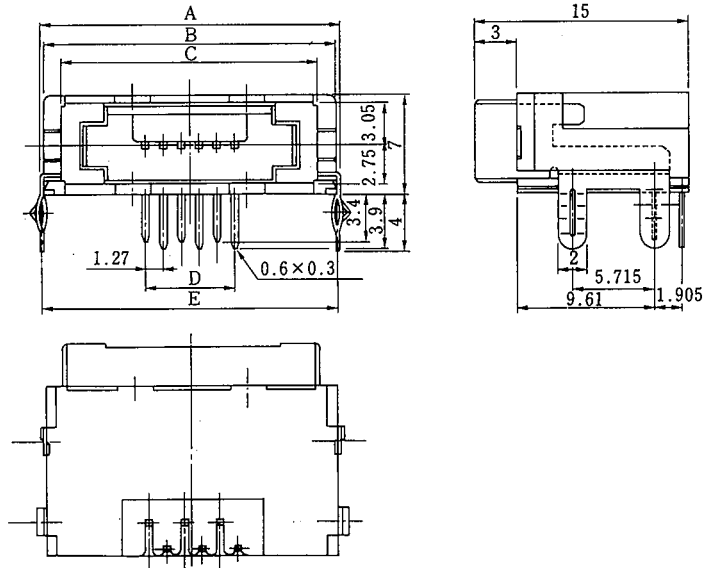
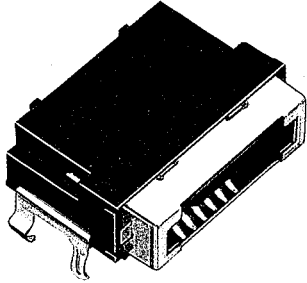
## Receptacle (All Shielded Type)



Unit:mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E	F
CL231-3003-0	6	3110-6SA	31.56	23.96	17.91	6.35	9.96	31.26
CL231-0020-2	16	3110-16SA	44.26	36.66	30.61	19.06	22.66	43.96

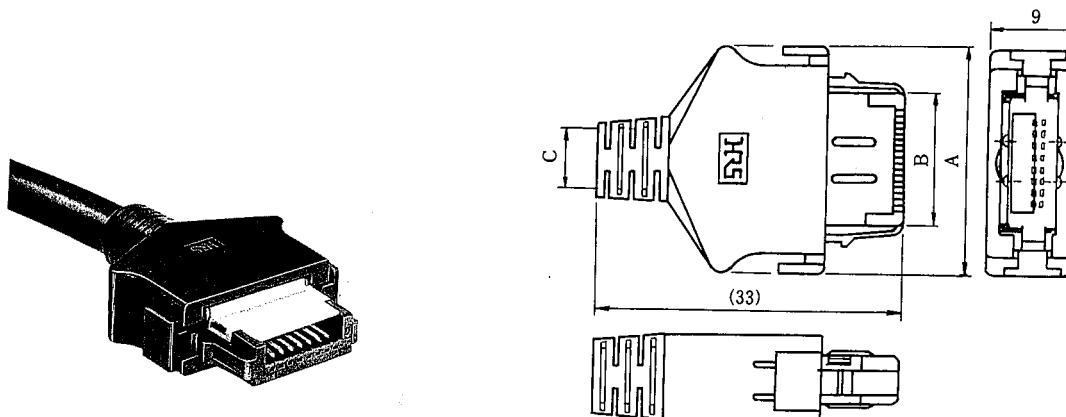
# Receptacle (Without Mounting Hole Type)



