

For Low Pressure

Mini Cupla

Standard type for use on equipment for welding and gas cutting, etc.

Working pressure



0.7 MPa
(7 kgf/cm²)

Valve structure



One-way shut-off

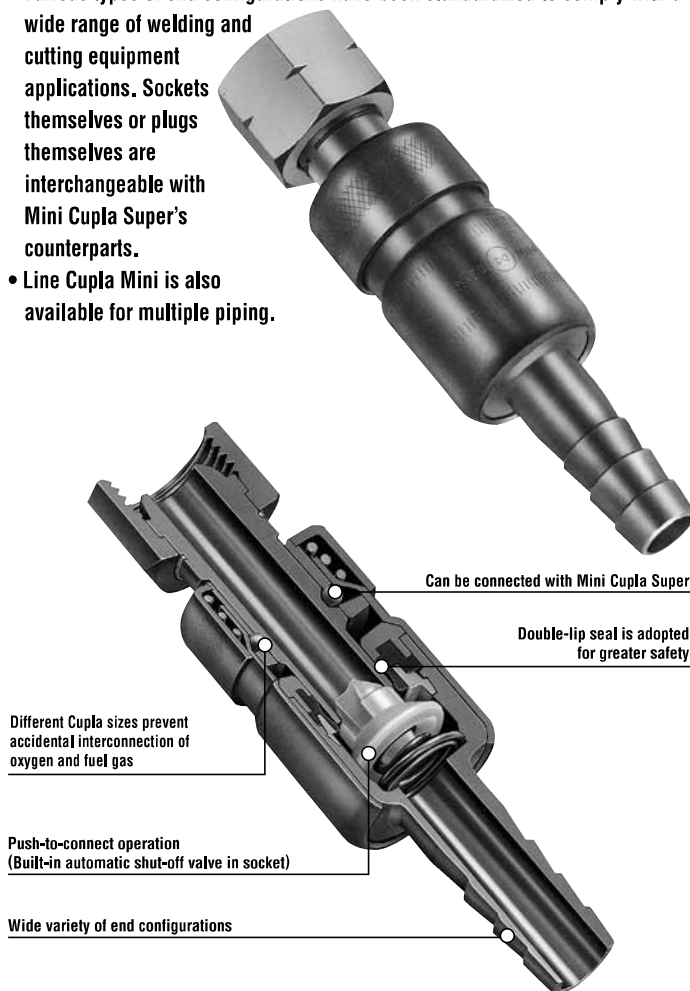
Applicable fluids



Oxygen, Fuel Gas

Exclusively for oxyacetylene equipment. Many variations with higher flow rates!

- From cylinders to torches, all piping connections associated with welding and cutting equipment are push-to-connect operations.
- Double-lip seal prevents minor leak during connection. Oxygen and fuel gas Cuplas have different sizes to prevent accidental interconnection.
- Pressure loss is minimized to achieve higher flow rate.
- 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 Super's counterparts.
- Line Cupla Mini is also available for multiple piping.

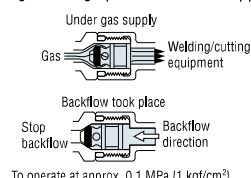
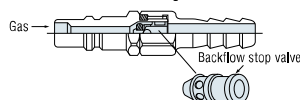


Structure and Principle of Backflow Prevention

Plug with backflow stop valve

Plugs with backflow stop valve in Mini Cupla are designed exclusively for gas welding/cutting to prevent occurrence of gas mixing. Possible backflow of gas during operation can be stopped by cutting the back flow into the cylinder or line. Such valve is adopted in both fuel gas and oxygen plug.

Cross-section sketch showing the structure



Specifications

Body material		Brass		
Size	Thread	1/8", 1/4", 3/8" / M16, W12.5-20		
	Hose barb	1/4", 5/16", 3/8"		
Working pressure		MPa	0.7	
		kgf/cm ²	7	
		bar	7	
		PSI	102	
Seal material		Seal material	Mark	Working temperature range
Working temperature range		Nitrile rubber	NBR (SG)	-20°C to +80°C
		Standard material		

Max. Tightening Torque

Nm (kgf·cm)

Model	22PF, 22PFB, 22SF, 25PF, 33PF, 33PFB, 33SF	22SM	33SM
Torque	12 {122}	9 {92}	11 {112}

Flow Direction

Fluid must run from socket to plug.



Interchangeability

To prevent accidental interconnection, no Cuplas for oxygen can be connected with those for fuel gas Cuplas. However, oxygen plugs and sockets are interchangeable regardless of end configurations and fuel gas plugs and sockets are interchangeable regardless of end configurations. Also Mini Cupla models for oxygen are interchangeable with Mini Cupla Super models for oxygen, while fuel gas models are interchangeable.

