

For High Pressure

Hyper HSP Cupla

Connects hydraulic piping even with residual pressure up to 20.6 MPa (210 kgf/cm²)

Working pressure



Valve structure

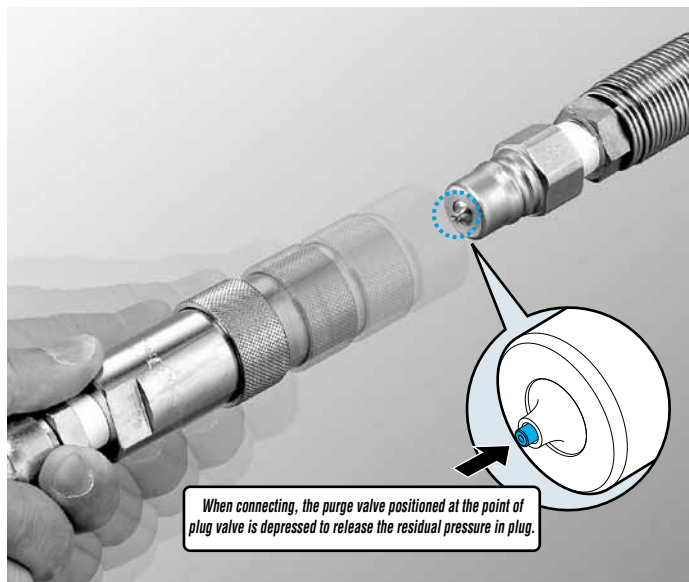


Applicable fluids



Purge function will set you free from the troublesome residual pressure elimination before connection and let you achieve efficient and frequent hydraulic pipe line coupling.

- Both socket and plug have built-in automatic shut-off valves to prevent fluid spill out when disconnected.
- Interchangeable with standard HSP Cupla plug or socket in the same size.



Specifications				
Body material	Special steel (Nickel-plated)			
Size (Thread)	1/4", 3/8", 1/2", 3/4", 1"			
Working pressure	MPa	20.6		
	kgf/cm ²	210		
	bar	206		
	PSI	2990		
Seal material	Nitrile rubber	Mark	NBR (SG)	Working temperature range -20°C to +80°C Remarks Standard material
Working temperature range				

Max. Tightening Torque		Nm (kgf·cm)				
Size (Thread)		1/4"	3/8"	1/2"	3/4"	1"
Torque		28 (286)	45 (459)	90 (918)	100 (1020)	180 (1836)

Flow Direction

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

Interchangeability
Interchangeable with standard HSP Cupla plug or socket in the same size.

Min. Cross-Sectional Area	(mm ²)				
Model	2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
Min. cross-sectional area	21	37	77	77	203

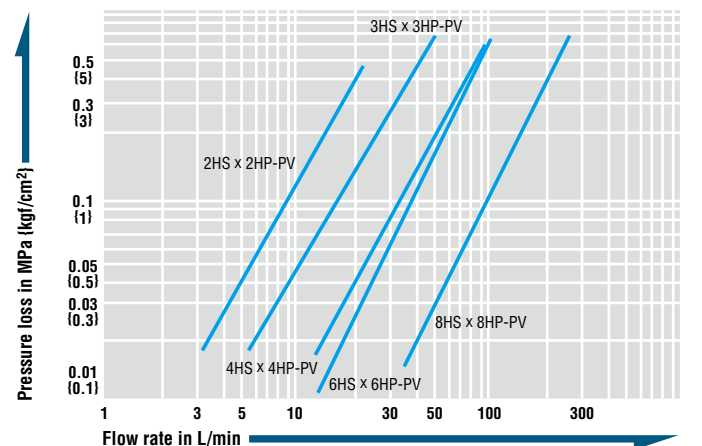
Suitability for Vacuum	1.3 x 10 ⁻¹ Pa (1 x 10 ⁻³ mmHg)		
Socket only	Plug only	When connected	
—	—	Operational	

Admixture of Air on Connection	Admixture of air may vary depending upon the usage conditions. (mL)				
Model	2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
Volume of air	0.7	1.9	3.5	3.5	12.4

