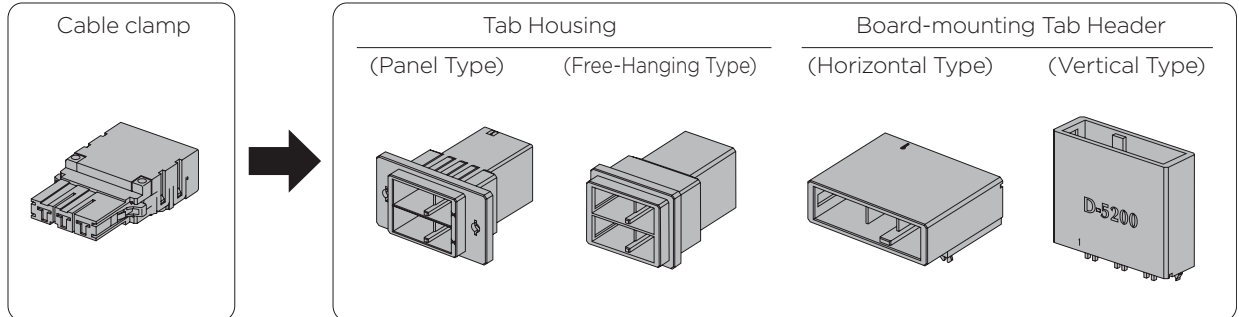


Dynamic Series Connectors

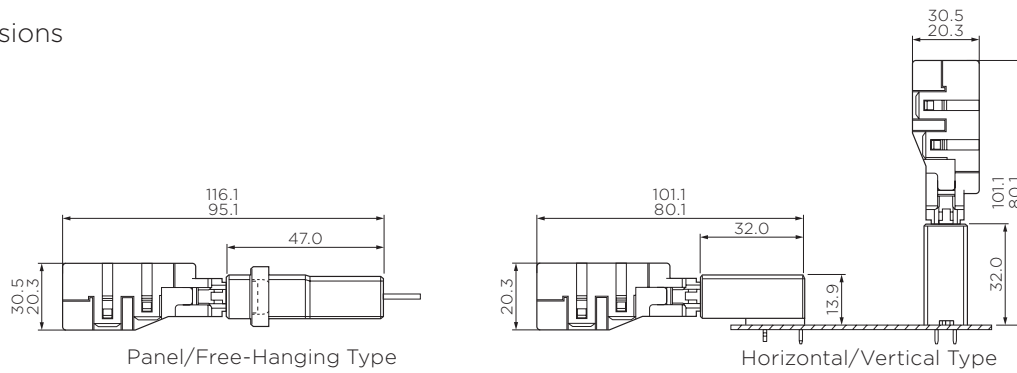
Dyna-Clamp Kit — Cable clamp kit

Part Number Chart



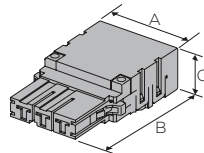
No. of Pos.	Keying	Cable clamp	Tab Housing		Board-mounting Tab Header	
			Panel Type	Free-Hanging Type	Horizontal Type	Vertical Type
3	—	1473668-1	1-353047-3	1-353046-3	1-353081-2 1-353081-3	1-353082-2 1-353082-3

Mating Dimensions



Dimensions

■ Cable clamp



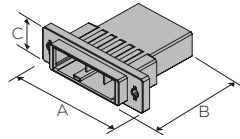
No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	—	—	Black	1473668-1	40.3	69.3	20.3

Dynamic Series Connectors

Dyna-Clamp Kit — Cable clamp kit

■ Tab Housing

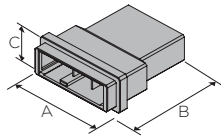
Panel Type



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	X	—	Black	1-353047-3	57.0	47.0	12.1

■ Tab Housing

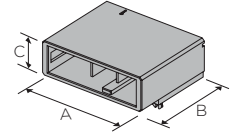
Free-Hanging Type



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	X	—	Black	1-353046-3	43.6	47.0	12.1

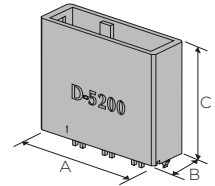
■ Board-mounting Tab Header

Horizontal Type



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	X	Gold	Blac	k1 -353081-2	39.5	32.0	13.9
		Gold	Black	1-353081-3			

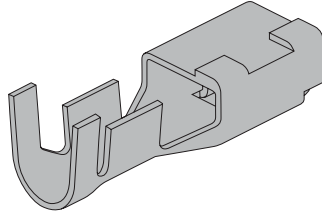
Vertical Type



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	X	Gold	Black	1-353082-2	39.5	12.4	32.0
		Gold	Black	1-353082-3			

Dynamic Series Connectors

D-5α Series Contact



● D-5α Series Contact : Silver Plated Type

Applicable Wire		Wire Ins. Diameter mm	Wire Range Mark	Contact Part Number		Tool Part Number	
AWG	mm ²			Receptacle Contact		Mini-Applicator	Hand Tool
20	0.50	1.8~2.83	SS	Strip Form	1318985-6	1366757-2	—
16	1.25	2.35~3.23		Loose Piece	1318986-6	—	91596-1
16	1.25	3~3.80	S	Strip Form	179955-6	1366659-2	—
14	2.20			Loose Piece	316040-6	—	234170-1
12	3.50	4~5.2	M	Strip Form	179956-6	1366660-2	—
10	5.50			Loose Piece	316041-6	—	234171-1
8	8.00	4.9~7.8	L	Strip Form	1318696-6	1366658-3	—
				Loose Piece	1318697-6	—	1366044-1

Note : The contacts part numbered with "-6" are Silver plated with 2.54μm thickness.

- Minimum order quantity is provided for each product. When ordering, specify your requirements by multiplying the quantity set for each.

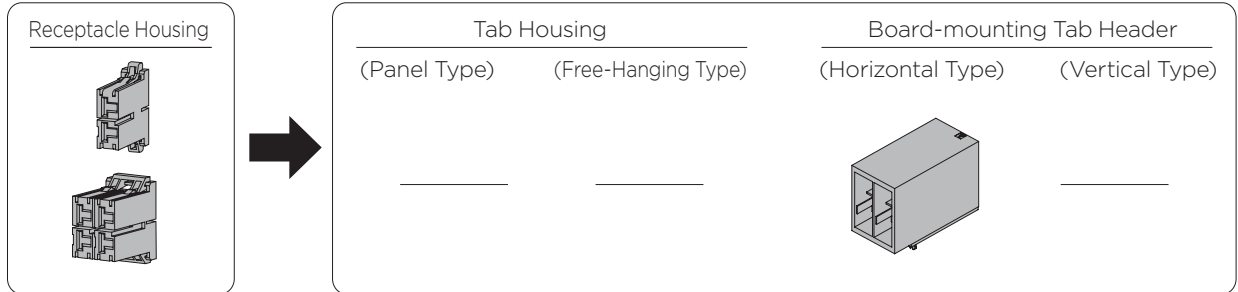
- Mini-Applicator is for use on Automachine. Refer to P.437
- Strip Form contacts are used with Mini-Applicator and Loose-Piece contacts are with hand tools.

Receptacle contacts can be used in all receptacle housings.

Dynamic Series Connectors

D-5200Mα — High-Current/High-Voltage Modular Type 2 Row Type

Part Number Chart



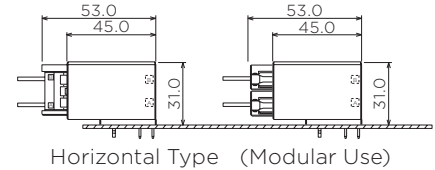
No. of Pos.	Color	Keying	Receptacle Housing	Plating	Tab Housing		Board-mounting Tab Header	
					Panel Type	Free-Hanging Type	Horizontal Type	Vertical Type
2	Black	X	1-179958-2	—	—	—	—	—
	Black	Y	2-179958-2	—	—	—	—	—
4	Black	XX	1-917807-2	Silver	—	—	1-1318983-6	—
	Black	YY	2-917807-2	Silver	—	—	2-1318983-6	—
	Black	XY	3-917807-2	Silver	—	—	3-1318983-6	—

Note: The 2 pos. receptacles use same 2 pos. housing of D-5200S series. The 4 pos. receptacles use same 4 pos. housing of D-5200M series. The contacts, however, are D-5 (Silver plated type).

Information about related products

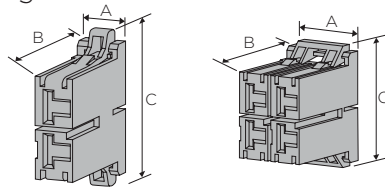
Applicable Contact Refer to P.418
Performance Specifications... Refer to P.407

Mating Dimensions



Dimensions

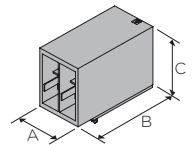
■ Receptacle Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
2	X	—	Black	1-179958-2	9.8	29.0	23.8
	Y	—	Black	2-179958-2			
4	XX	—	Black	1-917807-2	20.0	29.0	33.4
	YY	—	Black	2-917807-2			
	XY	—	Black	3-917807-2			

