

FJ

Floating fitting

Related products

Overview

This floating fitting eliminates misalignment and parallelism defects during cylinder mounting, and realizes smooth rod actuation.

Features

Easy centering/parallelism alignment.

This can be set quickly.

Compact and high tensile/compression force permissible.

With dust cover. (excluding FJ-30, 36, 40 and 45).

3 types in series.

Filled with lubricant and not requiring lubrication.



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SCP*3

CMK2

CMA2

SCM

SCG

SCA2

SCS2

CKV2

CAV2/
COVP/IN2

SSD2

SSG

SSD

CAT

MDC2

MVC

SMG

MSD/
MSDG

FC*

STK

SRL3

SRG3

SRM3

SRT3

MRL2

MRG2

SM-25

ShkAbs

FJ

FK

Spd
Contr

Ending

Series variation



Floating fitting FJ Series

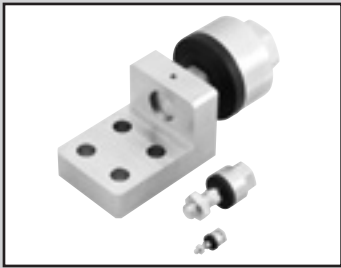
SCP*3
CMK2
CMA2
SCM
SCG
SCA2
SCS2
CKV2
CAV2/ COVPIN2
SSD2
SSG
SSD
CAT
MDC2
MVC
SMG
MSD/ MSDG
FC*
STK
SRL3
SRG3
SRM3
SRT3
MRL2
MRG2
SM-25
ShkAbs
FJ
FK
Spd Contr
Ending

Variation	Model No.	Thread size							
		M3x0.5	M4x0.7	M5x0.8	M6x1.0	M8x1.0	M8x1.25	M10x1.25	
Basic	FJ-0	●	●	●	●	●	◎	●	
Foot	FJ-L					●	◎	●	
Flange	FJ-F					●	◎	●	

●: Standard, ◎: Option, ○: Made to order, ■: Not available

Thread size												Page
	M12x1.25	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M22x1.5	M26x1.5	M30x1.5	M36x1.5	M40x1.5	M45x1.5	
	◎	●	●	●	●	●	●	●	○	○	○	1866
	◎	●	●	●	●	●	●	●	○	○	○	1866
	◎	●	●	●	●	●	●	●	○	○	○	1866

SCP*3
CMK2
CMA2
SCM
SCG
SCA2
SCS2
CKV2
CAV2/ COVP/IN2
SSD2
SSG
SSD
CAT
MDC2
MVC
SMG
MSD/ MSDG
FC*
STK
SRL3
SRG3
SRM3
SRT3
MRL2
MRG2
SM-25
ShkAbs
FJ
FK
Spd Contr
Ending



Floating fitting

FJ Series

● Cylinder diameter: ø20 to ø200



Specifications

Item Model No.	Nominal port size of thread x pitch	Max. working tension and compression (kN) *1			Allowable eccentricity (mm)	Oscillating angle	Ambient temperature
		Basic	Flange	Foot			
FJ- 3	M3x0.5	0.019	—	—	0.5	±5°	-10 (14°F) to 60°C (140°F)
4	M4x0.7	0.053	—	—	0.5		
5	M5x0.8	0.121	—	—	0.5		
6	M6x1.0	1.08	—	—	0.75		
8	M8x1.0	1.08	1.08	1.08	0.75		
8-1.25	M8x1.25	1.08	1.08	1.08	0.75		
10	M10x1.25	2.45	2.45	2.45	0.75		
12-1.25	M12x1.25	2.45	2.45	2.45	0.75		
12	M12x1.5	2.45	2.45	2.45	0.75		
14	M14x1.5	5.88	5.88	5.88	1.0		
16	M16x1.5	10.8	10.8	10.8	1.5		
18	M18x1.5	10.8	10.8	10.8	1.5		
22	M22x1.5	17.6	17.6	17.6	2.0		
26	M26x1.5	27.5	27.5	27.5	3.0		
30	M30x1.5	60.8	60.8	60.8	3.0		
36	M36x1.5	87.3	87.3	87.3	4.0		
40	M40x1.5	87.3	87.3	87.3	4.0		
45	M45x1.5	108	108	108	4.0		

*1: Max. working tension and compression shows static load.

