

QUICK COUPLING CTL TYPE STAINLESS STEEL <SUS304>

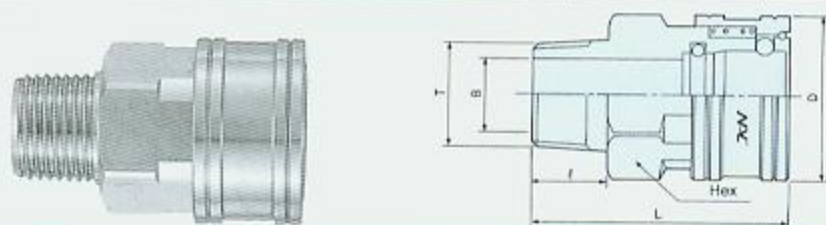
SOCKET

SH (Hose nipple)



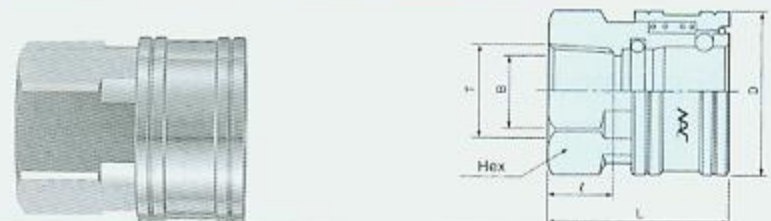
Model	Hose size	Dimensions(mm)						Weight (gf)
		L	φ D	φ H	ℓ	φ B	φ T	
CTL01SH3	1/8" Hose	40	18	16	20	3	6.5	26
CTL02SH3	1/4" Hose	55	25	22	29	5	8	62
CTL03SH3	3/8" Hose	62	28	25	32	7	11	100
CTL04SH3	1/2" Hose	71	35	32	38	10	15	164
CTL06SH3	3/4" Hose	90	45	40	48	15	21	352
CTL08SH3	1" Hose	101	58	52	56	19	27	571
CTL10SH3	1 1/4" Hose	117	69	64	70	26	34.5	868
CTL12SH3	1 1/2" Hose	128	75	70	75	32	41	1086
CTL16SH3	2" Hose	141	98	90	80	40	54	2140

SM (Male thread)



Model	Thread size	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	ℓ	φ B	φ T	
CTL01SM3	Rc 1/8	30	18	14	9	4.5	R 1/8	26
CTL02SM3	Rc 1/4	42	25	19	13	6.5	R 1/4	67
CTL03SM3	Rc 3/8	46	28	23	13	10	R 3/8	101
CTL04SM3	Rc 1/2	54	35	29	17	13	R 1/2	172
CTL06SM3	Rc 3/4	65	45	38	19	18	R 3/4	354
CTL08SM3	Rc 1	76	58	50	22	24	R 1	627
CTL10SM3	Rc 1 1/4	86	69	φ62/Face54	25	32	R 1 1/4	958
CTL12SM3	Rc 1 1/2	95	75	φ66/Face58	25	38	R 1 1/2	1166
CTL16SM3	Rc 2	108	98	φ82/Face68	29	49	R 2	2026

SF (Female thread)

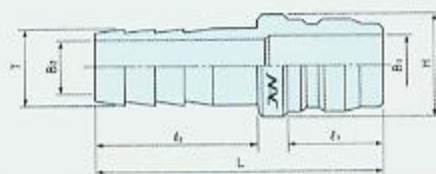


Model	Thread size	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	ℓ	φ B	φ T	
CTL01SF3	R 1/8	27	18	14	9	4.5	Rc 1/8	26
CTL02SF3	R 1/4	32	25	19	13	8	Rc 1/4	57
CTL03SF3	R 3/8	35	28	23	13	12	Rc 3/8	84
CTL04SF3	R 1/2	42	35	29	17	16	Rc 1/2	151
CTL06SF3	R 3/4	48	45	38	19	20	Rc 3/4	300
CTL08SF3	R 1	59	58	50	21	27	Rc 1	581
CTL10SF3	R 1 1/4	64	69	φ62/Face54	22	36	Rc 1 1/4	832
CTL12SF3	R 1 1/2	71	75	φ66/Face58	23	42	Rc 1 1/2	1013
CTL16SF3	R 2	80	98	φ82/Face77	27	54	Rc 2	1808

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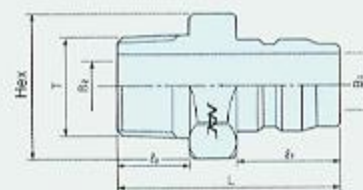
PLUG

■PH (Hose nipple)



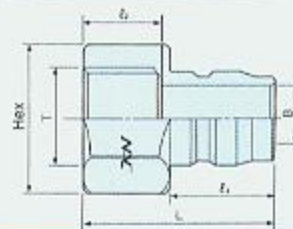
Model	Hose size	Dimensions(mm)							Weight (gf)
		L	φH	ℓ1	ℓ2	T	B1	B2	
CTL01PH3	1/8" Hose	41	12	15.5	20	6.5	5	3	12
CTL02PH3	1/4" Hose	53	14	18	29	8	6.5	5	21
CTL03PH3	3/8" Hose	60	18	21	32	11	10	7	37
CTL04PH3	1/2" Hose	69	23	24	38	15	13	10	71
CTL06PH3	3/4" Hose	84	27.5	28	48	21	17	15	128
CTL08PH3	1" Hose	104	40	36	56	27	26	19	321
CTL10PH3	1 1/4" Hose	121	48	39	70	34	32	26	490
CTL12PH3	1 1/2" Hose	132	55	45	75	41	38	32	658
CTL16PH3	2" Hose	142	70	51	80	54	50	40	1322

■PM (Male thread)



Model	Thread size	Dimensions(mm)							Weight (gf)
		L	Hex	ℓ1	ℓ2	T	φB1	φB2	
CTL01PM3	Rc 1/8	32	12	15.5	9	R 1/8	4.5	4.5	17
CTL02PM3	Rc 1/4	38	17	18	13	R 1/4	6.5	6.5	30
CTL03PM3	Rc 3/8	43	19	21	13	R 3/8	10	10	43
CTL04PM3	Rc 1/2	52	22	24	17	R 1/2	12	12	87
CTL06PM3	Rc 3/4	59	29	28	19	R 3/4	17	17	137
CTL08PM3	Rc 1	73	38	36	22	R 1	25	25	275
CTL10PM3	Rc 1 1/4	83	50	39	23	R 1 1/4	32	32	503
CTL12PM3	Rc 1 1/2	93	54	45	26	R 1 1/2	38	38	617
CTL16PM3	Rc 2	102	φ80/Face75	51	27	R 2	50	50	1233

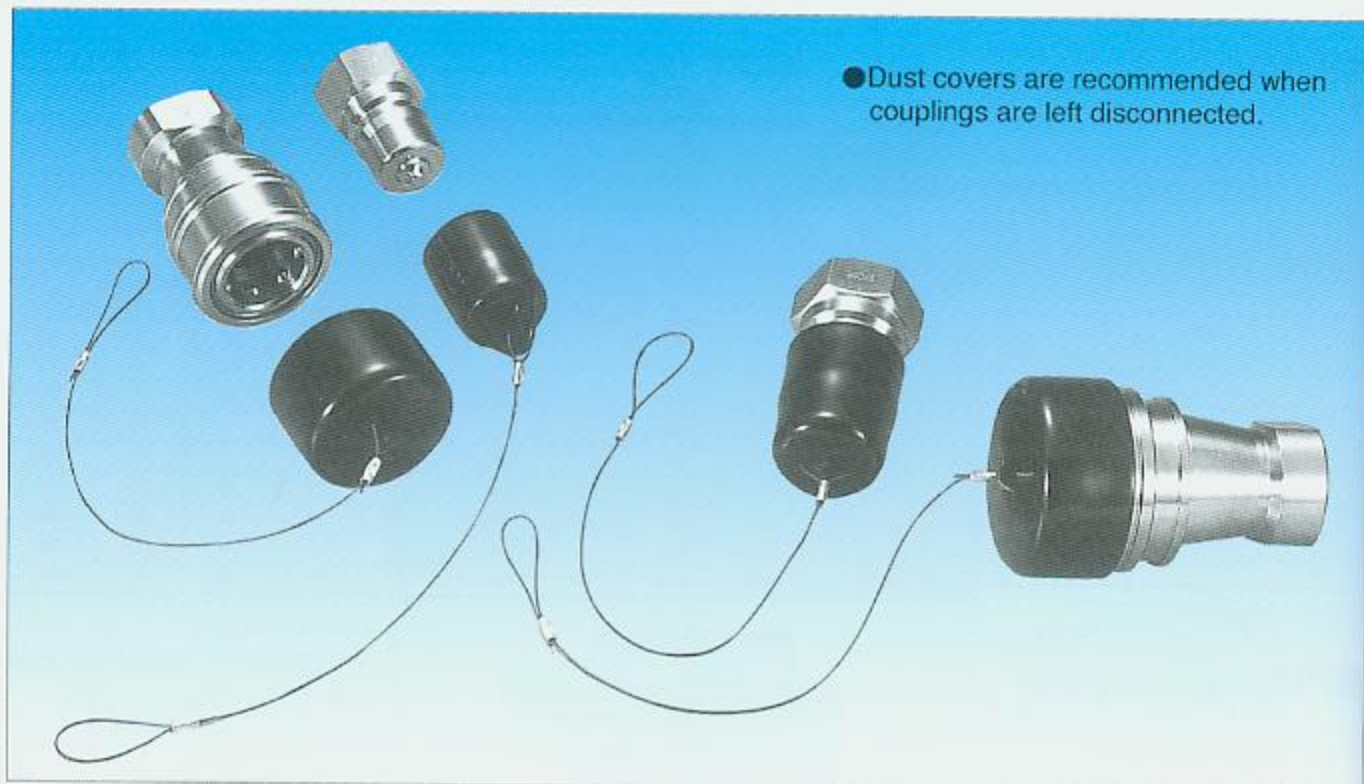
■PF (Female thread)



Model	Thread size	Dimensions(mm)						Weight (gf)
		L	Hex	ℓ1	ℓ2	T	B	
CTL01PF3	R 1/8	26	14	15.5	9	Rc 1/8	5	14
CTL02PF3	R 1/4	34	17	18	13	Rc 1/4	6.5	28
CTL03PF3	R 3/8	38	21	21	13	Rc 3/8	10	44
CTL04PF3	R 1/2	44	26	24	16	Rc 1/2	13	79
CTL06PF3	R 3/4	51	35	28	19	Rc 3/4	17	160
CTL08PF3	R 1	60	41	36	22	Rc 1	26	259
CTL10PF3	R 1 1/4	64	55	39	25	Rc 1 1/4	32	460
CTL12PF3	R 1 1/2	75	58	45	25	Rc 1 1/2	38	576
CTL16PF3	R 2	83	φ82/Face75	51	30	Rc 2	50	1189