Unit: mm

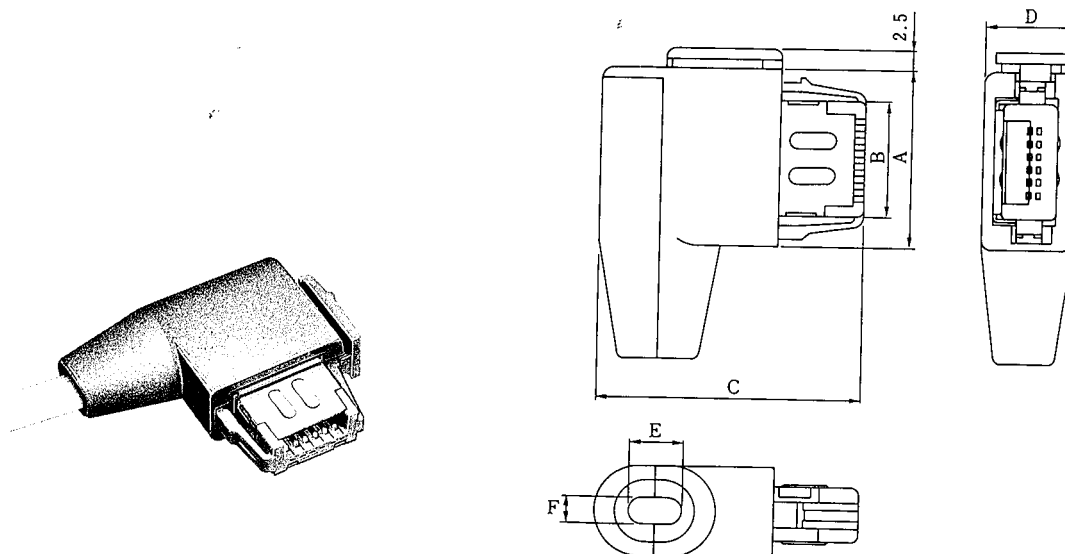
HRS No.	No. of Pin	Part No.	A	B	C	D	E
CL231-3017-4	6	3110-6SB	20.86	20.26	17.19	6.35	20.58
CL231-0021-5	14	3110-14SB	31.02	30.42	28.07	16.51	30.72

## Plug (Straight Cable Exit Type)



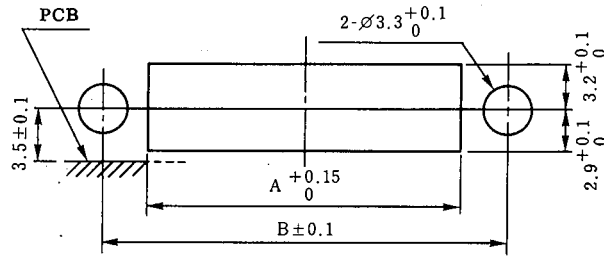
HRS No.	No. of Pin	Part No.	A	B	C	Unit:mm		
CL231-3014-6	6	3130-6P-C	21.46	11.36	φ 5.8			
CL231-3002-7	8	3130-8P-C	24	13.9	φ 6.2			
CL231-3009-6	12	3130-12P-C	29.08	18.98	φ 6.7			
CL231-0022-8	14	3130-14P-C	31.62	21.52	φ 7.0			

## Plug (Side Cable Exit Type)



HRS No.	No. of Pin	Part No.	A	B	C	D	E	F	Unit:mm
CL231-3004-2	6	3130-6PA	17.46	11.36	26.15	9.0	5.2	2.8	
CL231-0023-0	16	3130-16PA-C	30.16	24.06	26.75	10.2	φ 7.2		

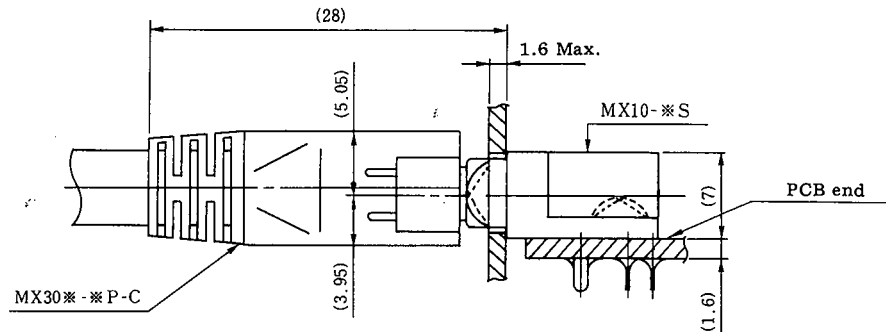
## Panel Cutout (Thickness of Panel:Max.1.6mm)



Unit: mm

HRS No.	No. of Pin	Part No.	A	B
CL231-3006-8	6	3110- 6S	18.06	23.96
CL231-3001-4	8	3110- 8S	20.6	26.5
CL231-3008-3	12	3110-12S	25.68	31.58
CL231-0018-0	16	3110-16S	30.76	36.66
CL231-0021-5	14	3110-14SB	28.22	—

