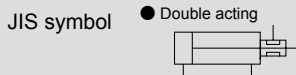


Brake cylinder Small bore size/swaging
Double acting/double acting with valve

JSK2/JSK2-V Series

● Bore size: $\phi 20/\phi 25/\phi 32/\phi 40$



Specifications

Descriptions	JSK2				JSK2-V				
	mm	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
Bore size	mm	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
Actuation		Double acting				Double acting/with valve			
Working fluid		Compressed air							
Max. working pressure	MPa	1.0 (≈ 150 psi, 10 bar)				0.6 (≈ 87 psi, 6 bar)			
Min. working pressure	MPa	0.35 (≈ 51 psi, 3.5 bar)				0.35 (≈ 51 psi, 3.5 bar)			
Proof pressure	MPa	1.6 (≈ 230 psi, 16 bar)							
Ambient temperature	$^{\circ}\text{C}$	-10 (14°F) to 60 (140°F) (no freezing)				-10 (14°F) to 50 (122°F) (no freezing)			
Port size	Brake section	M5	Rc1/8			M5	Rc1/8		
	Cylinder port	Rc1/8				Rc1/8			
Stroke tolerance	mm	$^{+2.0}_0$ (to 200), $^{+2.4}_0$ (200 to)							
Working piston speed	mm/s	50 to 500							
Cushion		Rubber cushion							
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)							
Stopping accuracy	mm	± 1.0 (300 mm/s, no load)							
Holding force	N	186	431	431	765	186	431	431	765
Allowable absorbed energy	J	0.166	0.308	0.424	0.639	0.166	0.308	0.424	0.639

Electrical specification for brake valve

Descriptions	JSK2-V-VALVE-KIT- Voltage		
	100 AC(50/60 Hz)	200 AC(50/60 Hz)	24 DC
Rated voltage (V)	100 AC(50/60 Hz)	200 AC(50/60 Hz)	24 DC
Starting current (A)	0.056/0.044	0.034/0.026	0.075
Holding current (A)	0.028/0.022	0.017/0.013	
Power consumption (W)	1.8/1.4	2.1/1.6	1.8
Voltage fluctuation range	$\pm 10\%$		
Thermal class	Class B molded coil		

●*1 : 100/200 VAC coil is available for 110/220 VAC (60 Hz).

●*2 : Refer to "Pneumatic Valves (CB-23SA)" for details on valves (P5136 Series).

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)		Min. stroke length (mm)	
		Without bellows	With bellows	Without bellows	With bellows
$\phi 20$	25/50/75/100/125/150 175/200/250/300	700	600	5	5
$\phi 25$					
$\phi 30$					
$\phi 40$					

The min. stroke length varies depending on the switch mounting method. Refer to the following table.

Min. stroke length with switch

(Unit: mm)

Switch quantity	1						2						3					
	Proximity			Reed			Proximity			Reed			Proximity			Reed		
	T2,T3	T1,T*Y	T*W	T0,T5	T8	T2,T3	T1,T*Y	T*W	T0,T5	T8	T2,T3	T1,T*Y	T*W	T0,T5	T8			
$\phi 20$	10						25	35	30	25	35	50	55	55	50	55		
$\phi 25$	10						25	35	30	25	35	50	55	55	50	55		
$\phi 32$	10						25	35	30	25	35	50	55	55	50	55		
$\phi 40$	10						25	35	30	25	35	50	55	55	50	55		

*1: Up to 3 switches can be mounted.

Switch specifications

- 1-color/2-color display

Descriptions	Proximity 2-wire		Proximity 3-wire				Reed 2-wire								
	T1H/T1V	T2H/T2V/ T2JH/T2JV	T2YH/ T2YV	T2WH/ T2WV	T3H/ T3V	T3PH/T3PV (custom)	T3YH/ T3YV	T3WH/ T3WV	T0H/T0V	T5H/T5V		T8H/T8V			
Applications	For programmable controller, relay, compact solenoid valve	Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay	For programmable controller, relay, IC circuit (no indicator lamp), serial connection		For programmable controller, relay			
Output method	-			NPN output	PNP output	NPN output	NPN output	-							
Pwr. supp. V.	-			10 to 28 VDC				-							
Load voltage	85 to 265 VAC	10 to 30 VDC		24VDC±10%	30 VDC or less			12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC	
Load current	5 to 100 mA	5 to 20 mA (*2)			100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)		
Leakage current	≤ 1 mA at 100 VAC, ≤ 2 mA at 200 VAC	1 mA or less			10 µA or less				0 mA						
Weight g	1 m:33	1 m:18	1 m:33	1 m:18	1 m:18		1 m:33	1 m:18	1 m:18		1 m:33		1 m:33		
	3 m:87	3 m:49	3 m:87	3 m:49	3 m:49		3 m:87	3 m:49	3 m:49		3 m:87		3 m:87		
	5 m:142	5 m:80	5 m:142	5 m:80	5 m:80		5 m:142	5 m:80	5 m:80		5 m:142		5 m:142		

*1 : Refer to Ending Page 1 for other switch specifications.

*2 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*3 : The T0/T5 switch can also be used with 220 VAC. Contact CKD about working conditions.

*4 : Dimensions depend on switch model No. Refer to Ending Page 18 for details.

Cylinder weight

- JSK2

(Unit: kg)

Item/mounting	Product weight when stroke length (S) = 0 mm						Switch weight	Switch rail + band weight	Additional weight per S = 10 mm
	Bore size (mm)	Basic (00)	Axial foot (LB)	Flange (FA)	Clevis (CA)	Clevis (CC)			
φ20	0.67	0.82	0.73	0.82	0.68	0.72	Refer to the weight in the specifications.	0.005	0.01
φ25	1.18	1.44	1.33	1.42	1.18	1.28		0.005	0.01
φ32	1.22	1.48	1.37	1.46	1.22	1.32		0.009	0.02
φ40	1.91	2.17	2.06	2.15	1.93	2.07		0.009	0.02

- JSK2-V (with valve)

(Unit: kg)

