

For High Pressure

700R Cupla

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

Working pressure

68.6

68.6 MPa
(700 kgf/cm²)

Valve structure



Two-way shut-off

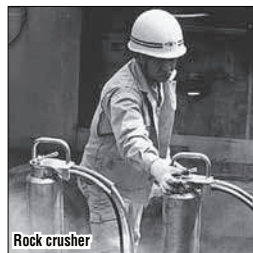
Applicable fluids



Hydraulic oil

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

- 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.



Admixture of Air on Connection Admixture of air may vary depending upon the usage conditions. (mL)

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

Models and Dimensions

Model	Application	Mass (g)	Dimensions (mm)				
			L	C	øD	H(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 (Thread)	3/8", 1/2"			
Working pressure	MPa	68.6		
	kgf/cm ²	700		
	bar	686		
	PSI	9950		
Seal material	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material
Working temperature range	Fluoro rubber	FKM (X-100)	-20°C to +180°C	Made-to-order item
	Stand-alone leakage rate on either socket or plug	For 700R-3SP, 0.05 mL/min at 0.2 MPa (2 kgf/cm ²) For 700R-4SP, 0.05 mL/min at 0.3 MPa (3 kgf/cm ²)		

Max. Tightening Torque

Nm (kgf·cm)

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

Flow Direction

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



Interchangeability

Different sizes are not interchangeable.

Min. Cross-Sectional Area

(mm²)

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

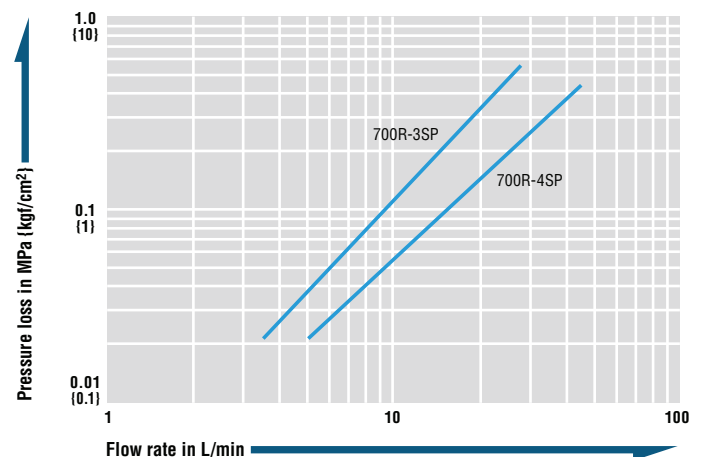
Suitability for Vacuum

1.3 Pa (1 x 10⁻² mmHg)

Socket only	Plug only	When connected
—	—	Operational

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



WAF : WAF stands for width across flats.

Socket Female thread

Model	Application	Mass (g)	Dimensions (mm)			
			L	øD	H(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.