

Light Coupling

Push-in fitting type light-weight coupling

Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Socket (Example)



(1) Light Coupling

(2) Coupling type

S: Socket

(3) Connection size

Code	E3	E7	15	20
Effective area (mm ²)	3	7	15	20

*Light couplings with different effective area can not be connected.

(4) Type

Code	H	M	No code
Type	Banjo type (*1)	Bulkhead type (*2)	Straight

*1. Banjo type is available for E3 and E7 series only.

*2. Bulkhead type is available for E3, E7 and 15 series only.

(5) Tube dia. (øD) or Thread size (R)

■ Tube dia.

Code	mm size (mm)					inch size (inch)					
	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2
E3Series	✓					✓	✓				
E7Series		✓									
15Series		✓	✓	✓				✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓	✓

■ Thread size

Code	Metric thread	Taper pipe thread				UNF thread	National pipe thread tapered			
	M5	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2
E3, E7Series	✓	✓				✓	✓			
15Series		✓	✓	✓			✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓

(6) Resin color (Optional)

(Code entry for 15 and 20 series)

Code	W	B
Resin color	Light gray	Black

Model Designation of Plug (Example)



(1) Light Coupling

(2) Coupling type

P: Plug

(3) Connection size

Code	E3	E7	15	20
Effective area (mm ²)	3	7	15	20

*Light couplings with different effective area can not be connected.

(4) Type

Code	H	L	No code
Type	Banjo type	Elbow	Straight

*Banjo type is available for E3 and E7 Series only.

(5) Tube dia. (øD) or Thread size (R)

■ Tube dia.

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2
E3Series	✓					✓	✓				
E7Series		✓									
15Series		✓	✓	✓				✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓	✓

■ Thread size

Code	Metric thread	Taper pipe thread				UNF thread	National pipe thread tapered			
	M5	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2
E3, E7Series	✓	✓				✓	✓			
15Series		✓	✓	✓			✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓

(6) Plug function (Code entry for Straight type of 20 series)

Code	S	C	No code
Functions	With Silencer	With Check valve	Standard

(7) Resin color (Optional) (Code entry for 15 and 20 series)

Code	W	B
Resin color	Light gray	Black

Characteristics

Easy coupling and uncoupling with one-hand operation is possible.

Connection resistance is designed low.

Flow-shut mechanism is incorporated.

The socket stops air flow simultaneously with the uncoupling.

Two types of Plug (Silencer built-in and Check valve built-in) are available. *20 Series only

The silencer type which reduces the noise and shock at the release of the residual pressure, and the check valve type which does not allow the flow of the residual pressure are available.

Compatible with other brand's coupling.

Piping identification by color (Light gray and Black) is possible.

E3, E7 Series

E3 and E7 series with compact design and space-saving piping.

Specifications

Series	E3, E7	15, 20
Fluid medium	Air, Water (Conditional*)	Air
Max. operating pressure	0.9 MPa	
Max. vacuum	-100 kPa (*2)	
Operating temp. range	0 to 60°C (no freezing)	

△ Warning

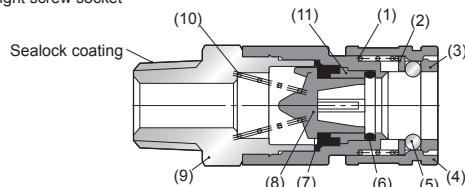
*1. Make sure to follow the instructions below when the fluid medium is water.

1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

*2. 15 series socket itself does not have vacuum retention function.

Sectional drawing of Socket

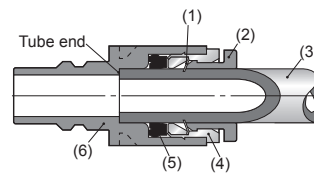
15 series, Straight screw socket



No.	Parts	Material
(1)	Sleeve spring	Stainless steel
(2)	Ball holder	POM
(3)	Socket body	POM
(4)	Sleeve	POM
(5)	Lock ball	Stainless steel
(6)	O-ring	NBR
(7)	Valve seal	NBR
(8)	Valve	POM
(9)	Metallic body	Nickel-plated brass
(10)	Valve spring	Stainless steel
(11)	Valve guide	POM