■ Board-mounting Tab Header

Horizontal Type



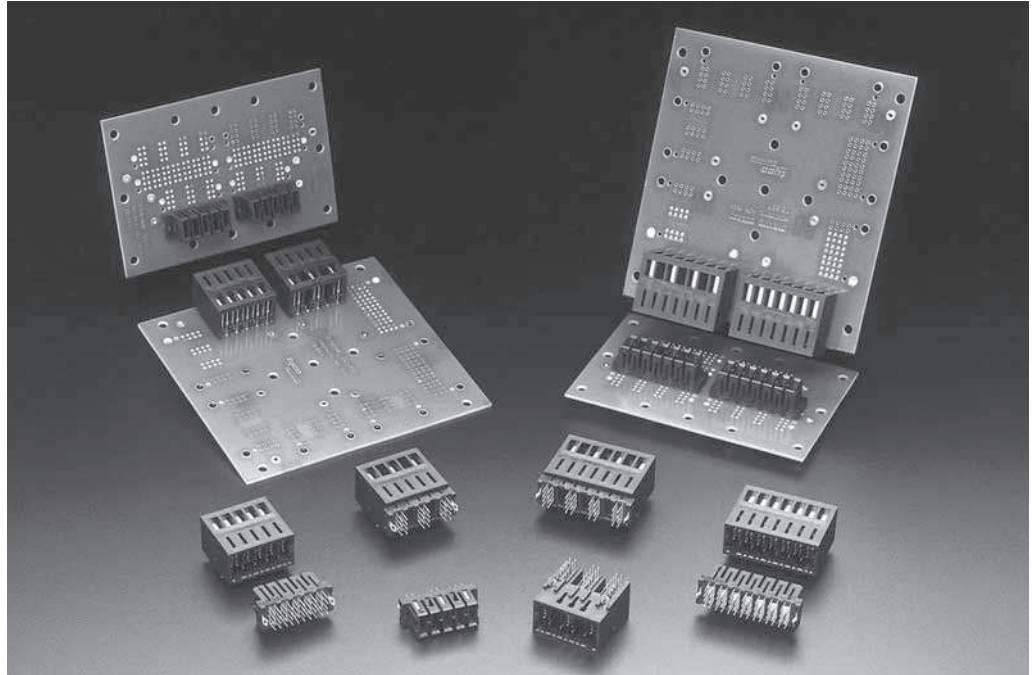
No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
4	XX	Silver	Black	1-1318983-6	22.6	45.0	30.9
	YY	Silver	Black	2-1318983-6			
	XY	Silver	Black	3-1318983-6			

Dynamic Series Connectors

DZ-5200

Useful for enabling cableless control board. High-current board to board connectors with 30A per contact

- Equipped with retention leg to protect board from load
- Space allocated to prevent twisting the contact
- Stacking and side-by-side connection types scheduled to enter lineup
- Circuit numbers are easy to identify even for board connectors
- Keying function so you can handle multiple items flexibly
- Soldering is possible without masking
- Scheduled to acquire UL, CSA and TÜV compliance



Performance Specifications

Item \ Pitch	200 mils/400 mils 5.08mm/10.16mm
Voltage Rating	5.08mm pitch: 250V AC (rms)/DC 10.16mm pitch: 600V AC(rms)/DC
Current Rating	5.08mm pitch: 20A 10.16mm pitch: 30A
Contact Resistance	2mΩ Max.
Dielectric Withstanding Voltage	5.08mm pitch: 2,200V AC (1 minute) 10.16mm pitch: 4,000V AC (1 minute)
Operating Temperature	-55°C~+105°C
Product Specification	108-78186

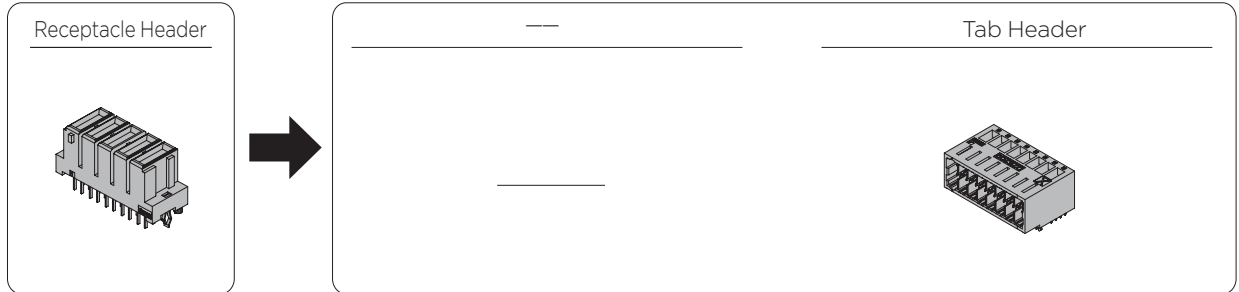
Material and Finish

Description	Material	Finish
Receptacle contact Tab contact	Phosphor bronze or Copper alloy	Gold plated with underplated Nickel
Tab post	Copper alloy	Tin plated and Gold plated with underplated Nickel
Housing	UL94V-0, Glass filled thermoplastic polyester (PBT)	

Dynamic Series Connectors

DZ-5200

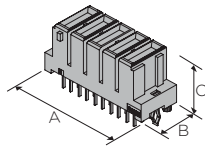
Part Number Chart



No. of Pos.	Color	Keying	Receptacle Header	Plating	—	Tab Header
3	Black	—	5-1747147-3	Gold	—	5-1747145-3
4	Black	—	5-1747147-4	Gold	—	5-1747145-4
5	Black	—	1-1747147-5	Gold	—	1-1747145-5
7	Black	—	1-1747147-7	Gold	—	1-1747145-7

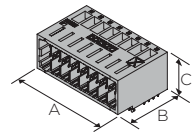
Dimensions

■ Receptacle Header



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	—	Gold	Black	5-1747147-3	30.8	11.5	14.0
4	—	Gold	Black	5-1747147-4	40.9	11.5	14.0
5	—	Gold	Black	1-1747147-5	30.8	11.5	14.0
7	—	Gold	Black	1-1747147-7	40.9	11.5	14.0

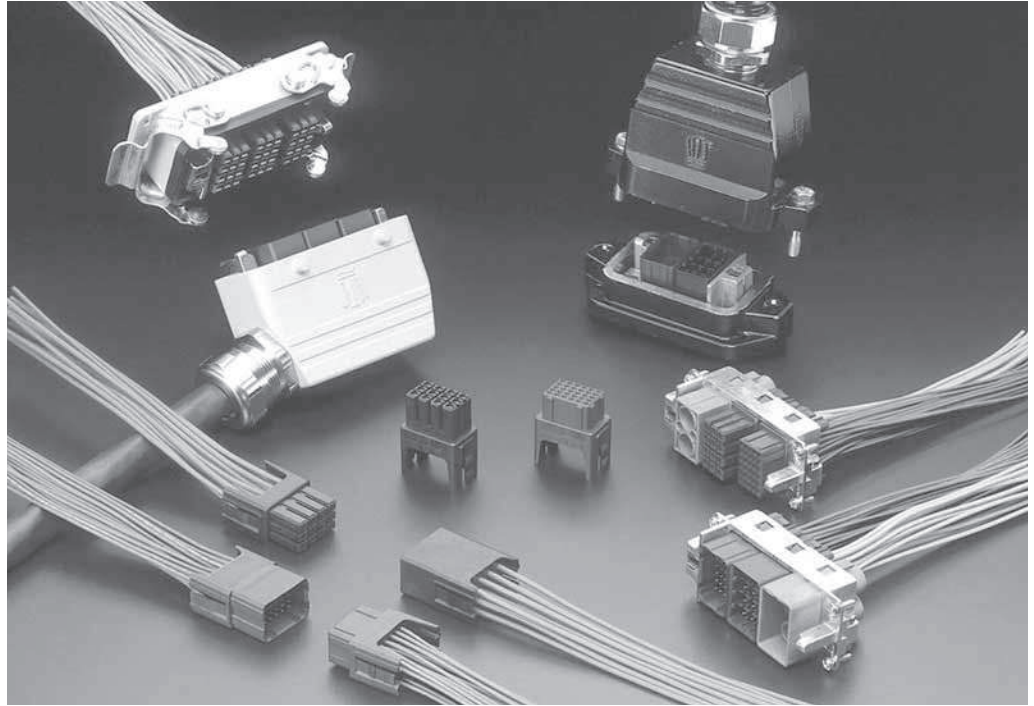
■ Tab Header



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
3	—	Gold	Black	5-1747145-3	28.8	27.0	17.5
4	—	Gold	Black	5-1747145-4	39.0	27.0	17.5
5	—	Gold	Black	1-1747145-5	28.8	27.0	17.5
7	—	Gold	Black	1-1747145-7	39.0	27.0	17.5

Dynamic HTS Module

Dynamic connector developed for applications that need heavy duty waterproofing. Now it is possible to use Dynamic series connectors for everything inside and outside the control board.



Performance Specifications

Item \ Series	D-2800	D-3800	D-4800	D-5800
Voltage Rating	250VAC/DC	600VAC/DC	600VAC/DC	630VAC/DC
Current Rating	5A	15A	25A	40A
	(#18 AWG)	(#16 AWG)	(#12 AWG)	(#8 AWG)
Contact Resistance	10mΩ Max. (Final)			2mΩ Max.
Dielectric Withstanding Voltage	1,500V AC (1 minute)		2,500V AC (1 minute)	3,000V AC (1 minute)
Operating Temperature	-55°C~+105°C			
Product Specification	108-78284	108-78285	108-78388	108-78389
Application Specification	114-5258	114-5148	114-5369	114-5206

Material and Finish

Description	Material	Finish
Receptacle Contact Tab Contact	Phosphor bronze or Copper alloy	Gold plated with under-plated Nickel (0.38μm)
Housing	UL94V-0, Glass filled thermoplastic polyester (PBT)	

Contact

Contacts of proven Dynamic series, as well as the existing special tools and applicators, can be continued to be used.

D-2 Contact	Refer to P.365	D-4 Contact	Refer to P.402
D-3 Contact	Refer to P.375	D-5 Contact	Refer to P.409

Dynamic HTS Module

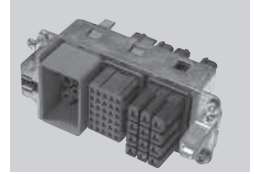
This series is a combined product of HTS series proven with rectangular connectors and popular Dynamic series.

Feature 1 Possible to use existing Dynamic contacts

The same tried-and-true Dynamic series connectors are used as is, so existing specialized tools and applicators can also be used.

