



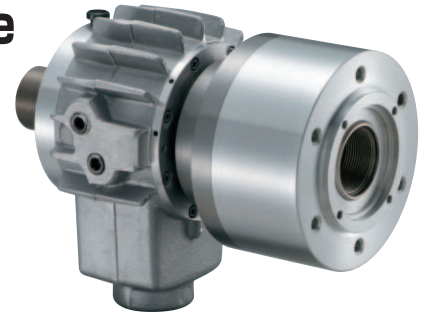
**ROTARY
CYLINDER**

High Speed Hydraulic Cylinder with Open Center

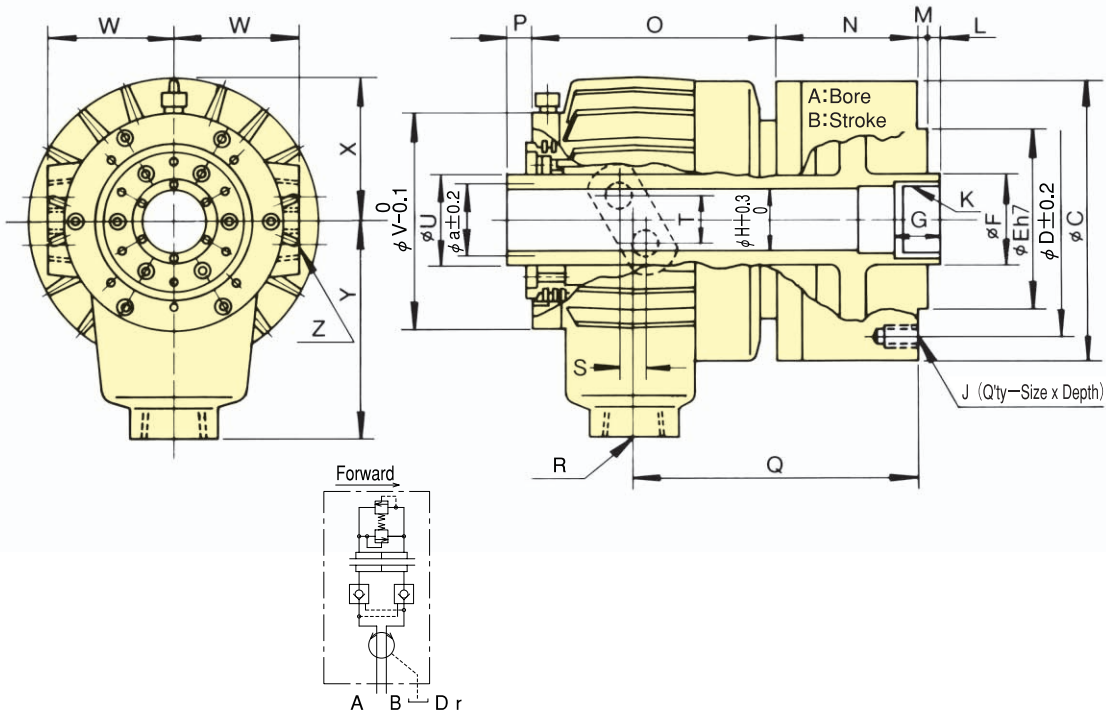
F series

KITAGAWA standard thru-hole type

- Built-in check valve and relief valve



Dimensional Drawings



Cylinder

Dimensions

Model	A	B	C	D	E (h7)	F	G	H	J	K	L max.	L min.	M	N	O	P max.	P min.	Q	R	S	T	U	V	W	X	Y	Z	a
F0933H	95	12	125	100	80	45	25	33.5	6-M 8x15	M 38x1.5	+7	-5	5	71	119	41	29	142	RC ³ / ₄	11.8	22	M39x1.5	104	64	66	110	2x2-RC ¹ / ₄	-
F2511H	250	23	310	275	230	140	45	117.5	12-M 16x32	M 130x2.0	+18	-5	6	101	209	38	15	217	RC1	27	20	134.6	232	125	135.5	215	2x2-PT ³ / ₈	127

