

For Low Pressure

Hi Cupla Ace

Lightweight plastic coupling with automatic safety lock for air line applications

Working pressure



Valve structure



Applicable fluids



The weight is merely a quarter of steel Hi Cupla's and smooth push-in connection is achieved. Automatic sleeve lock for safety operation.

- Pressure ratings comparable to steel Cuplas.
- A built-in "automatic lock mechanism" locks the sleeve upon connection, thus prevents accidental disconnection.
- Just push plug into socket for simple connection.
- The weight is a quarter of steel Hi Cupla for easy handling.
- Can be used for air and water.
- Air flows in either direction from plug or from socket side when coupled.
- Plug and socket with hose guard nut are also available (see the pages of NK Cupla Hose / NK Cupla Coil Hose for details).



Specifications

Body material		Engineering plastics (PBT, POM)					
Size	Thread and hose barb	1/4", 3/8" / 1/4", 3/8"					
	PN type, SN type (PNG type, SNG type)	For ø5 mm x ø8 mm, ø6 mm x ø9 mm, ø6.5 mm x ø10 mm, ø8 mm x ø12 mm, ø8.5 mm x ø12.5 mm polyurethane hose					
	T type	HA-T type • Inlet : 20P-PLA • Outlet : HA-65S x 2					
Working pressure	MPa	1.5	1.0 for plastic plug and Model HA-T				
	kgf/cm ²	15	10 for plastic plug and Model HA-T				
	bar	15	10 for plastic plug and Model HA-T				
	PSI	218	145 for plastic plug and Model HA-T				
Seal material	Nitrile rubber	Mark	NBR (SG)	Working temperature range	-20°C to +60°C	Remarks	Standard material

Tightening Torque Range

Nm {kgf·cm}

Model	20/30SM 20/30PM	50/60/65SN 50/60/65PN	80/85SN 80/85PN	20PFF
Torque	2.5 to 3.0 {26 to 31}	1.6 to 2.0 {16 to 20}	2.2 to 2.8 {22 to 29}	2.0 to 2.5 {20 to 25}

Flow Direction

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



Interchangeability

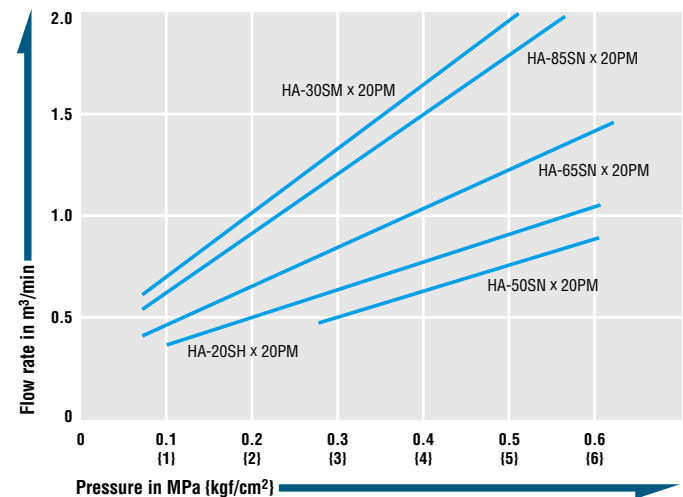
Can be connected with Hi Cupla Models 10, 17, 20, 30 and 40. Interchangeable with models of Nut Cupla Series and Hi Cupla Series except models 400, 600, and 800.

Suitability for Vacuum

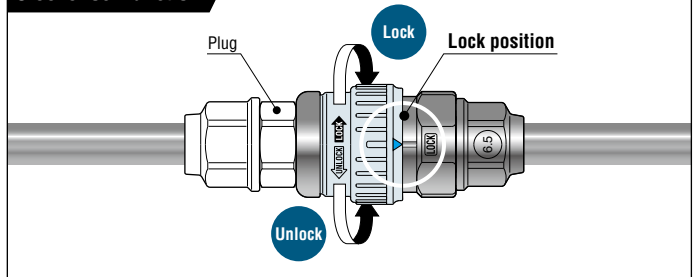
Not suitable for vacuum application in either connected or disconnected condition.