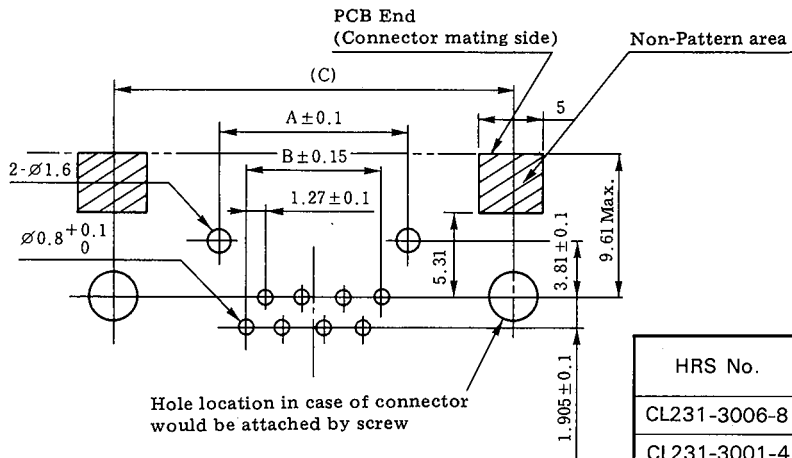
## Coupling Status



Note: Screw for Panel: M3 x 0.5 length 6 mm.

# Backboard Pattern

(Standard)

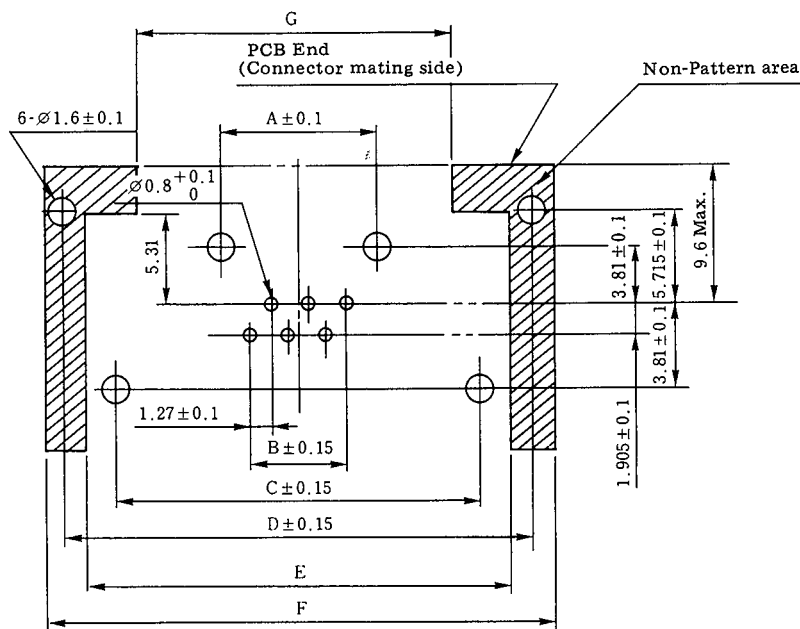


Hole location in case of connector would be attached by screw

Unit:mm

HRS No.	No. of Pin	Part No.	A	B	C
CL231-3006-8	6	3110-6S	9.96	6.35	23.96
CL231-3001-4	8	3110-8S	12.5	8.39	26.5
CL231-3008-3	12	3110-12S	17.58	13.97	31.58
CL231-0018-0	16	3110-16S	22.66	19.05	36.66

(All Shielded Type)

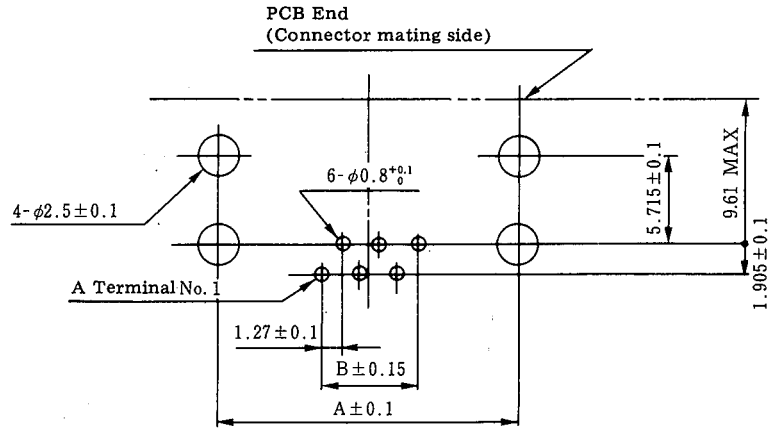


Unit:mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E	F	G
CL231-3003-0	6	3110-6SA	9.96	6.35	23.96	31.26	27.56	31.96	18.96
CL231-0020-2	16	3110-16SA	22.66	19.05	36.66	43.96	40.26	44.66	31.66