*2: FJ-8-1.25 and FJ-12-1.25 are optional products.
FJ-36, 40 and 45 are made-to-order products.

How to order

FJ - 0 - 3

A Mounting

B Nominal port size of thread x pitch

[Example of model No.]

FJ-0-3

Model: Floating fitting

A Mounting : Basic

B Nominal port size of thread x pitch : M3x0.5

Specifications for rechargeable battery

(Catalog No. CC-1226A)

(The model numbers are only for sizes 3, 4 and 5. As for the other sizes, products with standard model No. can support rechargeable batteries.)

FJ - ... - P4*

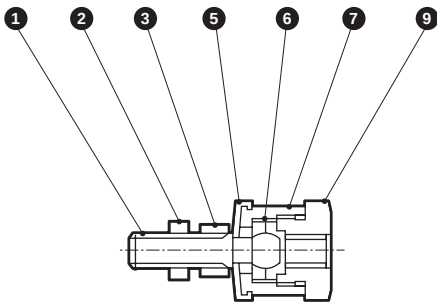
● Design compatible with rechargeable battery manufacturing process

* Contact CKD for details.

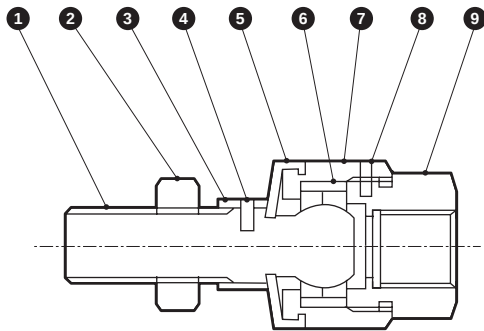
Code	Description			
A Mounting				
0	Basic			
L	Foot			
F	Flange			
B Nominal port size of thread x pitch				
Mounting		O	L	F
3	M3x0.5	●		
4	M4x0.7	●		
5	M5x0.8	●		
6	M6x1.0	●		
8	M8x1.0	●	●	●
8-1.25	M8x1.25	●	●	●
10	M10x1.25	●	●	●
12-1.25	M12x1.25	●	●	●
12	M12x1.5	●	●	●
14	M14x1.5	●	●	●
16	M16x1.5	●	●	●
18	M18x1.5	●	●	●
22	M22x1.5	●	●	●
26	M26x1.5	●	●	●
30	M30x1.5	●	●	●
36	M36x1.5	●	●	●
40	M40x1.5	●	●	●
45	M45x1.5	●	●	●

Internal structure and parts list

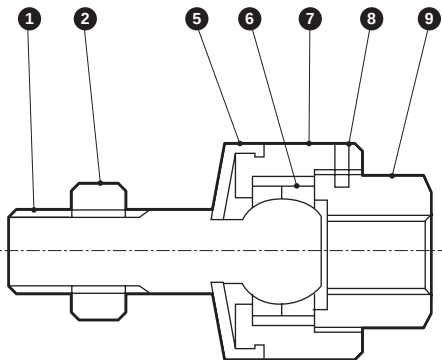
● FJ-O-3 to 5



● FJ-O-6, 8, 10
FJ-O-36 to 45



● FJ-12 to 30



Cannot be disassembled

No.	Part name	Material	Treatment	No.	Part name	Material	Treatment
1	Ball stud	Alloy steel	Trivalent chromate treatment	8	Spring pin	Steel	Black finish
2	Rod nut	Steel	Trivalent chromate treatment	9	Socket	Copper alloy (FJ-3 to 5)	Electroless nickel plating
3	Stud nut	Steel	Trivalent chromate treatment			Steel (FJ-6 to 45)	Trivalent chromate treatment
4	Spring pin	Steel	Black finish	—	Foot	Steel (FJ-8.10.12)	Trivalent chromate treatment
5	Dust cover	Nitrile rubber	—			Cast iron (FJ-14 to 30)	Trivalent chromate treatment
6	Ball holder	Steel (FJ-3 to 5)	Electroless nickel plating	—	Flange	Steel (FJ-36 to 45)	Trivalent chromate treatment
		Alloy steel (FJ-6 to 45)	Trivalent chromate treatment			Steel	Trivalent chromate treatment
7	Case	Copper alloy (FJ-3 to 5)	Electroless nickel plating				
		Steel (FJ-6 to 45)	Trivalent chromate treatment				

*1: Spring pin ④ is not available for FJ-6, 8 and 10.

