

Working pressure: 1.0 MPa (10 kgf/cm²)

Applicable fluids: Air, Water, Ink

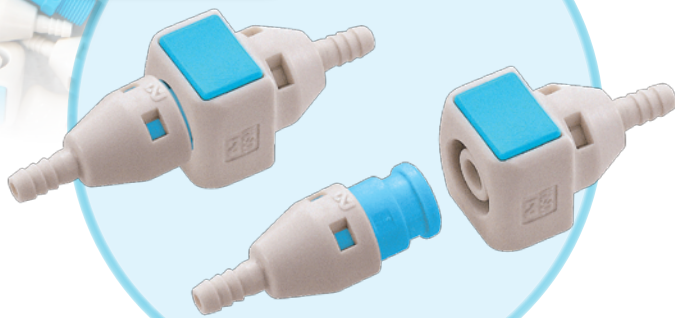
Valve structure: Two-way shut-off, One-way shut-off, Straight through

CUBE CUPLA

Small size **Lightweight** **5 colors**

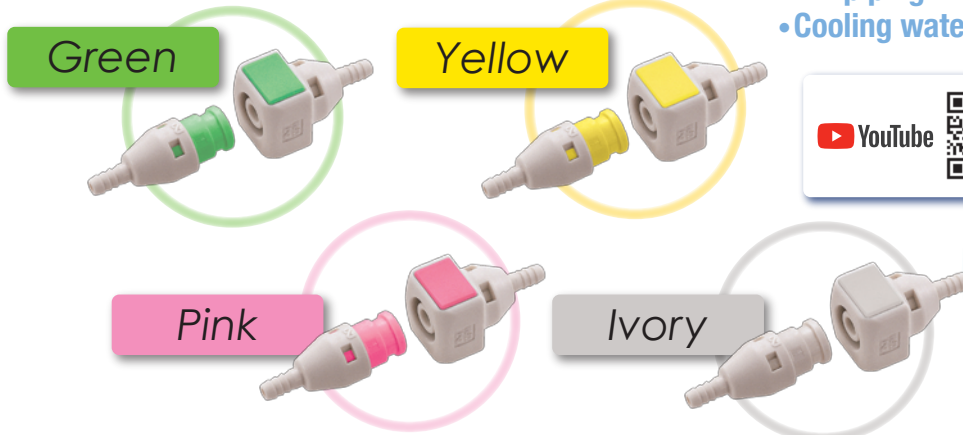
Expanded Application Range with New Seal Material Options: Fluoro Rubber and Ethylene Propylene Rubber

Blue Actual size



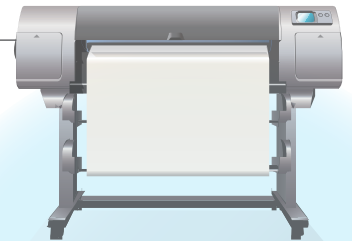
Seal material for CUBE CUPLA

- Standard Nitrile rubber (NBR)
- NEW** Made-to-order Fluoro rubber (FKM)
- NEW** Made-to-order Ethylene-propylene rubber (EPDM)



Industrial inkjet printers

- Ink piping
- Cooling water piping



Application examples

- Industrial inkjet printers
- Blood Flow Restriction (BFR) training equipment
- Office automation equipment with air piping
- Measuring and analytical instruments, etc.

Please contact us for other application examples.

Suitable for piping in narrow spaces

L type plug



Uses materials compliant with the Food Sanitation Act of Japan.*

For applications that require hygiene management, the suitability of CUPLA should be evaluated by the user prior to use.

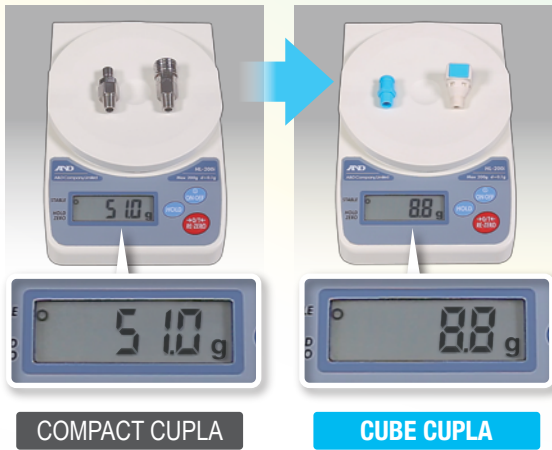
*Excludes seal materials: fluororubber (FKM) and ethylene propylene rubber (EPDM).