Item/mounting	Product weight when stroke length (S) = 0 mm						Switch weight	Switch rail + band weight	Additional weight per S = 10 mm
	Bore size (mm)	Basic (00)	Axial foot (LB)	Flange (FA)	Clevis (CA)	Clevis (CC)			
φ20	0.72	0.87	0.78	0.87	0.73	0.77	Refer to the weight in the specifications.	0.005	0.01
φ25	1.23	1.49	1.38	1.47	1.23	1.33		0.005	0.01
φ32	1.27	1.53	1.42	1.51	1.27	1.37		0.009	0.02
φ40	1.96	2.22	2.11	2.20	1.98	2.12		0.009	0.02

(Example) JSK2-V-LB-20-100-2-TOH-D

Product weight when S = 0 mm..... 0.87 kg
 Additional weight when S = 100 mm .. $0.01 \times \frac{100}{10} = 0.1$ kg
 Weight of 2 switches..... $0.018 \times 2 = 0.036$ kg
 Weight of switch rail + 2 bands..... $0.005 \times 2 = 0.010$ kg
 Product weight..... $0.87 \text{ kg} + 0.1 \text{ kg} + 0.036 \text{ kg} + 0.010 \text{ kg} = 1.016 \text{ kg}$

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ20	Push	31.4	47.1	62.8	94.2	1.26×10^2	1.57×10^2	1.88×10^2	2.20×10^2	2.51×10^2	2.83×10^2	3.14×10^2
	Pull	23.6	35.3	47.1	70.7	94.2	1.18×10^2	1.41×10^2	1.65×10^2	1.88×10^2	2.12×10^2	2.36×10^2
φ25	Push	49.1	73.6	98.2	1.47×10^2	1.96×10^2	2.45×10^2	2.95×10^2	3.44×10^2	3.93×10^2	4.42×10^2	4.91×10^2
	Pull	37.8	56.7	75.6	1.13×10^2	1.51×10^2	1.89×10^2	2.27×10^2	2.64×10^2	3.02×10^2	3.40×10^2	3.78×10^2
φ32	Push	80.4	1.21×10^2	1.61×10^2	2.41×10^2	3.22×10^2	4.02×10^2	4.83×10^2	5.63×10^2	6.43×10^2	7.24×10^2	8.04×10^2
	Pull	69.1	1.04×10^2	1.38×10^2	2.07×10^2	2.76×10^2	3.46×10^2	4.15×10^2	4.84×10^2	5.53×10^2	6.22×10^2	6.91×10^2
φ40	Push	1.26×10^2	1.88×10^2	2.51×10^2	3.77×10^2	5.03×10^2	6.28×10^2	7.54×10^2	8.80×10^2	1.01×10^3	1.13×10^3	1.26×10^3
	Pull	1.10×10^2	1.65×10^2	2.21×10^2	3.31×10^2	4.41×10^2	5.51×10^2	6.62×10^2	7.72×10^2	8.82×10^2	9.92×10^2	1.10×10^3

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

JSK2/JSK2-V Series

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

How to order

Without valve

Without switch (built-in magnet for switch)

JSK2 - LB - 20 - 50 - 1 - J I

With switch (built-in magnet for switch)

JSK2 - LB - 20 - 50 - 1 - T0H - R - J I

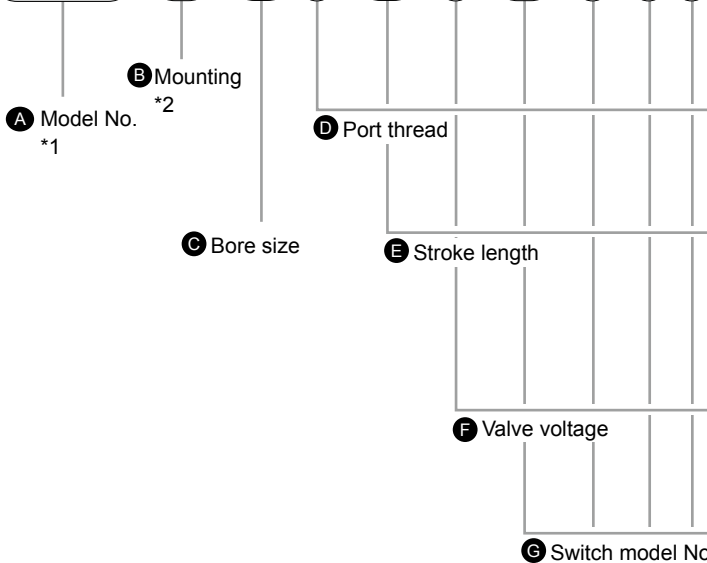
With valve

Without switch (built-in magnet for switch)

JSK2-V - LB - 20 - 50 - 1 - J I

With switch (built-in magnet for switch)

JSK2-V - LB - 20 - 50 - 1 - T0H - R - J I



Precautions for model No. selection

- *1 : Low hydraulic can also be supplied as custom order product
Model numbers are JSK2-H and JSK2-VH.
- *2 : For a TA mounting, the brake section with cover and the clevis bracket cannot be selected together since they may interfere with each other.
- *3 : For the min. stroke length with switch and the max. and min. stroke lengths with bellows, refer to page 696.
- *4 : The instantaneous max. temperature is the temperature when sparks, cutting chips, etc., instantaneously contact the bellows.
- *5 : "I" and "Y" cannot be selected together.
- *6 : Up to three switches can be installed. If four or more switches are required, switch mounting brackets for the extra switches must be prepared separately.
- *7 : For mounting TA (rod side trunnion), the option U (brake section with cover) cannot be selected.

[Example of model No.]

