

For Inert Gas, Vacuum

SP-V Cupla

For vacuum

Working pressure



3.0~7.5MPa
(31~76kgf/cm²)

Valve structure



Two-way shut-off

Applicable fluids

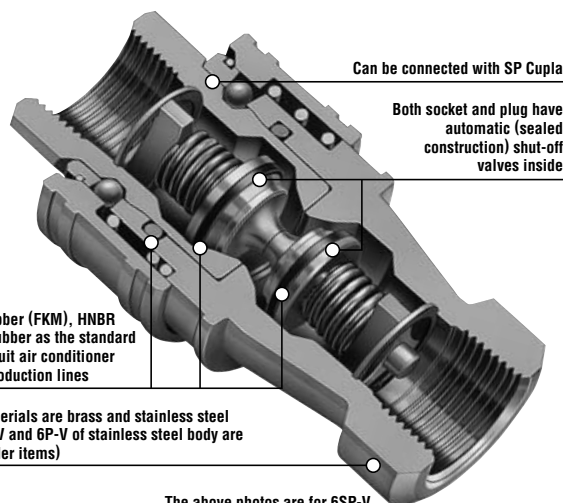


Inert gas,
vacuum

gas

Air

Water



Can be connected with SP Cupla

Both socket and plug have automatic (sealed construction) shut-off valves inside

Adopted Fluoro-rubber (FKM), HNBR and Chloroprene rubber as the standard seal materials to suit air conditioner and refrigerator production lines

Standard body materials are brass and stainless steel
(Note: Models 4P-V and 6P-V of stainless steel body are made-to order items)

The above photos are for 6SP-V

Automatic shut-off valves in both socket and plug for vacuum applications. Each can withstand a vacuum of as high as 1.3×10^{-1} Pa even when disconnected.

- Uses automatic shut-off valves with ultra-tight sealed construction in both socket and plug. Ideal for vacuum applications.
- Having automatic shut-off valves in both socket and plug facilitates easy fluid handling. Suitable for a wide range of vacuum applications as high as 1.3×10^{-1} Pa [1×10^{-3} mmHg] even when disconnected.
- Three types of seal material are available to suit any of the diversified production lines for air conditioners, refrigerators or similar.
- Can be connected with SP Cupla, Charge Cupla CS type and Charge Cupla CN type.

Specifications

Body material	Brass (standard material)		Stainless steel (standard material)	Stainless steel (made-to-order item)
Size	1/4" • 3/8"	1/2" • 3/4"	1/4" • 3/8"	1/2" • 3/4"
Working pressure MPa (kgf/cm ²)	5.0 (51)	3.0 (31)	7.5 (76)	4.5 (46)
Pressure resistance MPa (kgf/cm ²)	7.5 (76)	4.5 (46)	10.0 (102)	6.5 (66)
Seal material Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Chloroprene rubber	CR (C308)	-20°C~+80°C	Standard material
	Fluoro rubber	FKM (X-100)	-20°C~+180°C	Standard material
	Hydrogenated nitrile rubber	HNBR (H708)	-20°C~+120°C	Standard material

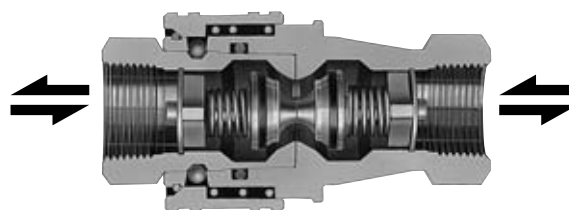
Max. Tightening Torque

N·m (kgf·cm)

Size	N·m (kgf·cm)				
	1/4"	3/8"	1/2"	3/4"	
Torque	Brass	9 (92)	12 (122)	30 (306)	50 (510)
	Stainless steel	14 (143)	22 (224)	60 (612)	90 (918)

Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



Interchangeability

Socket and plug with different sizes cannot be connected to each other. Interchangeable with SP Cuplas but take heed of flow rate reduction.

Min. Cross-Sectional Area

(mm²)

Model	2SP-V	3SP-V	4SP-V	6SP-V
Min. Cross-Sectional Area	17	48	71	110

Suitability for Vacuum

1.3×10^{-1} Pa [1×10^{-3} mmHg]

Socket only	Plug only	When connected
Operational	Operational	Operational

Admixture of air on connection

(mℓ)

Model	2SP-V	3SP-V	4SP-V	6SP-V
Volume of air	1.02	2.40	3.20	10.50

Flow Rate – Pressure Loss Characteristics

[Test conditions] •Fluid : water •Temperature: 25°C ±5°C