*2: Dust cover ⑤ is not included with FJ-30 and over.

SCP*3

CMK2

CMA2

SCM

SCG

SCA2

SCS2

CKV2

CAV2/
COVP/IN2

SSD2

SSG

SSD

CAT

MDC2

MVC

SMG

MSD/
MSDG

FC*

STK

SRL3

SRG3

SRM3

SRT3

MRL2

MRG2

SM-25

ShkAbs

FJ

FK

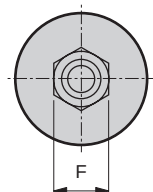
Spd
Contr

Ending

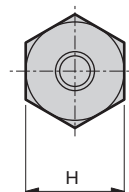
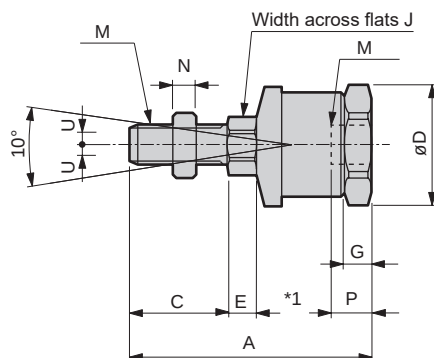
Dimensions: Basic



● FJ-0-3 to 5

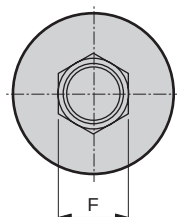


Rod nut dimensions

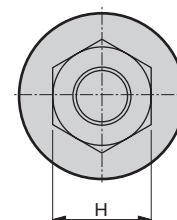
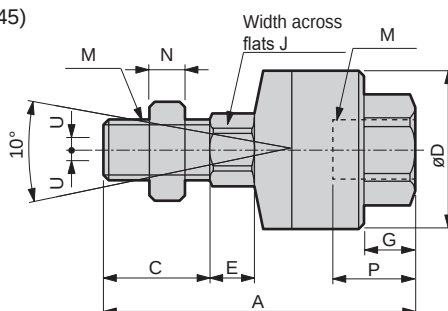


● FJ-0-6, 8, 10, 36 to 45

(Dust cover is not included with FJ-36 to 45)

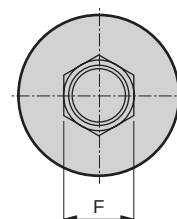


Rod nut dimensions

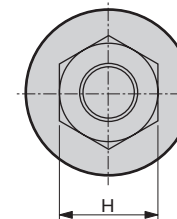
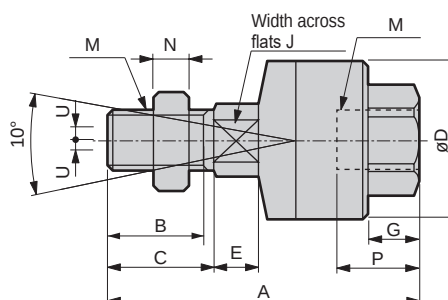


● FJ-0-12 to 30

(Dust cover is not included with FJ-30)



Rod nut dimensions



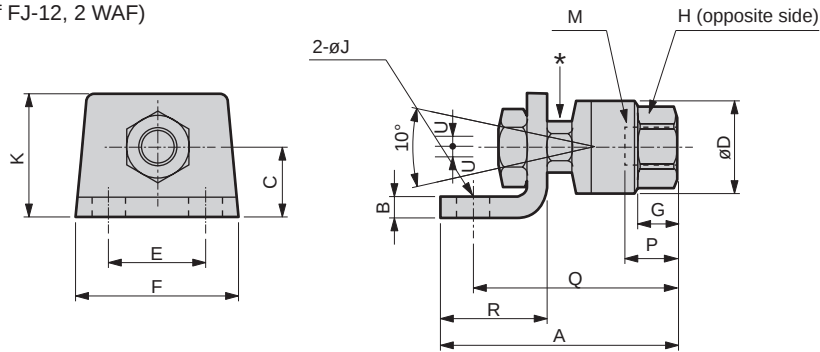
1: For FJ--3 to 5, strictly observe the screw-in depth (P).

