

COMPACT ZERO SPILL CUPLA

For coolant piping of electronic equipment for supercomputers, data centers and other non-spill environments. Also suitable for power electronics.

**CZL
SERIES**

Suitable fluid: Air, Water

Space saving

High flow

Low spillage and low air inclusion



- Compact size saves space.
Outer diameters of 16 mm (1/8") and 18.5 mm (1/4")
- High flow characteristics for enhanced cooling effect.
- Push-to-connect design for easy operation.
- The valve structure minimizes air inclusion during connection and liquid spillage during disconnection.

Specifications

Model	CZL-1SM	CZL-1PM	CZL-2SM	CZL-2PM
	Socket	Plug	Socket	Plug
Body material	Stainless Steel (SUS304) Nickel plated on Socket body			
Size (Thread)	1/8"		1/4"	
Working pressure *1	1.0 MPa, 10 kgf/cm ² , 10 bar, 145 PSI			
Seal material Working temperature range *2	Seal material	Mark	Working temperature range	Remarks
	Ethylene-propylene rubber	EPDM	-10°C to +100°C	Standard material

Maximum Tightening Torque

Nm {kgf·cm}

Size (Thread)	1/8"	1/4"
Torque	9 {92}	14 {143}

Flow Direction

Fluid flow can be bi-directional when socket and plug are connected.



Interchangeability

Socket and plug of different sizes cannot be connected.

Minimum Cross-Sectional Area

(mm²)

Model	CZL-1SM×CZL-1PM	CZL-2SM×CZL-2PM
Min. cross-sectional area	14.9	30.2

Suitability for Vacuum

Please contact us if vacuum is required for your application.

Admixture of Air on Connection

May vary depending upon the usage conditions.

(mL)

Model	CZL-1SM×CZL-1PM	CZL-2SM×CZL-2PM
Volume of air inclusion	0.02	0.04

Volume of Spillage per Disconnection

May vary depending upon the usage conditions.

(mL)

Model	CZL-1SM×CZL-1PM	CZL-2SM×CZL-2PM
Volume of spillage	0.015	0.023

*1: The normal allowable fluid pressure under continuous use.
Exceeding the working pressure may cause damage and leakage.

*2: The operable temperature range depends on the operating conditions.

Compact

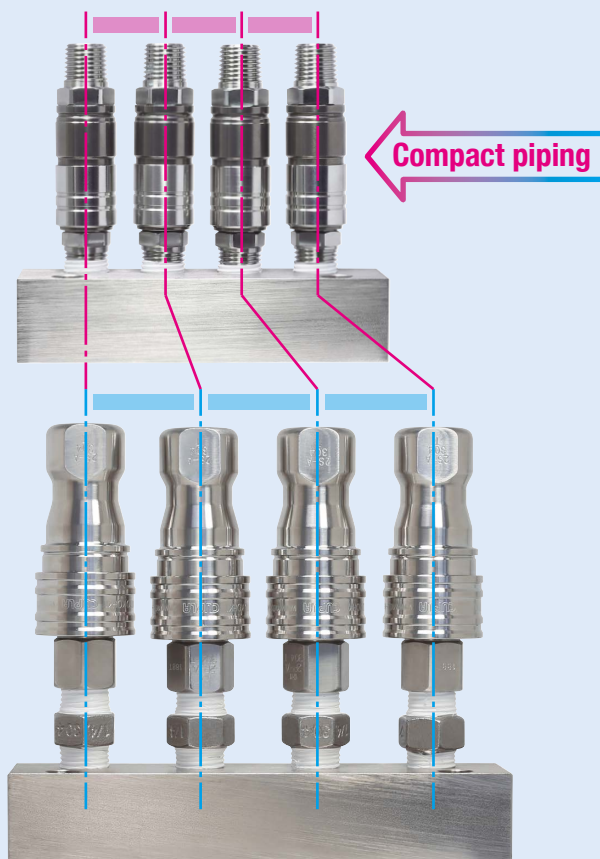
Piping in tight space is possible.
For compact piping.