※ Total leakage : Pressure 3.0MPa (30.6kgf/cm²) and oil temperature 50°C. ※ Draw bar pull force : Pressure 4.0MPa (40.8kgf/cm²)

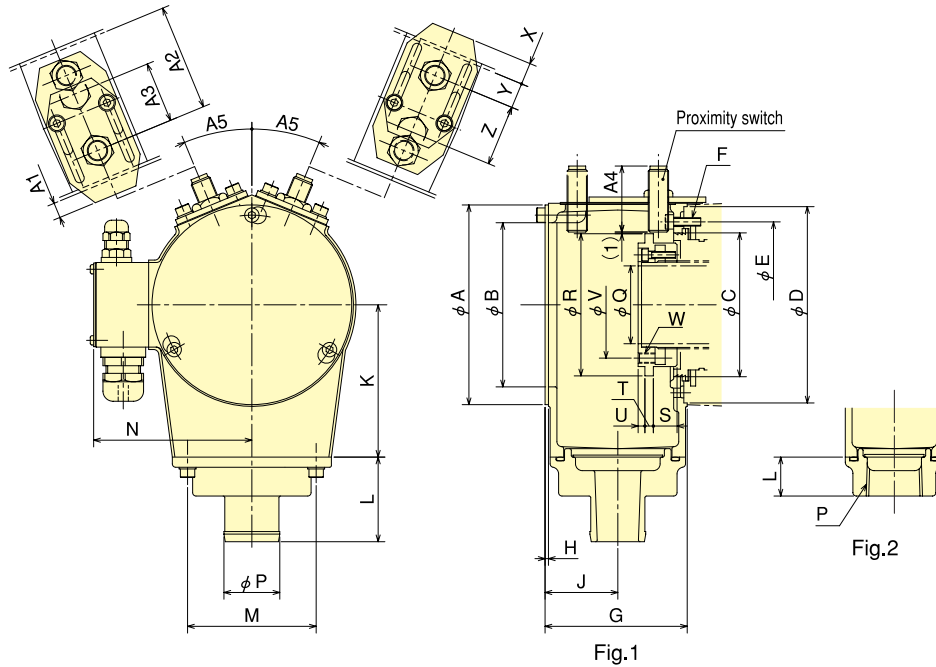
Model	Thru-Hole mm	Piston stroke mm	Piston Area		Draw bar		Max. Operation Pressure MPa (kgf/cm ²)	Total leakage ℓ/min	Max. Speed min ⁻¹ (r.p.m)	Net Weight kg	Moment of inertia kg·m ²
			Push Side cm ²	Pull Side cm ²	Push Side kN(kgf)	Pull Side kN(kgf)					
F0933H	33	12	58	55	22.0 (2243)	20.6 (2100)	4 (40.8)	3.0	8000	8.5	0.008
F2511H	117.5	23	348	336	125.0 (12746)	120 (12236)	4 (40.8)	7.0	2800	60	0.455



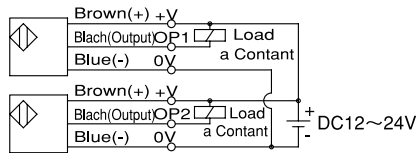
**ROTARY
CYLINDER**

Coolant Collector

Dimensional Drawings

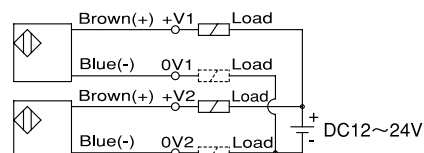


Proximity Switch Type 1
manufactured by B & Plus KK
BES516-329-E3R



Circuit Diagram for Proximity Switch Output
NPN A Contact (Normally open)

Proximity Switch Type 2
manufactured by Yamatake
FL7M-3J6HD



Circuit Diagram for Proximity Switch Output
DC two-wire system A Contact (Normally open)
Lead = Both sides connectable

Dimensions

*The under bodies of CSK12Y2, CSK14Y2, CSK16Y2, CSK17Y2, CSK18Y2, CSK21Y2, and CS-25HW are based on Fig. 2.