Feature 2 Wide variety of variations when combined

Metal hoods and frames of HTS connectors, which offers variable choices depending on sizes and mounting types, are employed. Sizes and number of positions can be freely selected to meet the needs. It is also durable for high-current with which the existing Dynamic series can not cope, by combined with the existing HTS series.



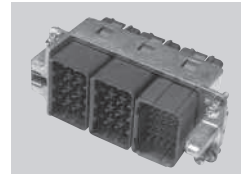
Both Dynamic and HTS combined



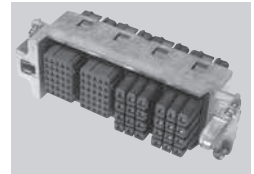
1 module type



2 module type



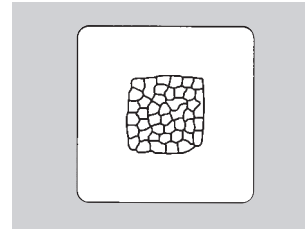
3 module type



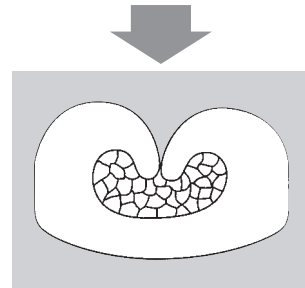
4 module type

Feature 3 Reduce assembly steps

Sequential terminals are available to enable the termination with automatic crimping machines. Termination time can be substantially reduced.



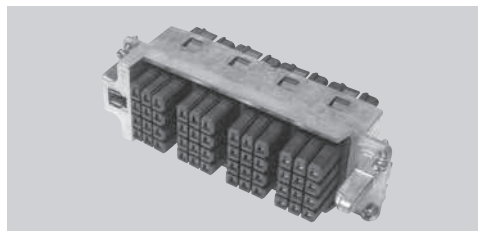
Productivity is poor because wires are inserted in terminal hole and crimped



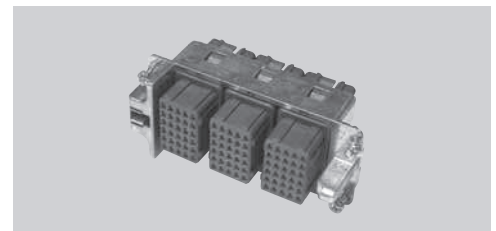
Productivity is good because wires are placed from above. Plus, there are consecutive terminals so automated crimping is possible

Feature 4 High density mounting possible

Approximately 30% higher density mounting is possible compared to the high density type of the existing HTS connectors.



D-3000 4 module type 48 Pos.



D-2000 3 module type 90 Pos.

Dynamic HTS Module

Connector selection procedure

Step 1

Decide current and number of positions

Step 2

Decide size of wires

Step 3

Select contact and housing

Step 4

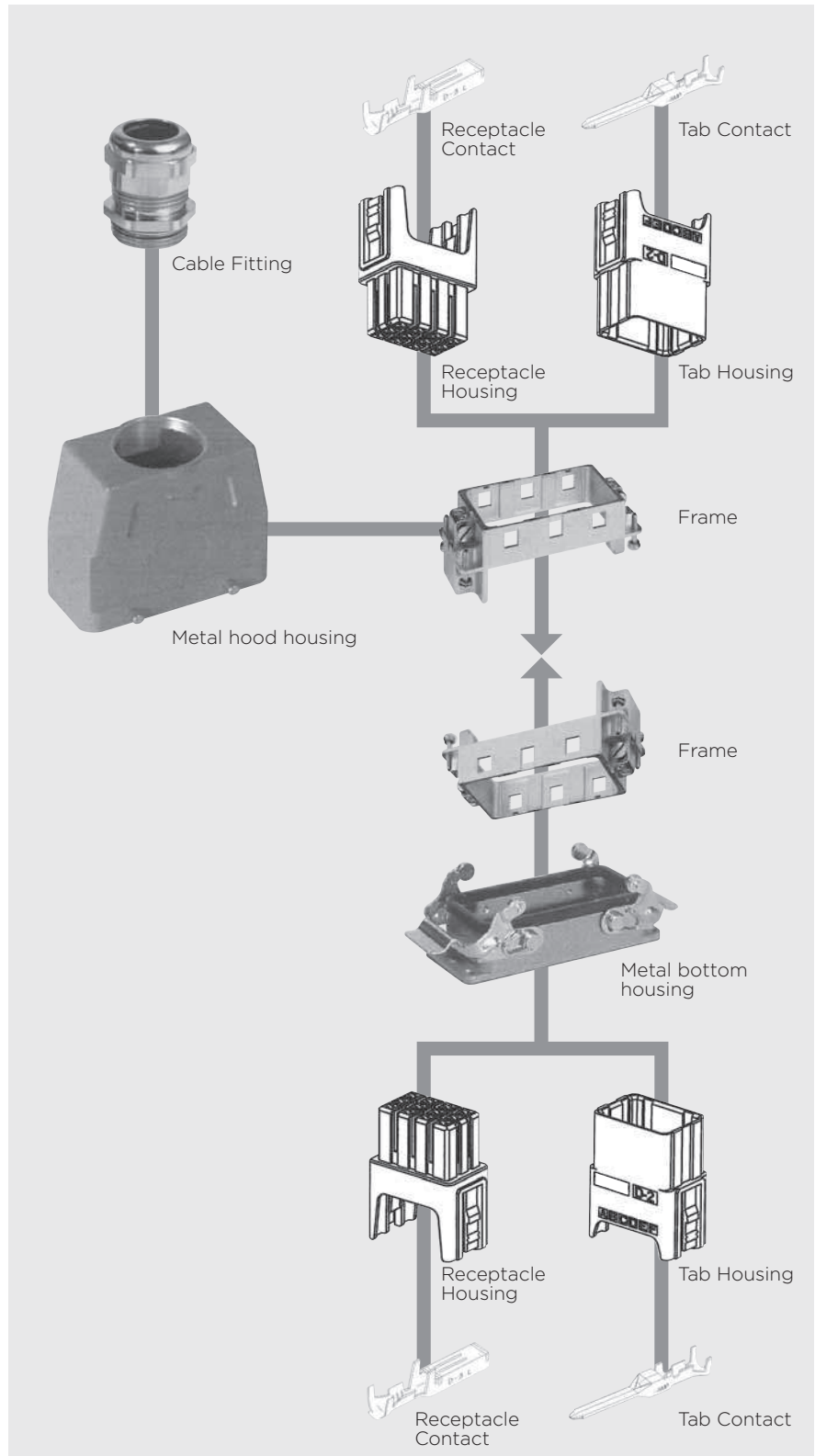
Select frame

Step 5

Select cable fit (screw)

Step 6

Select metal housing



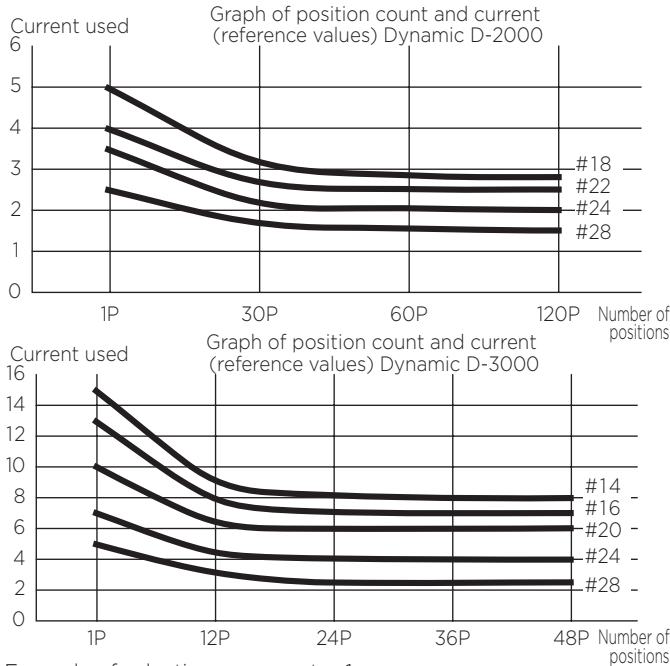
Dynamic HTS Module

Example of selecting a connector

Step 1

Step 2

Refer to the following graphs to select the amperage, number of positions, and wire size.



Example of selecting a connector 1

This example describes how to select connectors for; 8 amperes at 20 positions and 3 amperes at 20 positions. We can see from the graph above that the D-3000 #16 is sufficient for 8 amps x 20, and the D-2000 #18 is sufficient for 3 amperes x 20. (Refer to page 365 and 375 for the contacts)

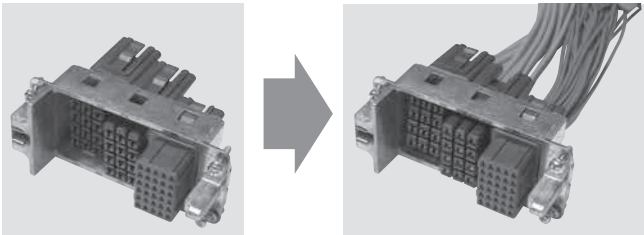
D-2000 contact: 1318105-1, 1318109-1

D-3000 contact: 917484-□, 917485-□

Step 3

Step 4

Next, we select the Dynamic housing (see pages 426 and 427) and frame (see page 428) to support the connector and position count that we selected.



Example of selecting a connector 2

We can see that for the specifications we selected for example 1 we need 2 sets of D-3000 housing and 1 set of D-2000 housing (select from page 426 and 427). A total of 3 sets are necessary, so we select a 3-module type frame (select from page 428).

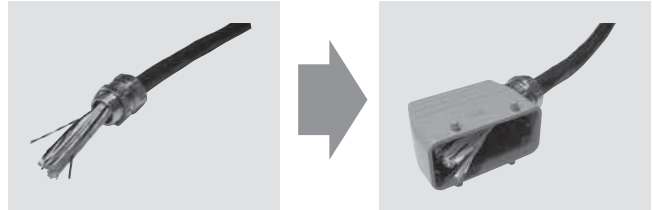
D-2000 housing: 1747365-1, 1747366-1 one each

D-3000 housing: 1747363-1, 1747364-1 two each

Frame for 3 modules: 1108782-1, 1108782-2 one each

Step 5

Select a cable fitting (see page 429) that is suitable for the thickness of the jacket cable being used.