JSK2-V-LB-20-50-1- T0H-R-JI

Model: Brake cylinder with valve

- A** Model No. : With valve
- B** Mounting : Axial foot
- C** Bore size : $\phi 20$ mm
- D** Port thread : Rc thread
- E** Stroke length : 50 mm
- F** Valve voltage : 100 VAC
- G** Switch model No.: Reed switch T0H, lead wire 1 m
- H** Switch quantity : 1 on rod side
- I** Option : Bellows
Max. ambient temperature 100°C,
instantaneous max. temperature 200°C
- J** Accessory : Rod eye

H Switch quantity *6

I Option *4 *7

J Accessory *5

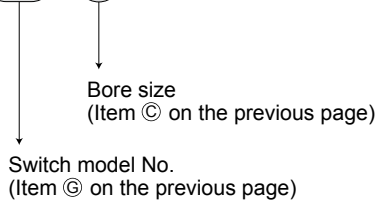
A Model No.	
Double acting JSK2	With valve JSK2-V
●	●
●	●
●	●
●	●
●	●
●	●
●	●

Code	Content	Double acting JSK2	With valve JSK2-V			
B Mounting						
00	Basic	●	●			
LB	Axial foot	●	●			
FA	Rod side flange	●	●			
CA	Eye bracket	●	●			
CC	Eye bracket integrated	●	●			
TA	Rod side trunnion	●	●			
TB	Head side trunnion	●	●			
C Bore size (mm)						
20	$\phi 20$	●	●			
25	$\phi 25$	●	●			
32	$\phi 32$	●	●			
40	$\phi 40$	●	●			
D Port thread						
Blank	Rc thread					
NN	NPT thread ($\phi 25$ and over) (custom order product)					
GN	G thread ($\phi 25$ and over) (custom order product)					
E Stroke length (mm)						
Bore size	Stroke length *3	Custom stroke length				
$\phi 20$	5 to 700	In 1 mm increments				
$\phi 25$	5 to 700					
$\phi 32$	5 to 700					
$\phi 40$	5 to 700					
F Valve voltage						
1	100 VAC(50/60 Hz)		●			
2	200 VAC(50/60 Hz)		●			
3	24 VDC		●			
G Switch model No.						
Axial lead wire	Radial lead wire	Contact	Voltage	Display	Lead wire	
T0H*	T0V*	Reed	AC	●	1-color display Without indicator lamp	2-wire
T5H*	T5V*		DC	●		
T8H*	T8V*		●	●	1-color display	2-wire
T1H*	T1V*		●	●	1-color display	2-wire
T2H*	T2V*	Proximity	●	●	1-color display	2-wire
T3H*	T3V*		●	●	1-color display (custom)	3-wire
T3PH*	T3PV*		●	●	2-color display	2-wire
T2WH*	T2WV*		●	●		
T2YH*	T2YV*		●	●	Off-delay	3-wire
T3WH*	T3WV*		●	●		
T3YH*	T3YV*	●	●		2-wire	
T2JH*	T2JV*	●	●		2-wire	
* Lead wire length						
Blank	1 m (standard)			●	●	
3	3 m (option)			●	●	
5	5 m (option)			●	●	
H Switch quantity						
R	1 on rod side			●	●	
H	1 on head side			●	●	
D	2			●	●	
T	3			●	●	
I Option						
		Max. ambient temperature	Instantaneous max. temp			
J	Bellows	100°C	200°C	●	●	
L	Bellows	250°C	400°C	●	●	
M	Piston rod material (stainless steel)			●	●	
V	Boss cutoff			●	●	
U	Brake section with cover			●	●	
J Accessory						
I	Rod eye			●	●	
Y	Rod clevis (pin, washer, split pin attached)			●	●	
B2	Clevis bracket (pin, snap ring attached)			●	●	

How to order switch

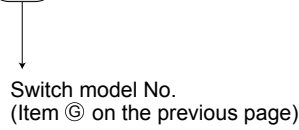
- Switch body + mounting bracket set

JSK2 - T0H - 20



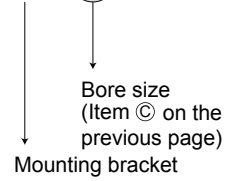
- Switch body only

SW - T0H



- Mounting bracket set

JSK2 - T - 20



How to order brake valve

JSK2-V - VALVE-KIT - 1

① Valve voltage

Code	Content
1	100 VAC(50/60 Hz)
2	200 VAC(50/60 Hz)
3	24 VDC

How to order mounting bracket

Bore size (mm)	φ20	φ25	φ32	φ40
Basic (00) *3	M1-00-20	M1-00-30	M1-00-30	M1-00-30
Axial foot (LB)	M1-LB-20	M1-LB-30	M1-LB-30	M1-LB-30
Flange (FA)	M1-FA-20	M1-FA-30	M1-FA-30	M1-FA-30
Eye bracket (CA)	M1-CA-20	M1-CA-30	M1-CA-30	M1-CA-30
Trunnion (TA/TB)	M1-TA-20	M1-TA-30	M1-TA-30	M1-TA-40

*1 : As for mounting brackets, the axial foot and flange include mounting nuts and toothed washers, and the trunnion includes mounting nuts.

2 : For axial foot, 2 sets of the above "M1-LB-" are required.

*3 : Mounting nut, toothed washer only. Although 1 set is attached with the basic of the product (00), use this when needed.

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRR
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

JSK2/JSK2-V Series

Material of mounting bracket

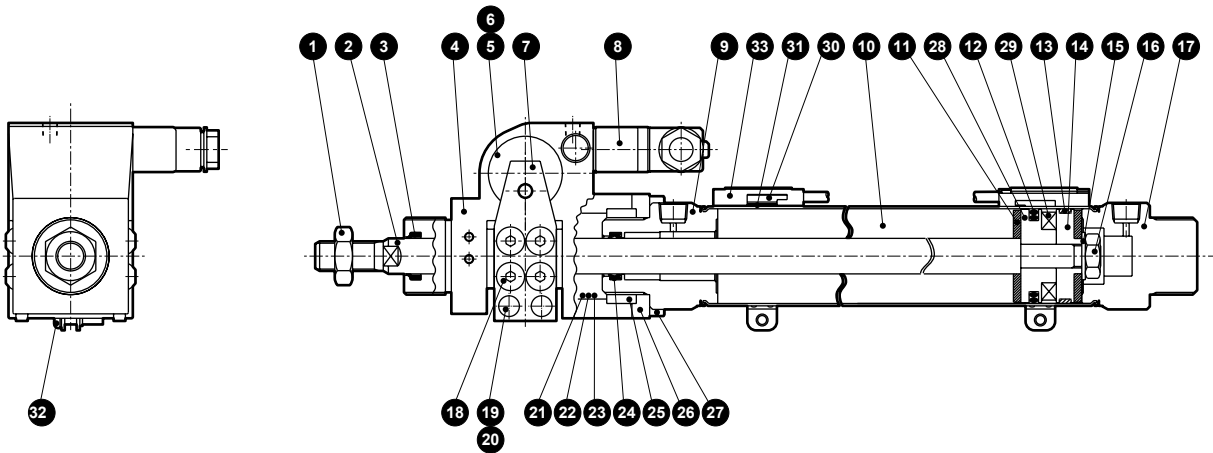
Mounting	Material	Remarks
LB	Steel	Zinc chromate
FA	Steel	Zinc chromate
TA/TB	Steel	Zinc chromate
CA	Steel	Zinc chromate

Note: Mounting bracket will be shipped with the product.

