

## Dynamic Series Connectors

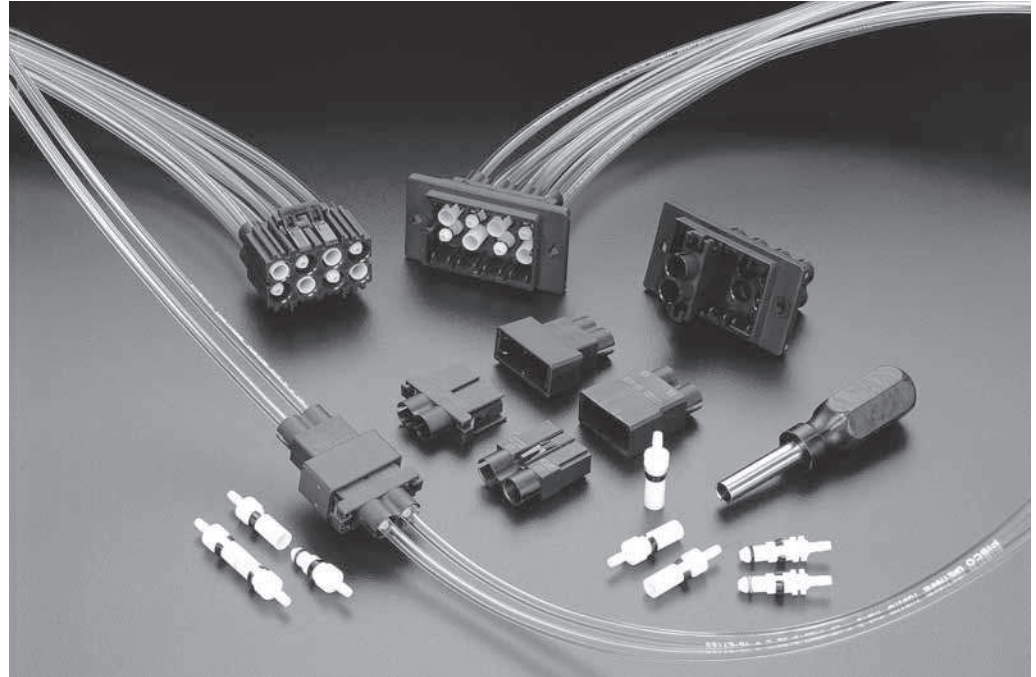
### Dynamic Pneumatic Connector

#### 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 <sup>2</sup>	8.80mm <sup>2</sup>
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

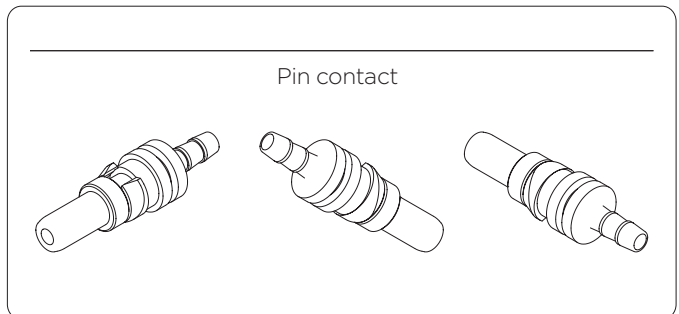
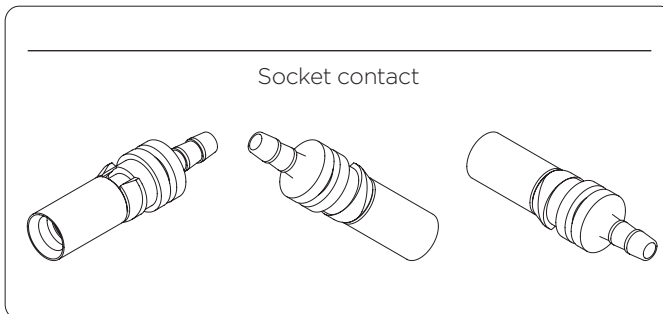
#### Specifications and Instruction Sheets