Example of selecting a connector 3

Assume $\phi 21$ mm diameter jacket cable for this example, then we determine from the Cable diameter table (Dmin & Dmax section) on page 429, that a suitable cable fitting is the G29 or M32 cable fitting, for metal types.

This time we select the M32 type.

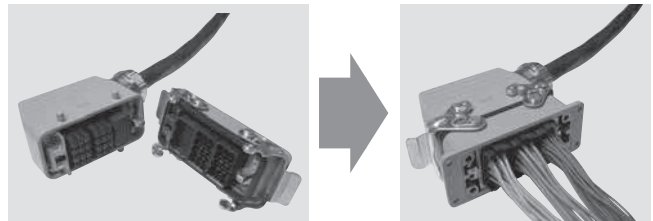
M32 cable fitting: 3-1102770-2 x 1

There are many cable fitting options available. Refer to the HTS catalog (889745 Rev.01-05) for options not listed in this catalog.

Step 6

Finally, refer to the HTS catalog (889745-2 Rev.09-08) to select a metal case of the same size as the frame and the cable fitting you selected. At this point you can select from three shapes of locks for the metal case.

* Select a lock shape that is the same shape for the cable side and the mounted side that were selected.



Example of selecting a connector 4

Select a metal housing for the parts that have been selected so far. From the HTS catalog, select a 3-module type (size 6) metal hood that can be attached to the M32 cable fitting. In this case, select a metal housing with dual side locks for wires that pull out horizontally. Select a bottom side metal housing that has the same kind of dual side locks. Finally, to finish, put all the parts selected so far into the metal housing.

Metal hood housing: 1106449-4

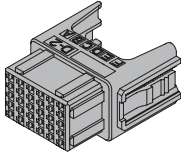
Metal bottom housing: 1-1102296-1

There are a wide variety of metal housings available, so refer to the HTS catalog (889745-2 Rev.09-08). The relevant page from the HTS catalog is shown on page 428 of this catalog.

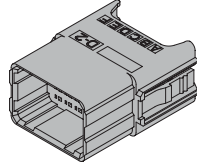
Dynamic HTS Module

Part Number Chart

Receptacle Housing



Tab Housing



Board-mounting Tab Header
(Horizontal Type) (Vertical Type)

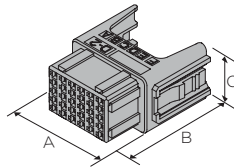


No. of Pos.	Color	Keying	Receptacle Housing	Plating	Tab Housing	Board-mounting Tab Header	
						Horizontal Type	Vertical Type
30	Black	—	1747365-1	—	1747366-1	—	—
12	Black	—	1747363-1	—	1747364-1	—	—
8	Black	—	1871416-1	—	1871417-1	—	—
4	Black	—	1871418-1	—	1871419-1	—	—

D-2800

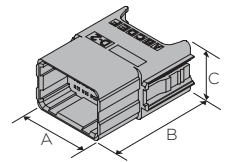
Dimensions

■ Receptacle Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
30	—	—	Black	1747365-1	30.3	37.6	19.5

■ Tab Housing



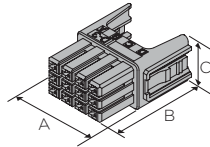
No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
30	—	—	Black	1747366-1	30.3	40.0	19.5

Dynamic HTS Module

D-3800

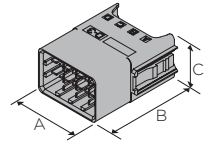
Dimensions

■ Receptacle Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
12	—	—	Black	1747363-1	30.3	41.4	19.5

■ Tab Housing

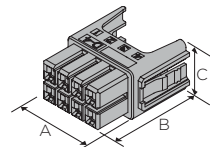


No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
12	—	—	Black	1747364-1	30.3	40.0	19.5

D-4800

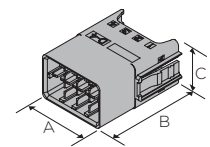
Dimensions

■ Receptacle Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
8	—	—	Black	1871416-1	30.3	38.6	19.5

■ Tab Housing

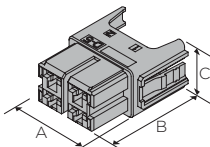


No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
8	—	—	Black	1871417-1	30.3	40.0	19.5

D-5800

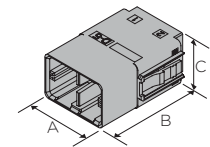
Dimensions

■ Receptacle Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
4	—	—	Black	1871418-1	30.3	41.4	19.5

■ Tab Housing



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
4	—	—	Black	1871419-1	30.3	44.1	19.5

Dynamic HTS Module

Frame and Metal Housing

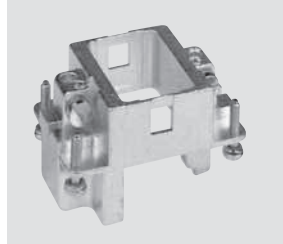
Frame

Applicable Metal Housing

Refer to a HTS catalog No. 889745-2, Issued. 8-2008.

Size 3 (1 module type)

Part Number : 1108784-1
Hermaphroditic products



Refer to a HTS catalog No. 889745-2, P72-74.

Size 4 (2 module type)

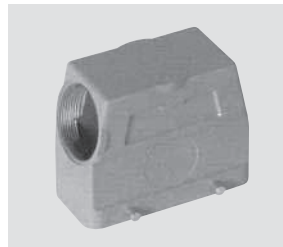
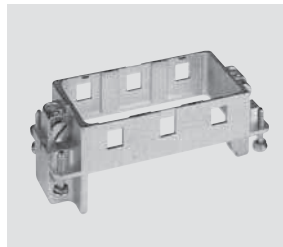
Part Number : 1108783-1 (Male)
1108783-2 (Female)



Refer to a HTS catalog No. 889745-2, P86-88.

Size 6 (3 module type)

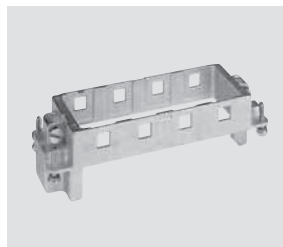
Part Number : 1108782-1 (Male)
1108782-2 (Female)



Refer to a HTS catalog No. 889745-2, P114-116.

Size 8 (4 module type)

Part Number : 1108780-1 (Male)
1108780-2 (Female)



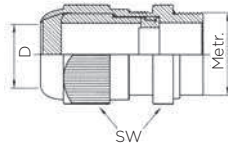
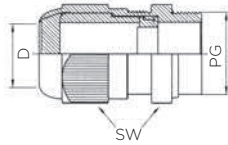
Refer to a HTS catalog No. 889745-2, P138-140.

Dynamic HTS Module

Cable Fitting

Plastic Type

Gland fitting IP 68 plastic

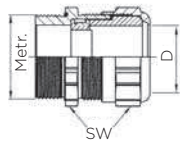
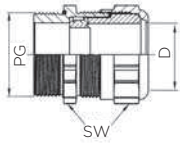


PG	D		SW	Designation	Part Number
	Min.	Max.			
11	5	10	22	HUT.11.P	1-1106005-7
13.5	6	12	24	HUT.13.P	2-1106005-7
16	10	14	27	HUT.16.P	3-1106005-7
21	13	18	33	HUT.21.P	4-1106005-7
29	18	25	42	HUT.29.P	5-1106005-7

Metr.	D		SW	Designation	Part Number
	Min.	Max.			
M16	4	8	20	HUT.M16.P	1-1102771-6
M20	6	12	24	HUT.M20.P	2-1102771-0
M25	10	14	29	HUT.M25.P	2-1102771-5
M32	13	18	36	HUT.M32.P	3-1102771-2
M40	18	25	46	HUT.M40.P	4-1102771-0
M50	22	32	55	HUT.M50.P	5-1102771-0

Metal Type

Gland fitting IP 68 brass, Nickel plated, neoprene sealing insert and O ring at connection thread



PG	D		SW	Designation	Part Number
	Min	Max			
11	5	10	20	HUT.11.MS	1-1106006-9
13.5	6	12	22	HUT.13.MS	2-1106006-9
16	10	14	24	HUT.16.MS	3-1106006-9
21	13	18	30	HUT.21.MS	4-1106006-9
29	18	25	40	HUT.29.MS	5-1106006-9
36	22	32	50	HUT.36.MS	6-1106006-9
42	32	38	57	HUT.42.MS	7-1106006-9

Metr.	D		SW	Designation	Part Number
	Min	Max			
M16	5	10	17	HUT.M16.MS	1-1102770-6
M20	6	12	22	HUT.M20.MS	2-1102770-0
M25	13	18	27	HUT.M25.MS	2-1102770-5
M32	18	25	34	HUT.M32.MS	3-1102770-2
M40	22	32	43	HUT.M40.MS	4-1102770-0

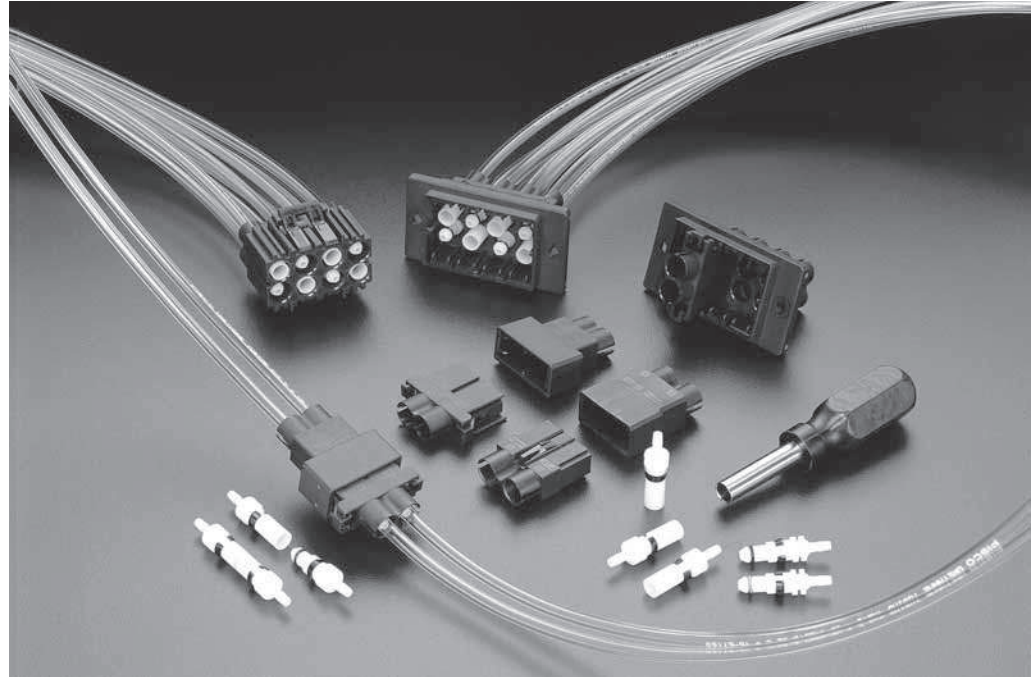
Variable options are available other than listed above. Please refer to P.188 to 193 of a HTS catalog.