QUICK COUPLING DUST COVER < Vinyl chloride resin >

DUST COVER



Type	Thread size	Model		Type	Thread size	Model	
		For Socket	For Plug			For Socket	For Plug
AL Type				TL Type			
CAL11·12	$\frac{1}{8}$ · $\frac{1}{4}$ "	CAL10SDC	CAL10PDC	CTL01	$\frac{1}{8}$ "	CTL01SDC	CTL01PDC
CAL21·22·23·24	$\frac{1}{8}$ · $\frac{1}{4}$ · $\frac{3}{8}$ · $\frac{1}{2}$ "	CAL20SDC	CAL20PDC	CTL02	$\frac{1}{4}$ "	CTL02SDC	CTL02PDC
CAL44·46·48	$\frac{1}{2}$ · $\frac{3}{4}$ ·1"	CAL40SDC	CAL40PDC	CTL03	$\frac{3}{8}$ "	CTL03SDC	CTL03PDC
S·P Type				CTL04	$\frac{1}{2}$ "	CTL04SDC	CTL04PDC
CSP01	$\frac{1}{8}$ "	CSP01SDC	CSP01PDC	CTL06	$\frac{3}{4}$ "	CTL06SDC	CTL06PDC
CSP02	$\frac{1}{4}$ "	CSP02SDC	CSP02PDC	CTL08	1"	CTL08SDC	CTL08PDC
CSP03	$\frac{3}{8}$ "	CSP03SDC	CSP03PDC	CTL10	1 $\frac{1}{4}$ "	CTL10SDC	CTL10PDC
CSP04	$\frac{1}{2}$ "	CSP04SDC	CSP04PDC	CTL12	1 $\frac{1}{2}$ "	CTL12SDC	CTL12PDC
CSP06	$\frac{3}{4}$ "	CSP06SDC	CSP06PDC	CTL16	2"	CTL16SDC	CTL16PDC
CSP08	1"	CSP08SDC	CSP08PDC	H·P Type			
CSP10	1 $\frac{1}{4}$ "	CSP10SDC	CSP10PDC	CHP02	$\frac{1}{4}$ "	CHP02SDC	CHP02PDC
CSP12	1 $\frac{1}{2}$ "	CSP12SDC	CSP12PDC	CHP03	$\frac{3}{8}$ "	CHP03SDC	CHP03PDC
CSP16	2"	CSP16SDC	CSP16PDC	CHP04	$\frac{1}{2}$ "	CHP04SDC	CHP04PDC
				CHP06	$\frac{3}{4}$ "	CHP06SDC	CHP06PDC
				CHP08	1"	CHP08SDC	CHP08PDC
				CHP10	1 $\frac{1}{4}$ "	CHP10SDC	CHP10PDC
				CHP12	1 $\frac{1}{2}$ "	CHP12SDC	CHP12PDC
				CHP16	2"	CHP16SDC	CHP16PDC

Examples of Usages



Multi coupler series
Multi coupler with Snap-ring type
Ideal for automated systems that connect and disconnect several couplers at the same time.



CSP/TL couplers with one touch connection
Ideal for the application that often requires connection/disconnection.



Screw coupler series
Direct connection to the thread parts
(available for Inner thread connection.)

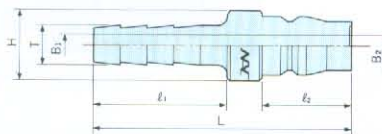


Pipe coupler series
Direct connection with gasoline charge and discharge pipes for Engine leak test.
(Available for other applications)

QUICK COUPLING AL TYPE STEEL <chrome-plated>

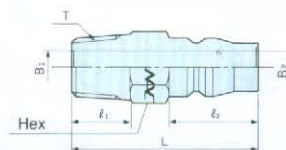
PLUG

PH (Hose nipple)



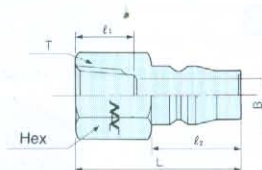
Type	Model	Hose size	Dimensions(mm)							Weight (gf)
			L	φ H	l 1	l 2	φ T	φ B 1	φ B 2	
20	CAL21PH	1/8" Hose	58	16	30	20	7.5	4.5	7.5	26
	CAL22PH	1/4" Hose	58	16	30	20	9	5	7.5	30
	CAL23PH	3/8" Hose	62	16	34	20	11.3	7.5	7.5	33
	CAL24PH	1/2" Hose	64	20	36	20	15	7.5	7.5	60
40	CAL44PH	1/2" Hose	67	22	36	23	15	9	13	69
	CAL46PH	3/4" Hose	76	30	45	23	21	13	13	120
	CAL48PH	1" Hose	86	34	55	23	27	20	13	155

PM (Male thread)



Type	Model	Thread size	Dimensions(mm)							Weight (gf)
			L	Hex	l 1	l 2	T	φ B 1	φ B 2	
20	CAL21PM	PT 1/8"	39	14/16	11	20	PT 1/8"	4	7.5	24
	CAL22PM	PT 1/4"	42	14/16	13	20	PT 1/4"	7.5	7.5	26
	CAL23PM	PT 3/8"	43	19/21.5	14	20	PT 3/8"	7.5	7.5	44
	CAL24PM	PT 1/2"	46	22/25	16	20	PT 1/2"	12	7.5	60
40	CAL44PM	PT 1/2"	47	22/25	16	23	PT 1/2"	13	13	62
	CAL46PM	PT 3/4"	49	32/36.5	18	23	PT 3/4"	19	13	92
	CAL48PM	PT 1"	53	35/40	22	23	PT 1"	22	13	140

PF (Female thread)

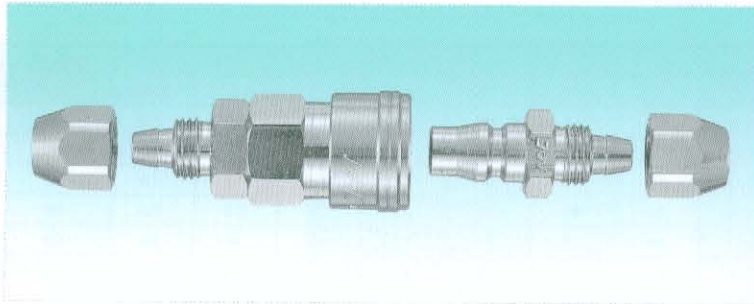


Type	Model	Thread size	Dimensions(mm)						Weight (gf)
			L	Hex	l 1	l 2	T	B	
20	CAL21PF	PT 1/8"	33	14/16	11.5	20	PT 1/8"	7.5	22
	CAL22PF	PT 1/4"	37	17/19.5	13	20	PT 1/4"	7.5	30
	CAL23PF	PT 3/8"	38	21/24	14	20	PT 3/8"	7.5	40
	CAL24PF	PT 1/2"	39	29/33.5	15	20	PT 1/2"	7.5	81
40	CAL44PF	PT 1/2"	41	29/33.5	15	23	PT 1/2"	13	85
	CAL46PF	PT 3/4"	43	35/40	17	23	PT 3/4"	13	117
	CAL48PF	PT 1"	51	41/47	22	23	PT 1"	13	191

QUICK COUPLING AL TYPE TYPE STEEL <chrome-plated>

SINGLE VALVE NUT TYPE

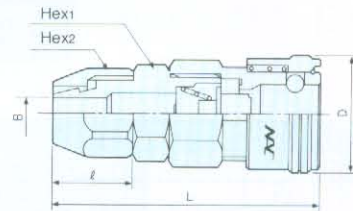
AL Nut



- This type is used to connect chemical hoses, such as polyurethane hose.
- This is interchangeable with AL couplings. The dimensions are same as AL couplings.
- The material of brass is also available as special.

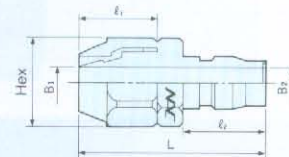
SOCKET · PLUG

SA · SB



Type	Model	Hose size I.D.×O.D.	Dimensions(mm)						Weight (gf)
			L	φ D	Hex1	Hex2	ℓ	φ B	
20	CAL21SA	5×8	57.5	26.5	19	14	15	4	105
	CAL22SA	6×9	60	26.5	19	17	17	4.8	112
	CAL22SB	6.5×10	60	26.5	19	17	17	4.8	112
	CAL23SA	8×12	62	26.5	19	19	20	7	120
	CAL23SB	8.5×12.5	62	26.5	19	19	20	7	120

PA · PB



Type	Model	Hose size I.D.×O.D.	Dimensions(mm)						Weight (gf)
			L	Hex	ℓ 1	ℓ 2	φ B 1	φ B 2	
20	CAL21PA	5×8	41.5	14	15	20	4	7.5	31
	CAL22PA	6×9	43.5	17	17	20	4.8	7.5	43
	CAL22PB	6.5×10	43.5	17	17	20	4.8	7.5	43
	CAL23PA	8×12	46	19	20	20	7	7.5	53
	CAL23PB	8.5×12.5	46	19	20	20	7	7.5	53

QUICK **MAC** COUPLINGS



NAGAHORI INDUSTRY CO.,LTD.

We are ISO14001 certified in 2002 and ISO9001 in 2000.

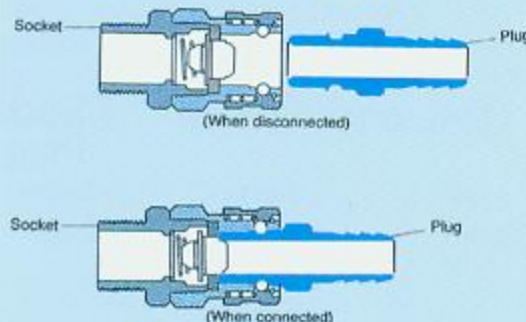
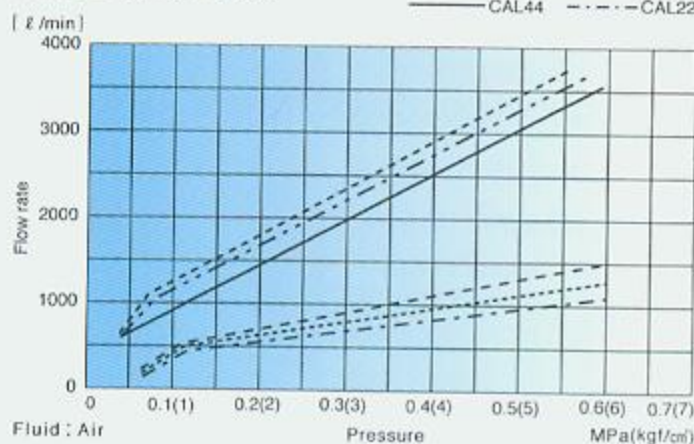
QUICK COUPLING CAL TYPE

SINGLE VALVE TYPE

■ SH-PH (Hose nipple) ■ SM-PM (Male thread) ■ SF-PF (Female thread)



Flow rate-Pressure drop characteristic table



※ Fluid should flow from socket to plug

<SPECIFICATION>

Type	20				40		
Model	CAL21	CAL22	CAL23	CAL24	CAL44	CAL46	CAL48
Nominal size	1/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"
Body material	Steel(chrome-plated), Brass, Stainless steel(SUS304)						
Connection	Socket	Female thread(F), Male thread(M)					
	Plug	Hose nipple(H)					
Normal pressure MPa(kgf/cm ²)	Steel	Normal 1.5(15) Max.2.0(20)					
	Brass	Normal 1.0(10) Max.1.5(15)					
	Stainless steel	Normal 1.5(15) Max.2.0(20)					
packing material	Standard	Nitrile rubber (NBR): -20°C ~ +80°C					
	Option	Viton (FPM): -20°C ~ +180°C					
Applicable fluid	Steel	Air, Oil, etc.					
	Brass	Air, Water, etc.					
	Stainless steel	Air, Water, etc.					
Applications	Air tools, Air piping, Water piping, etc.						

- Widely used and accepted couplings for air line connection.
- Important steel parts are hardened for high durability.
- Socket have automatic shut-off valve so that fluid in the socket will not run out on disconnection.

