

For Low Pressure

MINI CUPLA SUPER

Heavy-duty push-to-connect type for oxyacetylene piping

Working pressure **0.7** MPa (7 kgf/cm²)

Valve structure: One-way shut-off

Applicable fluids: Oxygen, Fuel Gas

Exclusively for welding and cutting equipment.

- From cylinders to torches, all piping connections associated with welding and cutting equipment are push-to-connect operations.
- Plated body for better corrosion resistance.
- Heat-treated plugs for better durability.
- Oxygen and fuel gas CUPLA have different configuration sizes with sleeves in different appearances, silver colored plating for oxygen and copper colored plating for fuel gas, to prevent accidental interconnection.
- Smaller diameter design enables wider range of applications.
- Various types of end configurations have been standardized to comply with a wide range of welding and cutting equipment applications. Sockets themselves or plugs themselves are interchangeable with MINI CUPLA's counterparts.



Specifications				
Body material	Socket : Brass (Chrome plated) Plug : Steel (Chrome plated)			
Size	Thread	1/4", 3/8", M16		
	Hose barb	1/4", 5/16", 3/8" / 5 mm ID		
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	0.7	7	7	102
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range*1	Nitrile rubber	NBR	-20 °C to +80 °C	Standard material

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

Maximum Tightening Torque		Nm {kgf·cm}	
Model	S22PF, S22SF, S33PF, S33SF	S22SM	S33SM
Torque	12 {122}	9 {92}	11 {112}

Flow Direction

Fluid must run from socket to plug.

Interchangeability

To prevent accidental connection, CUPLA for oxygen are not interchangeable with CUPLA for fuel gas. However, plugs and sockets for oxygen are interchangeable regardless of end configurations and plugs and sockets for fuel gas are interchangeable regardless of end configurations. Can be connected with MINI CUPLA series.

Minimum Cross-Sectional Area		(mm ²)			
For Oxygen					
Socket \ Plug	S22PH	S225PH	S22PF	S22PN	
S22SH	15.9	7.5	15.9	15.9	
S225SH	7.5	7.5	7.5	7.5	
S22SF	15.9	7.5	15.9	15.9	
S22SM	15.9	7.5	15.9	15.9	
S22SN	15.9	7.5	15.9	15.9	

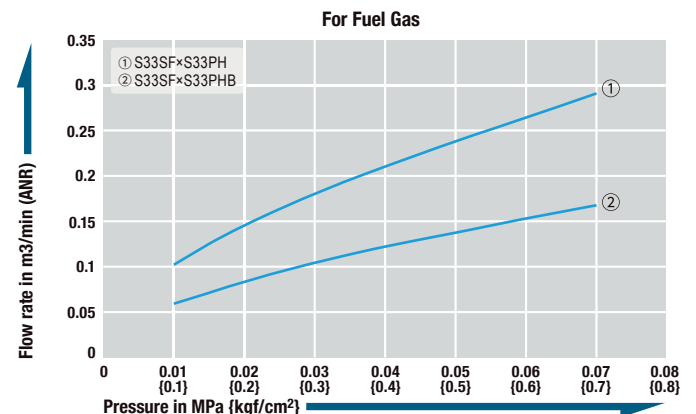
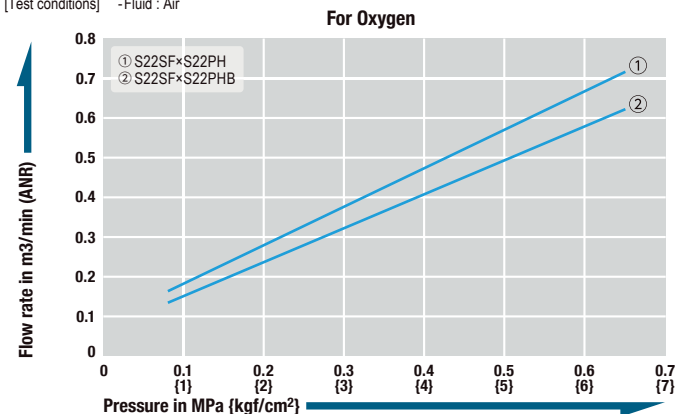
For Fuel Gas					
Socket \ Plug	S33PH	S335PH	S33PF	S33PN	
S33SH	28.2	7.5	28.2	15.9	
S335SH	7.5	7.5	7.5	7.5	
S33SF	28.2	7.5	28.2	15.9	
S33SM	28.2	7.5	28.2	15.9	
S33SN	15.9	7.5	15.9	15.9	

Suitability for Vacuum

Not suitable for vacuum application in either connected or disconnected condition.