Pressure - Flow Characteristics

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

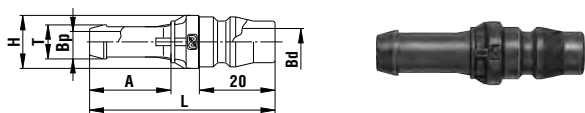


Sleeve lock function



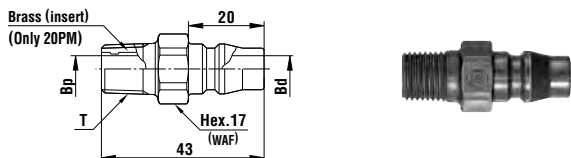
Models and Dimensions

Plug PH type (Plastic plug / Hose barb)



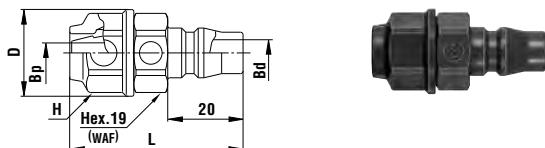
Model	Application (Hose)	Mass (g)	Dimensions (mm)					
			L	øH	A	øT	øBp	øBd
20PH-PLA	1/4"	3	49	14	21.5	9	5.5	7
30PH-PLA	3/8"	4	52	16	23.5	11.5	7.5	7

Plug PM type (Plastic plug / Male thread)



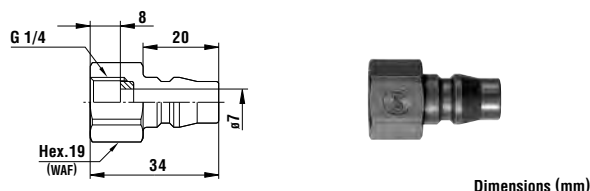
Model	Application	Mass (g)	Dimensions (mm)		
			T	øBp	øBd
20PM-PLA	Rc 1/4	8	R 1/4	7.1	7.4
30PM-PLA	Rc 3/8	6	R 3/8	10	7.4

Plug PN type (Plastic plug / For urethane hose connection)



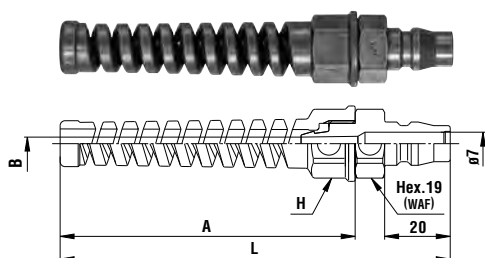
Model	Application (Hose)	Mass (g)	Dimensions (mm)				
			L	øH	Hp(WAF)	øBp	øBd
50PN-PLA	ø5 mm x ø8 mm	9	(46)	23	Hex.19	4	7
60PN-PLA	ø6 mm x ø9 mm	9	(46)	23	Hex.19	4.7	7
65PN-PLA	ø6.5 mm x ø10 mm	9	(46)	23	Hex.19	5.3	7
80PN-PLA	ø8 mm x ø12 mm	12	(48.5)	26	Hex.22	6.5	7
85PN-PLA	ø8.5 mm x ø12.5 mm	12	(48.5)	26	Hex.22	7	7

Plug PFF type (Plastic plug / Parallel female thread)



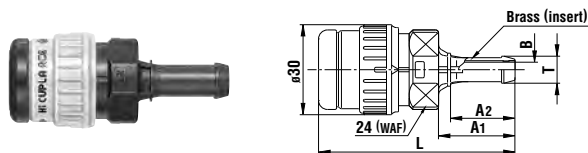
Model	Application	Mass (g)
20PFF-PLA	G 1/4	6

Plug PNG type (Plastic plug / For hose with hose guard nut connection)