Caution

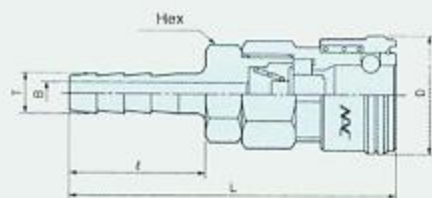
- Types 20(CAL21, CAL22, CAL23 and CAL24 types) have sockets and plugs that can be interchanged and types 40 are the same, however between 20 and 40 can not be interchanged.
- For vibration or impact tools use, put intermediate hose (about 30 cm) between plug and tool.
- Fluid should flow from socket to plug.
- Do not use as swivels also force couplers continuously rotating.

Note

QUICK COUPLING CAL TYPE

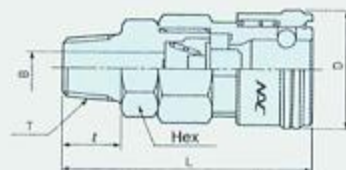
SOCKET

SH for hose connection



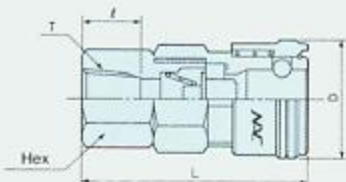
Type	Model	Application	Weight (g)			Dimension (mm)					
			Steel	Brass	Stainless	L	φ D	Hex	ℓ	φ B	φ T
20	CAL21SH	1/8" Hose	99	—	—	72.5	26.5	19	30	4.5	7.5
	CAL22SH	1/4" Hose	102	111	102	72.5	26.5	19	30	5	9
	CAL23SH	3/8" Hose	105	112	106	76.5	26.5	19	34	7.5	11.3
	CAL24SH	1/2" Hose	117	127	125	78.5	26.5	19	36	9	15
40	CAL44SH	1/2" Hose	234	235	213	84	36.5	29	36	9	15
	CAL46SH	3/4" Hose	266	259	239	93	36.5	29	45	13	21
	CAL48SH	1" Hose	287	293	292	103	36.5	29	55	20	27

SM for female thread connection



Type	Model	Application	Weight (g)			Dimension (mm)					
			Steel	Brass	Stainless	L	φ D	Hex	ℓ	φ B	T
20	CAL21SM	Rc 1/8"	98	—	—	53.5	26.5	19	11	4	R 1/8"
	CAL22SM	Rc 1/4"	100	110	101	55.5	26.5	19	13	7	R 1/4"
	CAL23SM	Rc 3/8"	108	117	107	56.5	26.5	19	14	8	R 3/8"
	CAL24SM	Rc 1/2"	126	140	124	58.5	26.5	22	16	9	R 1/2"
40	CAL44SM	Rc 1/2"	224	227	207	64	36.5	29	16	13	R 1/2"
	CAL46SM	Rc 3/4"	248	261	227	66	36.5	32	18	16	R 3/4"
	CAL48SM	Rc 1"	290	315	272	70	36.5	36	22	22	R 1"

SF for male thread connection



Type	Model	Application	Weight (g)			Dimension (mm)				
			Steel	Brass	Stainless	L	φ D	Hex	ℓ	T
20	CAL21SF	R 1/8"	100	—	—	47.5	26.5	19	11.5	Rc 1/8"
	CAL22SF	R 1/4"	101	108	99	50.5	26.5	19	13	Rc 1/4"
	CAL23SF	R 3/8"	102	109	100	50.5	26.5	21	14	Rc 3/8"
	CAL24SF	R 1/2"	138	153	138	52.5	26.5	29	15	Rc 1/2"
40	CAL44SF	R 1/2"	229	231	212	58	36.5	29	15	Rc 1/2"
	CAL46SF	R 3/4"	263	278	230	60	36.5	35	17	Rc 3/4"
	CAL48SF	R 1"	325	350	278	67	36.5	41	22	Rc 1"

Note Some dimensions for Body material Brass and Stainless are slightly different. Please ask us or our distributors if you need dimensions in details.

QUICK COUPLING CAL TYPE BALL-LOCK STEEL <chrome-plated>

SINGLE VALVE BALL-LOCK TYPE

- Ball lock mechanism prevents unexpected disconnection of socket and plug during normal use.
- Can be connected to AL series plugs type 20 likes 21, 22, 23 and 24.

SOCKET

SHL (Hose nipple)



Type	Model	Hose size
20	CAL21SHL	1/8" Hose
	CAL22SHL	1/4" Hose
	CAL23SHL	3/8" Hose
	CAL24SHL	1/2" Hose

SML (Male thread)



Type	Model	Application
20	CAL21SML	Rc 1/8
	CAL22SML	Rc 1/4
	CAL23SML	Rc 3/8
	CAL24SML	Rc 1/2

SFL (Female thread)



Type	Model	Application
20	CAL21SFL	R 1/8
	CAL22SFL	R 1/4
	CAL23SFL	R 3/8
	CAL24SFL	R 1/2

SAL · SBL (Nut)

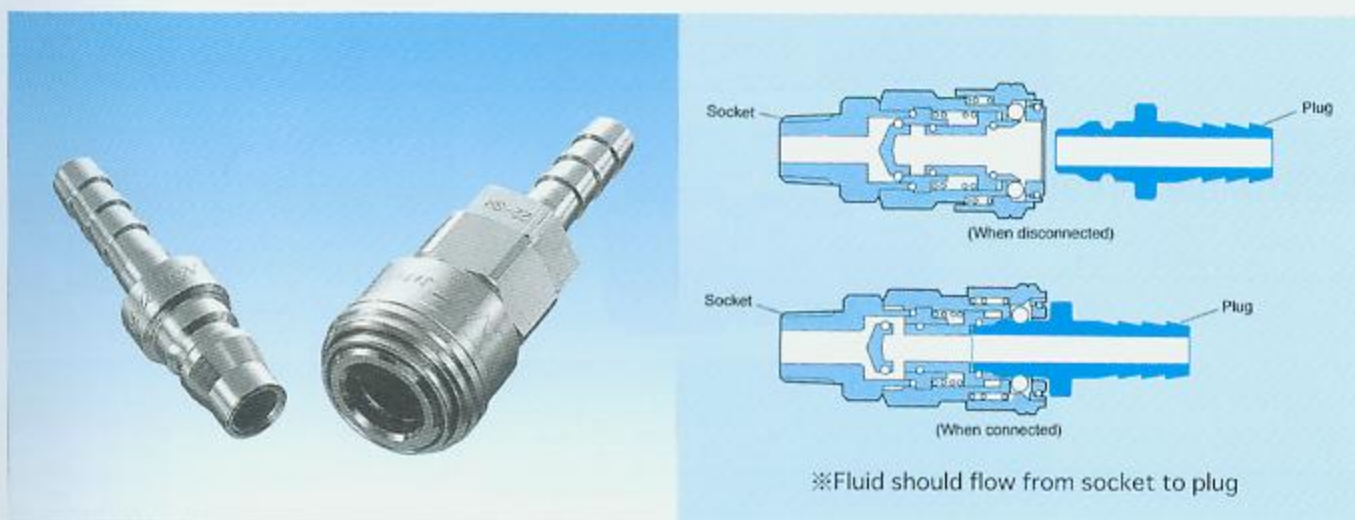


Type	Model	Hose size I.D. × O.D.
20	CAL21SAL	5 × 8
	CAL22SAL	6 × 9
	CAL22SBL	6.5 × 10
	CAL23SAL	8 × 12
	CAL23SBL	8.5 × 12.5

QUICK COUPLING CAL TYPE CAT20

SINGLE VALVE ONE TOUCH TYPE

■ SH-PH (Hose nipple) ■ SM-PM (Male thread) ■ SF-PF (Female thread)



<SPECIFICATION>

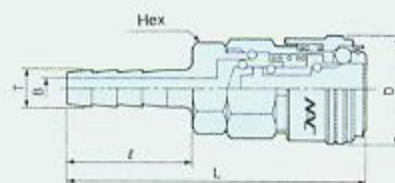
Type	CAT20			CAT20 Nut				
Model	CAT22	CAT23	CAT24	CAT21A	CAT22A	CAT23A	CAT22B	CAT23B
Nominal size	1/4"	3/8"	1/2"	φ5×φ8	φ6×φ9	φ8×φ12	φ6.5×φ10	φ8.5×φ12.5
Body material	Steel(Chrome-plated)							
Connection	Female thread(F), Male thread(M), Hose nipple(H), Nut(A - B)							
Nomal pressure MPa(kgf/cm ²) Max pressure MPa(kgf/cm ²)	Steel	Normal pressure 1.0(10) Max. pressure 1.5(15)						
	Packing material	Standard	Nitrile rubber (NBR): -20°C ~ +80°C					
		Option	Viton (FPM): -20°C ~ +180°C					
Applicable fluid	Steel	Air, Oil, etc.						
Applications	Air tools, Air piping, Various air pressurized equipment							

- Fluid should flow from socket to plug.
- One hand operation allows fast and easy connection and disconnection.
- Can be connected to AL series plugs type 20 like 21, 22, 23 and 24.
- Available with steel body. Not suitable for water use.

QUICK COUPLING CAT TYPE STEEL < Chrome-plated >

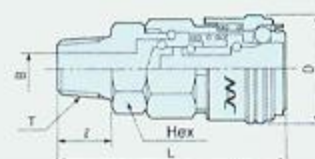
SOCKET

SH (Hose nipple)



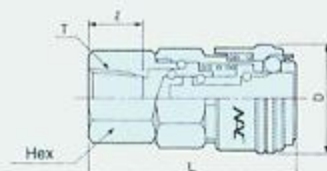
Type	Model	Hose size	Dimensions(mm)						Weight (gf)
			L	φ D	Hex	ℓ	φ B	φ T	
CAT20	CAT22SH	1/4" Hose	75.5	26.5	19	30	5	9	106
	CAT23SH	3/8" Hose	79.5	26.5	19	34	7.5	11.3	108
	CAT24SH	1/2" Hose	81.5	26.5	19	36	9	15	120

SM (Male thread)



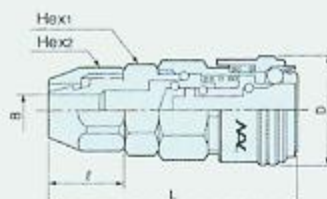
Type	Model	Application	Dimensions(mm)						Weight (gf)
			L	φ D	Hex	ℓ	φ B	φ T	
CAT20	CAT22SM	Rc 1/4"	58.5	26.5	19	13	7	R 1/4"	103
	CAT23SM	Rc 3/8"	59.5	26.5	19	14	8	R 3/8"	110
	CAT24SM	Rc 1/2"	62.5	26.5	22	16	9	R 1/2"	129

SF (Female thread)



Type	Model	Application	Dimensions(mm)					Weight (gf)
			L	φ D	Hex	ℓ	T	
CAT20	CAT22SF	R 1/4"	53.5	26.5	19	13	Rc 1/4"	104
	CAT23SF	R 3/8"	53.5	26.5	21	14	Rc 3/8"	104
	CAT24SF	R 1/2"	55.5	26.5	29	15	Rc 1/2"	143

SA · SB (Nut)



Type	Model	Hose size I.D. × O.D.	Dimensions(mm)						Weight (gf)
			L	φ D	Hex1	Hex2	ℓ	φ B	
CAT20	CAT21SA	5 × 8	60.5	26.5	19	14	15	4	98
	CAT22SA	6 × 9	63	26.5	19	17	17	4.3	115
	CAT22SB	6.5 × 10	63	26.5	19	17	17	5.3	114
	CAT23SA	8 × 12	65	26.5	19	19	20	7	124
	CAT23SB	8.5 × 12.5	65	26.5	19	19	19	7	121

QUICK COUPLING CAT TYPE

SINGLE VALVE ONE TOUCH & BALL LOCK TYPE

- One hand operation allows fast and easy connection and disconnection.
- Ball lock mechanism prevents unexpected disconnection of socket and plug during normal use.
- Can be connected to AL series plug type 20 likes 21, 22, 23 and 24.