However, if the product is supplied with bellows and the mounting bracket is LB, FA, or TA, it will be shipped assembled.

Internal structure and parts list

- JSK2-V (with valve and switch)
- JSK2 (with switch)



Note: This product is a caulked and cannot be disassembled.

Cannot be disassembled

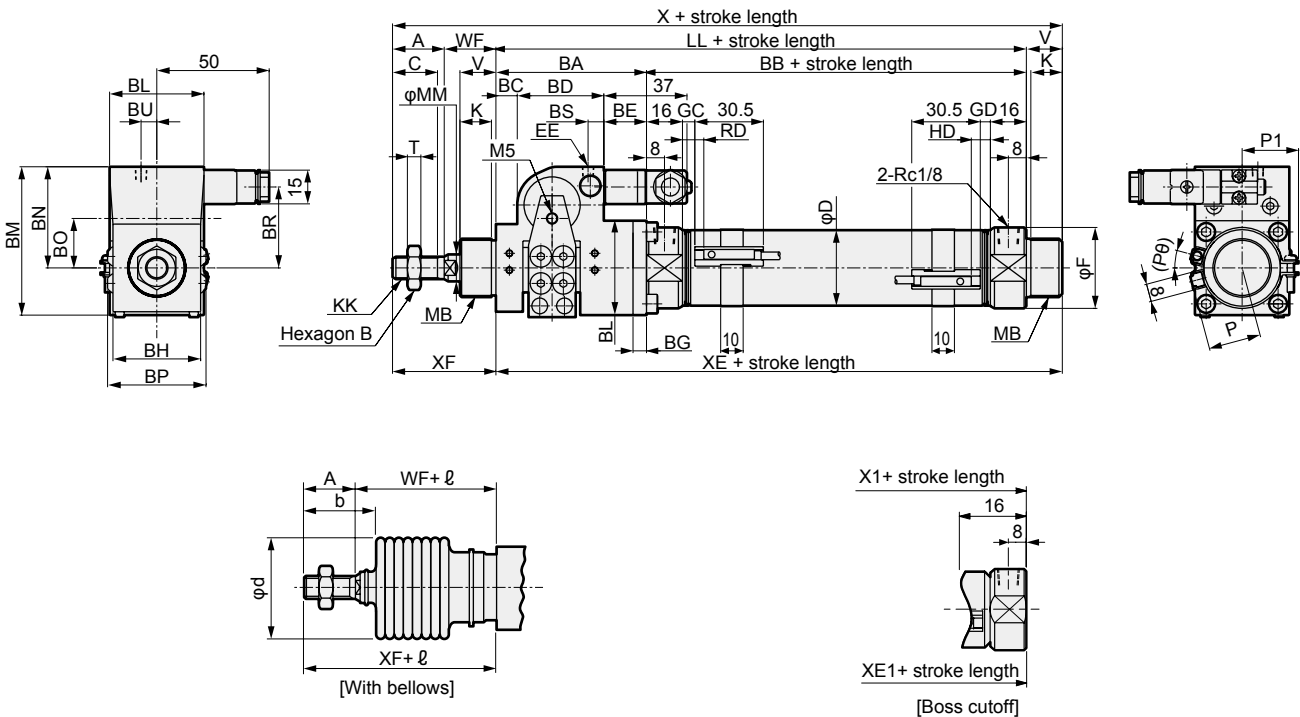
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	18	Hex socket screw	Steel	Black finish treatment
2	Piston rod	φ20/φ25 stainless steel φ32/φ40 steel	Industrial chrome plating	19	Hex socket screw	Steel	Black finish treatment
3	Scraper	Nitrile rubber		20	Brake spring	Steel	Black finish treatment
4	Brake body	Cast iron	Zinc chromate	21	Brake shoe metal	Cast iron	
5	Brake piston	Copper alloy casting		22	Bush	Dry bearing	
6	Piston packing	Nitrile rubber		23	Ring	Steel	
7	Lever	Steel	Zinc chromate	24	Rod packing	Nitrile rubber	
8	Valve for brake release	---	P5136MO	25	Fixed ring	Steel	Zinc chromate
9	Rod cover	Aluminum alloy		26	Square flange	Steel	Zinc chromate
10	Cylinder tube	Stainless steel		27	Hex socket screw	Steel	Black finish treatment
11	Cushion rubber	Urethane rubber		28	Piston A	Aluminum alloy	
12	Piston packing	Nitrile rubber		29	Magnet	Plastic	
13	Wear ring	Acetal resin		With switch			
14	Piston B	Aluminum alloy		30	Switch body	---	
15	Spacer	Steel	Zinc chromate	31	Band	Stainless steel	
16	Hexagon nut	Steel	Zinc chromate	32	Pan head machine screw	Stainless steel	
17	Head cover	Aluminum alloy		33	Switch rail	Stainless steel	

Dimensions



● Basic (00)



LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

RD: Rod side max. sensitivity position

HD: Head side max. sensitivity position

1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the ℓ dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 721.