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	
6	Metal	2013597-1*1	2013599-1	
		2013597-2*2		

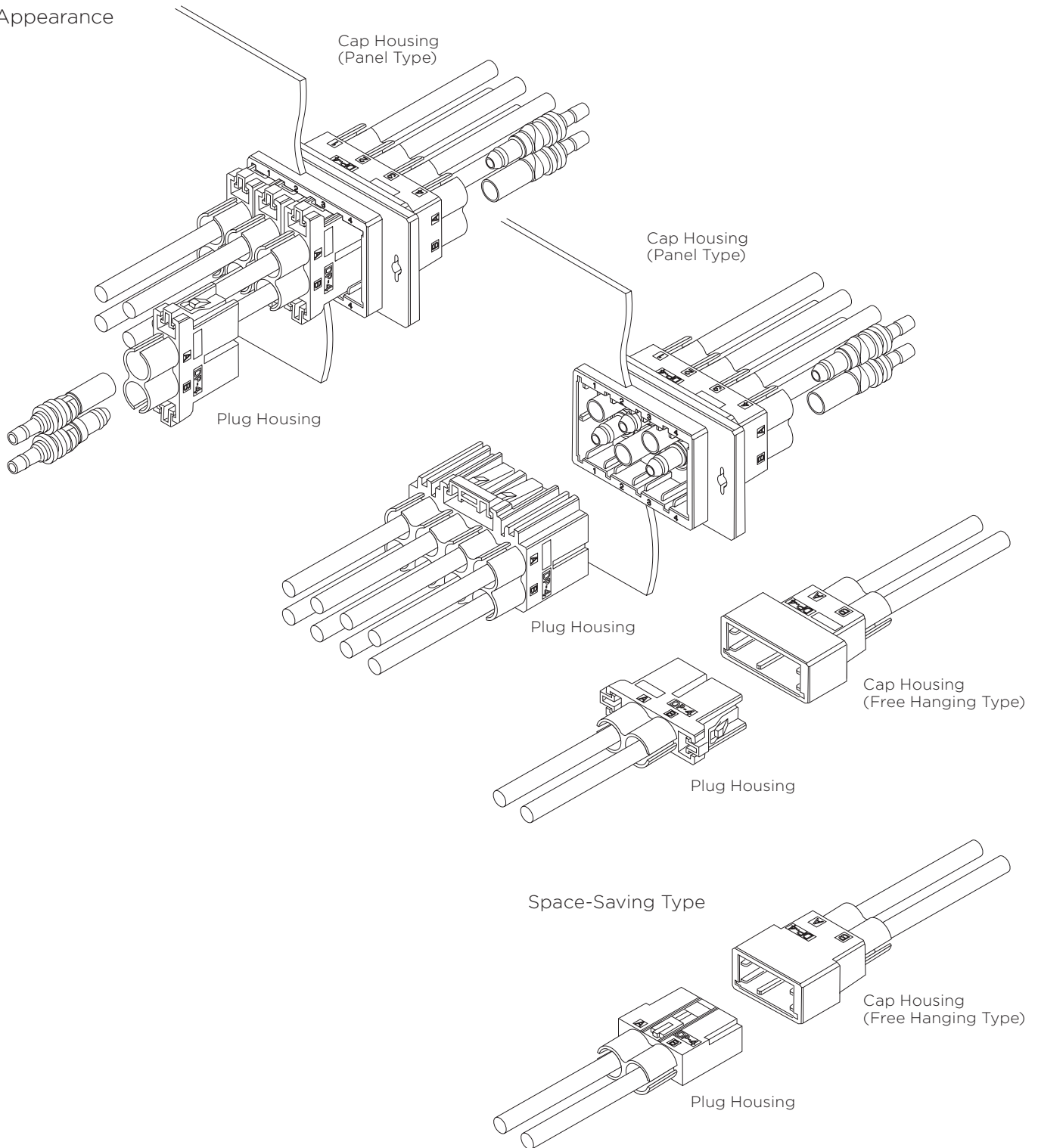
O-rings are placed on the pin contact of resin contacts, and on the socket contact of metal contacts.  
All of the contacts can be used in all of the housings.