Small size
Lightweight
made of resin

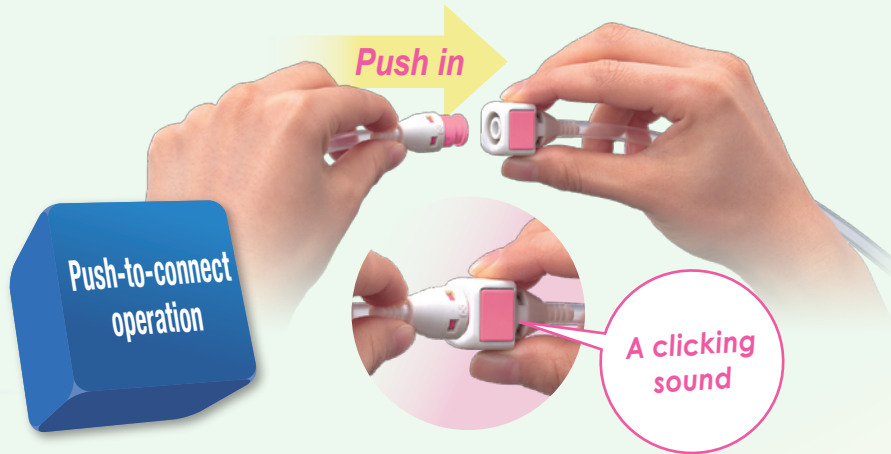
Compared to products with similar specifications...

(Our products with similar working pressure / flow rate)

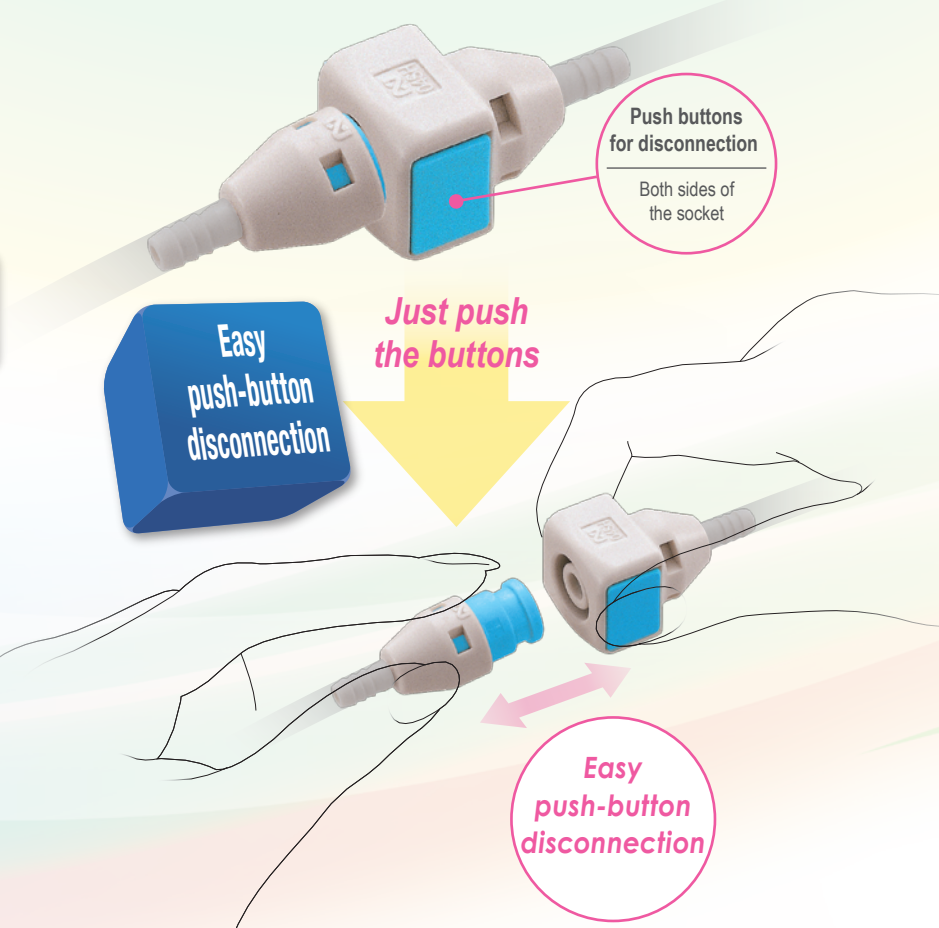


Compared to our conventional model, the weight is about ...