Dynamic Series Connectors

Dynamic Pneumatic Connector

Series profile

Couplings are used in various ways in industrial equipment. Some large industrial equipment may use several thousand couplings in one piece of equipment. However, we have heard from people on site about leaks caused by partially inserted tubes, leaks from damaged tubes, problems from misconnected tubes, time used on site for assembly, and other issues. To solve these problems, we developed the Dynamic pneumatic connector. We developed an air line connector that requires no special skills and can be assembled correctly by anyone. Plus it reduces time for designing and assembly on site where time constraints often result in misconnections during assembly. These new connectors, a dramatic improvement to next generation air line connections, were produced through a joint development of contacts with another coupling manufacturer combined with our reliable Dynamic series housing.



Features

- 1. Two types of contact; resin or metal**
The Dynamic pneumatic series has two types of materials for contacts, either resin or metal. You can select resin for applications that require lower cost and weight, or metal for high pressure and temperature environments.
- 2. Supports Ø4 or Ø6 tube**
Two types of tube can be used, either Ø4 or Ø6. This diameter of tube is often used in industrial equipment.
- 3. Universal design**
The housing consists of a plug and a cap, but the contacts can be placed in either one. It is also possible to create a keying function (to prevent misconnection) by varying the male and female contacts.
- 4. Modular housing construction**
You can mate an 8P cap housing with an 8P plug housing, but a modular construction is possible because up to 4 pairs of 2P plug housings can be combined. This is perfect for air lines.
- 5. Maximum force of 1.0 MPa**
Even though connector mating and demating is easy, a maximum pressure of 1.0 MPa is guaranteed. They can be used as replacements on the same line as normal couplings.
- 6. Two types of O-RING**
Two types of seal materials are available for O rings, NBR and, for non-petroleum applications, FKM. Select FKM for clean-environment air lines.

Dynamic Series Connectors

Dynamic Pneumatic Connector

Performance Specifications

Item	Standard value	
	Resin contact	Metal contact
Applicable Medium	Air	Air / Water
Maximum Air Pressure	0.8MPa	1.0MPa
Effective cross section	3.14mm ²	8.80mm ²
Tube Holding Force	39.2N	39.2N (φ4)
		58.8N (φ6)
Durability	500 Cycles	
Insertion Force / Pin	9.8N Max.	
Extraction Force / Pin	9.8N Max.	
Temperature Range	0~60°C (NBR)	
	0~105°C (FKM)	
Applicable Tubes	O.D. : 4mm	OD. : 4, 6mm
	ID. : 2.5mm	ID. : 2.5, 4mm

Applicable Tube

Name of tube	Material
PN	Polyolefin
PFA	Fluororesin
Urethane	Polyurethane
Nylon	Nylon

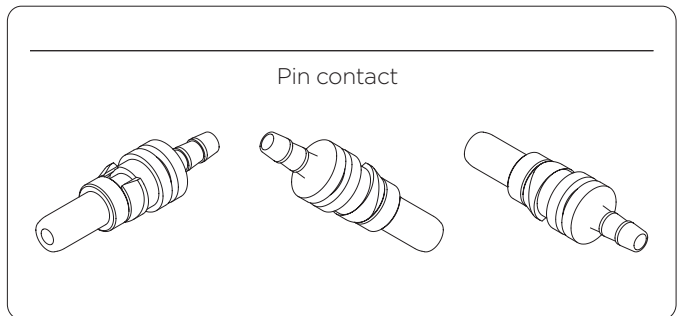
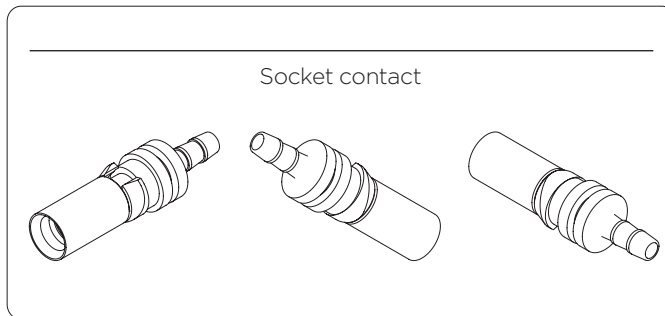
Specifications and Instruction Sheets

Product Specification	108-78406
Extraction Tool Model Number: 1999435-1	411-78240
Test Report	501-5782

Material and Finish

Description	Material
Resin contact	Polyacetal resin
Metal contact	Brass/nickel plating
Plastic Ring	Polyester resin
O Ring	Nitrile butadiene rubber (NBR)/ Fluorinated elastomer (FKM)
Housing	Fiberglass polyester (PBT), black UL94V-0

Part Number Chart



Diameter of tubes	Contact material	Socket contact	Pin contact	Extraction Tool
4	Resin	1903289-1*1	1903100-1*1	1999435-1
			1903100-2*2	
	Metal	2013714-1*1	2013716-1	
		2013714-2*2		
6	Metal	2013597-1*1	2013599-1	
		2013597-2*2		

O-rings are placed on the pin contact of resin contacts, and on the socket contact of metal contacts.
All of the contacts can be used in all of the housings.

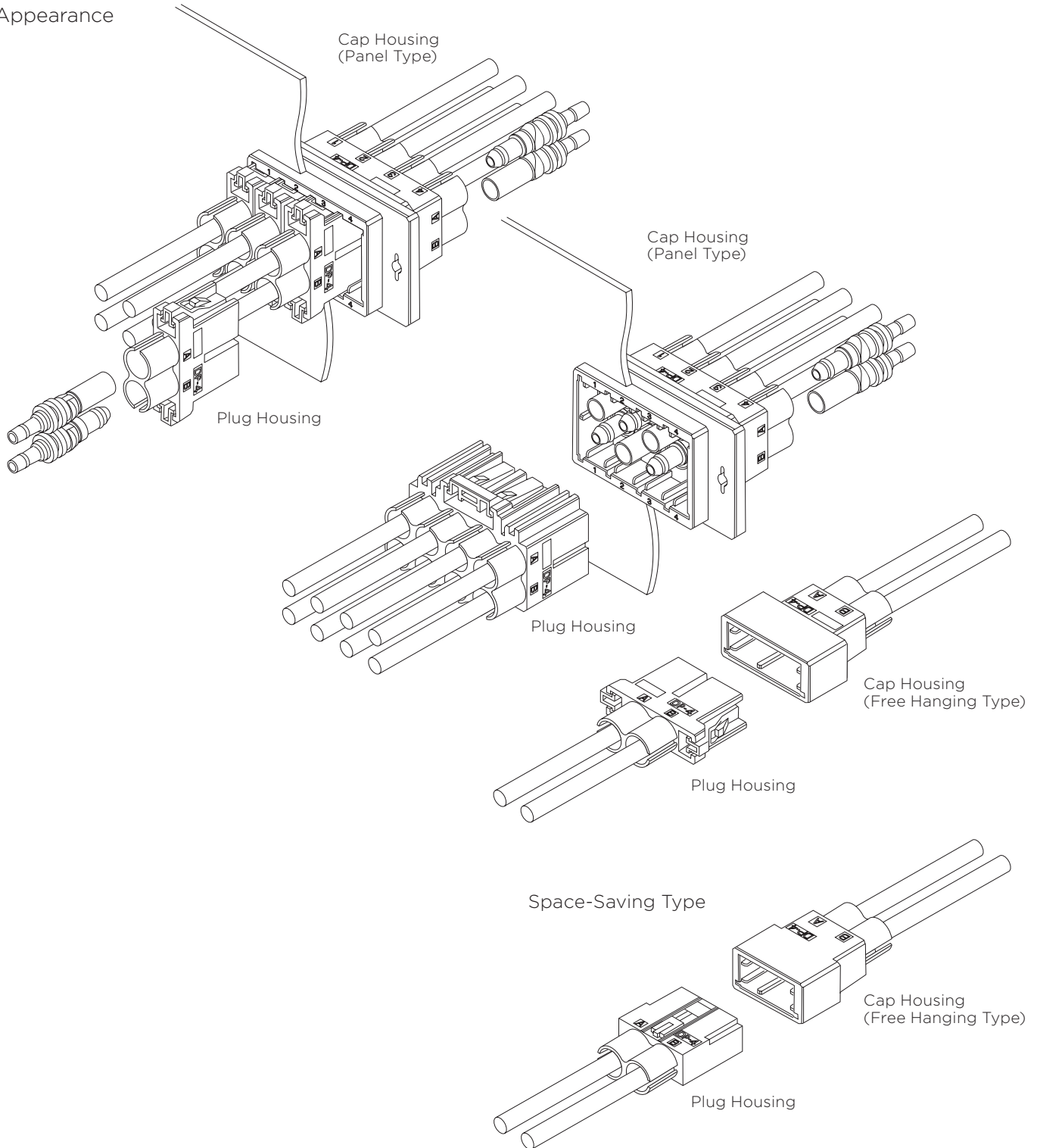
*1 O-ring material is NBR.