Min. Cross-Sectional Area

(mm²)

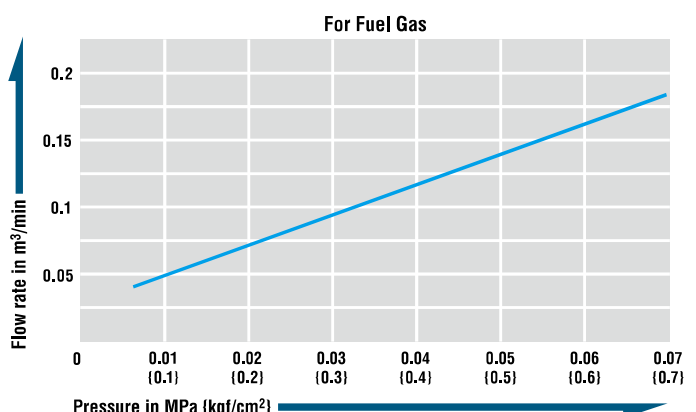
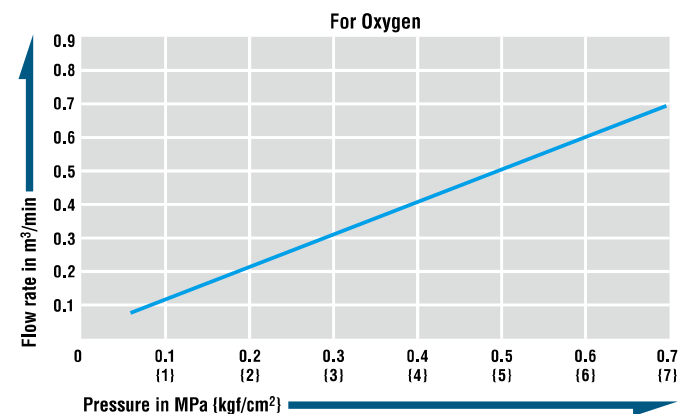
Model	22SP, 25SP	33SP, 35SP
Min. cross-sectional area	20	44

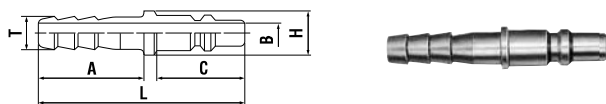
Suitability for Vacuum

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

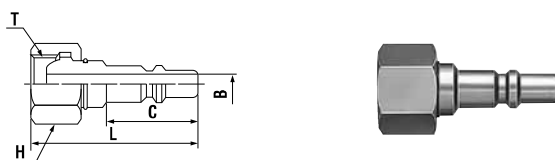
Pressure - Flow Characteristics

[Test conditions] • Fluid : Air • Temperature : Room temperature

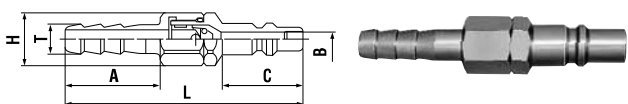


Plug PH type (Hose barb)

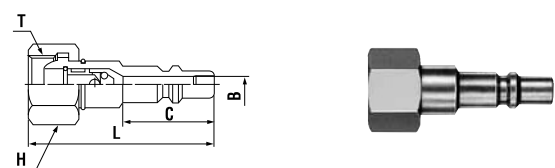
Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	C	A	øH	øT	øB
For Oxygen	22PH	1/4"	16	55	23.5	28	11	7.8	5
	25PH	5/16"	19					9	
For Fuel Gas	33PH	3/8"	22	57	25.5	28	14	10.5	7.5
	35PH	5/16"	20					9	6

Plug PF type (Female thread for torch connection)

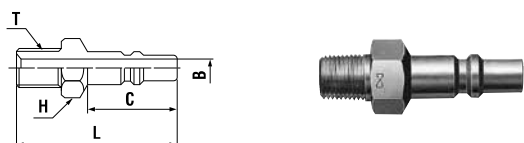
Usage	Model	Application	Mass (g)	Dimensions (mm)					
				L	C	H(WAF)	T	øB	
For Oxygen	22PF	For oxygen torch side	31	(43)	23.5	Hex.19	M16x1.5	5	
	22PFF		29	(43.5)		Hex.17	G 1/4		
	25PF		26				W12.5-20		
For Fuel Gas	33PF	For fuel gas torch side	36	(44.5)	25.5	Hex.19	M16x1.5 left-hand thread	7.5	

Plug PHB type (Hose barb with backflow stop valve)