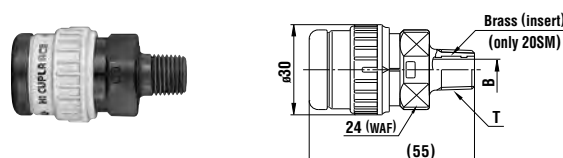
Model	Application (Hose)	Mass (g)	Dimensions (mm)			
			L	H(WAF)	A	øB
50PNG-PLA	ø5 mm x ø8 mm	14	(119)	Hex.19	(90)	4
65PNG-PLA	ø6.5 mm x ø10 mm	15	(119)	Hex.19	(90)	5.3
85PNG-PLA	ø8.5 mm x ø12.5 mm	17	(119)	Hex.22	(90)	7

Socket SH type (Hose barb)



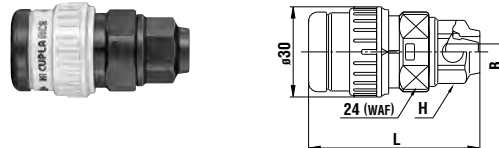
Model	Application (Hose)	Mass (g)	Dimensions (mm)				
			L	A1	A2	øT	øB
HA-20SH	1/4"	26	(65.5)	25.5	21.5	9	5
HA-30SH	3/8"	28	(68)	28	23.5	11.5	7

Socket SM type (Male thread)



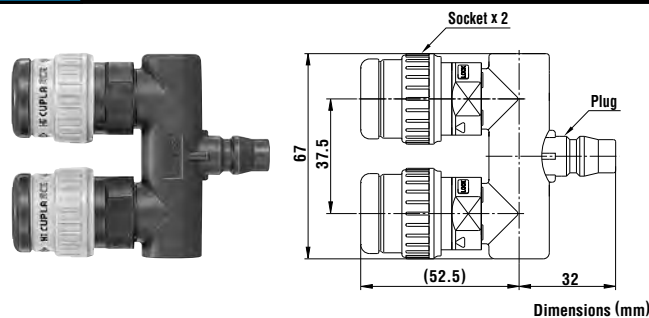
Model	Application	Mass (g)	Dimensions (mm)	
			T	øB
HA-20SM	Rc 1/4	27	R 1/4	7.1
HA-30SM	Rc 3/8	26	R 3/8	8

Socket SN type (For urethane hose connection)



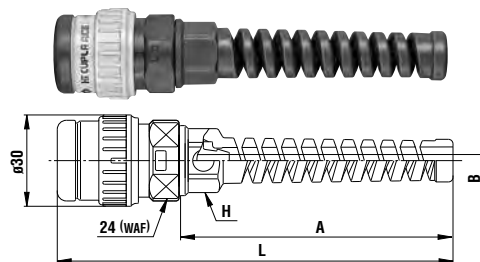
Model	Application (Hose)	Mass (g)	Dimensions (mm)		
			L	H(WAF)	øB
HA-50SN	ø5 mm x ø8 mm	27	(57)	Hex.19	4
HA-60SN	ø6 mm x ø9 mm	27	(57)	Hex.19	4.7
HA-65SN	ø6.5 mm x ø10 mm	27	(57)	Hex.19	5.3
HA-80SN	ø8 mm x ø12 mm	29	(59.5)	Hex.22	6.5
HA-85SN	ø8.5 mm x ø12.5 mm	29	(59.5)	Hex.22	7

Socket T type (For two branch lines)



Model	Inlet / Outlet	Mass (g)
HA-T	20P-PLA / HA-65S x 2	73

Socket SNG type (For hose with hose guard nut connection)



Model	Application (Hose)	Mass (g)	Dimensions (mm)			
			L	H(WAF)	A	øB
HA-50SNG	ø5 mm x ø8 mm	31	(130)	Hex.19	(90)	4
HA-65SNG	ø6.5 mm x ø10 mm	33	(130)	Hex.19	(90)	5.3
HA-85SNG	ø8.5 mm x ø12.5 mm	35	(130)	Hex.22	(90)	7