*2 O-ring material is FKM.

Dynamic Series Connectors

Dynamic Pneumatic Connector

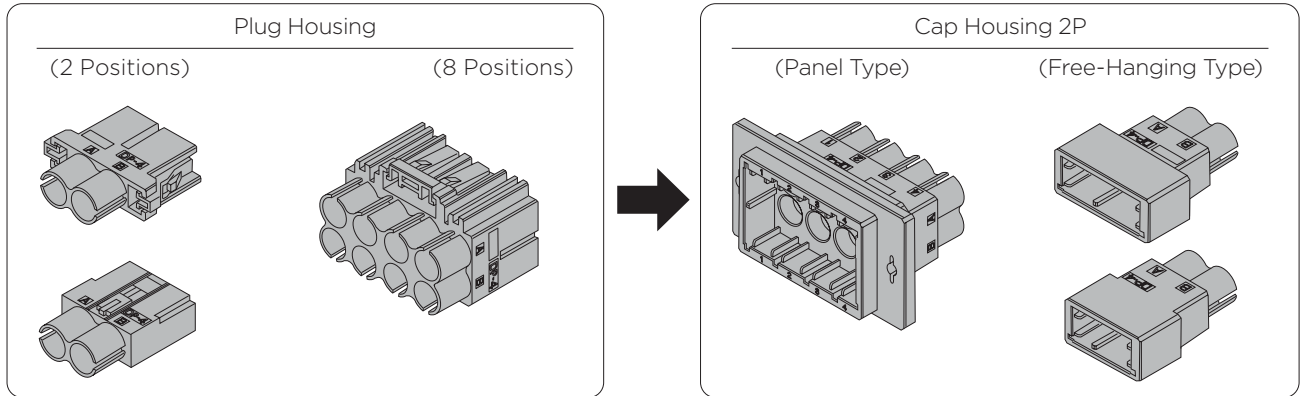
Appearance



Dynamic Series Connectors

Dynamic Pneumatic Connector

Part Number Chart



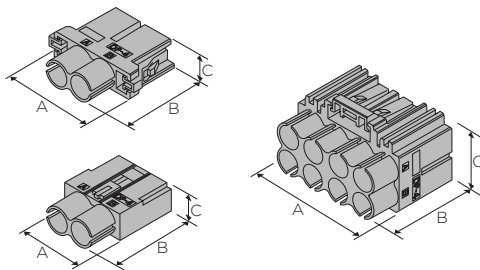
No. of Pos.	Plug Housing	Cap Housing	
		Panel Type	Free-Hanging Type
2	1903105-1	—	1903305-1
2	1981040-1	—	1981039-1
8	1903104-1	1903106-1	—

Information about related products

Applicable Contact Refer to P.431
Performance Specifications... Refer to P.431

Dimensions

■ Plug Housing (2 Positions)

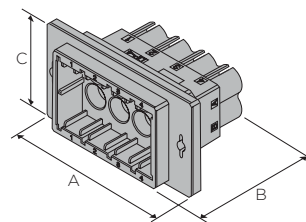


No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
2	—	—	Black	1903105-1	32.0	27.8	9.2
2	—	—	Black	1981040-1*1	21.5	27.8	10.9
8	—	—	Black	1903104-1	37.7	27.8	31.3

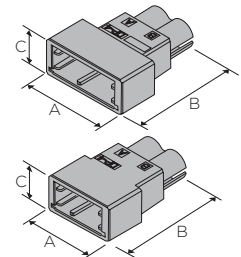
*1 : Space-saving type

■ Cap Housing

Panel Type



Free-Hanging Type



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
2	—	—	Black	1903305-1	28.1	32.3	12.8
2	—	—	Black	1981039-1*1	24.7	32.3	12.7
8	—	—	Black	1903106-1	58.9	32.3	32.1

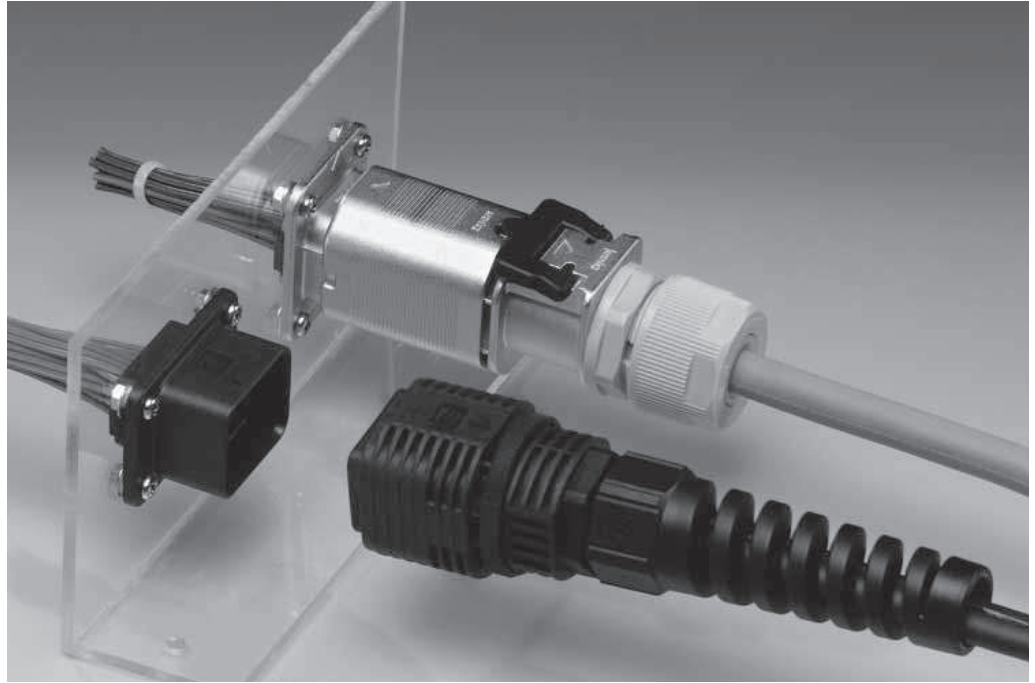
*1 : Space-saving type

Dynamic Series Connectors

Multiple Enclosure Connector

Series profile

Human machine interfaces (HMI) can be found on a variety of machines. They allow people to interface with equipment to control, operate, program and do other things. The multiple enclosure connector was developed as a connector for I/O interfaces for HMI. They have superior operability, are very safe, easy to use and there are many variations. Plus, they use Dynamic series contacts to give them very high reliability. There are two types in the line up, metal and plastic, used according to the environment. You can make a selection based on your application.



Features

1. Wire sizes:

The metal type supports wires with a finished diameter of $\phi 10$ to 11 mm, the molded type from $\phi 5$ to 12 mm.

2. Applicable terminals

The highly reliable Dynamic D-1000 and D-3000 series terminals are used as contacts for I/O connectors for human machine interfaces (HMI). These can be crimped by using existing Dynamic crimping tools.

3. IP65 (molded type), IP67 (metal type) ingress protection.

The connectors have the dust and water-proofing for use in harsh conditions.

4. Safety lock mechanism

The lock mechanism uses the fast on/off lock concept which can be locked or released by just grabbing the connector. Plus, our proprietary double lock mechanism prevents vibration related disconnect accidents.

5. Two types of housing

The lineup includes two types of housing, a standard type and a reverse type for preventing exposure of live contacts.

6. Cable gland interface

Cable glands, which are commercially available and can be selected according to application and purpose, can be attached to cover the cable entering the connector.

7. Other considerations

Safety caps with a definite locking sound to confirm connections are also available.

Dynamic Series Connectors

Multiple Enclosure Connector

Performance Specifications

Item	Specifications
Current Rating	See item on the right
Voltage Rating	125VACrms (2-mm pitch products)
Dielectric Withstanding Voltage	1000VAC (1 minute)
Operating Temperature	–30°C~105°C (Including temperature increase due to charging)
Contact Resistance	10 mΩ (initial) Max
Insulation resistance	1,000MΩ (initial) Min
Insertion Force	39.2N Max. (per position)
Extraction Force	4.9N Min. (per position)
Durability	50 Cycles
Housing Lock Strength	98 N Min

Specifications and Instruction Sheets

Molded type

Product Specification	108-78417
Application Specification	114-5377
Instruction Sheet	411-78293 (32P)

Contact Refer to D-1000, D-3000

Storage housing

Molded type

Contact	Receptacle Contact/Tab Contact				
Wire Size	AWG #22	AWG #24	AWG #26	AWG #28	AWG #30
No. of Pos. 32Pos	1.5	1	0.8	0.5	0.5

Material and Finish

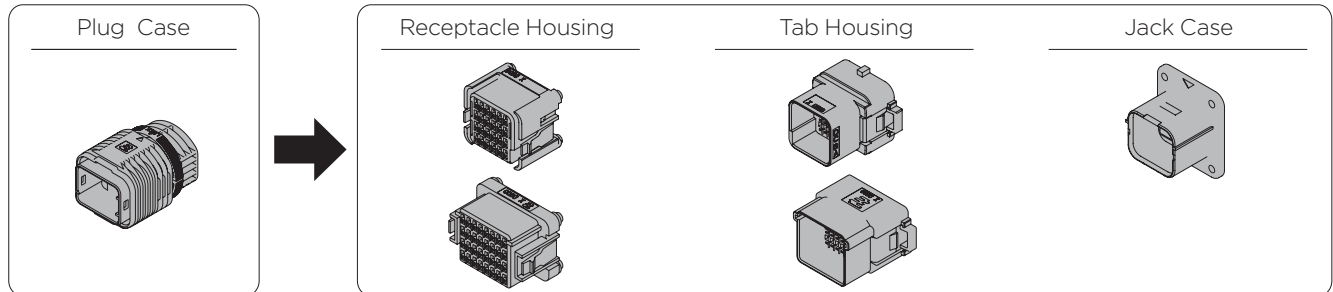
Molded type

Description	Material	Finish
Contact	Copper alloy	Gold plated with under-plated Nickel
Connector housing	UL 94V-0, Glass filled thermoplas polyester (PBT)	—
Connector case	UL 94V-0, Glass filled thermoplas polyester (PBT)	—
Packing	Nitrile butadiene rubber	—