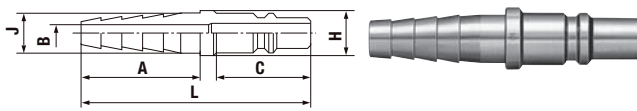
Pressure - Flow Characteristics

[Test conditions] - Fluid : Air



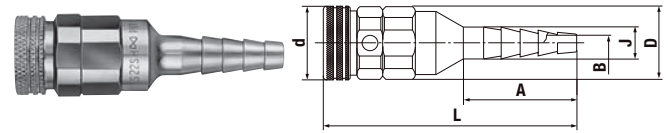
Models and Dimensions

Plug PH type (Hose barb)



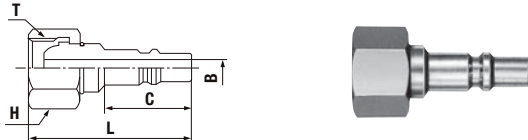
Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	C	A	øH	øJ	øB
For Oxygen	S22PH	1/4", 5/16"	17	58	23.5	30	11	9.5	4.5
For Oxygen	S225PH	5 mm ID	12	49	23.5	21	11	6.2	3.1
For Fuel Gas	S33PH	5/16", 3/8"	22	59.5	25.5	30	14	11	6
For Fuel Gas	S335PH	5 mm ID	15	50.5	25.5	21	14	6.2	3.1

Socket SH type (Hose barb)



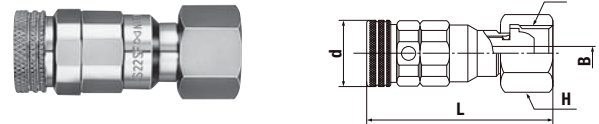
Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	ød	øD	A	øJ	øB
For Oxygen	S22SH	1/4", 5/16"	50	(64.5)	(19.5)	20	30	9.5	4.5
For Oxygen	S225SH	5 mm ID	54	(62.5)	(19.5)	20	21	6.2	3.1
For Fuel Gas	S33SH	5/16", 3/8"	73	(68)	(22)	22	30	11	6
For Fuel Gas	S335SH	5 mm ID	65	(63)	(22)	22	21	6.2	3.1

Plug PF type (Female thread for torch connection)



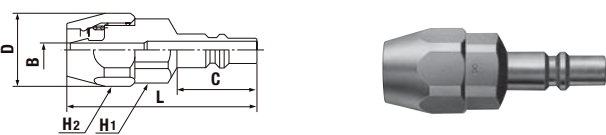
Usage	Model	Application (Thread)	Mass (g)	Dimensions (mm)				
				L	C	H(WAF)	T	øB
For Oxygen	S22PF	For oxygen torch side	35	(43)	23.5	Hex.19	M16×1.5	5
For Fuel Gas	S33PF	For fuel gas torch side	32	(44.5)	25.5	Hex.19	M16×1.5 left-hand thread	7.5

Socket SF type (Female thread for cylinder connection)



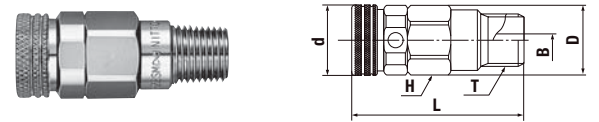
Usage	Model	Application (Thread)	Mass (g)	Dimensions (mm)				
				L	ød	øD	T	H(WAF)
For Oxygen	S22SF	For oxygen torch side	74	(52.5)	(19.5)	M16×1.5	Hex.19	4.5
For Fuel Gas	S33SF	For fuel gas torch side	97	(57.5)	(22)	M16×1.5 left-hand thread	Hex.19	6

Plug PN type (Nut type for small diameter hose)



Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	C	øD	H1(WAF)	H2(WAF)	øB
For Oxygen	S22PN	5 mm ID ^{*1}	54	(53.5)	23.5	20.5	Hex.17	Hex.19	4.5
For Fuel Gas	S33PN	5 mm ID ^{*1}	57	(54.5)	25.5	20.5	Hex.17	Hex.19	4.5

Socket SM type (Male thread)

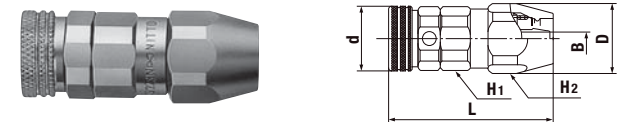


Usage	Model	Application (Thread)	Mass (g)	Dimensions (mm)					
				L	ød	øD	H(WAF)	T	øB
For Oxygen	S22SM	Rc 1/4	58	(48.5)	(19.5)	20	Hex.18	R 1/4	4.5
For Fuel Gas	S33SM	Rc 3/8	85	(52)	(22)	23	Hex.21	R 3/8	6

Select the combination in accordance with your own application.

Male thread	For regulator	For extension hose	For torch
Suggested combination SM×PH	Suggested combination SF×PH	Suggested combination SH×PH	Suggested combination SH×PF

Socket SN type (Nut type for small diameter hose)



Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	ød	øD	H1(WAF)	H2(WAF)	øB
For Oxygen	S22SN	5 mm ID ^{*1}	74	(52)	(19.5)	20.5	Hex.18	Hex.19	4.5
For Fuel Gas	S33SN	5 mm ID ^{*1}	91	(57)	(22)	20.5	Hex.21	Hex.19	4.5

*1 : Available hose sizes are ø5 mm×ø11.2 mm, ø5 mm×ø11.5 mm and ø5 mm×ø11.8 mm.

Application Example