Model No.	Major cylinders	M		A	B	C	D	E	F	G	H	J	N	P *1	Allowable eccentricity	Max. working tension and compression KN	Weight kg
		Nominal port size	Pitch												U		
FJ-O- 3	SCPD3-6/SMG-6	3	0.5	23	—	8.3	12	2.5	5.5	2.5	11	5.5	1.8	4	0.5	0.019	0.012
4	SCPD3-10/SMG-10	4	0.7	26	—	10	12	3.5	7	2.5	11	5.5	2.4	3.7	0.5	0.053	0.012
5	SCPD3-16/SSD/SSD2-12-N/SMG-16	5	0.8	31.6	—	12	15.5	4	8	3.5	14	7	3.2	5.2	0.5	0.121	0.022
6	SSD/SSD2-16-N/SMG-20	6	1.0	45.4	—	15.8	21	4	10	9	17	10	3.6	12	0.75	1.08	0.057
8	CMA2/CMK2/CKV2-20/JSK2/JSM2-20	8	1.0	48.4	—	18.8	21	4	13	9	17	10	5	12	0.75	1.08	0.061
8-1.25	SMG-25/SSD/ SSD2-20-N/SCM-20	8	1.25	48.4	—	18.8	21	4	13	9	17	10	5	12	0.75	1.08	0.061
10	CMA2-30/SMG-32/CMK2/ SCG/CKV2-25/32/FCD-25-N/ SSD/SSD2-25-N/SCM-25/32/ JSK2-25/32/JSM2-30	10	1.25	56.2	—	22	24	7	17	10	19	12	6	12	0.75	2.45	0.092
12	CMA2/CMK2/CKV2-40/JSK2/JSM2-40	12	1.5	58	20.5	23	27	6	19	10	21	12	7	11.8	0.75	2.45	0.12
12-1.25	-	12	1.25	58	20.5	23	27	6	19	10	21	12	7	11.8	0.75	2.45	0.12
14	SCG-40/SCA2-40/FCD-32/40-N SSD/SSD2-32/40-N/SCM-40/JSC3-40	14	1.5	68.5	20	22	32	7	22	13	27	14	8	16.5	1.0	5.88	0.22
16	CAV2-50 COV2-50	16	1.5	84.2	26	29	43	11	24	14	27	16	10	16.9	1.5	10.8	0.4
18	SCG-50/63/SCA2-50/63/ FCD-50/63-N/SSD/SSD2-50/63-N/ SCM-50/63/JSC3-50/63	18	1.5	84.2	26	29	43	11	27	14	27	18	11	16.9	1.5	10.8	0.41
22	SCG-80/SCA2-80/SSD/ SSD2-80-N/SCM-80/JSC3-80	22	1.5	102.5	31	34	53	14	32	17	32	22	13	17.2	2.0	17.6	0.75
26	SCG-100/SCA2-100/SSD/SSD2-100-N/SCM-100/JSC3-100	26	1.5	121.6	39	42	69	15	41	20	41	26	16	20.8	3.0	27.5	1.5
30	SCS2-125/140/JSC4-125/140	30	1.5	145.2	47	50	90	16	46	21	46	30	18	26	3.0	60.8	3.1
36	SCS2-160/JSC4-160	36	1.5	163.5	—	57	108	16	55	22	55	36	21	25	4.0	87.3	4.6
40	SCS2-180/JSC4-180	40	1.5	170.5	—	64	108	16	60	22	55	40	24	25	4.0	87.3	4.7
45	SCS2-200	45	1.5	199.5	—	72	118	18	70	24	60	45	27	35	4.0	108	7.0