1/5



Push-to-connect operation



Easy push-button disconnection

Push buttons for disconnection
Both sides of the socket

Easy push-button disconnection

Specifications (Prior to use, check the compatibility of the seal material against the temperature and the fluid to be used.)

Body material	Polyacetal resin (POM)			
Size	4 mm and 6 mm ID tube, 1/8"			
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure *1	1.0	10	10	145
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range *2	Nitrile rubber	NBR	-20°C to +60°C	Standard material
	Fluoro rubber	FKM *3	0°C to +60°C	Made-to-order
	Ethylene-propylene rubber	EPDM *3	-20°C to +60°C	Made-to-order

*1: The normal allowable fluid pressure under continuous use. Exceeding the working pressure may cause damage and leakage.
*2: The operable temperature range depends on the operating conditions.
*3: Not compliant with the Food Sanitation Act of Japan.

Tightening Torque Range Nm (kgf·cm)

Size (Thread)	R 1/8
Torque	0.9 to 1.1 {9.2 to 11}

Flow Direction



Interchangeability

Sockets and plugs can be connected regardless of end configurations. *Do not use in the combination of valved sockets and valveless plugs. The valve in the socket will not open and the fluid will not flow.

Minimum Cross-Sectional Area (-VL means Valve less type) (mm²)

Socket Plug	SPC-04SH	SPC-06SH	SPC-10SM	SPC-04SH -VL	SPC-06SH -VL	SPC-10SM -VL
SPC-04PH/SPC-04PHB/SPC-04PHL	5	5	5	5	5	5
SPC-06PH/SPC-06PHB/SPC-06PHL	5	8.6	8.6	5	8.6	8.6
SPC-10PM	5	8.6	8.6	5	8.6	8.6
SPC-04PH-VL/SPC-04PHB-VL/SPC-04PHL-VL	-	-	-	5	5	5
SPC-06PH-VL/SPC-06PHB-VL	-	-	-	5	10.2	10.2
SPC-06PHL-VL	-	-	-	5	10.2	12.6
SPC-10PM-VL	-	-	-	5	10.2	16.6

Connection capability Select the combination of models suitable to your applications

Connection capability		Socket	
Valve		With	Without
Plug	With	Two-way shut-off	One-way shut-off
	Without	Not connectable	Straight through

Note: When disconnected, the fluid from the valveless side will flow out. Take care if the fluid is liquid.