Model	Cylinder	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
CS-S10BN	S1036	118	97	73	104	88	4-M5	84	2	43	90	50	76	93.5	33	36
CS-S12BN	S1246	118	97	85	116	98	4-M5	84	2	43	90	50	76	93.5	33	46
CS-S15BN	S1552	136	114	96	135	110	4-M6	84	2	43	100	50	76	103.5	33	52
CS-S18BN	S1875	181	154	121	164	155	4-M6	88	2	46	140	50	76	126.5	33	75
CS-S20BN	S2091	181	154	138	180	165	4-M6	104	2	44	140	50	76	126.5	33	91
CSK12Y2	SS1246K	118	97	85	116	98	4-M5	62	2	32	90	23	76	92	Rc 1	46
CSK14Y2	SS1453K	136	114	96	135	110	4-M6	84	2	35	100	23	76	102	Rc 1	53
CSK16Y2	SS1666K	171	144	111	154	145	4-M6	88	2	38	135	23	76	120	Rc 1	66
CSK17Y2	SS1775K	181	154	121	164	155	4-M6	71	2	37.5	140	23	76	125	Rc 1	75
CSK18Y2	SS1881K	191	165	126	175	166	4-M6	88	2	38	145	23	76	130	Rc 1	81
CSK21Y2	SS2110K	229	200	160	210	201	4-M6	84	2	35	163	23	76	150	Rc 1	106
CS-F08BN	F0933H	118	97	73	104	88	4-M5	84	2	43	90	50	76	93.5	26	33
CS-25HW	F2511H	232	200	179	-	206	4-M6	101.6	1.6	51.6	180	-	76	148.5	Rc3/4	117.5

Model	Cylinder	R	S	T	U	V	W	X _{max.}	Y	Z	A1 _{max.}	A2	A3	A4	A5	Proximity switch
CS-S10BN	S1036	84	14	5	4	52	4-M6	13	15	36	9	63	36	39	22.5°	TYPE.1
CS-S12BN	S1246	84	14	5	4	63	4-M6	13	15	36	9	63	36	39	22.5°	TYPE.1
CS-S15BN	S1552	99	14	5	4	70	4-M6	13	15	36	9	63	36	39	22.5°	TYPE.1
CS-S18BN	S1875	144	14	5	4	95	4-M6	15	15	39	15	71	39	39	15°	TYPE.1
CS-S20BN	S2091	144	21	5	2	108	4-M6	8	22	41	10	82	41	39	15°	TYPE.1
CSK12Y2	SS1246K	84	10	5	8	63	4-M6	10	15	27	7	42	27	35	22.5°	TYPE.2
CSK14Y2	SS1453K	99	4	5	11.5	70	4-M6	13	15	36	10	64	36	35	20°	TYPE.2
CSK16Y2	SS1666K	134	12.5	5	4	85.5	4-M6	8	15	55	7	70	55	35	15°	TYPE.2
CSK17Y2	SS1775K	144	14	5	4	95	4-M6	13.5	14.5	32.5	13.5	54.5	32.5	35	15°	TYPE.2
CSK18Y2	SS1881K	155	12.5	5	4	100	4-M6	8	15	55	7	70	55	35	15°	TYPE.2
CSK21Y2	SS2110K	190	14	5	4	130	4-M6	13	15	48	9	63	48	35	12°	TYPE.2
CS-F08BN	F0933H	72	25	7	-	-	-	13	15	36	9	63	36	39	22.5°	TYPE.1
CS-25HW	F2511H	192	12	12	-	-	-	18	17	52	11.4	85	36	39	22.5°	TYPE.1