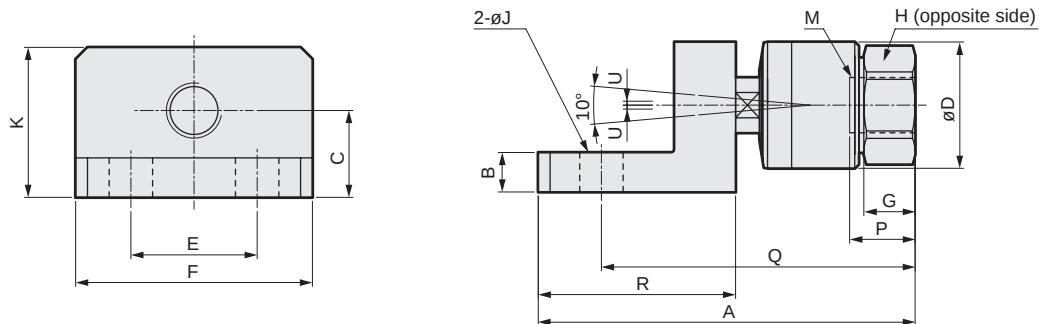
Dimensions: Foot



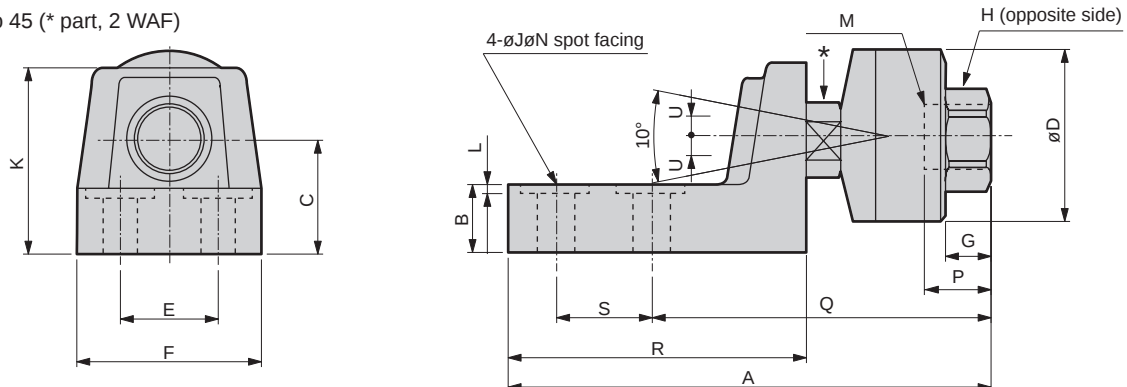
● FJ-L-8 to 12 (* part of FJ-12, 2 WAF)



● FJ-L-14



● FJ-L-16 to 45 (* part, 2 WAF)