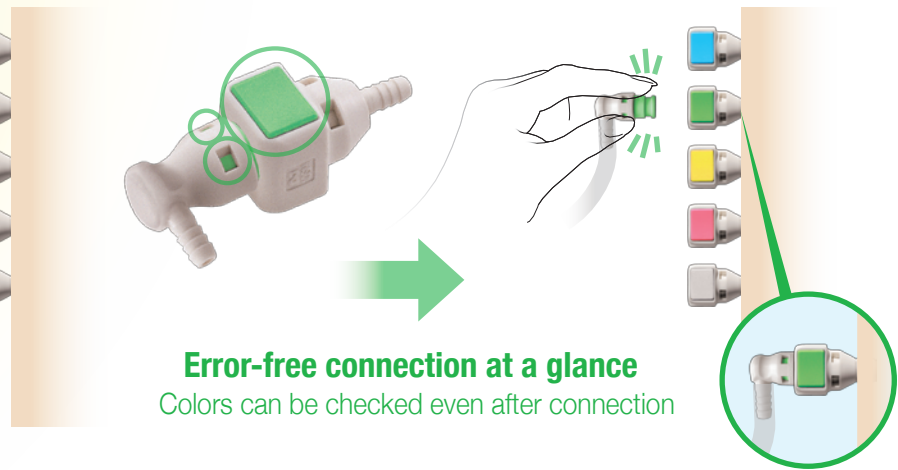
5 colors

To prevent piping misconnections

Hard-to-identify piping

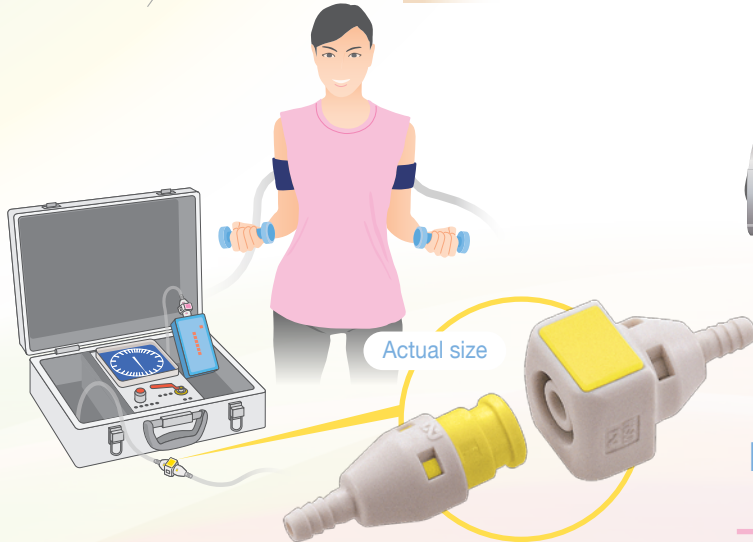


Error-free connection at a glance
Colors can be checked even after connection

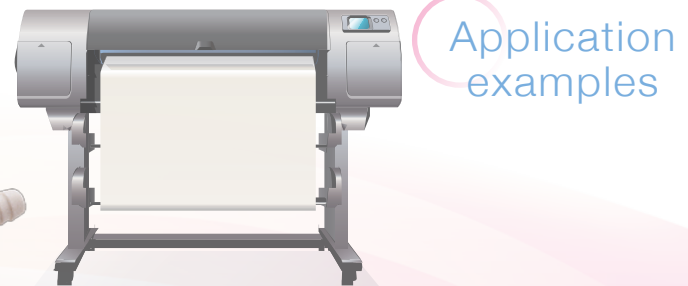


Application examples

Air piping for Blood Flow Restriction (BFR) training equipment



Ink piping and cooling water piping of industrial inkjet printers



For air piping of office automation equipment, measuring and analytical instruments, etc.

The above applications are examples only. Please consult us separately before adoption.

Suitability for Vacuum

53.0 kPa (400 mmHg)

Socket only	Plug only	When connected
—	—	Operational

Admixture of Air on Connection

May vary depending upon the usage conditions.

(mL)

Volume of air admixture	0.60 (Built-in valve type only)
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Volume of Spillage per Disconnection

May vary depending upon the usage conditions.

(mL)

Volume of spillage	0.51 (Built-in valve type only)
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- Resin (POM) such as the main body ... Conforms to article No.3-D-2-(2)-2 and has passed both material and elution tests specified in the Food Sanitation Act and the Standards for Food and Food Additives (Notice No. 370 of 1959 issued by the Ministry of Health and Welfare of Japan).

- O-ring (NBR) ... Conforms to article No.3-D-3-(1) and has passed both material and elution tests specified in the Food Sanitation Act and the Standards for Food and Food Additives (Notice No. 370 of 1959 issued by the Ministry of Health and Welfare of Japan).

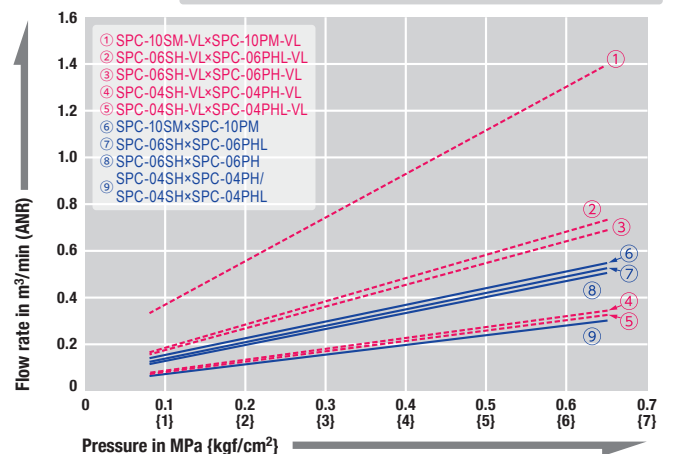
- Silicone type grease (NSF H1, NSF 61 registered product) is applied to the sealing material.