SOCKET

■ SHL (Hose nipple)



Type	Model	Hose size
CAT20	CAT22SHL	$\frac{1}{4}$ " Hose
	CAT23SHL	$\frac{3}{8}$ " Hose
	CAT24SHL	$\frac{1}{2}$ " Hose

■ SML (Male thread)



Type	Model	Application
CAT20	CAT22SML	Rc $\frac{1}{4}$ "
	CAT23SML	Rc $\frac{3}{8}$ "
	CAT24SML	Rc $\frac{1}{2}$ "

■ SFL (Female thread)



Type	Model	Application
CAT20	CAT22SFL	R $\frac{1}{4}$ "
	CAT23SFL	R $\frac{3}{8}$ "
	CAT24SFL	R $\frac{1}{2}$ "

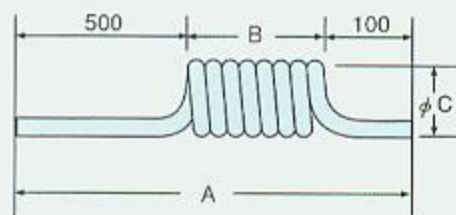
■ SAL · SBL (Nut)



Type	Model	Hose size I.D. × O.D.
CAT20	CAT21SAL	5 × 8
	CAT22SAL	6 × 9
	CAT22SBL	6.5 × 10
	CAT23SAL	8 × 12
	CAT23SBL	8.5 × 12.5

QUICK COUPLING CCH TYPE POLYURETHANE COIL HOSE

POLYURETHANE COIL HOSE WITH COUPLINGS



<SPECIFICATIONS>

Hose material	Polyurethan
Working pressure	0.7 MPa (7kgf/cm ²)
Working temperature range	-20°C ~ +180°C
Applicable fluids	Air
Applications	For assembly line, pneumatic tools

- Flexible and light weight improves working operativity.
- Excellent resistance to abrasion gives long service life.

Part numbering

CCH 1065-5-TB

Coil hose ① ② ③

① Hose Diameter

Symbol ①	Outer ϕ × Inner ϕ (mm)
0805	8 × 5
1065	10 × 6.5
1208	12 × 8
1611	16 × 11

② Hose length

Symbol ②	Length (m)
3	2.5
5	5
8	7.5
10	10

QUICK COUPLING CCH TYPE POLYURETHANE COIL HOSE

POLYURETHANE COIL HOSE WITH COUPLINGS

③ Quick couplings

	One hand operation Push plug into socket	Comon operation Pull socket sleeve then push plug into the socekt
Without Lock Mechanism	Symbol ③ T 	Symbol ③ L
With Lock Mechanism	Symbol ③ TB 	Symbol ③ LB
Symbol ③ No mark means only coil hose, without couplings		

Model	Hose daimeter	Service lenght	Total lenght	A	B	φ C	Color	
CCH0805-	8×5	3-□	2,000	2,500	780	180	42	Yellow
		5-□	4,000	5,000	1,000	400		
		8-□	6,000	7,500	1,230	630		
		10-□	8,000	10,000	1,400	800		
CCH1065-	10×6.5	3-□	2,000	2,500	785	185	52	
		5-□	4,000	5,000	1,000	400		
		8-□	6,000	7,500	1,235	635		
		10-□	8,000	10,000	1,400	800		
CCH1208-	12×8	3-□	2,000	2,500	780	180	65	
		5-□	4,000	5,000	990	390		
		8-□	6,000	7,500	1,190	590		
		10-□	8,000	10,000	1,380	780		
CCH1611- ※	16×11	3-□	2,000	2,500	720	120	108	
		5-□	4,000	5,000	840	240		
		8-□	6,000	7,500	1,000	400		
		10-□	8,000	10,000	1,170	570		

□ put a coupler simbol into it.

Custom-made coil hoser will be available upon your requests.

※CCH1611 is made-to-oeder items.

QUICK COUPLING CAL TYPE MULTI-CONNECTION

MULTI-CONNECTION

STRAIGHT LINE · ROTARY TYPE

<SPECIFICATION>

Type	Straight line		Rotary
Model	CAL2L	CAL5L	CAL2WRL
Coupling Model	Input	CAL22PM CAL44PM	CAL22PM
	Output	CAL22SM CAL22SM CAL24SM	CAL22SM
Accessory	CAL22PH×2	CAL44SH×1 CAL22PH×4	CAL22PH×2
Body material	Body: Aluminium Coupling: Steel(Chrome-plated)		Body: Brass(Chrome-plated) Coupling: Steel(Chrome-plated)
Normal pressure MPa(kgf/cm ²) Max. pressure MPa(kgf/cm ²)	Normal pressure 1.5(15) Max. pressure 2.0(20)		
Packing material	Standard	Nitrile rubber (NBR): -20°C~+80°C	
	Option	Viton (FPM): -20°C~+180°C	

● Easy branching air line couplings

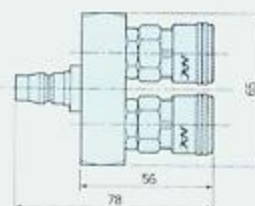
● Available with One Touch CAT type

● Can be connected to AL series plugs type 20 like 21, 22, 23 and 24.

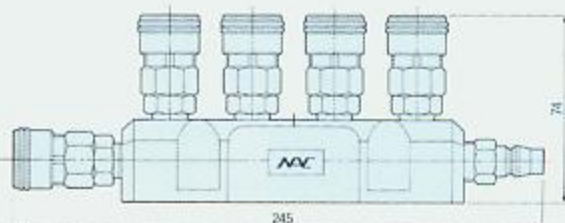
Caution

● Do not use as swivels also force couplers continuously rotating.

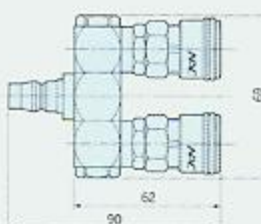
CAL2L



CAL5L



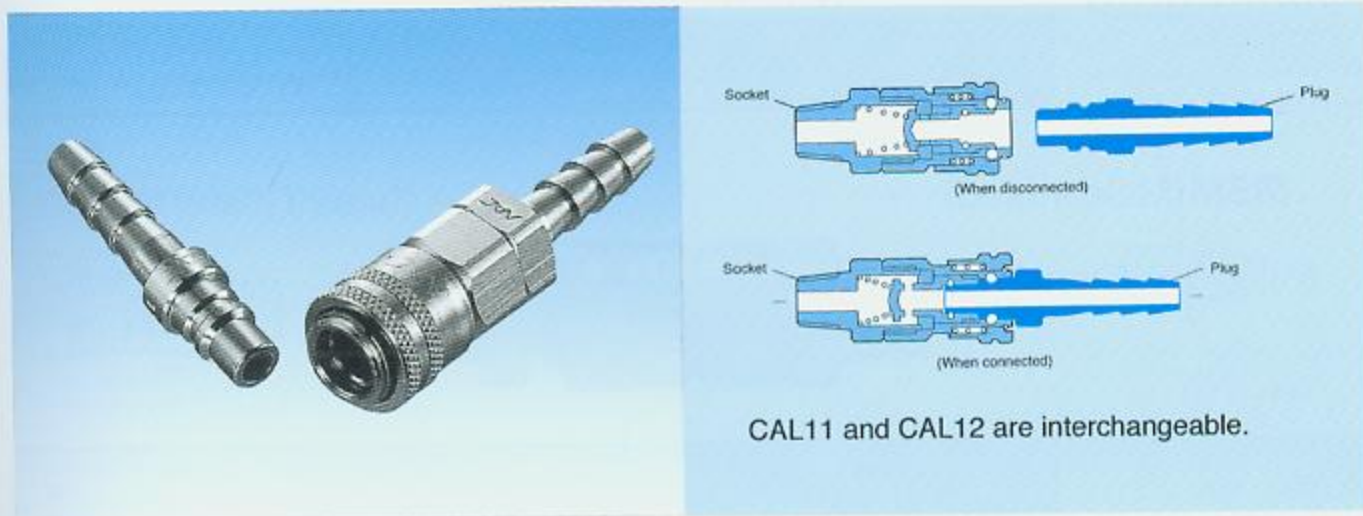
CAL2WRL



QUICK COUPLING CAL TYPE SUPERTEN

SINGLE VALVE SUPER TEN TYPE

■ SH-PH (Hose nipple) ■ SM-PM (Male thread) ■ SF-PF (Female thread)



<SPECIFICATION>

Type		Super ten	
Model No.		CAL11	CAL12
Nominal size		1/8"	1/4"
Body material	Socket	Brass Chrome-plated	
	Plug	Steel Chrome-plated	
Connection	Socket	Female thread(F), Male thread(M), Hose nipple(H), Nut(B)	
	Plug		
Normal pressure MPa(kgf/cm ²) Max. pressure MPa(kgf/cm ²)		Normal pressure 1.0(10) Max. pressure 1.5(15)	
Packing material	Standard	Nitrile rubber (NBR): -20°C ~ +80°C	
	Option	Viton (FPM): -20°C ~ +180°C	
Applications		Air piping, Air tools, Air pressure equipment, etc.	

- One hand operation allows fast and easy connection and disconnection.
- User friendly light weight design reduces pneumatic operators hand fatigue.
- Sockets and plugs are connected among AL type super ten series.

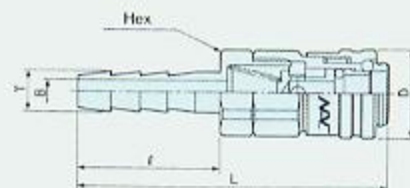
Caution

- For vibration or impact tools use, put intermediate hose (about 30 cm) between plug and tool.
- Fluid should flow from socket to plug.

QUICK COUPLING CAL TYPE SUPERTEN BRASS < chrome-plated

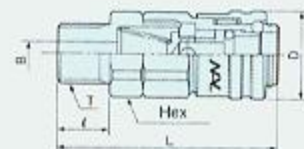
SOCKET

■ SH (Hose nipple)



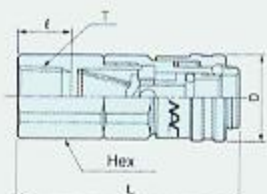
Type	Model	Hose size	Dimensions(mm)						Weight (gf)
			L	φ D	Hex	ℓ	φ B	φ T	
Super10	CAL12SH	1/2" Hose	66	19	17	30	5	8.5	52

■ SM (Male thread)



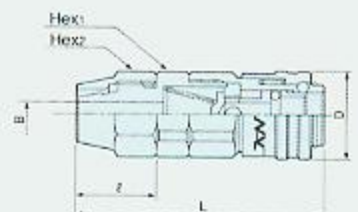
Type	Model	Application	Dimensions(mm)						Weight (gf)
			L	φ D	Hex	ℓ	φ B	T	
Super10	CAL11SM	Rc	45	19	17	9	5	R	48
	CAL12SM	Rc	47	19	17	13	6	R	53

■ SF (Female thread)



Type	Model	Application	Dimensions(mm)					Weight (gf)
			L	φ D	Hex	ℓ	T	
Super10	CAL12SF	R	45	19	17	9	Rc	54

■ SB (Nut)



Type	Model	Hose size I.D. X O.D.	Dimensions(mm)					Weight (gf)	
			L	φ D	Hex1	Hex2	ℓ		φ B
Super10	CAL11SB	5 X 8	51	19	17	14	15	4.5	58
	CAL12SB	6.5 X 10	53	19	17	17	17	5.3	64