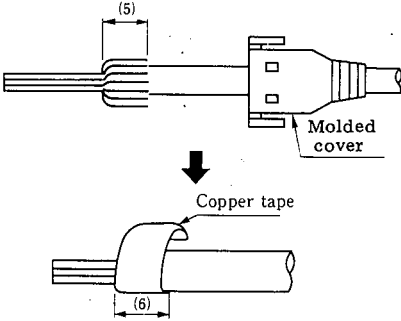
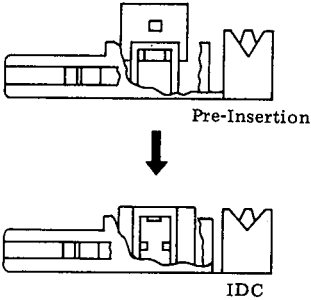
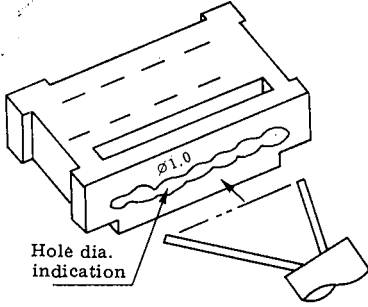
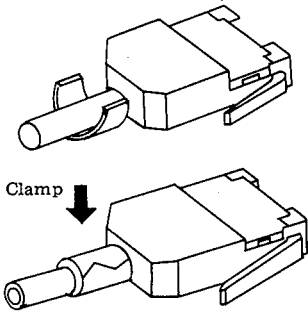
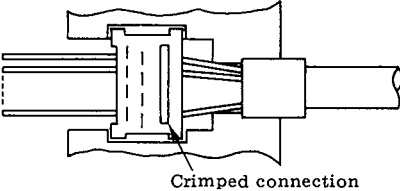
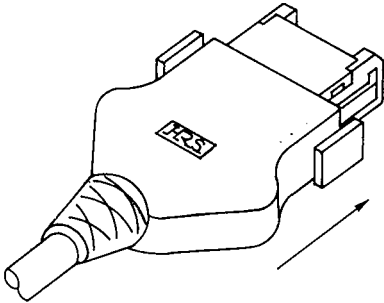
(Without Mounting Hole Type)



Unit:mm

HRS No.	No. of Pin	Part No.	A	B
CL231-3017-4	6	3110-6SB	20.56	6.35
CL231-0021-5	14	3110-14SB	30.72	16.51

# Connecting Method

Procedure	Specification	Procedure	Specification
1. Termination	<p>Peel the shielded braid and terminate treatment.</p> 	4. IDC	<p>Insert the guide plate into the plug temporarily and press it.</p> 
2. Wire configuration	<p>Configure the cable conductor to the corresponding guide plate.</p> 	5. Covering and clamping	<p>Cover the ground plate B and fasten the cable by clamping.</p> 
3. Cutting and clamping	<p>Cut the remaining part of the wire and clamp the cable conductor.</p> 	6. Covering	

## Tooling

### (Straight Cable Exit Type)

Connector	Process	Tool Name	
3130-6P-C	Wire clamp Remaining part of cable cut	Hi-Flex Connecting press (CL550-0082-2)	3130-6CT
	Crimping, Clamp		3130-6GP
3130-8P-C	Wire clamp Remaining part of cable cut		3130-8CT
	Crimping, Clamp		3130-8GP
3130-12P-C	Wire clamp Remaining part of cable cut		3130-12CT
	Crimping, Clamp		3130-12GP
3130-14P-C	Wire clamp Remaining part of cable cut		3130-14CT
	Crimping, Clamp		3130-14GP

### (Side Cable Exit Type)

Connector	Process	Tool Name	
3130-6PA	Wire clamp Remaining part of cable cut	Hi-Flex Connecting press (CL550-0082-2)	3130-6CT-A
	Crimping, Clamp		3130-6GP-A
3130-16PA-C	Wire clamp Remaining part of cable cut		3130-16CT-A
	Crimping, Clamp		3130-16GP-A