- For applications that require hygiene management, the suitability of CUPLA should be evaluated by the user prior to use.

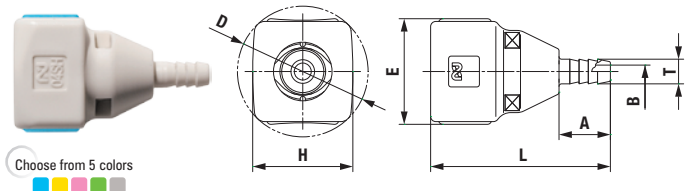
Pressure - Flow Characteristics

(The fluid flow will not differ by body color)

[Test conditions] - Fluid : Air — Solid line: Built-in valve type Dotted line: Valveless type

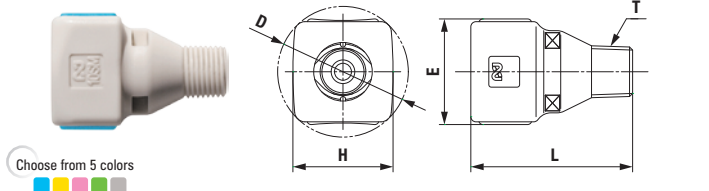


Socket SH Type (Hose barb)



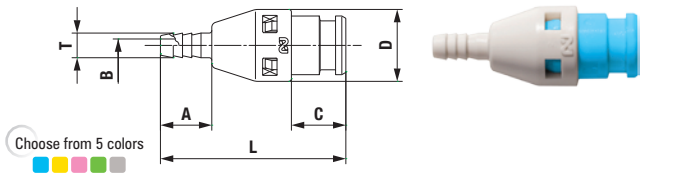
Model*	Application (Tube)	Built-in valve	Mass (g)	Dimensions (mm)						
				L	A	E	ϕT	ϕB	H	ϕD
SPC-04SH	4 mm ID	With	6.5	35	10	(20.3)	4.8	2.5	19.5	(25.5)
SPC-04SH-VL	4 mm ID	Without	6.1	35	10	(20.3)	4.8	2.5	19.5	(25.5)
SPC-06SH	6 mm ID	With	7.0	40	15	(20.3)	7	3.6	19.5	(25.5)
SPC-06SH-VL	6 mm ID	Without	6.6	40	15	(20.3)	7	3.6	19.5	(25.5)

Socket SM Type (Male thread)



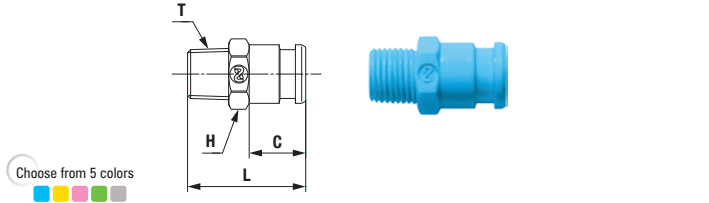
Model*	Application (Thread)	Built-in valve	Mass (g)	Dimensions (mm)				
				L	E	T	H	ϕD
SPC-10SM	Rc 1/8	With	6.8	31.5	(20.3)	R 1/8	19.5	(25.5)
SPC-10SM-VL	Rc 1/8	Without	6.4	31.5	(20.3)	R 1/8	19.5	(25.5)

Plug PH Type (Hose barb)