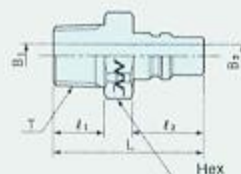
PLUG

■ PH (Hose nipple)



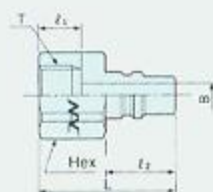
Type	Model	Hose size	Dimensions(mm)							Weight (gf)
			L	φH	φ1	φ2	φT	φB1	φB2	
Super10	CAL12PH	1/4" Hose	51	12	30	15	8.5	5	5	17

■ PM (Male thread)



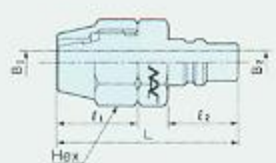
Type	Model	Application	Dimensions(mm)							Weight (gf)
			L	Hex	φ1	φ2	T	φB1	φB2	
Super10	CAL11PM	Rc	31	12	10	15	R	6	6	10
	CAL12PM	Rc	34	17	13	15	R	6	6	21

■ PF (Female thread)



Type	Model	Application	Dimensions(mm)					Weight (gf)	
			L	Hex	φ1	φ2	T		φB
Super10	CAL12PF	R	29	17	14	15	Rc	6	20

■ PB (Nut)



Type	Model	Hose size I.D.×O.D.	Dimensions(mm)						Weight (gf)
			L	Hex	φ1	φ2	φB1	φB2	
Super10	CAL11PB	5×8	36	14	15	15	4.5	6	23
	CAL12PB	6.5×10	38	17	17	15	5.3	6	33

QUICK COUPLING CKC TYPE BRASS

SINGLE VALVE MOLD COOLANT WATER TYPE

KC



<SPECIFICATION>

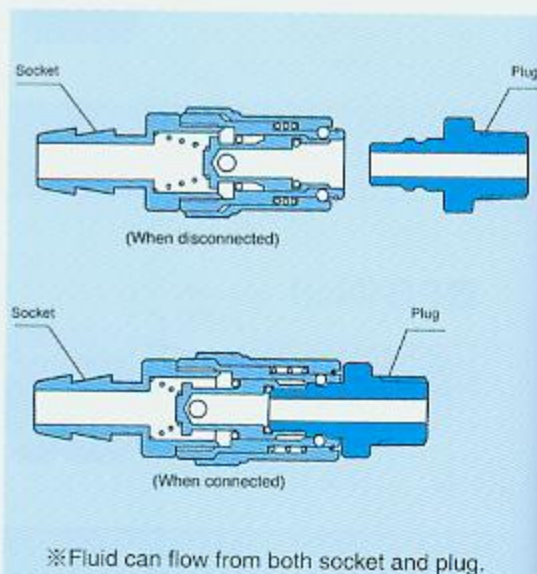
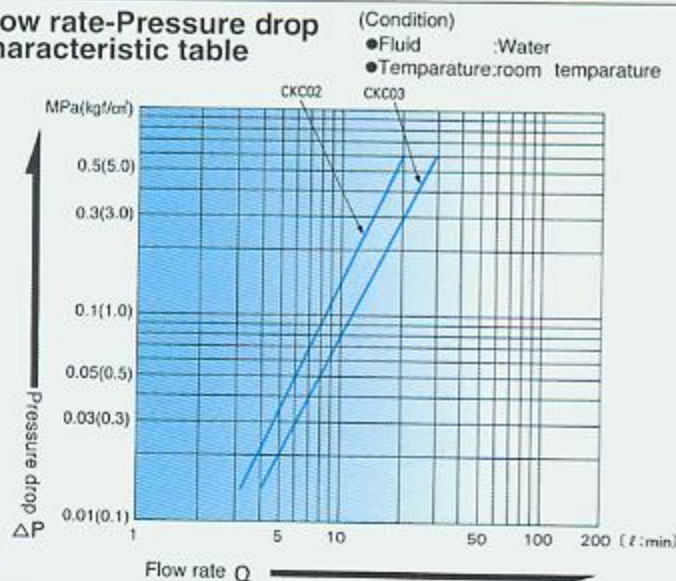
Model	CKC01	CKC02	CKC03
Nominal size	$\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "
Body material	Brass		
Connection	Female thread(F) Male thread(M) Hose nipple(H)		
Normal pressure MPa(kgf/cm ²) Max pressure MPa(kgf/cm ²)	Normal pressure 1.0(10) Max.pressure 1.5(15)		
Packing material	Viton		
Usage temperature	-20°C ~ +180°C		
Applicable fluid	Water		
Application	Water coolant hose piping for mold		

- Easy connection and disconnection of water cooling lines for replacement of molds.
- Long sleeve sockets make easy and simple for connection and disconnection with plugs embedded in molds.
- One hand operation allows fast and easy connection and disconnection.

Caution

- Fluids must be filtered always in use.
- Do not connect or disconnect couplers under pressure.
- Fluid should flow from socket to plug.

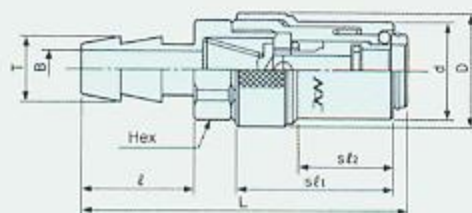
Flow rate-Pressure drop characteristic table



QUICK COUPLING CKC TYPE BRASS

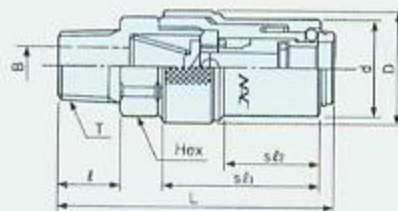
SOCKET

SH (Hose nipple)



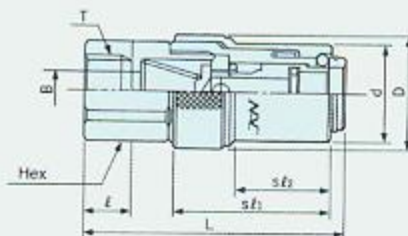
Model	Hose size	Dimensions(mm)									Weight (gf)
		L	ϕ D	ϕ d	Hex	ϕ	S01	S02	ϕ B	ϕ T	
CKC02SH2	$\frac{1}{4}$ " Hose	55	21	18	17	15	29.5	18	5	8	59
CKC03SH2	$\frac{3}{8}$ " Hose	61	21	18	17	21	29.5	18	7	12	65

SM (Male thread)



Model	Application	Dimensions(mm)									Weight (gf)
		L	ϕ D	ϕ d	Hex	ϕ	S01	S02	ϕ B	T	
CKC02SM2	R $\frac{1}{4}$	51	21	18	17	10.5	29.5	18	6	Rc $\frac{1}{4}$	65
CKC03SM2	R $\frac{3}{8}$	53	21	18	17	13	29.5	18	6	Rc $\frac{3}{8}$	75

SF (Female thread)



Model	Application	Dimensions(mm)									Weight (gf)
		L	ϕ D	ϕ d	Hex	ϕ	S01	S02	ϕ B	T	
CKC02SF2	Rc $\frac{1}{4}$	49	21	18	17	9	29.5	18	6	R $\frac{1}{4}$	67

QUICKCOUPLING CKC TYPE BRASS

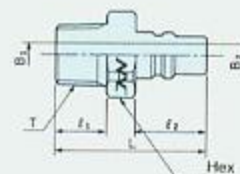
PLUG

■ PH (Hose nipple)



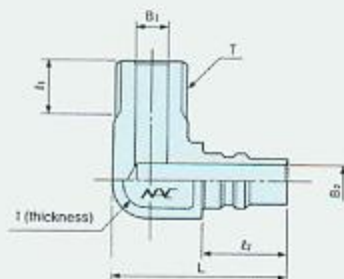
Model	Hose size	Dimensions(mm)							Weight (gf)
		L	φ H	φ1	φ2	φ T	φ B1	φ B2	
CKC02PH2	1/4" Hose	50	12	29	15	8	5	5	17
CKC03PH2	3/8" Hose	50	15.5	29	15	12	6	6	19

■ PM (Male thread)



Model	Application	Dimensions(mm)							Weight (gf)
		L	φ Hex	φ1	φ2	T	φ B1	φ B2	
CKC01PM2	Rc 1/8"	31	12	10	15	R 1/8"	6	6	12
CKC02PM2	Rc 1/4"	34	14	11	15	R 1/4"	6	6	20
CKC03PM2	Rc 3/8"	35	19	13	15	R 3/8"	9	6	33

■ PML (Female thread)



Model	Application	Dimensions(mm)							Weight (gf)
		L	t	φ1	φ2	T	φ B1	φ B2	
CKC01PML2	Rc 1/8"	33	14	10	15	R 1/8"	6	6	26
CKC02PML2	Rc 1/4"	33	14	13	15	R 1/4"	6	6	28

QUICK COUPLING CS·P TYPE

TWIN VALVE TYPE

S·P



<SPECIFICATION>

Model		CSP01	CSP02	CSP03	CSP04	CSP06	CSP08	CSP10	CSP12	CSP16
Nominal size		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Body material		Brass · Stainless steel(SUS304) · Steel(Zinc-plated)								
Connection		Female thread(F) only								
Normal pressure MPa(kg/cm ²) Max. pressure MPa(kg/cm ²)	Brass	5.0 (50)	7.5 (75)			3.0(30)	4.5(45)	2.0(20)	3.0(30)	1.5(15) 2.3(23)
	Stainless steel	7.5 (75)	10 (100)			4.5(45)	6.5(65)	3.0(30)	4.5(45)	2.0(20) 3.0(30)
	Steel	7.5 (75)	10 (100)			4.5(45)	6.5(65)	3.0(30)	4.5(45)	2.0(20) 3.0(30)
Packing material	Standard	Nitrile rubber (NBR)			Viton		(FPM): -20°C + 180°C			
	Option	Viton (FPM)			Nitrile rubber (NBR): -20°C + 80°C					
		Neoprene (CR): -20°C + 80°C								
Applicable fluid	Brass	Kerosene, Heavy oil, Gasoline, Water, etc.								
	Stainless steel	Acidic fluid, Alkaline fluid, Brine, etc.								
	Steel	Hydraulic oil								
Applications		Water piping, Oxygen piping, Acetylene piping, Steam piping, High-pressure gas piping, Chemical plant, Ship, etc.								

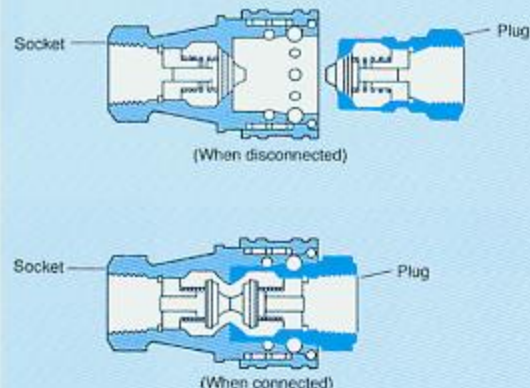
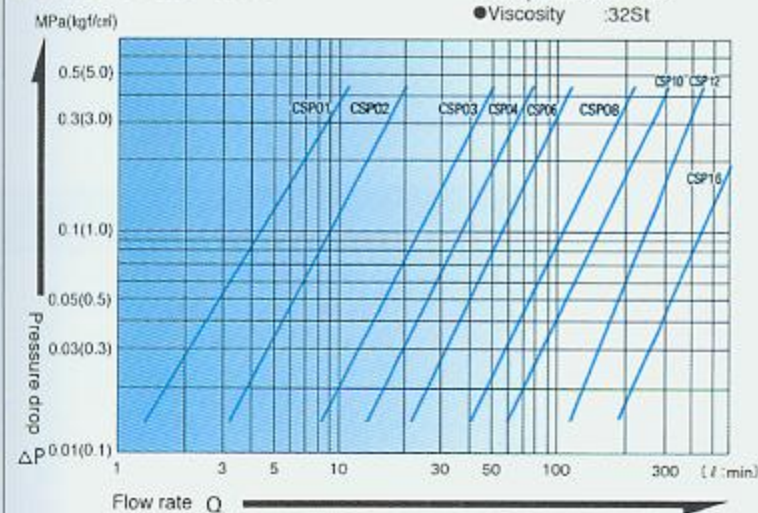
- Both socket and plug have automatic shut-off valves for medium pressure applications.
- Various packing materials enables a wide variety of applications and conditions.
- SUS 316 is available.

