




For High Pressure

280 Cupla

For hydraulic pressure up to 27.5~31.5MPa (281~321kgf/cm²)

Working pressure	Valve structure	Applicable fluids
 <p>31.5MPa (321kgf/cm²) 27.5MPa (281kgf/cm²)</p>	 <p>Two-way shut-off</p>	 <p>Hydraulic oil</p>

Generic Cupla copes with high pressure lines in hydraulic equipment! Low pressure loss is ideal for hydraulic equipment.

- Complys with international standard ISO 7241-1A.
- General purpose hydraulic Cuplas with the working pressure up to 27.5~31.5MPa (281~321kgf/cm²).
- Structure keeps pressure loss extremely low, particularly ideal for hydraulic applications requiring high flow rates.
- Both socket and plug have built-in automatic shut-off valves to prevent fluid spill out when disconnected. Easy to handle.
- Special steel body material is adopted for its excellent strength and additional quenching treatment is done to withstand hydro pressure impacts.
- Various end configurations.




Specifications				
Body material	Special steel (Bright chromate conversion coating : silver)			
Size	1/4" • 3/8"	1/2" • 3/4" • 1"		
Working pressure MPa (kgf/cm ²)	31.5 (321)	27.5 (281)		
Pressure resistance MPa (kgf/cm ²)	47.3 (482)	41.3 (421)		
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range	Nitrile rubber	NBR (SG)	-20°C~+80°C	Standard material

Max. Tightening Torque		N·m (kgf·cm)			
Size	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 (286)	40 (408)	80 (816)	100 (1020)	180 (1836)

Flow Direction

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



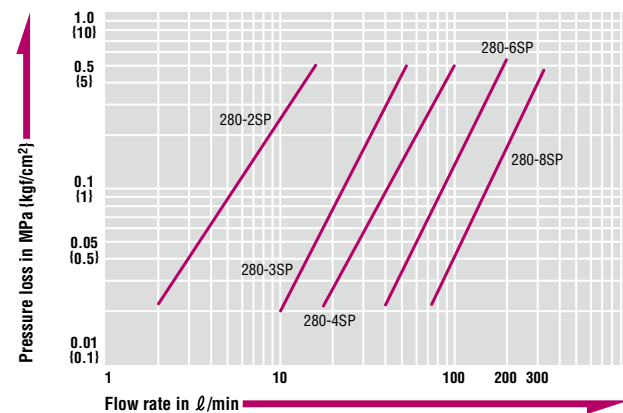
Interchangeability
Different sizes cannot be connected.

Min. Cross-Sectional Area	(mm ²)				
Model	280-2SP	280-3SP	280-4SP	280-6SP	280-8SP
Min. cross-sectional area	11.4	42.8	79.1	146.5	235.6

Suitability for Vacuum		1.3Pa (1 x 10 ⁻² mmHg)
Socket only	Plug only	When connected
—	—	Operational

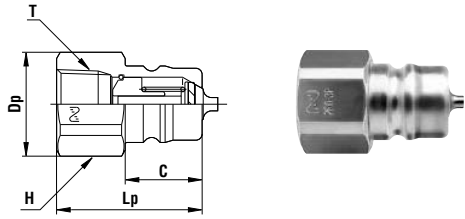
Admixture of Air on Connection	(mℓ)				
Model	280-2SP	280-3SP	280-4SP	280-6SP	280-8SP
Volume of air	0.37	1.02	2.63	8.83	16.04

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



Models and Dimensions

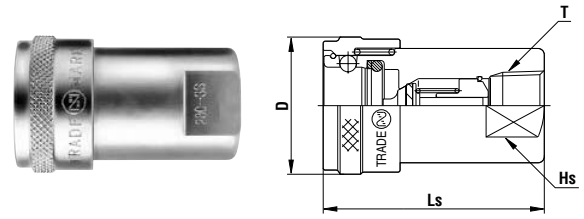
Plug Female thread



Model	Application	Mass (g)	Dimensions (mm)				
			Lp	øDp	C	H(WAF)	T
280-2P	R 1/4	35	31.5	20.5	15	Hex.19	Rc 1/4
280-3P	R 3/8	59	35	25	18.5	Hex.23	Rc 3/8
280-4P	R 1/2	115	44	32	24.5	Hex.29	Rc 1/2
280-6P	R 3/4	178	52.5	35	28	Hex.32	Rc 3/4
280-8P	R 1	331	63.5	44	35	41	Rc 1

* Internal structural design of 280-6S and 280-8S is partly different from the above drawing.

Socket Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øD	Hs(WAF)	T
280-2S	R 1/4	110	46	27	19	Rc 1/4
280-3S	R 3/8	185	53	33	23	Rc 3/8
280-4S	R 1/2	335	66.5	39	29	Rc 1/2
280-6S	R 3/4	571	81	48	35	Rc 3/4
280-8S	R 1	871	98	55	41	Rc 1

Application Example

