

New

# 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 rate for efficient cooling.
- Easy operation, push-to-connect function.
- Valve structure reduces air inclusion on connection and liquid spillage when disconnecting.

**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 <sup>2</sup> , 10 bar, 145 PSI			
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range *2	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 (mm<sup>2</sup>)**

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. Depends on the application. (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. Depends on the application. (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 minimum and maximum working temperature range of the seal material used in the product. Continuous use at the minimum or maximum temperature is not recommended. Please contact us for consultation.

**Compact**

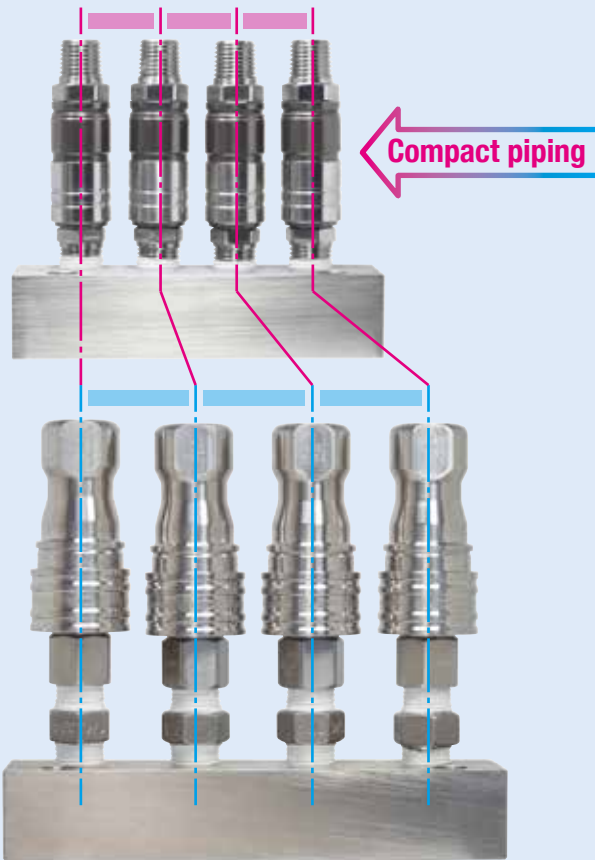
**Piping in tight space is possible.**  
For compact piping.

**High flow**

**Small but high flow rate.**  
For efficient cooling.

COMPACT ZERO SPILL CUPLA

CZL-2SM×CZL-2PM



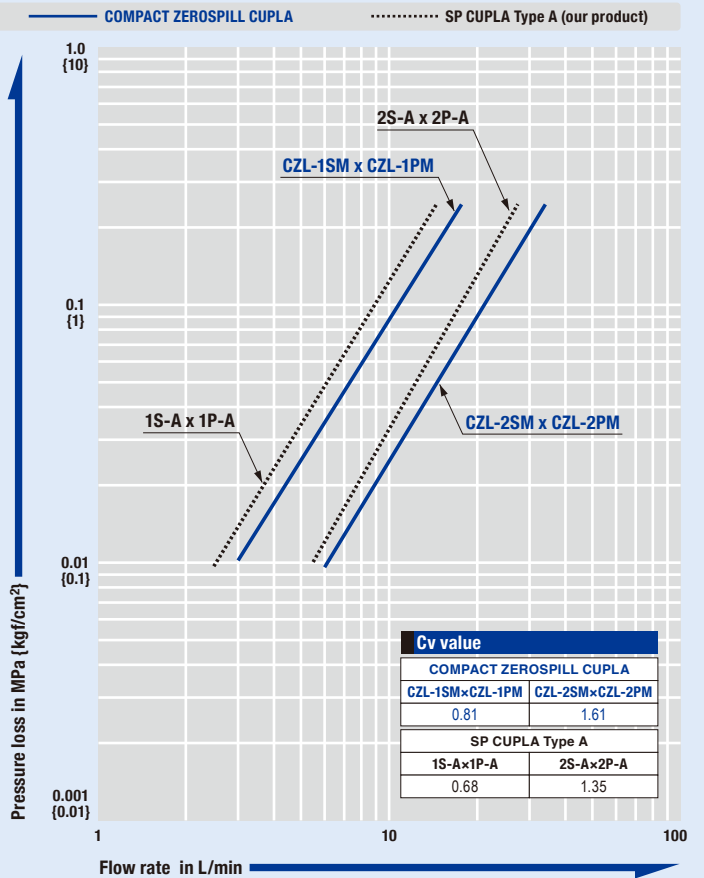
**Compact piping**

SP CUPLA Type A (our product)

2S-A×2P-A

**Flow Rate - Pressure Loss Characteristics**

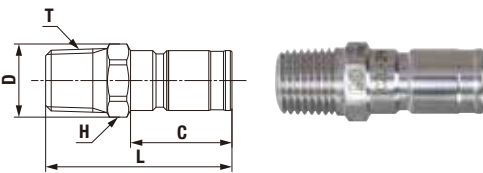
[Test conditions] - Fluid: Water - Temperature: 23°C to 26°C



**Models and Dimensions**

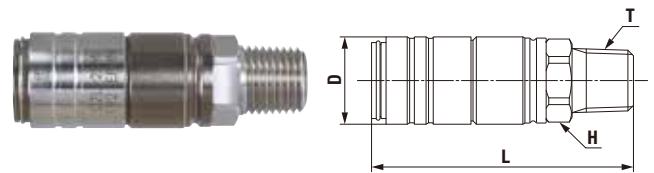
WAF : WAF stands for width across flats.

**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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