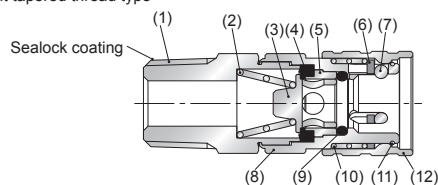
Sectional drawing of Plug

15 series, Straight tube plug



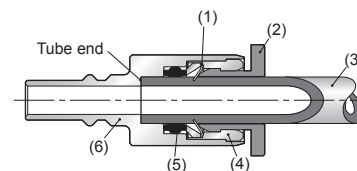
No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane or nylon
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Plug body	PBT containing glass

E3 Series: Straight tapered thread type



No.	Parts	Material
(1)	Metallic body1	Nickel-plated brass
(2)	Valve spring	Stainless steel
(3)	Valve	Nickel-plated brass
(4)	Valve seal	NBR
(5)	Valve guide	Nickel-plated brass
(6)	Ball holder	POM
(7)	Lock ball	Stainless steel
(8)	Metallic body2	Nickel-plated brass
(9)	O-ring	NBR
(10)	Sleeve spring	Stainless steel
(11)	Retaining ring	Stainless steel
(12)	Sleeve	Nickel-plated brass

E3 series: Straight type with push-in fitting



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane or nylon
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Plug body	Nickel-plated brass

*The gasket of Metric thread and UNF thread for E3 and E7 series is SUS304 + NBR.

Light Coupling

RoHS2 (2011/65/EU+EU2015/863) compliant

20 Series											
Socket											
Type		Model code CPS20-øD[6]		Type		Model code CPS20-R[6](U)					
Straight Tube Socket CPS		CPS20-6[6]		Straight Screw Socket CPS		CPS20-02[6]					
		CPS20-8[6]				CPS20-03[6]					
		CPS20-10[6]				CPS20-04[6]					
		CPS20-12[6]				CPS20-N2[6]U					
		CPS20-1/4[6]				CPS20-N3[6]U					
		CPS20-5/16[6]				CPS20-N4[6]U					
		CPS20-3/8[6]									
		CPS20-1/2[6]									
Plug											
Type		Model code CPP20-øD[7]		Type		Model code CPP20-øDS[7]		Type		Model code CPP20-øDC[7]	
Straight Tube Plug CPP		CPP20-6[7]		Straight Tube Plug with Silencer CPP		CPP20-6S[7]		Straight Tube Plug with Check valve CPP		CPP20-6C[7]	
		CPP20-8[7]				CPP20-8S[7]				CPP20-8C[7]	
		CPP20-10[7]				CPP20-10S[7]				CPP20-10C[7]	
		CPP20-12[7]				CPP20-12S[7]				CPP20-12C[7]	
		CPP20-1/4[7]				CPP20-1/4S[7]				CPP20-1/4C[7]	
		CPP20-5/16[7]				CPP20-5/16S[7]				CPP20-5/16C[7]	
		CPP20-3/8[7]				CPP20-3/8S[7]				CPP20-3/8C[7]	
		CPP20-1/2[7]				CPP20-1/2S[7]				CPP20-1/2C[7]	
Type		Model code CPP20L-øD[7]		Type		Model code CPP20-R(U)					
Elbow Tube Plug CPP		CPP20L-6[7]		Screw Plug CPP		CPP20-02					
		CPP20L-8[7]				CPP20-03					
		CPP20L-10[7]				CPP20-N2U					
		CPP20L-12[7]				CPP20-N3U					
		CPP20L-1/4[7]									
		CPP20L-5/16[7]									
		CPP20L-3/8[7]									
		CPP20L-1/2[7]									
 Notes *Release-ring color for inch size is white. Plug  Socket											