Caution

- Do not connect or disconnect couplers under pressure.
- Do not apply pressure on socket or plug when disconnected. This may cause valve to be blown out.
- Do not hit top of valves with hammer or other tools. This may cause leakage or malfunction.
- For hydraulic fluid use, keep its flow rate less than 8m/s.
- Different sizes are not interchangeable.

Flow rate-Pressure drop characteristic table

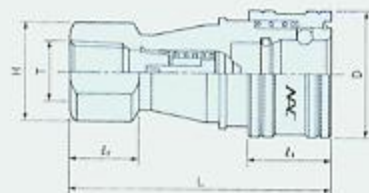
(Condition) ● Fluid : ISO VG32
● Temperature: 50°C ± 5
● Viscosity : 32St



※ Fluid can flow both socket and plug.

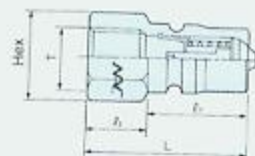
QUICK COUPLING CS·P TYPE BRASS

SOCKET



Model	Application	Dimensions(mm)						Weight (gf)
		L	φ D	H	φ 1	φ 2	T	
CSP01S2	R $\frac{1}{8}$	48	24	φ18/Face14	16.5	10	Rc $\frac{1}{8}$	87
CSP02S2	R $\frac{1}{4}$	58	28	φ22/Face19	17.5	13	Rc $\frac{1}{4}$	137
CSP03S2	R $\frac{3}{8}$	65	35	φ25/Face21	20	14	Rc $\frac{3}{8}$	209
CSP04S2	R $\frac{1}{2}$	72	45	φ35/Face29	25.5	16	Rc $\frac{1}{2}$	424
CSP06S2	R $\frac{3}{4}$	88	55	φ41/Face35	32	17	Rc $\frac{3}{4}$	715
CSP08S2	R1	102	65	φ48/Face41	32.5	20	Rc1	1066
CSP10S2	R1 $\frac{1}{4}$	115	77.5	φ59/Face54	34	24	Rc1 $\frac{1}{4}$	1717
CSP12S2	R1 $\frac{1}{2}$	124	87.5	φ69/Face63	39	25	Rc1 $\frac{1}{2}$	2526
CSP16S2	R2	132	109	φ86/Face77	39	26	Rc2	3956

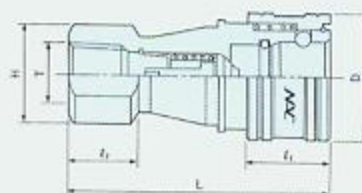
PLUG



Model	Application	Dimensions(mm)					Weight (gf)
		L	Hex	φ 1	φ 2	T	
CSP01P2	R $\frac{1}{8}$	29	14	19	10	Rc $\frac{1}{8}$	19
CSP02P2	R $\frac{1}{4}$	36	17	22	13	Rc $\frac{1}{4}$	36
CSP03P2	R $\frac{3}{8}$	40	21	25	14	Rc $\frac{3}{8}$	62
CSP04P2	R $\frac{1}{2}$	44	29	28	16	Rc $\frac{1}{2}$	128
CSP06P2	R $\frac{3}{4}$	52	35	36	17	Rc $\frac{3}{4}$	218
CSP08P2	R1	62	41	40	20	Rc1	356
CSP10P2	R1 $\frac{1}{4}$	70	54	45	24	Rc1 $\frac{1}{4}$	664
CSP12P2	R1 $\frac{1}{2}$	75	65	49	25	Rc1 $\frac{1}{2}$	996
CSP16P2	R2	80	φ84/Face77	52	26	Rc2	1638

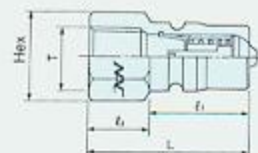
QUICK COUPLING CS·P TYPE STAINLESS STEEL <SUS304>

SOCKET



Model	Application	Dimensions(mm)						Weight (g ^l)
		L	φ D	H	ℓ 1	ℓ 2	T	
CSP01S3	R $\frac{1}{8}$	48	24	φ 18/Face14	16.5	10	Rc $\frac{1}{8}$	79
CSP02S3	R $\frac{1}{4}$	58	28	φ 22/Face19	17.5	13	Rc $\frac{1}{4}$	128
CSP03S3	R $\frac{3}{8}$	65	35	φ 25/Face21	20	14	Rc $\frac{3}{8}$	195
CSP04S3	R $\frac{1}{2}$	72	45	φ 35/Face29	25.5	16	Rc $\frac{1}{2}$	400
CSP06S3	R $\frac{3}{4}$	88	55	φ 41/Face35	32	17	Rc $\frac{3}{4}$	670
CSP08S3	R 1	102	65	φ 48/Face41	32.5	20	Rc 1	1000
CSP10S3	R1 $\frac{1}{4}$	115	77.5	φ 59/Face54	34	24	Rc1 $\frac{1}{4}$	1603
CSP12S3	R1 $\frac{1}{2}$	124	87.5	φ 69/Face63	39	25	Rc1 $\frac{1}{2}$	2361
CSP16S3	R2	132	109	φ 86/Face77	39	26	Rc2	3752

PLUG



Model	Thread size	Dimensions(mm)					Weight (g ^l)
		L	Hex	ℓ 1	ℓ 2	T	
CSP01P3	R $\frac{1}{8}$	29	14	19	10	Rc $\frac{1}{8}$	18
CSP02P3	R $\frac{1}{4}$	36	17	22	13	Rc $\frac{1}{4}$	33
CSP03P3	R $\frac{3}{8}$	40	21	25	14	Rc $\frac{3}{8}$	58
CSP04P3	R $\frac{1}{2}$	44	29	28	16	Rc $\frac{1}{2}$	116
CSP06P3	R $\frac{3}{4}$	52	35	36	17	Rc $\frac{3}{4}$	203
CSP08P3	R 1	62	41	40	20	Rc 1	341
CSP10P3	R1 $\frac{1}{4}$	70	54	45	24	Rc1 $\frac{1}{4}$	612
CSP12P3	R1 $\frac{1}{2}$	75	65	49	25	Rc1 $\frac{1}{2}$	878
CSP16P3	R2	80	φ 84/Face77	52	26	Rc2	1572

QUICK COUPLING CS·P-V TYPE VACUUM

TWIN VALVE VACUUM TYPE

■ S·P-V



<SPECIFICATION>

Model		CSP01V	CSP02V	CSP03V	CSP04V
Nominal size		1/8"	1/4"	3/8"	1/2"
Body material		Brass · Stainless steel(SUS304)			
Connection		Female thread(F) only			
Nomal pressure MPa(kg/cm ²) Max.pressure MPa(kg/cm ²)	Brass	5.0 (50) 7.5 (75)		3.0 (30) 4.5 (45)	
	Stainless steel	7.5 (75) 10 (100)		6.0 (60) 7.0 (70)	
Packing material	Standard	Neoprene(CR): -20°C ~ +80°C			
	Option	Viton(FPM): -20°C ~ +180°C Nitrile rubber hydride(H-NBR): -20°C ~ +80°C			
Applicable fluid		CR:R12/22, helium, nitrogen, air FPM:R12, helium, nitrogen, hot air		H-NBR:R134a	

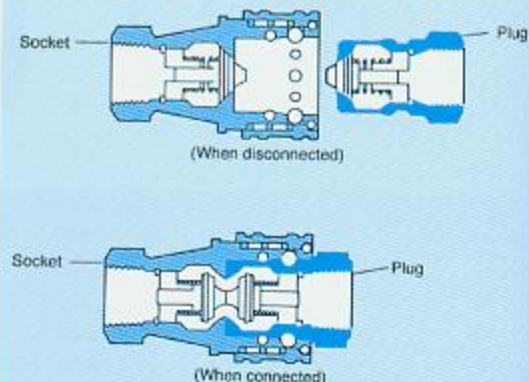
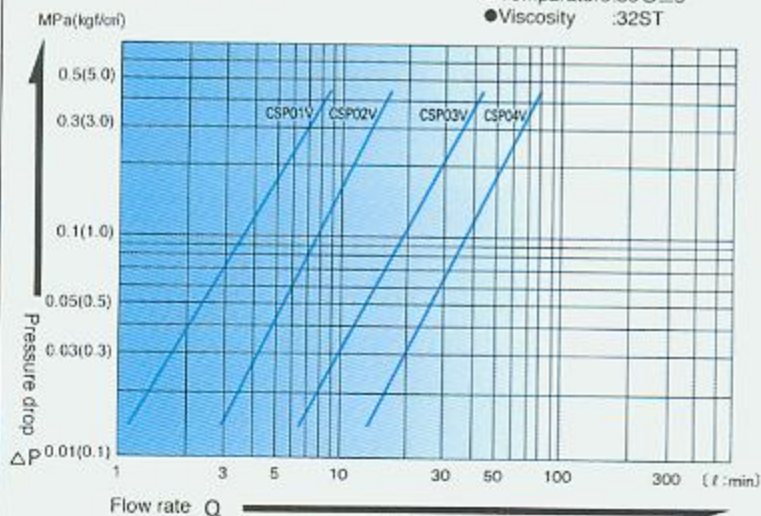
- Both socket and plug have automatic shut-off valves for wide range of vacuum applications down to 1×10^{-3} mmHg
- 3 kinds of packing materials are suitable to be used for air-conditioner and refrigerator production lines.

Caution

- Do not connect or disconnect couplers under pressure.
- Do not apply pressure on socket or plug under disconnected.
This may cause valve to be blown out.
- Do not hit top of valves with hammer or other tools. This may cause leakage or malfunction.
- Different sizes are not interchangeable.
- Interchangeable with SP types but restricts flow.

Flow rate-Pressure drop characteristic table

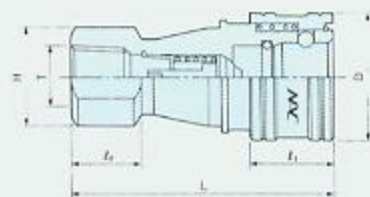
(Condition) ● Fluid : ISO VG32
● Temperature: 50°C ± 5
● Viscosity : 32ST



※ Fluid can flow both socket and plug.