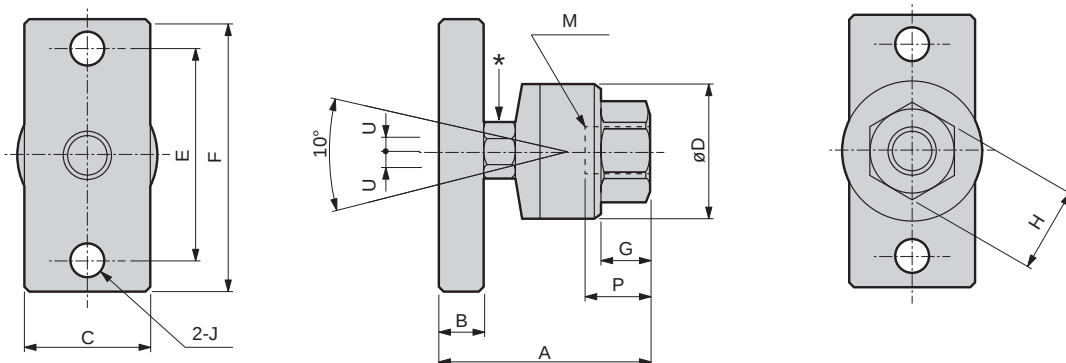


Model No.	Major cylinders	M		A	B	C	D	E	F	G	H	J	K	L	N	P	Q	R	S	Allowable eccentricity	Max. working tension and compression KN	Weight kg
		Nominal port size	Pitch																	U		
FJ-L-8	CMA2/CMK2/CKV2-20/JSK2/JSM2-20	8	1.0	54.6	3.2	15	21	26	44	9	17	9	25	—	—	12	45.6	25	—	0.75	1.08	0.1
8-1.25	SMG-25/SSD/SSD2-20-N/SCM-20	8	1.25	54.6	3.2	15	21	26	44	9	17	9	25	—	—	12	45.6	25	—	0.75	1.08	0.1
10	CMA2-30/SMG-32/CMK2/SCG/CKV2-25/32/FCD-25-N/SSD/SSD2-25-N/SCM-25/32/JSK2-25/32/JSM2-30	10	1.25	64.5	5	19	24	26	44	10	19	9	32	—	—	12	54.5	30	—	0.75	2.45	0.18
12	CMA2/CMK2/CKV2-40/JSK2/JSM2-40	12	1.5	64.6	5	19	27	26	44	10	21	9	32	—	—	11.8	54.6	30	—	0.75	2.45	0.19
12-1.25	—	12	1.25	64.6	5	19	27	26	44	10	21	9	32	—	—	11.8	54.6	30	—	0.75	2.45	0.19
14	SCG-40/SCA2-40/FCD-32/40-N/SSD/SSD2-32/40-N/SCM-40/JSC3-40	14	1.5	95.5	10	22	32	32	60	13	27	11	38	—	—	16.6	79.5	50	—	1.0	5.88	0.43
16	CAV2-50 COV2-50	16	1.5	140.2	14	28	43	32	60	14	27	11	46	—	—	16.9	93.1	85	32	1.5	10.8	0.4
18	SCG-50/63/SCA2-50/63/FCD-50/63-N/SSD/SSD2-50/63-N/SCM-50/63/JSC3-50/63	18	1.5	140.2	14	28	43	32	60	14	27	11	46	—	—	16.9	93.1	85	32	1.5	10.8	1.1
22	SCG-80/SSD/SSD2-80-N/SCA2-80/SCM-80/JSC3-80	22	1.5	163.5	19	35	53	36	68	17	32	14	55	—	—	17.2	110.5	95	36	2.0	17.6	2.1
26	SCG-100/SCA2-100/SSD/SSD2-100-N/SCM-100/JSC3-100	26	1.5	179.6	24	42	69	36	68	20	41	14	64	1.5	26	20.8	126.6	100	36	3.0	27.5	2.9
30	SCS2-125/140/JSC4-125/140	30	1.5	217.2	35	55	90	46	82	21	46	18	80	1.5	32	26	152.2	122	46	3.0	60.8	5.6
36	SCS2-160/JSC4-160	36	1.5	254.5	41	67	108	56	100	22	55	22	97	—	—	25	177	148	56	4.0	87.3	8.9
40	SCS2-180/JSC4-180	40	1.5	254.5	41	67	108	56	100	22	55	22	97	—	—	25	177	148	56	4.0	87.3	8.8
45	SCS2-200	45	1.5	294	41	70	118	66	125	24	60	26	103	—	—	35	203	166	66	4.0	108	13.2

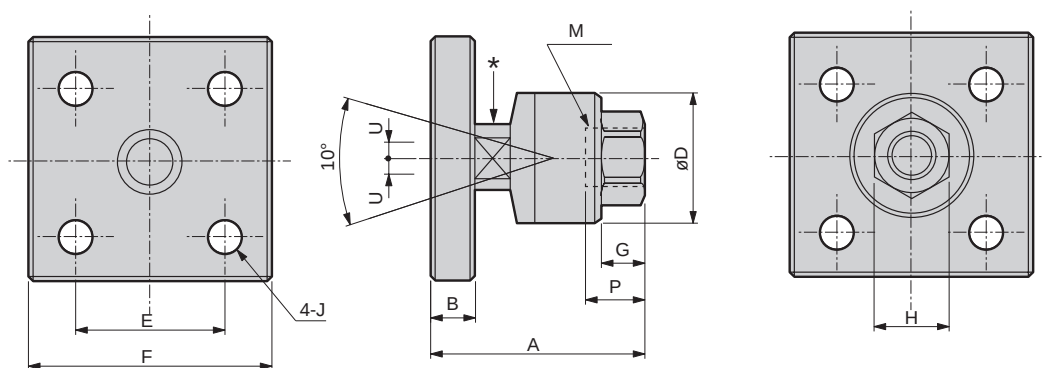


Dimensions: Flange

- FJ-F-8 to 14 (* part of FJ-12 and 14, 2 WAF)



- FJ-F-16 to 45 (* part of FJ-36, 40 and 45, hexagon nut)