Code	Basic (00) basic dimensions																		
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BP	BR	BS	BU	C	D
φ20	20	13	58	66	9	30	19	5	29	34	55	38	19	38	29	4	3.8	18	21.4
φ25	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	43.8	34.5	7	7	20	26.4
φ32	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	43.8	34.5	7	7	20	33.6
φ40	25	19	74	73	8	48	18	8	50	50	80.5	55.5	25	52	39.5	7	7	22	41.6

Code															With switch (T0, T5, T2, T3)			
Bore size (mm)	EE	F	K	KK	LL	MB	MM	T	V	WF	X	XE	XF	GC	GD	RD	HD	
φ20	M5	28	12	M8×1.0	124	M18×1.5	10	5	14	24	182	138	44	4.0	3.0	8.0	7.0	
φ25	Rc1/8	32	14	M10×1.25	136	M26×1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	
φ32	Rc1/8	36	14	M10×1.25	136	M26×1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	
φ40	Rc1/8	45	14	M12×1.5	147	M26×1.5	14	7	16	23	211	163	48	7.5	6.5	11.5	10.5	

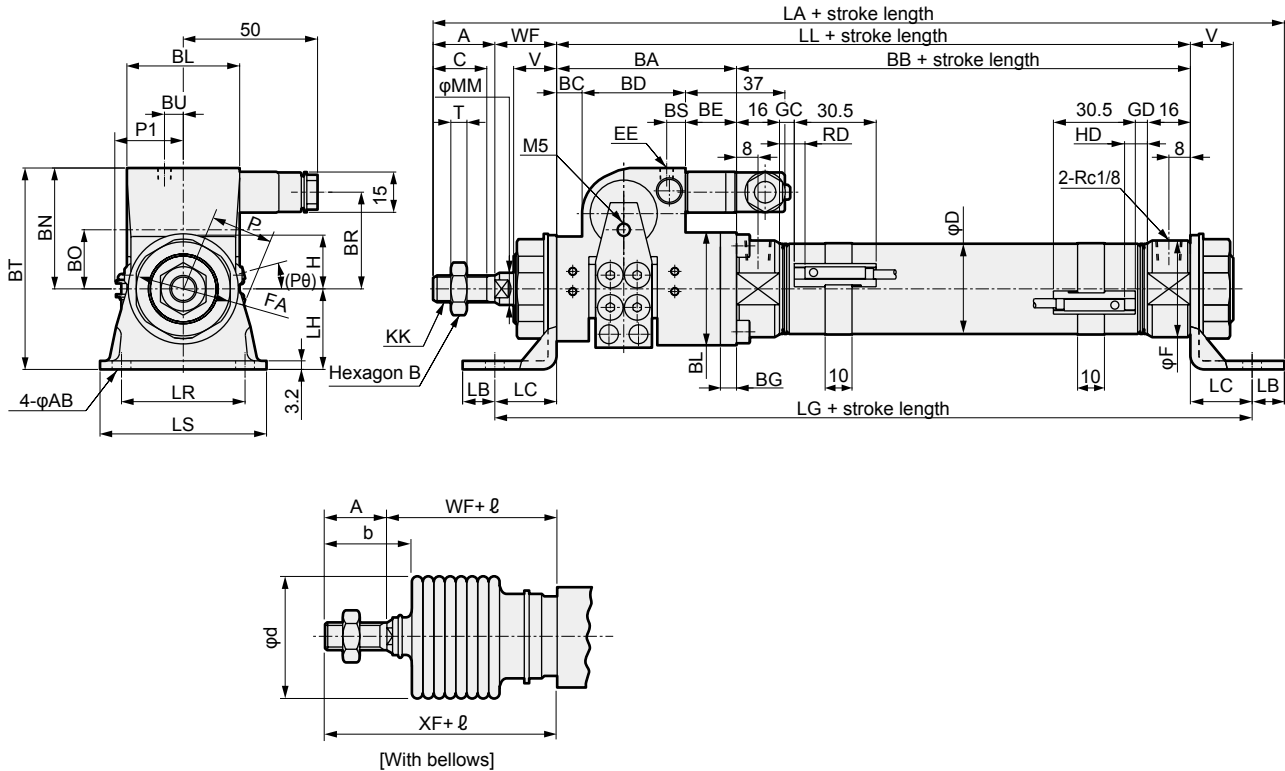
Code	With switch (T2W, T3W)				With bellows				Boss cutoff			
Bore size (mm)	GC	GD	RD	HD	P	P1	(P0)*	b	d	ℓ	X1	XE1
φ20	6.0	5.0	10.0	9.0	17.3	19.5	22	30	30	(Stroke length/3) + 6	168	124
φ25	7.5	6.5	11.5	10.5	19.8	22.0	18	32	46	(Stroke length/3.25) + 7	182	136
φ32	7.5	6.5	11.5	10.5	24.3	25.5	15	32	46	(Stroke length/3.25) + 7	182	136
φ40	9.5	8.5	13.5	12.5	28.3	29.5	12	34	46	(Stroke length/3.25) + 7	195	147

JSK2-V Series

Dimensions



● Axial foot (LB)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the ℓ dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 721.

