




For Low Pressure

# Hi Cupla Ace

Lightweight plastic coupling with automatic safety lock for air line applications

<p><b>Working pressure</b></p>  <p>1.5 MPa (15 kgf/cm<sup>2</sup>)</p>	<p><b>Valve structure</b></p>  <p>One-way shut-off</p>	<p><b>Applicable fluid</b></p>  <p>Air      Water</p>
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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" to lock the sleeve when connected, 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.
- Less likely to damage painted or easily dented surfaces than metal couplings.
- 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

<b>Body material</b>	Engineering plastics (PBT, POM)			
<b>Size</b>	1/4" (20 type) • 3/8" (30 type)			
	For ø5mm x ø8mm • ø6mm x ø9mm • ø6.5mm x ø10mm polyurethane hose			
	For ø8mm x ø12mm • ø8.5mm x ø12.5mm polyurethane hose			
<b>Working pressure</b> MPa (kgf/cm <sup>2</sup> )	1.5 (15) / 1.0 (10) for Model HA-T			
<b>Pressure resistance</b> MPa (kgf/cm <sup>2</sup> )	2.0 (20) / 1.5 (15) for Model HA-T			
<b>Seal material</b>	<b>Seal material</b>	<b>Mark</b>	<b>Working temperature range</b>	<b>Remarks</b>
<b>Working temperature range</b>	Nitrile rubber	NBR (SG)	-20°C~+60°C	Standard material

• Plastic plug : Working pressure 1.0MPa (10kgf/cm<sup>2</sup>), Pressure resistance 1.5MPa (15kgf/cm<sup>2</sup>)

## Tightening Torque Range

Model	20SM/30SM	50SN/60SN/65SN	80SN/85SN
<b>Torque</b>	2.5~3.0 {26~31}	1.6~2.0 {16~20}	2.2~2.8 {22~29}

## Flow Direction

Air flows in either direction from plug or from socket side when coupled.



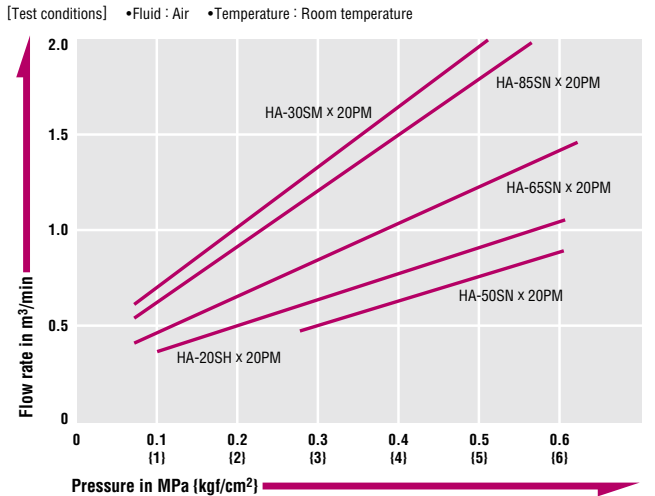
## Interchangeability

Can be connected with Hi Cupla Models 20, 30 and 40. Interchangeable with each corresponding Hi Cupla Series models except models 400, 600, and 800.

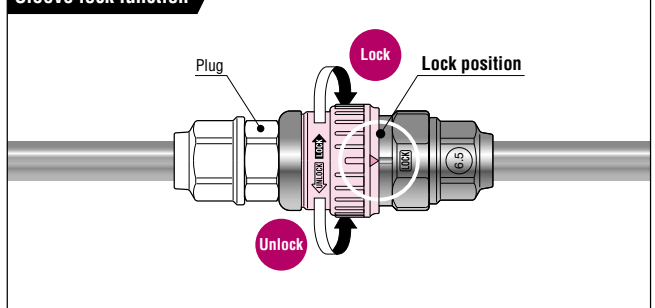
## Suitability for Vacuum

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

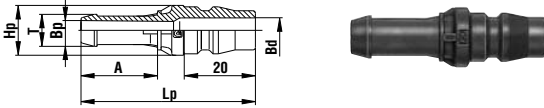
## Pressure - Flow Characteristics



## Sleeve lock function

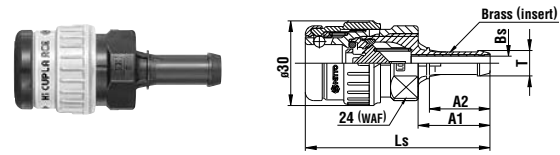


**Plug PH type (Plastic plug / Hose barb)**



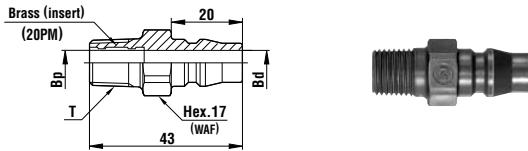
Model	Application (Hose)	Mass (g)	Dimensions (mm)					
			Lp	øHp	A	øT	øBp	øBd
20PH-PLA	1/4"	3	49	14	21.5	9	5.5	7
30PH-PLA	3/8"	4	52	16	23.5	11.5	7	7