	Model No.	Major cylinders	M		A	B	C	D	E	F	G	H	J	P	Allowable eccentricity	Max. working tension and compression KN	Weight kg
			Nominal port size	Pitch											U		
SRL3	FJ-F- 8	CMA2/CMK2/CKV-20/JSK2/JSM2-20	8	1.0	35.6	6	19	21	40	52	9	17	6.6	12	0.75	1.08	0.11
SRG3	8-1.25	SMG-25/SSD/SSD2-20-N/SCM-20	8	1.25	35.6	6	19	21	40	52	9	17	6.6	12	0.75	1.08	0.11
SRM3	10	CMA2-30/SMG-32/CMK2/SCG/CKV2-25/32/FCD-25-N/SSD/SSD2-25-N/SCM-25/32/JSK2-25/32/JSM2-30	10	1.25	43.2	9	25	24	44	56	10	19	6.6	12	0.75	2.45	0.18
SRT3	12	CMA2/CMK2/CKV2-40/JSK2/JSM2-40	12	1.5	43.6	9	25	27	44	56	10	21	6.6	11.8	0.75	2.45	0.19
MRL2	12-1.25	-	12	1.25	43.6	9	25	27	44	56	10	21	6.6	11.8	0.75	2.45	0.19
MRG2	14	SCG-40/SCA2-40/FCD-32/40-N/SSD/SSD2-32/40-N/SCM-40/JSC3-40	14	1.5	57.5	12	32	32	60	80	13	27	11	16.5	1.0	5.88	0.56
SM-25	16	CAV2-50/COV2-50	16	1.5	71.2	16	—	43	50	75	14	27	11	16.9	1.5	10.8	1.1
ShkAbs	18	SCG-50/63/SCA2-50/63/FCD-50/63-N/SSD/SSD2-50/63-N/SCM-50/63/JSC3-50/63	18	1.5	71.2	16	—	43	50	75	14	27	11	16.9	1.5	10.8	1.1
FJ	22	SCG-80/SCA2-80/SSD/SSD2-80-N/SCM-80/JSC3-80	22	1.5	87.5	19	—	53	62	100	17	32	14	17.2	2.0	17.6	1.9
FK	26	SCG-100/SCA2-100/SSD/SSD2-100-N/SCM-100/JSC3-100	26	1.5	101.6	22	—	69	70	100	20	41	14	20.8	3.0	27.5	2.8
Spd Contr	30	SCS2-125/140/JSC4-125/140	30	1.5	120.2	25	—	90	90	125	21	46	18	26	3.0	60.8	5.6
	36	SCS2-160/JSC4-160	36	1.5	135	29	—	108	114	150	22	55	22	25	4.0	87.3	9.4
	40	SCS2-180/JSC4-180	40	1.5	135	29	—	108	114	150	22	55	22	25	4.0	87.3	9.3
Ending	45	SCS2-200	45	1.5	159	32	—	118	132	175	24	60	26	35	4.0	108	13.4



Pneumatic components

Safety Precautions

Be sure to read this section before use.

Refer to Intro Page 73 for general information of the cylinder, and to Intro Page 80 for general information of the cylinder switch.

Product-specific cautions: Floating fitting FJ Series

Mounting, installation and adjustment

WARNING

- When screwing the male thread of a rod onto the female thread of a socket or case, check that it does not hit the bottom.
If this floating fitting is used with the rod butted against the bottom, the ball stud does not float and fails to function properly.
As a guide, the thread should be screwed onto the female thread to one or two turns from the bottom end position.
For FJ-3 to 5, strictly observe the screw-in dimensions (P).
- When connecting the object being driven and the cylinder rod with a floating fitting, securely fix the components by fastening the screws with a tightening torque that is appropriate for the thread size. When there are further worries of loosening during use, take measures to prevent loosening by securing the component with a pin or by applying an adhesive.
If the connected portion loosens and becomes detached, runaway or collapse, etc., of the object being driven may cause damage to the device or lead to injuries, etc.
- The screw section (ball stud) can be rotated, but is not a rotary fitting. Do not use this for rotation purposes.

Use/maintenance

WARNING

- Do not disassemble and reuse the product.

SCP*3

CMK2

CMA2

SCM

SCG

SCA2

SCS2

CKV2

CAV2/
COVP/IN2

SSD2

SSG

SSD

CAT

MDC2

MVC

SMG

MSD/
MSDG

FC*

STK

SRL3

SRG3

SRM3

SRT3

MRL2

MRG2

SM-25

ShkAbs

FJ

FK

Spd
Contr

Ending