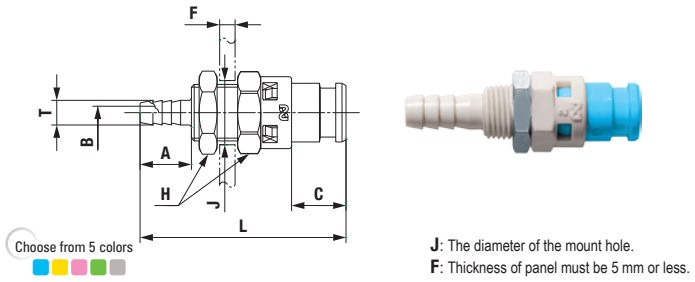
Model*	Application (Tube)	Built-in valve	Mass (g)	Dimensions (mm)					
				L	A	C	ϕD	ϕT	ϕB
SPC-04PH	4 mm ID	With	3.1	(36)	10	(10.5)	14	4.8	2.5
SPC-04PH-VL	4 mm ID	Without	2.6	(36)	10	(10.5)	14	4.8	2.5
SPC-06PH	6 mm ID	With	3.4	(40)	15	(10.5)	14	7	3.6
SPC-06PH-VL	6 mm ID	Without	2.9	(40)	15	(10.5)	14	7	3.6

Plug PM Type (Male thread)



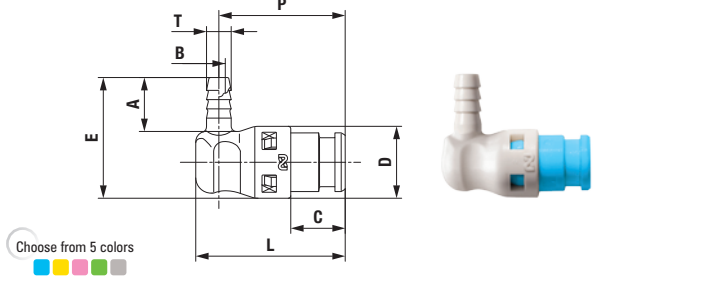
Model*	Application (Thread)	Built-in valve	Mass (g)	Dimensions (mm)			
				L	C	H (WAF)	T
SPC-10PM	Rc 1/8	With	2.0	23	11	Hex.12	R 1/8
SPC-10PM-VL	Rc 1/8	Without	1.5	23	11	Hex.12	R 1/8

Plug PHB Type (For panel mount)



Model*	Application (Tube)	Built-in valve	Mass (g)	Dimensions (mm)									
				L	A	C	H(WAF)	ϕT	ϕB	F	ϕJ		
SPC-04PHB	4 mm ID	With	5.9	(40)	10	(10.5)	Hex.14	4.8	2.5	5 mm or less	11.1 ^{+0.3} ₀		
SPC-04PHB-VL	4 mm ID	Without	5.4	(40)	10	(10.5)	Hex.14	4.8	2.5	5 mm or less	11.1 ^{+0.3} ₀		
SPC-06PHB	6 mm ID	With	6.2	(45)	15	(10.5)	Hex.14	7	3.6	5 mm or less	11.1 ^{+0.3} ₀		
SPC-06PHB-VL	6 mm ID	Without	5.7	(45)	15	(10.5)	Hex.14	7	3.6	5 mm or less	11.1 ^{+0.3} ₀		

Plug PHL Type (Hose barb)



Model*	Application (Tube)	Built-in valve	Mass (g)	Dimensions (mm)							
				L	C	P	ϕD	A	E	ϕT	ϕB
SPC-04PHL	4 mm ID	With	3.5	(29)	(10.5)	(24.5)	14	10.5	23.5	4.8	2.5
SPC-04PHL-VL	4 mm ID	Without	3	(29)	(10.5)	(24.5)	14	10.5	23.5	4.8	2.5
SPC-06PHL	6 mm ID	With	3.9	(30.5)	(10.5)	(25.5)	14	15.5	28.5	7	4
SPC-06PHL-VL	6 mm ID	Without	3.4	(30.5)	(10.5)	(25.5)	14	15.5	28.5	7	4

* For each color, the model name ends with; Blue: -BLU Yellow: -YEL Pink: -PNK Green: -GRN Ivory: -IVR (Example/SM type Blue: SPC-10SM-BLU)

⚠ Safety Guide

Read without fail and observe the following pages in the general Quick Connect Couplings Catalog; [CUBE CUPLA] page, [Precautions Relating to the Use of All CUPLA products] page, "CUPLA for Low Pressure (Air)" and "CUPLA for Low Pressure (Water, Liquid) and for Medium Pressure" in the [Safety Guide] page.

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