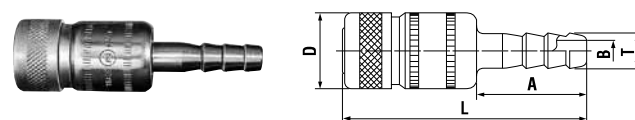
Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	C	A	øH	øT	øB
For Oxygen	22PHB	1/4"	31	(69.6)	23.5	28	15.5	7.8	4.5
	25PHB	5/16"	34					9	
For Fuel Gas	33PHB	3/8"	41	(70.6)	25.5	28	15.5	10.5	4.5
	35PHB	5/16"	39					9	

Plug PFB type (Female thread with backflow stop valve for torch connection)

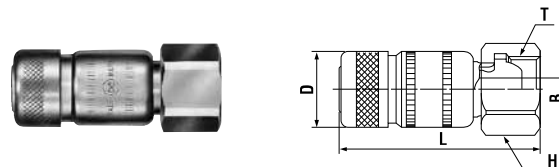
Usage	Model	Application	Mass (g)	Dimensions (mm)					
				L	C	H(WAF)	T	øB	
For Oxygen	22PFB	For oxygen torch side	36	(48.5)	23.5	Hex.19	M16x1.5	4.5	
For Fuel Gas	33PFB	For fuel gas torch side	41	(49)	25.5	Hex.19	M16x1.5 left-hand thread	4.5	

Plug PMT type (Male thread)

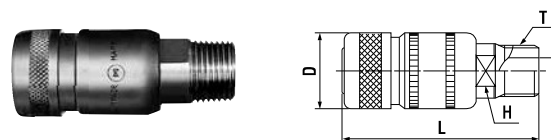
Usage	Model	Application	Mass (g)	Dimensions (mm)					
				L	C	H(WAF)	T	øB	
For Oxygen	21PMT	Rc 1/8	22	43.5	24	Hex.14	R 1/8	5	
	22PMT	Rc 1/4	27	45	24	Hex.14	R 1/4	5	

Socket SH type (Hose barb)

Usage	Model	Application (Hose)	Mass (g)	Dimensions (mm)					
				L	øD	A	øT	øB	
For Oxygen	22SH	1/4"	52	(64)	(19.8)	29	7.8	5	
	25SH	5/16"	55				9		
For Fuel Gas	33SH	3/8"	69	(65)	(22.6)	29	10.5	7.5	
	35SH	5/16"	67				9	6	

Socket SF type (Female thread for cylinder connection)

Usage	Model	Application	Mass (g)	Dimensions (mm)					
				L	øD	T	øB	H(WAF)	
For Oxygen	22SF	For oxygen gauge side	80	(52)	(19.8)	M16x1.5	5	Hex.19	
For Fuel Gas	33SF	For fuel gas gauge side	96	(54)	(22.6)	M16x1.5 left-hand thread	5	Hex.19	

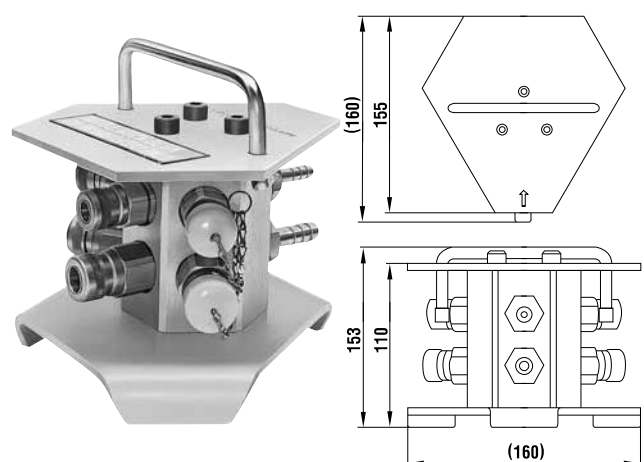
Socket SM type (Male thread)

Usage	Model	Application	Mass (g)	Dimensions (mm)					
				L	øD	H(WAF)	T	øB	
For Oxygen	22SM	Rc 1/4	51	(52)	(19.8)	12	R 1/4	7.5	
For Fuel Gas	33SM	Rc 3/8	77	(55)	(22.6)	14	R 3/8	10	

Socket Line Cupla Mini LM-32 (For three port branch piping)

Mass : 4,300 g

• Dust caps come with the product as standard.



Dimensions (mm)

Line Cupla Mini contains:	For Oxygen	For Fuel Gas	Qty
Supply port	1/4"	3/8"	Each 1 pc.
Gas outlets	22SM	33SM	Each 3 pc.
Accessories (Plug with backflow stop valve)	22PHB	33PHB	Each 3 pc.