




For High Pressure

# 210 Cupla

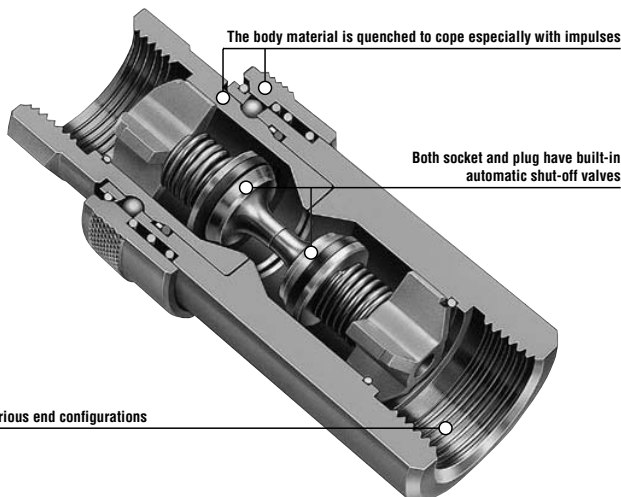
For hydraulic pressure up to 20.6MPa (210kgf/cm<sup>2</sup>)

<p>Working pressure</p>  <p>20.6MPa (210kgf/cm<sup>2</sup>)</p>	<p>Valve structure</p>  <p>Two-way shut-off</p>	<p>Applicable fluids</p>  <p>Hydraulic oil Gas</p>
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**Standard hydraulic Cuplas for general purposes with a working pressure up to 20.6MPa.**

**Low pressure loss, suitable for hydraulic equipment.**

- General purpose hydraulic Cuplas with a working pressure of 20.6MPa(210kgf/cm<sup>2</sup>).
- Structure is designed to reduce pressure loss to the lowest, and is best for hydraulic applications that need big flow rates.
- Both socket and plug have built-in automatic shut-off valves that prevent fluid outflow when disconnected. Easy to handle.



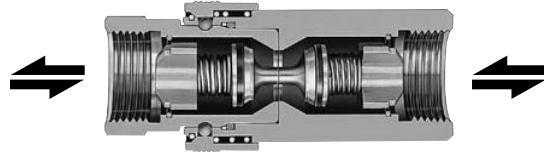
Various end configurations

Specifications				
Body material	Special steel (Nickel-plated)			
Size	1/4" • 3/8" • 1/2" • 3/4" • 1"			
Working pressure MPa (kgf/cm <sup>2</sup> )	20.6 (210)			
Pressure resistance MPa (kgf/cm <sup>2</sup> )	31.0 (316)			
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	Available on request

Max. Tightening Torque		N·m (kgf·cm)				
Size		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

Different sizes are not interchangeable.

Min. Cross-Sectional Area		(mm <sup>2</sup> )				
Model		210-2SP	210-3SP	210-4SP	210-6SP	210-8SP
Min. cross-sectional area		24.5	42.8	77.4	146.5	235.6

### Suitability for Vacuum

1.3Pa (1 x 10<sup>-2</sup>mmHg)

Socket only	Plug only	When connected
—	—	Operational

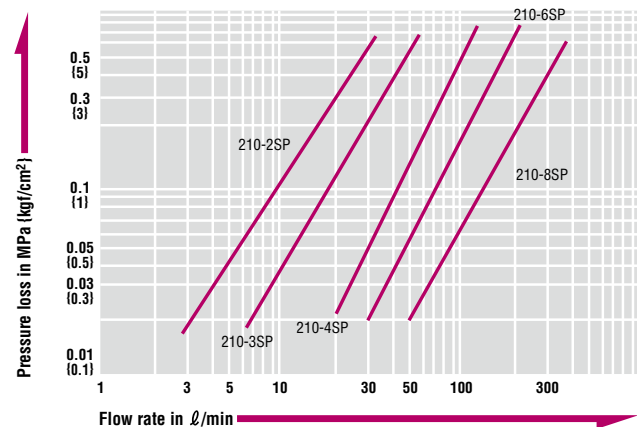
### Admixture of Air on Connection

(mℓ)