High flow

Small but high flow rate.
For efficient cooling.

COMPACT ZERO SPILL CUPLA

CZL-2SM×CZL-2PM

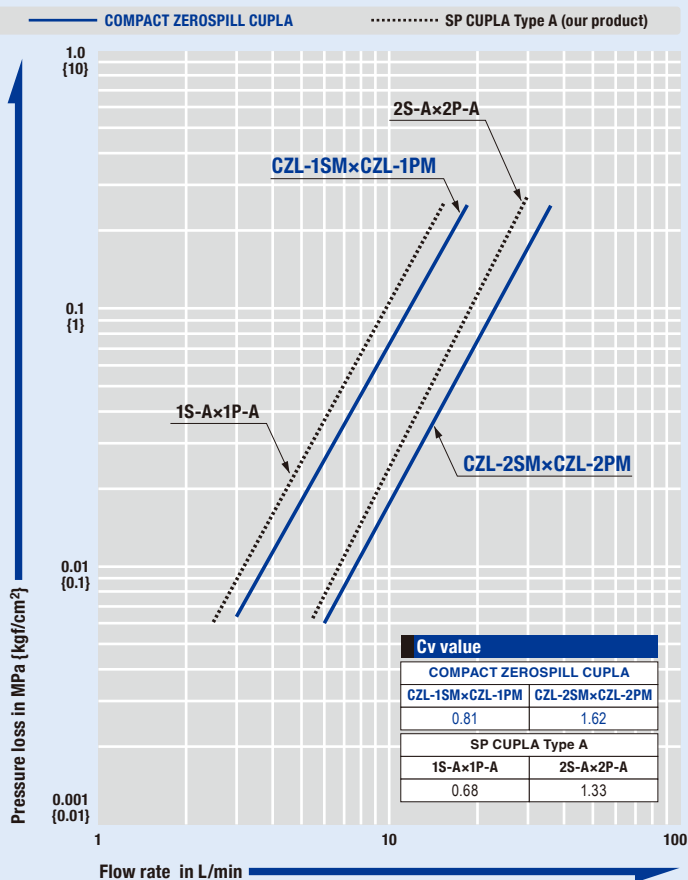


SP CUPLA Type A (our product)

2S-A×2P-A

Flow Rate - Pressure Loss Characteristics

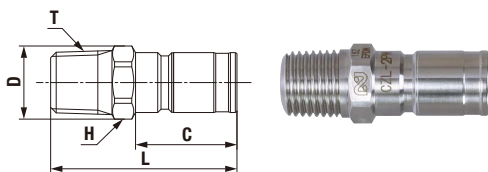
[Test conditions] - Fluid: Water - Temperature: 23°C to 26°C



Models and Dimensions

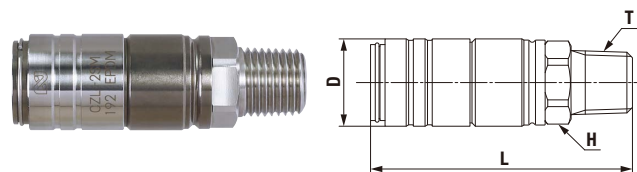
WAF : WAF stands for width across flats.

Plug PM type (Male thread)



Model	Application (Thread)	Mass (g)	Dimensions (mm)				
			L	C	øD	H (WAF)	T
CZL-1PM	Rc 1/8	11	34	20	12	Hex.11	R 1/8
CZL-2PM	Rc 1/4	19	39.5	21.5	15.5	Hex.14	R 1/4

Socket SM type (Male thread)



Model	Application (Thread)	Mass (g)	Dimensions (mm)			
			L	øD	H (WAF)	T
CZL-1SM	Rc 1/8	38	(53)	16	Hex.13	R 1/8
CZL-2SM	Rc 1/4	49	(55.5)	18.5	Hex.16	R 1/4

Safety Guide

Read and follow the "Instruction sheet" that comes with the product and the following page in the Quick Connect Couplings General Catalog; [Precautions Related to the Use of All CUPLA] page.

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