**Socket SH type (Hi Cupla Ace / Hose barb)**



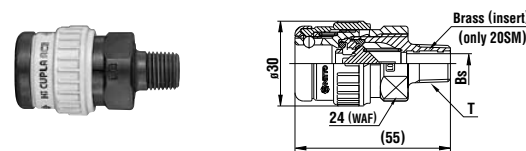
Model	Application (Hose)	Mass (g)	Dimensions (mm)				
			Ls	A1	A2	øT	øBs
HA-20SH	1/4"	26	(65.5)	25.5	21.5	9	5
HA-30SH	3/8"	28	(68)	28	23.5	11.5	7

**Plug PM type (Plastic plug / Male thread)**



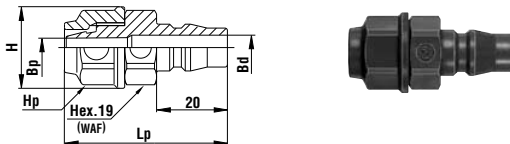
Model	Application	Mass (g)	Dimensions (mm)		
			T	øBp	øBd
20PM-PLA	Rc 1/4	8	R 1/4	7.1	7.4
30PM-PLA	Rc 3/8	6	R 3/8	10	7.4

**Socket SM type (Hi Cupla Ace / Male thread)**



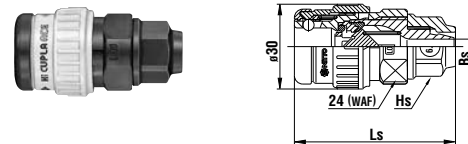
Model	Application	Mass (g)	Dimensions (mm)	
			T	øBs
HA-20SM	Rc 1/4	27	R 1/4	7
HA-30SM	Rc 3/8	26	R 3/8	8

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



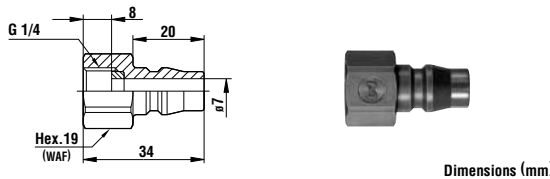
Model	Application (Hose)	Mass (g)	Dimensions (mm)				
			Lp	øH	Hp(WAF)	øBp	øBd
50PN-PLA	ø5 mm x ø8 mm	9	(46)	23	Hex.19	4	7
60PN-PLA	ø6 mm x ø9 mm	9	(46)	23	Hex.19	4.7	7
65PN-PLA	ø6.5 mm x ø10 mm	9	(46)	23	Hex.19	5.3	7
80PN-PLA	ø8 mm x ø12 mm	12	(48.5)	26	Hex.22	6.5	7
85PN-PLA	ø8.5 mm x ø12.5 mm	12	(48.5)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

**Socket SN type (Hi Cupla Ace / For urethane hose connection)**



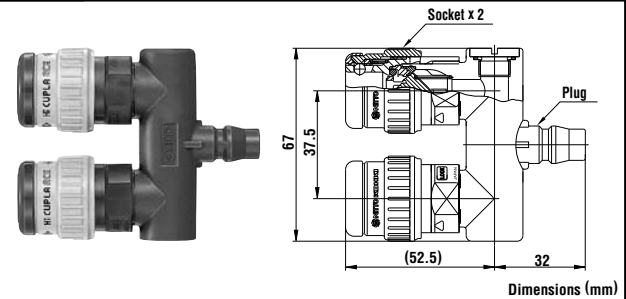
Model	Application (Hose)	Mass (g)	Dimensions (mm)		
			Ls	Hs(WAF)	øBs
HA-50SN	ø5 mm x ø8 mm	27	(57)	Hex.19	4
HA-60SN	ø6 mm x ø9 mm	27	(57)	Hex.19	4.7
HA-65SN	ø6.5 mm x ø10 mm	27	(57)	Hex.19	5.3
HA-80SN	ø8 mm x ø12 mm	29	(59.5)	Hex.22	6.5
HA-85SN	ø8.5 mm x ø12.5 mm	29	(59.5)	Hex.22	7

**Plug PFF type (Plastic plug / Parallel female thread)**



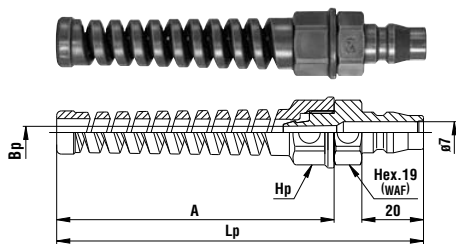
Model	Application	Mass (g)
20PFF-PLA	G 1/4	6

**Socket T type (Hi Cupla Ace / For two branch lines)**



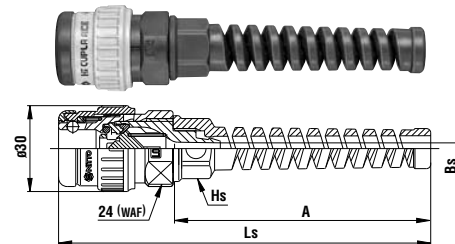
Model	Inlet / Outlet	Mass (g)
HA-T	20P-PLA / HA-65S x 2	73

**Plug PNG type (For hose with hose guard nut connection)**



Model	Application (Hose)	Mass (g)	Dimensions (mm)			
			Lp	Hp(WAF)	A	øBp
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 SNG type (For hose with hose guard nut connection)**



Model	Application (Hose)	Mass (g)	Dimensions (mm)			
			Ls	Hs(WAF)	A	øBs
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