Dynamic Series Connectors

Multiple Enclosure Connector

Part Number Chart / Outside Diameter



	Plug Case		Housing		Jack Case
			Receptacle (R) / Tab (T)		
32	1981919-1	Standard	1981921-1 (R)	1981914-1 (T)	1981913-1
		Reverse	2013393-1 (T)	2013391-1 (R)	

Shield Clip P/N. 1939851-1 (Use: Plug Case) Tool: 1891820-1 (411-78273)

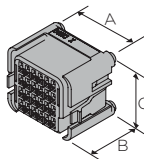
Information about related products

Applicable Contact32 positions: D-1000 series, page 351

Dimensions

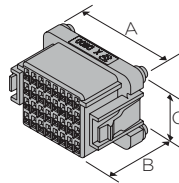
■ Receptacle Housing

Standard (Plug Case)



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
32	—	—	Black	1981921-1	27.2	15.3	17.6

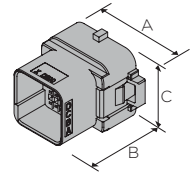
Reverse (Jack Case)



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
32	—	—	Black	2013391-1	29.5	23.0	17.0

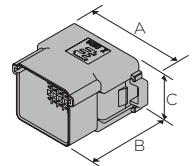
■ Tab Housing

Standard (Jack Case)



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
32	—	—	Black	1981914-1	29.5	22.3	17.0

Reverse (Plug Case)



No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
32	—	—	Black	2013393-1	27.2	20.0	17.6

Dynamic Series Connectors

Application Tooling

■ AMP-3K/AMP-5K

(Bench-type Terminator)

AMP-3K/AMP-5K are compact and low priced bench-type terminators. Both of them use a direct drive DC motor ensuring low noise and easy adjustment of the motor speed.

In addition, a range of options for various terminating works are available to provide an excellent working environment where anyone can perform terminating works with ease.

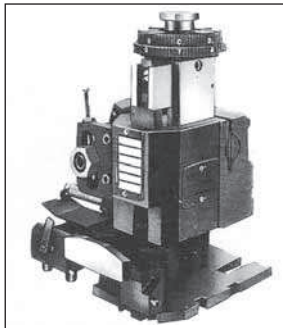
- Applicators of other makers can easily be mounted.
- The adjustment of the crimp height can be done by 0.013mm step with one touch operation.
- Applicable power supplies are AC100V-240V.
- A direct drive DC motor ensures low noise and easy adjustment of the motor speed.
- Various kinds of options to meet needs of your working environment are available.

Crimping capacity :

AMP-3K 13,300N (1.4t)

AMP-5K 22,200N (2.3t)

Description	Part No.	
	AMP-3K	AMP-5K
Universal Mount Type	1725950-3	1725900-3
AMP Quick Mount Type	1-1725950-2	1-1725900-2



Mini-Applicator

Part Number : Refer to P.351, P.365, P.375, P.402, P.409, P.418

■ Stripper Crimper Machine

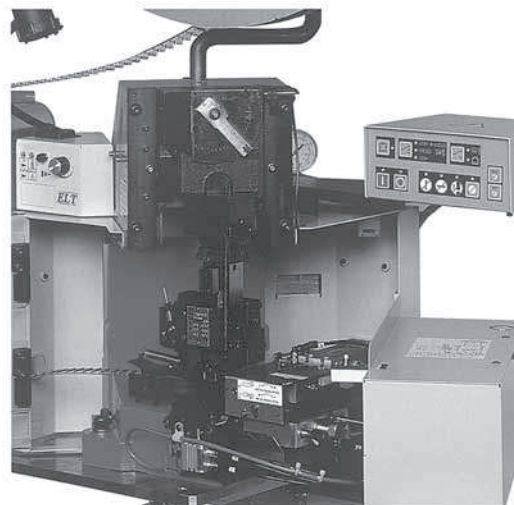
(Bench-type terminator)

- It is SCM in which the desorption of an applicators is possible. It is the best for terminal processing of a jacket cable, and the work of can be possible of strip + crimp by pressure a strip, and only crimp by pressure of selection possible in one-touch.
- Applicable wire : AWG28-14
- Maximum covering outer diameter : 5.08mm
- Jacket strip size : 29mm
- Strip length : 2.5-10mm

Machine body Part Number : 1596509-3 (AMP-3K)

Machine body Part Number : 1596509-4 (AMP-5K)

For Mini-Applicators, contact our Sales Department.



Dynamic Series Connectors

Application Tooling

■ Hand Tool PEW 12, D-3000, D-4000 Series

Part Number - Base Hand Tool : 9-1478240-0

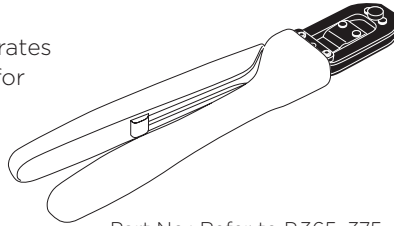


- **Crimping with a straight action feel**
By manipulating the fulcrum of the handle, we have created a crimper that, while double action, is almost like straight action.
- **Interchangeable dies**
The dies are easy to change. This means a wide variety of terminals can be handled with the minimum number of tools.
- **Improve work efficiency**
Contact series, wire sizes and crimp heights printed on work surface of dies.
- **Lower cost than existing specialized tools**
The superior functionality you want, at a price you like.

※ When ordering, tell us only the handle and die part numbers.

■ Hand Tools CERTI-CRIMP II, D-2000 Series, D-3000 Series, D-5000 Series

The crimping section incorporates Straight Action construction for improved reliability as with automachine.

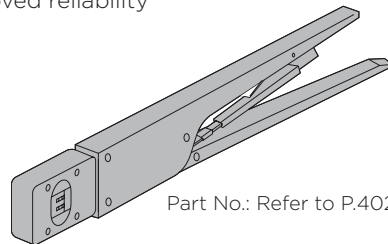


Part No.: Refer to P.365, 375, 418

- Handles are completely covered urethane to be easy to grip and gentle to workers' hands.
- Wire ranges and crimping height control values are printed on the crimping head for easy confirmation while working. Also, the ratchet in the handle keeps crimping quality very consistent.
- Hand crimping tool with wire stripper that has four variations, while the previous model had only three variations.
- We recommend periodic maintenance when using hand crimping tools to keep crimping quality consistent.

■ Hand Tools D-4000 Series

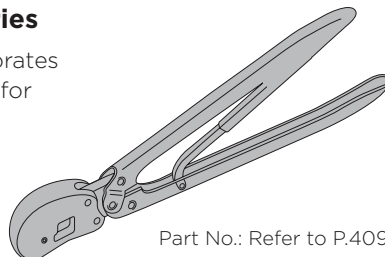
The crimping section incorporates Straight Action construction for improved reliability as with automachine.



Part No.: Refer to P.402

■ Hand Tools D-5000 Series

The crimping section incorporates Straight Action construction for improved reliability as with automachine.



Part No.: Refer to P.409, 418

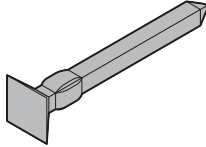
Dynamic Series Connectors

Application Tooling

■ Keying Plug D-2000 Series

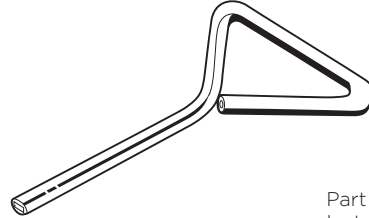
(used to prevent misinsertion)

Keying plug is used to preclude the possibility of contacts inserted in wrong directions when using connectors of the same size end-to-end.



Part Number: 641994-1

■ Tab Contact Cutting Tool D-2000 Series

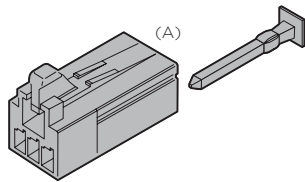


Part Number: 919041-2
Instruction Sheet: 411-78047

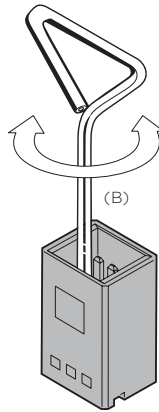
How To Use Plug and Tool

* Some of the products in this Series (D-2100S/D-2100D) are preloaded with keying plugs for preventing misinsertion.

- ① Insert a keying plug in one position of receptacle Housing.



- ② Wrench off a tab in the corresponding position of mating Tab Header and empty that position. To wrench off the tab, insert Cutting Jig into its root and turn tool as shown.

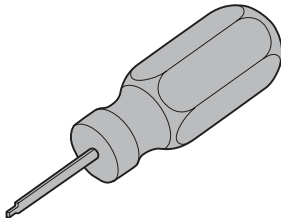


* For Tab housing (Panel/Free-hanging Types), leaving Housing empty by not inserting a contact in one position.

■ Extraction Tool D-1000 Series

This extraction tool is used to extract D-1000 series contacts from their housings.