QUICK COUPLING CS·P·V TYPE VACUUM

SOCKET



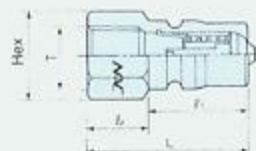
■ Brass

Model	Application	Dimension(mm)						Weight (gf)
		L	φ D	H	φ 1	φ 2	T	
CSP01S2V	R $\frac{1}{8}$	48	24	φ 18/Face14	16.5	10	Rc $\frac{1}{8}$	87
CSP02S2V	R $\frac{1}{4}$	58	28	φ 22/Face17	17.5	13	Rc $\frac{1}{4}$	137
CSP03S2V	R $\frac{3}{8}$	65	35	φ 25/Face21	20	14	Rc $\frac{3}{8}$	209
CSP04S2V	R $\frac{1}{2}$	72	45	φ 35/Face29	25.5	16	Rc $\frac{1}{2}$	424

■ Stainless steel (SUS304)

Model	Application	Dimension(mm)						Weight (gf)
		L	φ D	H	φ 1	φ 2	T	
CSP01S3V	R $\frac{1}{8}$	48	24	φ 18/Face14	16.5	10	Rc $\frac{1}{8}$	79
CSP02S3V	R $\frac{1}{4}$	58	28	φ 22/Face17	17.5	13	Rc $\frac{1}{4}$	128
CSP03S3V	R $\frac{3}{8}$	65	35	φ 25/Face21	20	14	Rc $\frac{3}{8}$	195
CSP04S3V	R $\frac{1}{2}$	72	45	φ 35/Face29	25.5	16	Rc $\frac{1}{2}$	400

PLUG



■ Brass

Model	Application	Dimension(mm)					Weight (gf)
		L	Hex	φ 1	φ 2	T	
CSP01P2V	R $\frac{1}{8}$	29	14	19	10	Rc $\frac{1}{8}$	19
CSP02P2V	R $\frac{1}{4}$	36	17	22	13	Rc $\frac{1}{4}$	36
CSP03P2V	R $\frac{3}{8}$	40	21	25	14	Rc $\frac{3}{8}$	62
CSP04P2V	R $\frac{1}{2}$	44	29	28	16	Rc $\frac{1}{2}$	128

■ Stainless steel (SUS304)

Model	Application	Dimension(mm)					Weight (gf)
		L	Hex	φ 1	φ 2	T	
CSP01P3V	R $\frac{1}{8}$	29	14	19	10	Rc $\frac{1}{8}$	18
CSP02P3V	R $\frac{1}{4}$	36	17	22	13	Rc $\frac{1}{4}$	33
CSP03P3V	R $\frac{3}{8}$	40	21	25	14	Rc $\frac{3}{8}$	58
CSP04P3V	R $\frac{1}{2}$	44	29	28	16	Rc $\frac{1}{2}$	116

QUICK COUPLING CH·P TYPE

TWIN VALVE HIGH PRESSURE (210kgf/cm²) TYPE

H·P

- Chrome-molybdenum steel body withstands vibration and pressure impulse.
- Important parts are hardened for high durability.
- Lotus-shape valve stands are available for severe pressure applications.
- Available Nickel Plated body for water-glycol



<SPECIFICATION>

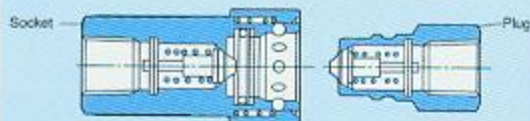
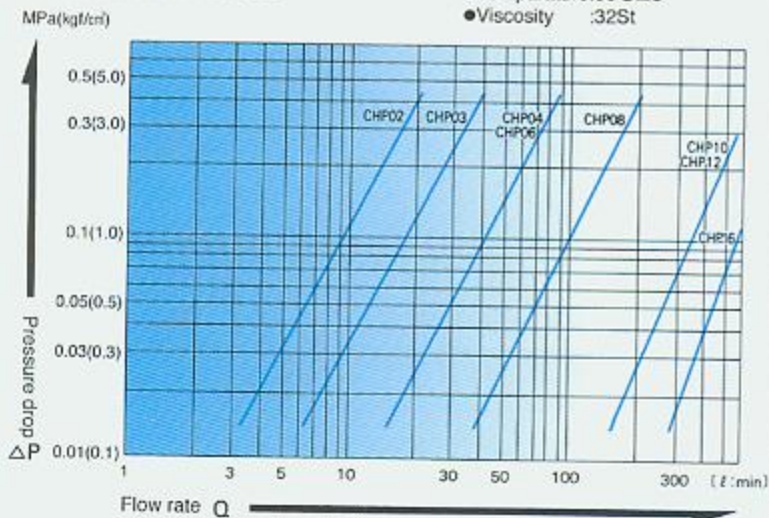
Model	CHP02	CHP03	CHP04	CHP06	CHP08	CHP10	CHP12	CHP16
Nominal size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Body material	Chrome-molybdenum steel(Zinc-plated)							
Connection	Female thread(F) only							
Normal pressure MPa(kgf/cm ²) Max.pressure MPa(kgf/cm ²)	C.M.steel	20.5(210)			18(180)		14(140)	
		31(315)			26.5(270)		20.5(210)	
Packing material	Standard	Nitrile rubber (NBR): -20°C~+80°C						
	Option	Viton (FPM): -20°C~+180°C						
Applicable fluid	Operating oil,High-pressure gas							
Applications	Hydraulic machines,High-pressure gas piping							

Caution

- Do not connect or disconnect couplers under pressure as well as with residual pressure.
 - Do not apply pressure on socket or plug under disconnected.
This may cause valve to be blown out.
 - Do not hit top of valves with hammer or other tools. This may cause leakage or malfunction.
 - Do not use for water-glycol fluid which damages coupler plating.
 - For hydraulic fluid use, keep its flow rate less than 8m/s.
 - CHP04 and CHP06 are interchangeable as well as CHP10 and CHP12.
- The rest of combinations for different sizes are not interchangeable.

Flow rate-Pressure drop characteristic table

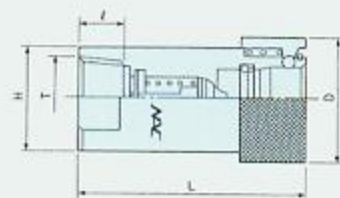
(Condition) ●Fluid :ISO VG32
●Temperature:50°C±5
●Viscosity :.32St



- When disconnects
Both socket and plug are sealed by automatic shut off valves instantly.
 - When connects
Automatic shut off valves of socket and plug opens and seals by O-ring with backup-ring.
- * Always put dust covers on socket and plug under disconnection.
※ Fluid can flow from both socket and plug.

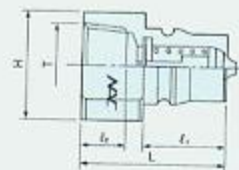
QUICK COUPLING CH·P TYPE CHROME-MOLYBDENUM STEEL (Zinc-plated)

SOCKET



Model	Thread size	Dimensions(mm)				
		L	φ D	H	ℓ	T
CHP02S	R 1/4	49	30	φ24/Face19	12	Rc 1/4
CHP03S	R 3/8	60	34.5	φ28.5/Face23	13	Rc 3/8
CHP04S	R 1/2	72	44	φ38.5/Face35	15	Rc 1/2
CHP06S	R 3/4	72	44	φ38.5/Face35	18	Rc 3/4
CHP08S	R 1	93	58.5	φ52/Face46	20	Rc 1
CHP10S	R 1 1/4	138	88	φ64/Face58	24	Rc 1 1/4
CHP12S	R 1 1/2	138	88	φ64/Face58	24	Rc 1 1/2
CHP16S	R 2	198	123	φ90/Face80	32	Rc 2

PLUG



Model	Thread size	Dimensions(mm)				
		L	ℓ 1	ℓ 2	H	T
CHP02P	R 1/4	32	17.5	12	19	Rc 1/4
CHP03P	R 3/8	38	22.5	13	23	Rc 3/8
CHP04S	R 1/2	44	27.5	15	29	Rc 1/2
CHP06P	R 3/4	50	27.5	18	32	Rc 3/4
CHP08P	R 1	61	36	21	φ47/Face41	Rc 1
CHP10P	R 1 1/4	80	58	24	φ64/Face58	Rc 1 1/4
CHP12P	R 1 1/2	80	58	24	φ64/Face58	Rc 1 1/2
CHP16P	R 2	115	83	32	φ100/Face90	Rc 2

QUICK COUPLING CSH TYPE

TWIN VALVE HIGH PRESSURE (20.5MPa) STAINLESS STEEL TYPE

SH

- Stainless steel SUS304 for excellent resistance to corrosion.
- Inner seal mechanism design allows working pressure of 20.6 Mpa.



<SPECIFICATIONS>

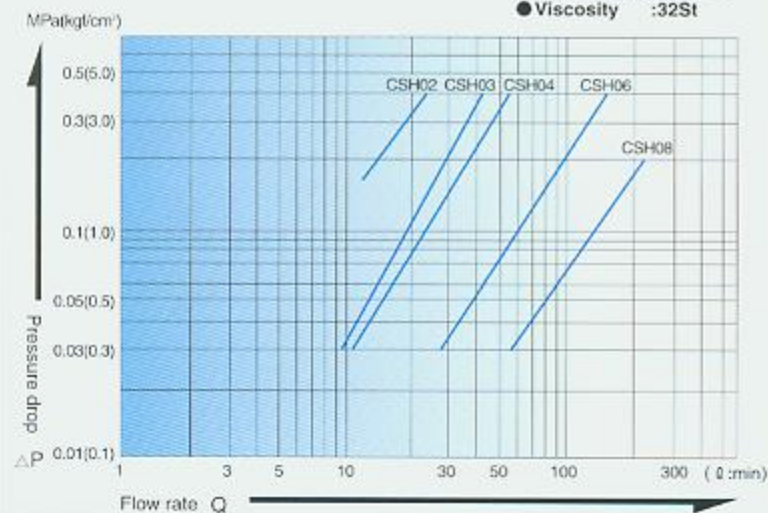
Model	CSH02	CSH03	CSH04	CSH06	CSH08
Nominal size	1/4"	3/8"	1/2"	3/4"	1"
Body material	SUS304				
Connection	Female thread only				
Normal pressure MPa(kgf/cm ²)	20.5 (210)				
Max pressure MPa(kgf/cm ²)	31.0 (315)				
Packing material Working temperature range	Standard	Viton (FPM) ; -20°C ~ +180°C			
	Option	Nitrile butadiene rubber (NBR) ; -20°C ~ +80°C			
Applicable fluids	Hydraulic Oil, Water, High pressure gas				
Applications	Hydraulic equipments, High pressure piping joints				

Caution

- Do not connect or disconnect couplers under pressure as well as with residual pressure
- Do not apply pressure on socket or plug under disconnected.
This may cause the valve to be blown out.
- For hydraulic fluid use, keep its flow rate less than 8m/s.

Flow rate-Pressure drop characteristic table

(Condition) ● Fluid :ISO VG32
● Temperature:50°C ± 5
● Viscosity :32St



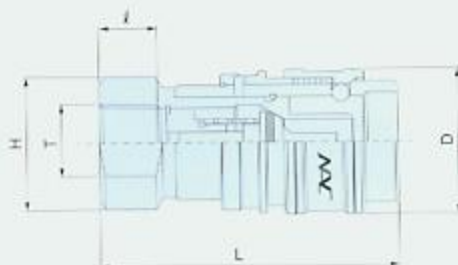
Socket Plug



- When disconnects
Both socket and plug are sealed by automatic shut off valves instantly.
- When connects
Automatic shut off valves of socket and plug opens and seals by O-ring with backup-ring.
- * Always put dust covers on socket and plug under disconnection.
- ※ Fluid can flow from both socket and plug.