15 Series											
Socket											
Type		Model code CPS15-øD[6]		Type		Model code CPS15-R[6](U)		Type		Model code CPS15M-øD[6](U)	
Straight Tube Socket CPS		CPS15-6[6]		Straight Screw Socket CPS		CPS15-01[6]		Bulkhead type CPS		CPS15M-8[6]	
		CPS15-8[6]				CPS15-02[6]				CPS15M-5/16[6]U	
		CPS15-10[6]				CPS15-03[6]					
		CPS15-1/4[6]				CPS15-N1[6]U					
		CPS15-5/16[6]				CPS15-N2[6]U					
		CPS15-3/8[6]				CPS15-N3[6]U					
Plug											
Type		Model code CPP15-øD[7]		Type		Model code CPP15L-øD[7]		Type		Model code CPP15-R(U)	
Straight Tube Plug CPP		CPP15-6[7]		Elbow Tube Plug CPP		CPP15L-6[7]		Screw Plug CPP		CPP15-01	
		CPP15-8[7]				CPP15L-8[7]				CPP15-02	
		CPP15-10[7]				CPP15L-10[7]				CPP15-03	
		CPP15-1/4[7]				CPP15L-1/4[7]				CPP15-N1U	
		CPP15-5/16[7]				CPP15L-5/16[7]				CPP15-N2U	
		CPP15-3/8[7]				CPP15L-3/8[7]				CPP15-N3U	



CAD data is available
at PISCO website.



Packaging specifications
1 pc. / bag



Standard Optional

Code

Specifications

[6] or [7] : W

Light gray

 CAD data is available at PISCO website.

 Packaging specifications
1 pc. /bag

 Standard Optional

Code	[6] or [7] : W
Specifications	Light gray

RoHS2 (2011/65/EU+EU2015/863) compliant

E3, E7 Series

Socket

Type	Model code CPS[3]-øD	Type	Model code CPS[3]-R(U)	Type	Model code CPS[3]M-øD(U)
Straight Tube Socket CPS  øD	CPSE3-4	Straight Screw Socket CPS  R	CPSE3-M5	Bulkhead type CPS  øD	CPSE3M-4
	CPSE7-6		CPSE3-01		CPSE7M-6
	CPSE3- ¹ / ₈		CPSE7-M5		CPSE3M- ¹ / ₈ U
	CPSE3- ⁵ / ₃₂		CPSE7-01		CPSE3M- ⁵ / ₃₂ U
Banjo Socket CPS  R	CPSE3H-R(U)		CPSE3-U10U		
	CPSE7H-M5		CPSE3-N1U		
	CPSE3H-U10U		CPSE7-U10U		
	CPSE7H-U10U		CPSE7-N1U		

Plug

Type	Model code CPP[3]-øD	Type	Model code CPP[3]L-øD	Type	Model code CPP[3]-R(U)
Straight Tube Plug CPP  øD	CPPE3-4	Elbow Tube Plug CPP  øD	CPPE3L-4	Straight Screw Socket CPP  R	CPPE3-M5
	CPPE7-6		CPPE7L-6		CPPE3-01
	CPPE3- ¹ / ₈		CPPE3L- ¹ / ₈		CPPE7-M5
	CPPE3- ⁵ / ₃₂		CPPE3L- ⁵ / ₃₂		CPPE7-01
Banjo Plug CPP  R	CPPE3H-R(U)				CPPE3-U10U
	CPPE7H-M5				CPPE3-N1U
	CPPE3H-U10U				CPPE7-U10U
	CPPE7H-U10U				CPPE7-N1U



Notes

*Release-ring color for inch size is white.

CAD data is available
at PISCO website.Packaging specifications
1 pc. /bag

Plug



Socket

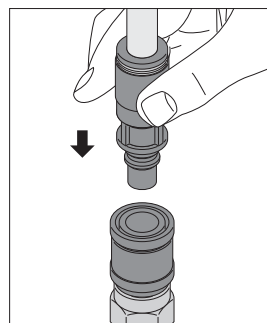
■ How to install and remove

How to install and remove plugs and sockets

(1) Plug installation

Light Coupling can be installed simply by inserting the plug into the socket, without pushing the release-sleeve.

Refer to “Detailed Safety Instructions” on PISCO website (<https://www.pisco.co.jp/en/product/a/a25/>) when installing.



(2) Plug removal

To remove, push (1) the release-sleeve of the socket to open the lock ball, and pull out (2) the plug.

Refer to “Detailed Safety Instructions” on PISCO website (<https://www.pisco.co.jp/en/product/a/a25/>) when removing.