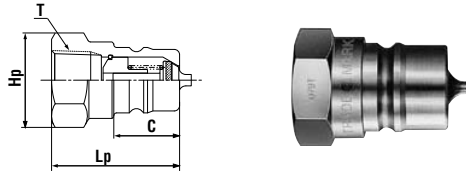
Model	210-2SP	210-3SP	210-4SP	210-6SP	210-8SP
Volume of air	0.85	1.02	2.63	8.83	16.04

### Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C ± 5°C  
• Fluid viscosity : 32 x 10<sup>-6</sup>m<sup>2</sup>/s • Density : 0.87 x 10<sup>3</sup>kg/m<sup>3</sup>

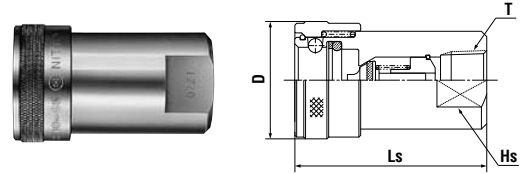


**Plug Female thread**



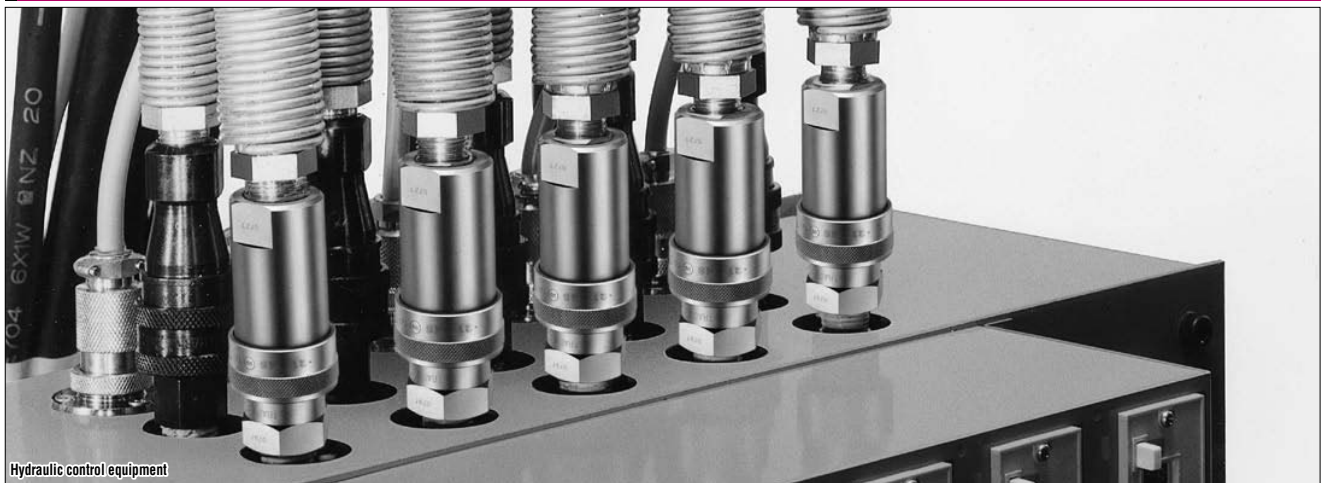
Model	Application	Mass (g)	Dimensions (mm)			
			Lp	C	Hp(WAF)	T
210-2P	R 1/4	39	33	18	Hex.19	Rc 1/4
210-3P	R 3/8	57	36	18.5	Hex.23	Rc 3/8
210-4P	R 1/2	90	42.5	24	Hex.27	Rc 1/2
210-6P	R 3/4	195	51	28	Hex.35	Rc 3/4
210-8P	R 1	293	61	35	Hex.41	Rc 1

**Socket Female thread**



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øD	Hs(WAF)	T
210-2S	R 1/4	158	50.5	30	22	Rc 1/4
210-3S	R 3/8	193	54	33	23	Rc 3/8
210-4S	R 1/2	330	65	39	29	Rc 1/2
210-6S	R 3/4	566	78.5	48	35	Rc 3/4
210-8S	R 1	861	95	55	41	Rc 1

**Application Example**



Hydraulic control equipment



Construction machinery