

For Hydraulics

S210 Cupla

Stainless steel Cupla for high pressure up to 20.6MPa {210kgf/cm²}

Working pressure

20.6
20.6MPa
{210kgf/cm²}

Valve structure



Two-way shut-off

Applicable fluids



Water



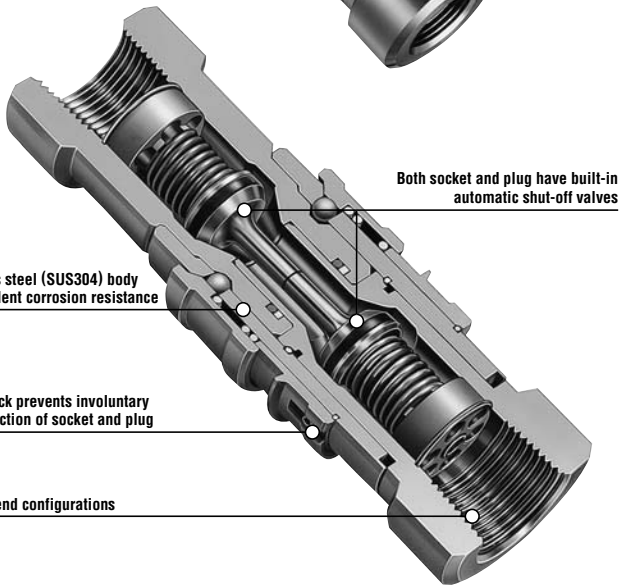
Hydraulic oil



Gas



Steam



Both socket and plug have built-in automatic shut-off valves

Stainless steel (SUS304) body for excellent corrosion resistance

Safety lock prevents involuntary disconnection of socket and plug

Various end configurations

Stainless steel for excellent corrosion resistance!
The unique “inner seal mechanism” accepts a working pressure up to 20.6MPa.

- Body material is excellent corrosion resistant stainless steel (SUS304). Suited for use in tough conditions such as ocean development.
- Although it is made of stainless steel, the unique “inner seal mechanism” enables the working pressure of 20.6MPa {210kgf/cm²}, the same as steel's.
- Safety lock ensures tight and secured connection (preventing accidental involuntary disconnection) under vibration or impacts.
- Both socket and plug have built-in automatic shut-off valves that prevent fluid outflow on disconnection. Simple to handle.

Specifications

Body material	Stainless Steel (SUS304)			
Size	1/4" • 3/8" • 1/2" • 3/4" • 1"			
Working pressure MPa (kgf/cm ²)	20.6 (210)			
Pressure resistance MPa (kgf/cm ²)	31.0 (316)			
Seal material Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Fluoro rubber	FKM (X-100)	-20°C~+180°C	Standard material
	Nitrile rubber	NBR (SG)	-20°C~+80°C	Available on request

• The product comes with a dust cap.

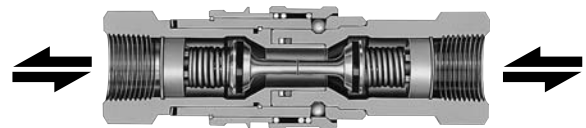
Max. Tightening Torque

N·m (kgf·cm)

Size	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 {286}	35 {357}	70 {714}	100 {1020}	180 {1836}

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	S210-2SP	S210-3SP	S210-4SP	S210-6SP	S210-8SP
Min. Cross-Sectional Area	26	47	84	153	233

Suitability for Vacuum

1.3Pa (1 x 10⁻²mmHg)

Socket only	Plug only	When connected
—	—	Operational

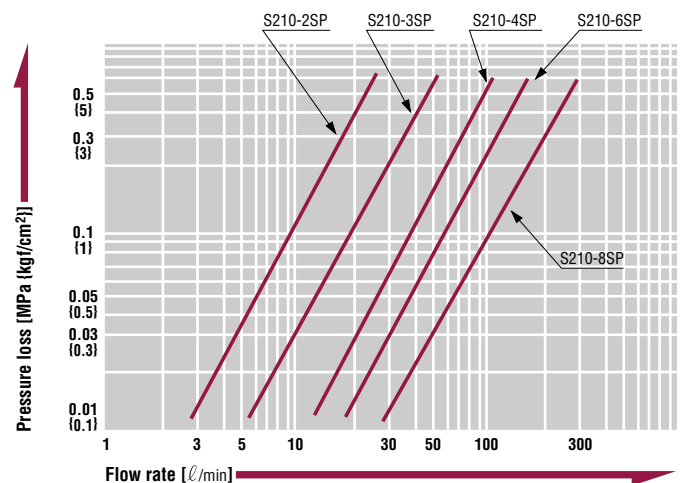
Admixture of Air on Connection

(mℓ)

Model	S210-2SP	S210-3SP	S210-4SP	S210-6SP	S210-8SP
Volume of air	0.8	1.6	3.2	6.3	14.3

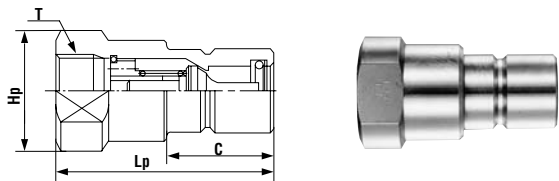
Flow Rate – Pressure Loss Characteristics