Part Number: 1891526-1
Instruction Sheet: 411-78241

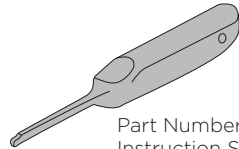


Dynamic Series Connectors

Application Tooling

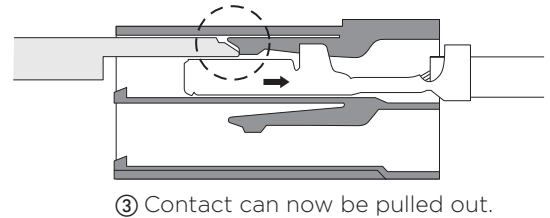
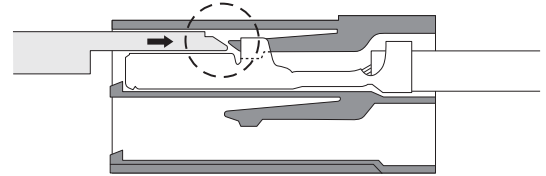
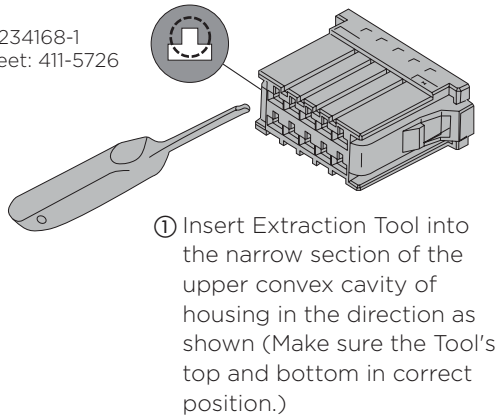
■ Extraction Tool D-3000 Series

This tool is used to extract contacts from wire-type tab/
receptacle housings.



Part Number: 234168-1
Instruction Sheet: 411-5726

How To Use Extraction Tool

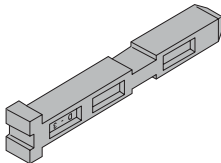


* Take care not insert into the Contact Section.
If you have inserted by error, replace the damaged
contact with a new one before proceeding the work.

■ Keying Plug D-3000 Series

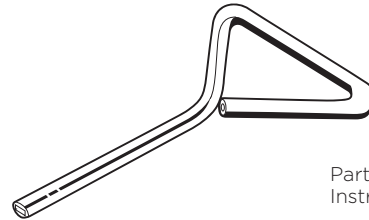
(used to prevent misinsertion)

Keying plug is used to preclude the possibility of contacts
inserted in wrong directions when using connectors of the
same size end-to-end.



Part Number: 175855-1

■ Tab Contact Cutting Tool D-3000 Series

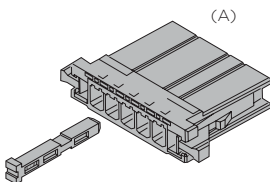


Part Number: 919041-1
Instruction Sheet: 411-78047

How To Use Plug and Tool D-3000 Series

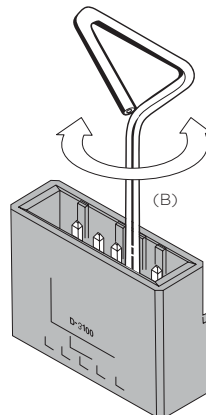
* Some of the products in this Series (D-3100S/D-3100M/D-3200S/
D-3200M) are preloaded with keying plugs for preventing misinsertion.

- ① Insert a keying plug in one position of receptacle Housing.

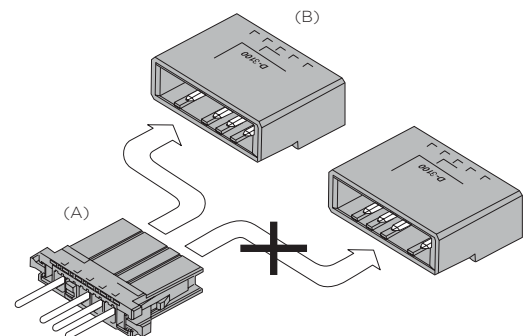


- ② Wrench off a tab in the corresponding position of mating Tab Header and empty that position. To wrench off the tab, insert Cutting Jig into its root and turn tool as shown.

* For Tab housing (Panel/
Free-hanging Types),
leaving Housing empty by
not inserting a contact in
one position.



- ③ This being done, contacts cannot be inserted in wrong directions.



Dynamic Series Connectors

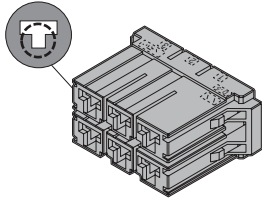
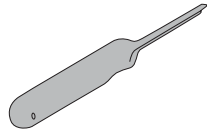
Application Tooling

■ Extraction Tool D-5000 Series

- Used to extract contacts from wire type tab / receptacle housing.
(Take care when inserting tool as the lance section of D-5 is turned upside down to that of D-3.)
- With D-5 contacts only, it is possible to extract using a small-sized slotted screwdriver or something like eyeleteer.

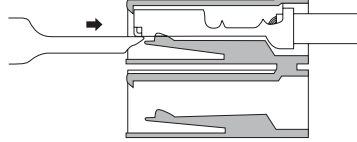
Part Number: 409158-1
Instruction Sheet: 411-5774

How To Use
Extraction Tool

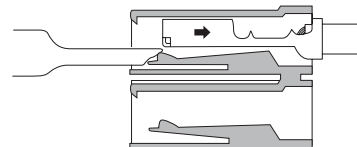


- ① Holding Insert Extraction Tool in the direction as shown, insert into the narrow lower section of Housing's reverse convex hole. (make sure that you are holding tool in proper position, top and bottom.)

When Using D-5
Extraction Tool

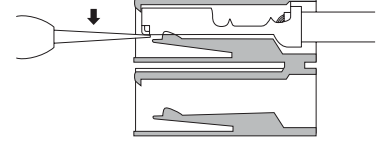


- ② The tip of Extraction Tool depresses housing lance, letting contact free.

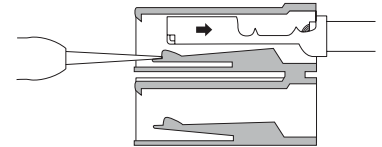


- ③ Contact can now be pulled out.

When Using Slotted
Screwdriver or Eyeleteer, etc.



- ② When you butt the tip of tool at lance section and depress it, contact is released free.



- ③ Contact can be pulled out.

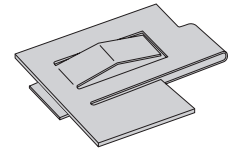
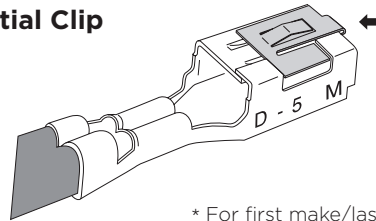
* Take care not to insert tool into contact section. If you've inserted by error, replace the contact with a new one before proceeding the work.

■ Crimping Oil

Part Number: 939691-1
Oil to prevent tool and contact from jamming during crimping.



■ Sequential Clip



Part Number: 179993-1

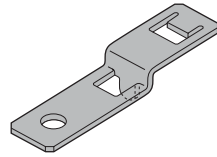
* For first make/last break

Dynamic Series Connectors

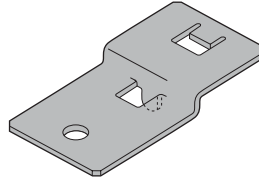
Connector Mounting Hardware

■ L Fittings

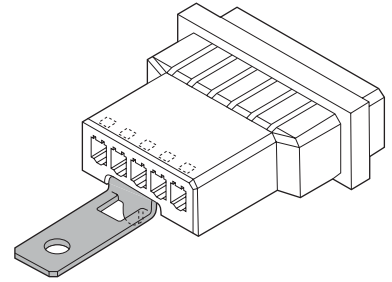
Used to secure free-hanging type tab housings onto panels.
Two styles, large and small, are available, the former for large-sized housings and the latter for small housings.
Applicable housings are specified in the table of housings.
5900121-2 (S)
5900121-4 (L)



Part Number: 5900121-2 (S)

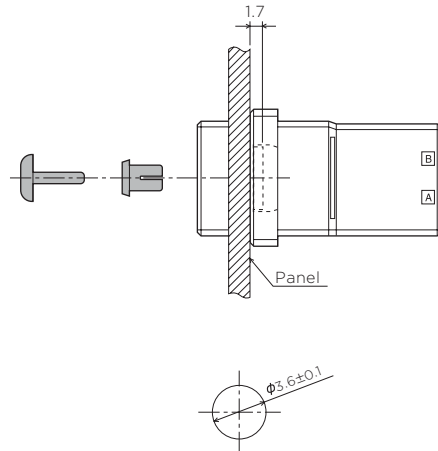
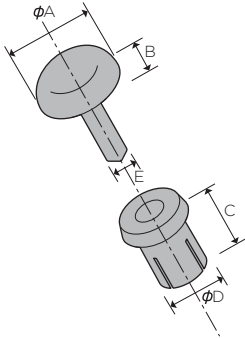


Part Number: 5900121-4 (L)



■ Push Rivets D-3000

Used to secure panel-type tab housings onto panels (Use as a handy mounting hardware. Cannot be used with larger sized housings or those that are frequently inserted and withdrawn).



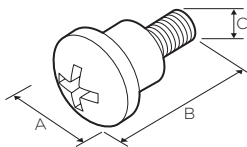
Recommended panel hole dimension

Part Number	Panel Thickness	Dimensions					Insertion Force	Retention Force
		A	B	C	D	E		
900128-1	0.3~1.3	6.4	1.6	4.5	3.5	1.95	19.6N~29.4N	127.4N Min.
900128-2	1.3~2.3	6.4	1.6	5.5	3.5	1.95	19.6N~29.4N	127.4N Min.

When 2 push rivets are used.

Panel Mounting Screw D-2000, D-3000

Part Number	Dimensions		
	A	B	C
900167-1	9.0	10.3	M3



Panel Mounting Screw D-2000

Part Number	Dimensions		
	A	B	C
1376059-1	5.5	12.3	M3