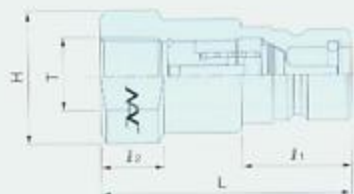
QUICK COUPLING CSH TYPE <SUS304>

SOCKET



Model	Application	Dimension(mm)				
		L	ϕD	H	ϕ	T
CSH02S3	R1/4	59	27	$\phi 22$ /Face 19	11	Rc1/4
CSH03S3	R3/8	68	32	$\phi 28$ /Face 24	13	Rc3/8
CSH04S3	R1/2	80	40	$\phi 35$ /Face 30	16	Rc1/2
CSH06S3	R3/4	97	48	$\phi 44$ /Face 38	19	Rc3/4
CSH08S3	R1	118	62	$\phi 58$ /Face 50	22	Rc1

PLUG



Model	Application	Dimension(mm)				
		L	$\phi 1$	$\phi 2$	H	T
CSH02P3	R1/4	50	20	11	$\phi 22$ /Face 19	Rc1/4
CSH03P3	R3/8	59	24	13	$\phi 28$ /Face 24	Rc3/8
CSH04P3	R1/2	70	28	16	$\phi 35$ /Face 30	Rc1/2
CSH06P3	R3/4	82	35.6	19	$\phi 44$ /Face 38	Rc3/4
CSH08P3	R1	100	47.5	22	$\phi 58$ /Face 50	Rc1

QUICK COUPLING CTL TYPE

VALVELESS TYPE

■ SH-PH (Hose nipple) ■ SM-PM (Male thread) ■ SF-PF (Female thread)



<SPECIFICATION>

Model		CTL01	CTL02	CTL03	CTL04	CTL06	CTL08	CTL10	CTL12	CTL16
Nominal size		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Body material		Brass · Stainless Steel(SUS304), Steel(Zinc-plated)								
Connection	Socket	Female thread(F) · Male thread(M), Hose nipple(H)								
	Plug									
Nomal pressure MPa(kgf/cm ²) Max.pressure MPa(kgf/cm ²)	Brass	5.0 (50)	7.5 (75)		3.0(30)	4.5(45)	2.0(20)	3.0(30)	1.5(15)	2.3(23)
	Stainless steel	7.5 (75)	10 (100)		4.5(45)	6.5(65)	3.0(30)	4.5(45)	2.0(20)	3.0(30)
	Steel	7.5 (75)	10 (100)		4.5(45)	6.5(65)	3.0(30)	4.5(45)	2.0(20)	3.0(30)
Packing material	Standard	Viton (FPM): -20°C ~ +180°C								
	Option	Nitrile rubber (NBR): -20°C ~ +80°C Neoprene (CR): -20°C ~ +80°C								
Applicable fluid	Brass	Gasoline, Heavy oil, Kerosene, Water, Steam, etc.								
	Stainless steel	Acidic fluid, Alkaline fluid, Brine, etc.								
	Steel	Hydraulic oil								
Applications		Hydraulic piping, Water piping, Steam piping High pressure gas piping, Chemical plant, Ship, etc.								

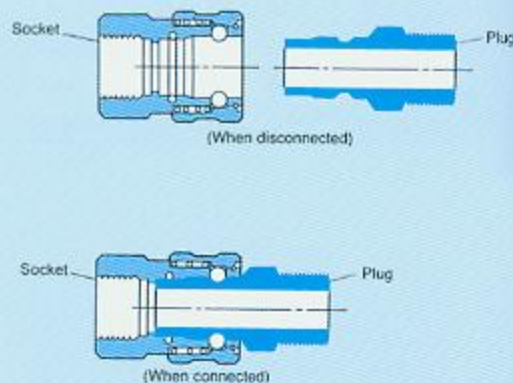
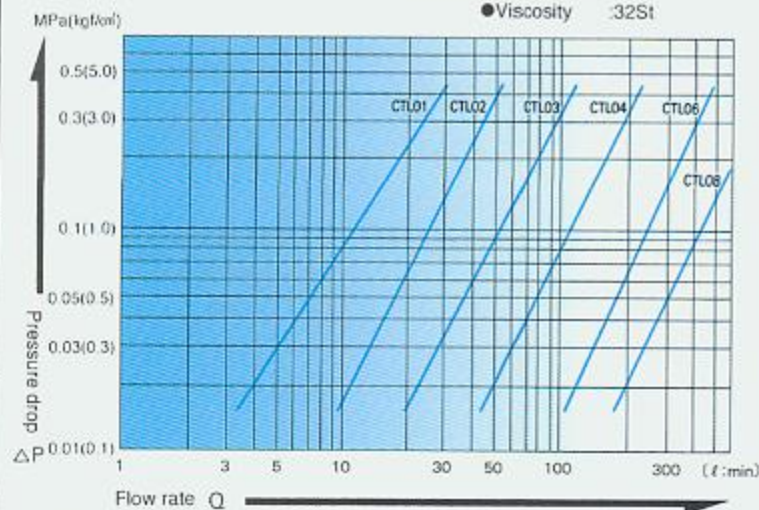
- Valveless structure reduces pressure loss and allows high flow rates.
- Various packing materials enables a wide variety of applications and conditions.
- SUS316 is available.

<Caution>

- Do not connect or disconnect couplers under pressure.
- Fluid in pipe will be discharged on disconnection. Be careful if dangerous fluids are to be used. (Such as chemicals or hot fluids.)
- Different sizes are not interchangeable.

Flow rate-Pressure drop characteristic table

(Condition) ● Fluid : ISO VG32
● Temperature: 50°C ± 5
● Viscosity : 32St

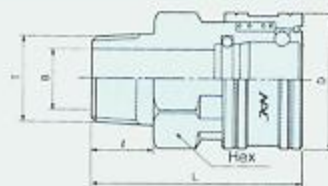


※ Fluid can flow from both socket and plug.

QUICK COUPLING CTL TYPE STEEL <Zinc-plated>

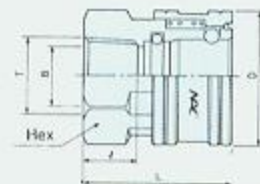
SOCKET

SM (Male thread)



Model	Thread size	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	φ	φ B	φ T	
CTL02SM	Rc 1/4	42	25	19	13	6.5	R 1/4	67
CTL03SM	Rc 3/8	46	28	23	13	10	R 3/8	101
CTL04SM	Rc 1/2	54	35	29	17	13	R 1/2	172
CTL06SM	Rc 3/4	65	45	38	19	18	R 3/4	349
CTL08SM	Rc 1	76	58	50	22	24	R 1	608

SF (Female thread)



Model	Thread size	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	φ	φ B	φ T	
CTL02SF	R 1/4	32	25	19	13	8	Rc 1/4	57
CTL03SF	R 3/8	35	28	23	13	13	Rc 3/8	84
CTL04SF	R 1/2	42	35	29	17	17	Rc 1/2	148
CTL06SF	R 3/4	48	45	38	19	19	Rc 3/4	296
CTL08SF	R 1	59	58	50	21	27	Rc 1	576

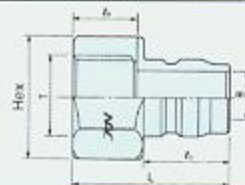
PLUG

PM (Male thread)



Model	Thread size	Dimensions(mm)							Weight (gf)
		L	Hex	φ 1	φ 2	T	φ B1	φ B2	
CTL02PM	Rc 1/4	38	17	18	13	R 1/4	6.5	6.5	30
CTL03PM	Rc 3/8	43	19	21	13	R 3/8	10	10	42
CTL04PM	Rc 1/2	52	22	24	17	R 1/2	12	12	86
CTL06PM	Rc 3/4	59	29	28	19	R 3/4	17	17	138
CTL08PM	Rc 1	73	38	36	22	R 1	25	25	274

PF (Female thread)



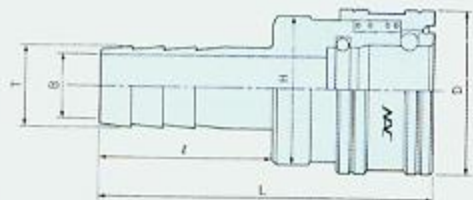
Model	Thread size	Dimensions(mm)						Weight (gf)
		L	Hex	φ 1	φ 2	T	B	
CTL02PF	R 1/4	34	17	18	13	Rc 1/4	6.5	28
CTL03PF	R 3/8	38	21	21	13	Rc 3/8	10	43
CTL04PF	R 1/2	44	26	24	16	Rc 1/2	13	78
CTL06PF	R 3/4	51	35	28	19	Rc 3/4	17	161
CTL08PF	R 1	60	41	36	22	Rc 1	26	255

※Other sizes, and Hose nipple are available on request.

QUICKCOUPLING CTL TYPE BRASS

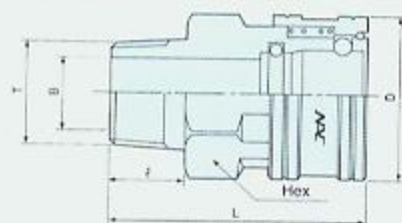
SOCKET

SH (Hose nipple)



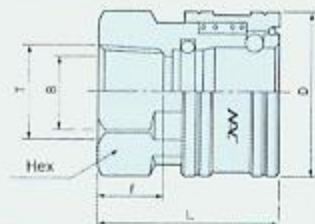
Model	Hose size	Dimensions(mm)						Weight (gf)
		L	φ D	φ H	ℓ	φ B	φ T	
CTL01SH2	1/8"Hose	40	18	16	20	3	6.5	27
CTL02SH2	1/4"Hose	55	24.5	22	29	5	8	69
CTL03SH2	3/8"Hose	62	28	25	32	7	11	103
CTL04SH2	1/2"Hose	71	35	32	39	10	15	188
CTL06SH2	3/4"Hose	90	45	40	48	15	21	373
CTL08SH2	1"Hose	102	58	52	57	19	27	616
CTL10SH2	1 1/4"Hose	117	69	64	70	26	34	922
CTL12SH2	1 1/2"Hose	128	75	70	75	32	41	1151
CTL16SH2	2"Hose	141	98	90	80	40	54	2307

SM (Male thread)



Model	Application	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	ℓ	φ B	φ T	
CTL01SM2	Rc 1/8	30	18	14	9	4.5	R 1/8	27
CTL02SM2	Rc 1/4	42	24.5	19	13	6.5	R 1/4	75
CTL03SM2	Rc 3/8	46	28	23	13	10	R 3/8	107
CTL04SM2	Rc 1/2	54	35	29	17	13	R 1/2	191
CTL06SM2	Rc 3/4	65	45	38	19	18	R 3/4	379
CTL08SM2	Rc 1	76	58	50	22	25	R 1	667
CTL10SM2	Rc 1 1/4	86	69	φ 62/Fase54	25	32	R 1 1/4	1023
CTL12SM2	Rc 1 1/2	95	75	φ 66/Fase58	25	38	R 1 1/2	1231
CTL16SM2	Rc 2	108	98	φ 82/Fase77	29	49	R 2	2250

SF (Female thread)



Model	Application	Dimensions(mm)						Weight (gf)
		L	φ D	Hex	ℓ	φ B	φ T	
CTL01SF2	R 1/8	27	18	14	9	4.5	Rc 1/8	27
CTL02SF2	R 1/4	32	24.5	19	13	8	Rc 1/4	63
CTL03SF2	R 3/8	35	28	23	13	12	Rc 3/8	88
CTL04SF2	R 1/2	42	35	29	17	16	Rc 1/2	156
CTL06SF2	R 3/4	48	45	38	19	20	Rc 3/4	319
CTL08SF2	R 1	59	58	50	21	27	Rc 1	621
CTL10SF2	R 1 1/4	64	69	φ 62/Fase54	22	36	Rc 1 1/4	891
CTL12SF2	R 1 1/2	71	75	φ 66/Fase58	23	42	Rc 1 1/2	1045
CTL16SF2	R 2	80	98	φ 82/Fase77	27	54	Rc 2	1963