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



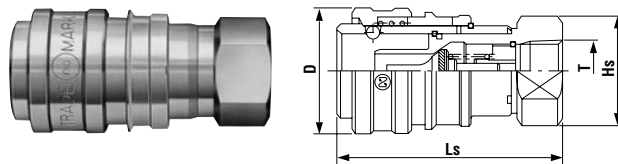
Models and Dimensions

Plug Female thread



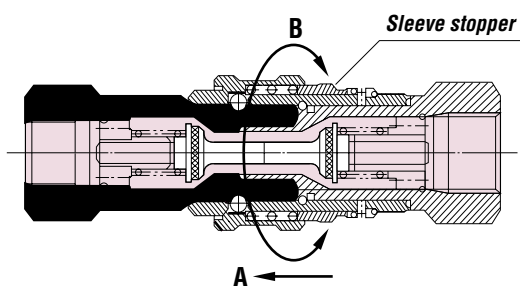
Model	Application	Mass (g)	Dimensions (mm)			
			Lp	C	Hp(WAF)	T
S210-2P	R 1/4	75	50.5	20	Two flats 19 x ø22	Rc 1/4
S210-3P	R 3/8	131	59	24	Two flats 24 x ø28	Rc 3/8
S210-4P	R 1/2	242	70.5	28	Two flats 30 x ø35	Rc 1/2
S210-6P	R 3/4	452	81.5	35.5	Two flats 38 x ø44	Rc 3/4
S210-8P	R 1	935	100	47.5	Two flats 50 x ø58	Rc 1

Socket Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øD	Hs(WAF)	T
S210-2S	R 1/4	130	59	27	Two flats 19 x ø22	Rc 1/4
S210-3S	R 3/8	220	68.5	32	Two flats 24 x ø28	Rc 3/8
S210-4S	R 1/2	395	81	39.7	Two flats 30 x ø35	Rc 1/2
S210-6S	R 3/4	680	97.5	48	Two flats 38 x ø44	Rc 3/4
S210-8S	R 1	1,365	118	62	Two flats 50 x ø58	Rc 1

Construction of and how to use Safety Lock (fail safe mechanism) to prevent involuntary disconnection



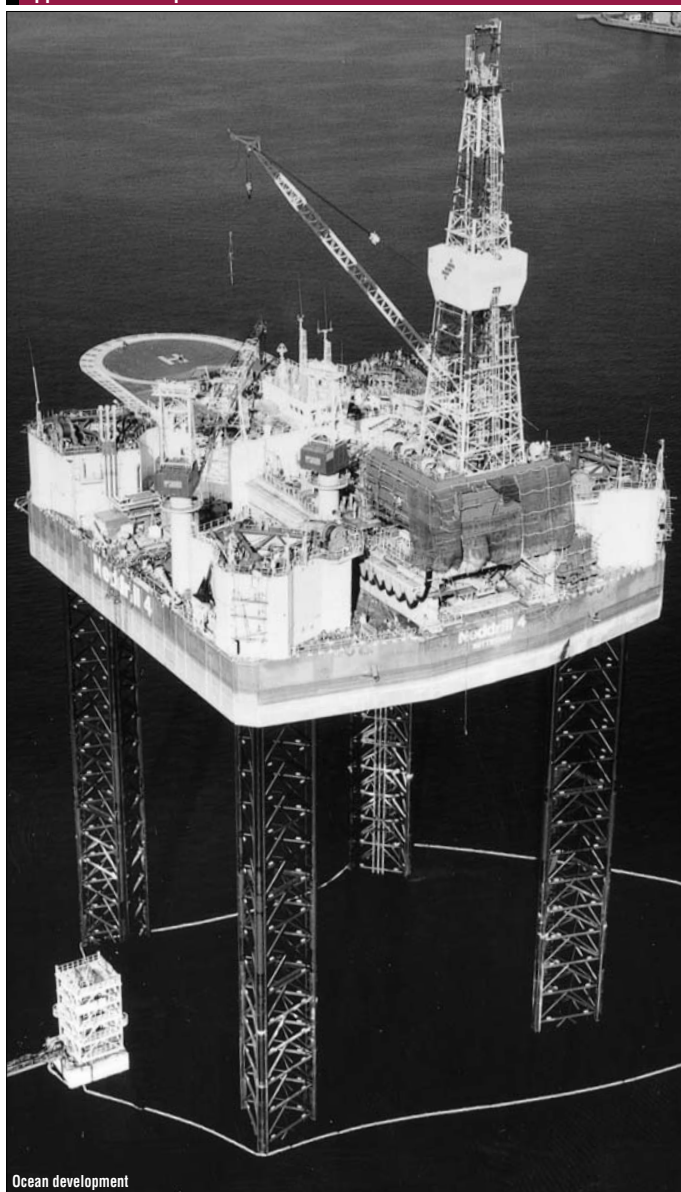
To lock the sleeve

Push the sleeve stopper towards A and turn 90° (towards B) to the left or right to engage the sleeve stopper.

To unlock the sleeve

Push the sleeve stopper towards A and turn 90° (towards B) to the left or right to disengage the sleeve stopper. Socket and plug can now be easily disconnected.

Application example



Ocean development