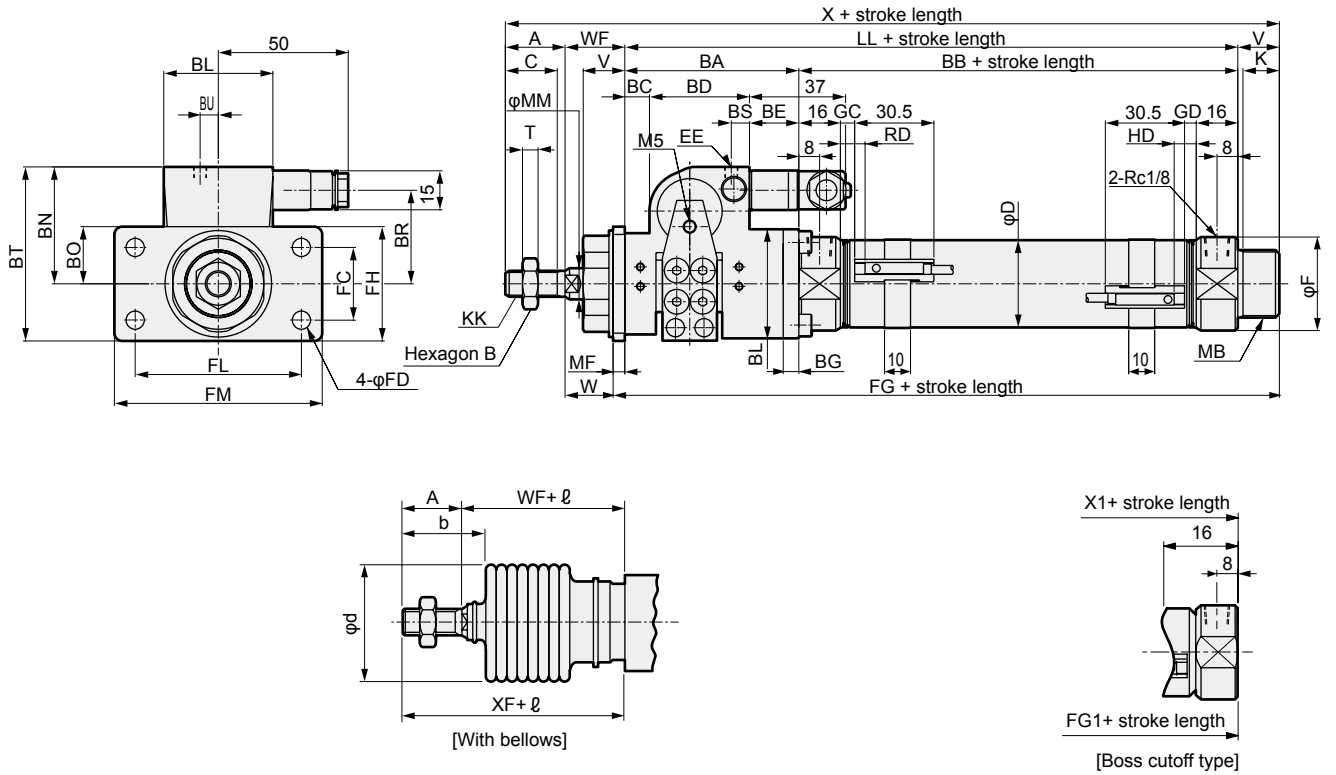
Code	Axial foot (LB) basic dimensions																		
Bore size (mm)	A	AB	B	BA	BB	BC	BD	BE	BG	BL	BT	BN	BO	BR	BS	BU	C	D	EE
φ20	20	6	13	58	66	9	30	19	5	34	63	38	19	29	4	3.8	18	21.4	M5
φ25	23	7	17	67	69	9.5	38.5	19	6	42	75	45	22	34.5	7	7	20	26.4	Rc1/8
φ32	23	7	17	67	69	9.5	38.5	19	6	42	75	45	22	34.5	7	7	20	33.6	Rc1/8
φ40	25	7	19	74	73	8	48	18	8	50	85.5	55.5	25	39.5	7	7	22	41.6	Rc1/8

Code	Mounting dimensions										With switch (T0, T5, T2, T3)								
Bore size (mm)	F	FA	H	KK	LL	MM	T	V	WF	LA	LB	LC	LG	LH	LR	LS	GC	GD	RD
φ20	28	26	15	M8×1.0	124	10	5	14	24	196	10	18	160	25	30	44	4.0	3.0	8.0
φ25	32	35	20	M10×1.25	136	12	6	16	23	217	12	23	182	30	46	62	5.5	4.5	9.5
φ32	36	35	20	M10×1.25	136	12	6	16	23	217	12	23	182	30	46	62	5.5	4.5	9.5
φ40	45	35	20	M12×1.5	147	14	7	16	23	230	12	23	193	30	46	62	7.5	6.5	11.5

Code	With switch (T2W, T3W)					With bellows						
Bore size (mm)	HD	GC	GD	RD	HD	P	P1	(Pθ°)	XF	b	d	ℓ
φ20	7.0	6.0	5.0	10.0	9.0	17.3	19.5	22	44	30	30	(Stroke length/3) + 6
φ25	8.5	7.5	6.5	11.5	10.5	19.8	22.0	18	46	32	46	(Stroke length/3.25) + 7
φ32	8.5	7.5	6.5	11.5	10.5	24.3	25.5	15	46	32	46	(Stroke length/3.25) + 7
φ40	10.5	9.5	8.5	13.5	12.5	28.3	29.5	12	48	34	46	(Stroke length/3.25) + 7

Dimensions

● Rod side flange (FA)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the ℓ dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 721.

Code	Rod side flange (FA) basic dimensions																				
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BT	BL	BN	BO	BR	BS	BU	C	D	EE	F	K	KK
φ20	20	13	58	66	9	30	19	5	55	34	38	19	29	4	3.8	18	21.4	M5	28	12	M8×1.0
φ25	23	17	67	69	9.5	38.5	19	6	67	42	45	22	34.5	7	7	20	26.4	Rc1/8	32	14	M10×1.25
φ32	23	17	67	69	9.5	38.5	19	6	67	42	45	22	34.5	7	7	20	33.6	Rc1/8	36	14	M10×1.25
φ40	25	19	74	73	8	48	18	8	77.5	50	55.5	25	39.5	7	7	22	41.6	Rc1/8	45	14	M12×1.5

Code	Mounting dimensions															With switch (T0, T5, T2, T3)			
Bore size (mm)	LL	MB	MF	MM	T	V	W	WF	X	FC	FD	FG	FH	FL	FM	GC	GD	RD	HD
φ20	124	M18×1.5	3.2	10	5	14	20.8	24	182	20	6	141.2	34	40	54	4.0	3.0	8.0	7.0
φ25	136	M26×1.5	4.5	12	6	16	18.5	23	198	28	7	156.5	44	64	80	5.5	4.5	9.5	8.5
φ32	136	M26×1.5	4.5	12	6	16	18.5	23	198	28	7	156.5	44	64	80	5.5	4.5	9.5	8.5
φ40	147	M26×1.5	4.5	14	7	16	18.5	23	211	28	7	167.5	44	64	80	7.5	6.5	11.5	10.5