\*1 O-ring material is NBR.  
\*2 O-ring material is FKM.

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### Dynamic Pneumatic Connector

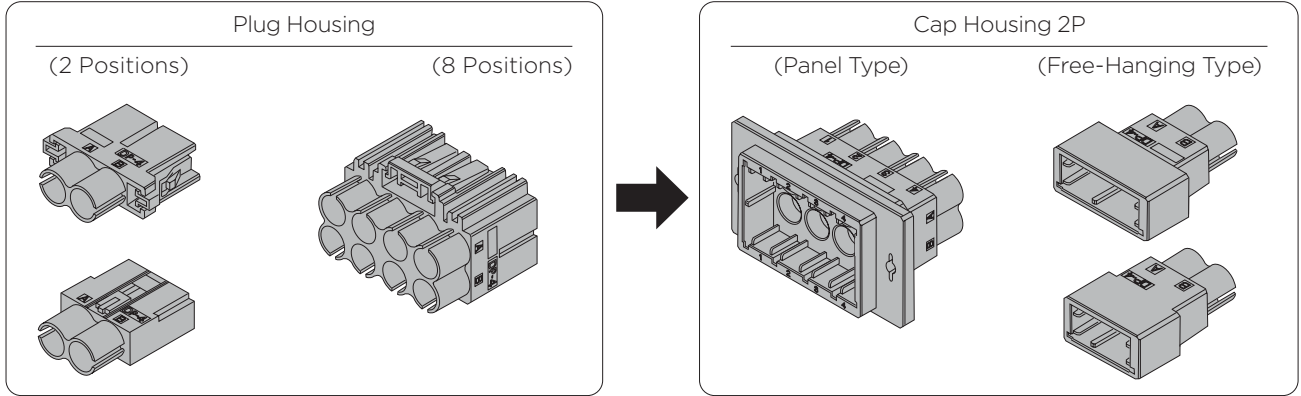
Appearance



## Dynamic Series Connectors

### Dynamic Pneumatic Connector

#### Part Number Chart



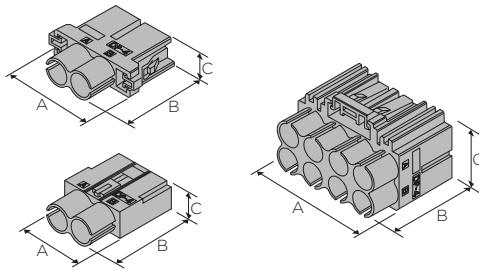
No. of Pos.	Plug Housing	Cap Housing	
		Panel Type	Free-Hanging Type
2	1903105-1	—	1903305-1
2	1981040-1	—	1981039-1
8	1903104-1	1903106-1	—

#### Information about related products

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

#### Dimensions

##### ■ Plug Housing (2 Positions)

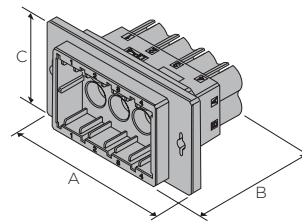


No. of Pos.	Keying	Plating	Color	Part Number	Dimensions		
					A	B	C
2	—	—	Black	1903105-1	32.0	27.8	9.2
2	—	—	Black	1981040-1*1	21.5	27.8	10.9
8	—	—	Black	1903104-1	37.7	27.8	31.3

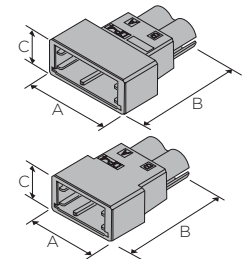
\*1 : Space-saving type

##### ■ 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