

For High Pressure

700R Cupla

For hydraulic pressure up to 68.6MPa {700kgf/cm²}

Working pressure

68.6
68.6MPa
{700kgf/cm²}

Valve structure

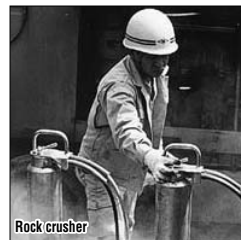
Two-way shut-off

Applicable fluids

Hydraulic oil

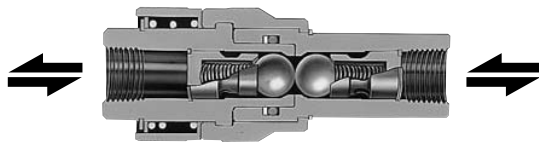
High pressure Cupla for working pressures up to 68.6MPa and pressure resistance of 98MPa!
Unique sleeve ring-lock system copes with vibration and impact when connected.

- Cupla for extremely high working pressures up to 68.6MPa {700kgf/cm²} and pressure resistance of 98MPa {1,000kgf/cm²}.
- Metal-touch valves use no rubber seal, and thus ensure excellent durability.
- Special sleeve ring-lock system maintains tight connection even under vibration or impact when connected.
- Both socket and plug have metal touch automatic shut-off valves that prevent fluid spill out on disconnection.



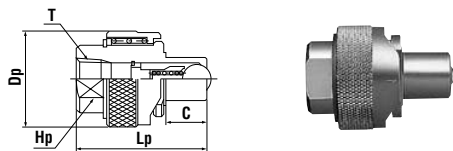
Flow Direction

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



Models and Dimensions

Plug Female thread



Model	Application	Mass (g)	Dimensions (mm)				
			Lp	C	øDp	Hp (WAF)	T
700R-3P	R 3/8	210	54	18	39.5	24	Rc 3/8
700R-4P	R 1/2	418	70	22	50	27	Rc 1/2

Specifications

Body material	Special steel (Nickel-plated)			
Size	3/8" • 1/2"			
Working pressure MPa (kgf/cm ²)	68.6 {700}			
Pressure resistance MPa (kgf/cm ²)	98.0 {1000}			
Seal material	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR (SG)	-20°C~+80°C	Standard material
Working temperature range	Fluoro rubber	FKM (X-100)	-20°C~+180°C	Made-to-order item
	For 3/8", 0.05mℓ/min at 0.2MPa {2kgf/cm ² }			
Stand-alone leakage rate on either socket or plug	For 1/2", 0.05ℓ/min at 0.3MPa {3kgf/cm ² }			
	* Owing to the metal contact seal structure, there will be very minimal leakage from socket and plug respectively, when they are separated.			

Max. Tightening Torque

N·m {kgf·cm}

Size	3/8"	1/2"
Torque	40 {408}	85 {867}

Interchangeability

Different sizes are not connectable.

Min. Cross-Sectional Area

(mm²)

Model	700R-3SP	700R-4SP
Min. cross-sectional area	34	55

Suitability for Vacuum

Can be used for vacuum applications up to 1.3Pa {1x10⁻²mmHg} only when socket and plug are connected.

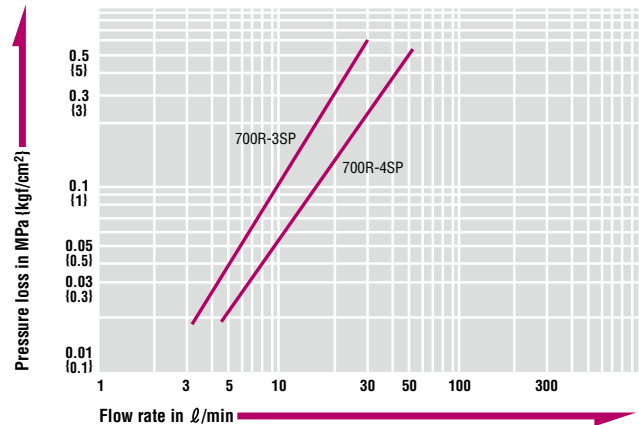
Admixture of Air on Connection

(mℓ)

Model	700R-3SP	700R-4SP
Volume of air	1.0	2.2

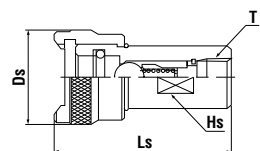
Flow Rate – Pressure Loss Characteristics

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



WAF : WAF stands for width across flat.

Socket Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øDs	Hs (WAF)	T
700R-3S	R 3/8	270	(73)	39.5	22	Rc 3/8
700R-4S	R 1/2	562	(91)	50	27	Rc 1/2

Before use, please be sure to read "Safety Guide" described at the end of this book and "Instruction Sheet" that comes with the products.