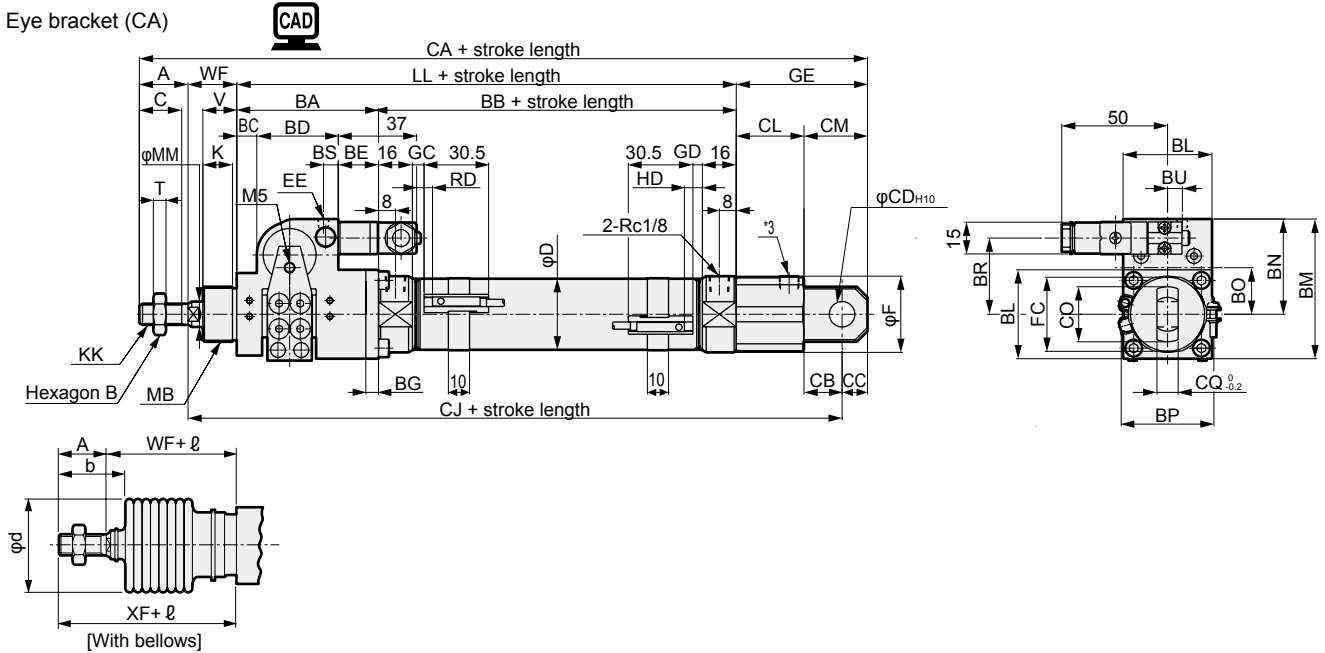
Code	With switch (T2W, T3W)				With bellows				Boss cutoff type		
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ		X1	FG1
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6		168	127.2
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7		182	140.5
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7		182	140.5
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7		195	151.5

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2**
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

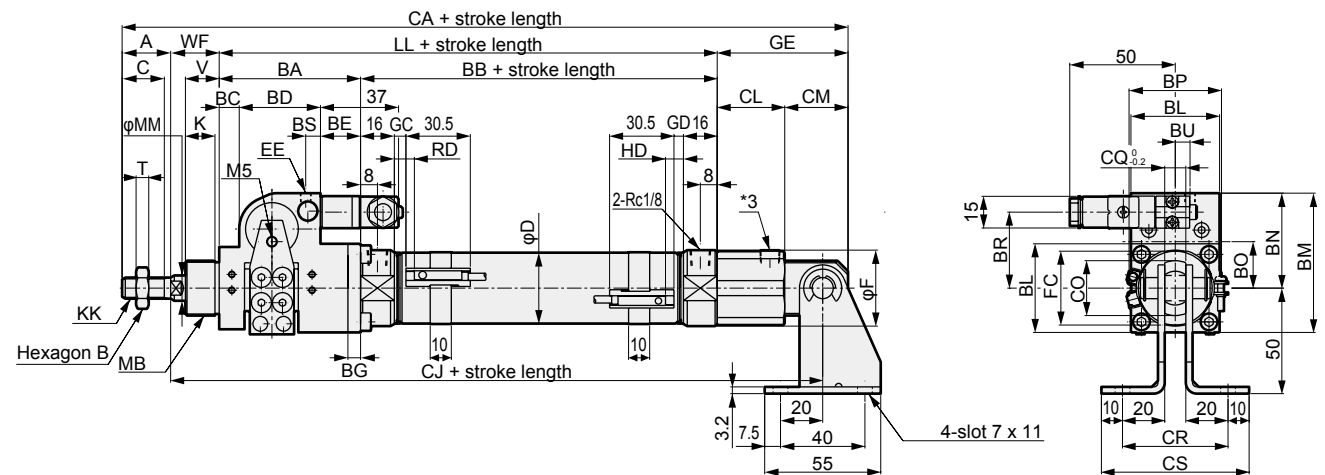
JSK2-V Series

Dimensions

● Eye bracket (CA)



● Eye bracket (CA) with bracket (option)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : Not piping port.

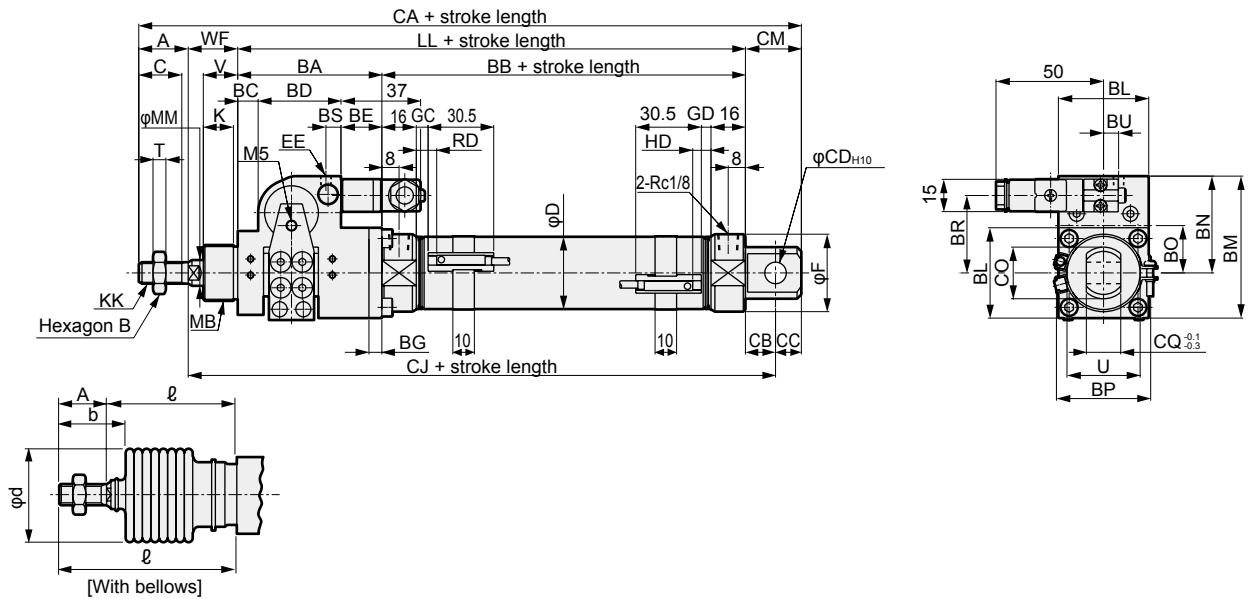
*4 : For the ℓ dimension, round up below the decimal point.