Connection Load under Residual Pressure (For reference)	(N)				
Residual pressure / Model	2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
at 5.0 MPa	50	85	85	85	100
at 10.0 MPa	70	85	85	85	130
at 15.0 MPa	100	100	100	100	170

Flow Rate – Pressure Loss Characteristics

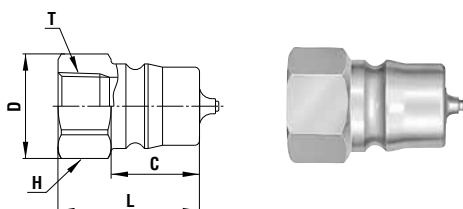
[Test conditions] •Fluid : Hydraulic oil •Temperature : 30°C ±5°C
•Fluid viscosity : 32 x 10⁻⁶ m²/s •Density : 0.87 x 10³ kg/m³



Note: Either socket or plug of Hyper HSP Cupla must be used on the line where the residual pressure remains. The counterpart of Hyper HSP must be either plug or socket of standard HSP Cupla.

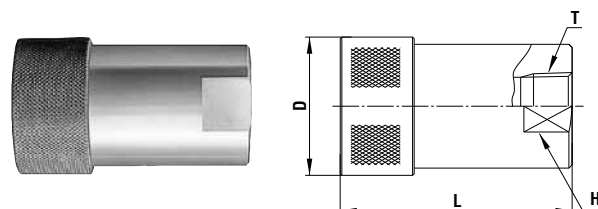
Models and Dimensions

Plug HP type (Female thread)



Model	Application	Mass (g)	Dimensions (mm)				
			L	∅D	C	H(WAF)	T
2HP-PV	R 1/4	44	32	20.5	17.5	Hex.19	Rc 1/4
3HP-PV	R 3/8	72	38	25	22.5	Hex.23	Rc 3/8
4HP-PV	R 1/2	138	44	32	27.5	Hex.29	Rc 1/2
6HP-PV	R 3/4	147	50	35	27.5	Hex.32	Rc 3/4
8HP-PV	R 1	360	61	47	36	41	Rc 1

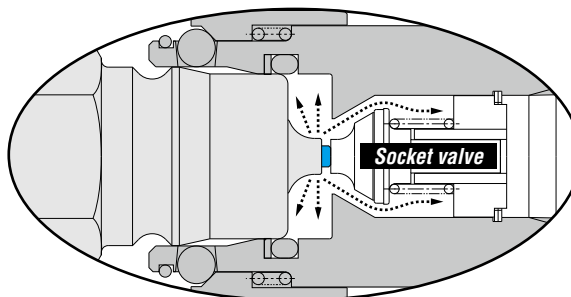
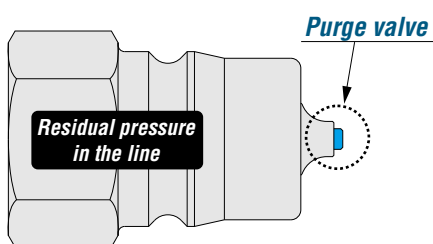
Socket HS type (Female thread)



Model	Application	Mass (g)	Dimensions (mm)			
			L	∅D	H(WAF)	T
2HS-PV	R 1/4	136	49	(27.5)	19	Rc 1/4
3HS-PV	R 3/8	225	60	(33)	23	Rc 3/8
4HS-PV	R 1/2	485	(72)	(43)	35	Rc 1/2
6HS-PV	R 3/4	460	(72)	(43)	35	Rc 3/4
8HS-PV	R 1	1050	93	(58)	46	Rc 1

Residual Pressure Release (or purge) Mechanism

While connecting, the purge valve indicated with a circle is being pushed and releasing the residual pressure



Note: Either socket or plug of Hyper HSP Cupla must be used on the line where the residual pressure remains. The counterpart of Hyper HSP must be either plug or socket of standard HSP Cupla. Hyper HSP Cupla can be connected under the residual pressure in the line, but cannot during pressurizing. It may lead to incomplete connection, durability deterioration or possible valve fly out.