*5 : For the dimensions of the accessories, refer to page 721.

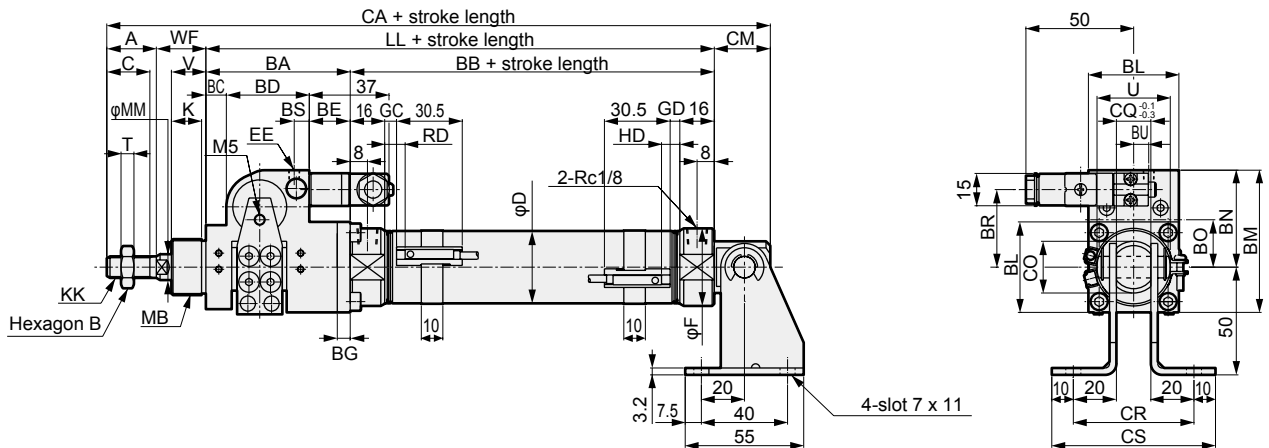
Code	Eye bracket (CA) basic dimensions																					
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BL	BM	BN	BO	BP	BR	BS	BU	C	D	EE	F	FC	GE
φ20	20	13	58	66	9	30	19	5	34	55	38	19	38	29	4	3.8	18	21.4	M5	28	26	55
φ25	23	17	67	69	9.5	38.5	19	6	42	66	45	22	43.8	34.5	7	7	20	26.4	Rc1/8	32	35	62
φ32	23	17	67	69	9.5	38.5	19	6	42	66	45	22	43.8	34.5	7	7	20	33.6	Rc1/8	36	35	62
φ40	25	19	73	73	8	48	18	8	50	80.5	55.5	25	52	39.5	7	7	22	41.6	Rc1/8	45	35	62
Code											Mounting dimensions											
Bore size (mm)	K	KK	LL	MB	MM	T	V	WF	CA	CB	CC	CD	CJ	CL	CM	CO	CQ	CR	CS			
φ20	12	M8×1.0	124	M18×1.5	10	5	14	24	223	14	10	10	193	31	24	22	8	48	68			
φ25	14	M10×1.25	135	M26×1.5	12	6	16	23	244	18	12	12	209	32	30	26	10	50	70			
φ32	14	M10×1.25	136	M26×1.5	12	6	16	23	244	18	12	12	209	32	30	26	10	50	70			
φ40	14	M12×1.5	147	M26×1.5	14	7	16	23	257	18	12	12	220	32	30	26	10	50	70			
Code	With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows													
Bore size (mm)	GC	GD	RD	HD	GC	GD	RD	HD	XF	b	d	ℓ										
φ20	4.0	3.0	8.0	7.0	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6										
φ25	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7										
φ32	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7										
φ40	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7										

Dimensions

- Eye bracket integrated (CC)



- Eye bracket (CC) with bracket (option)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the l dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 721.

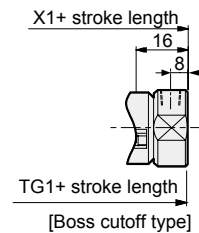
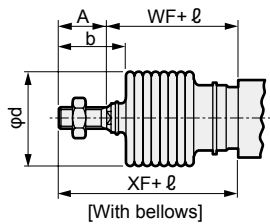
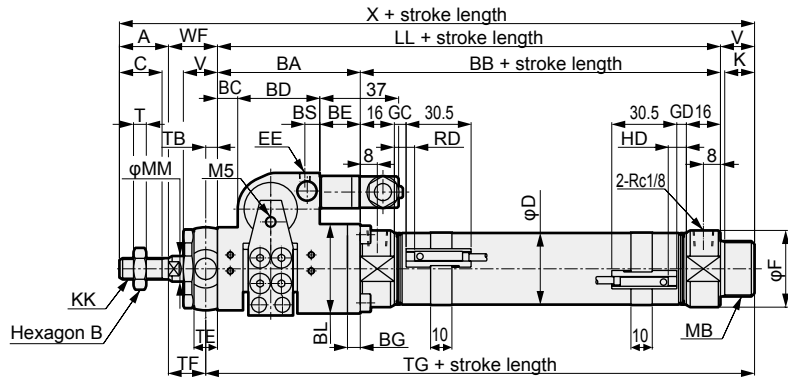
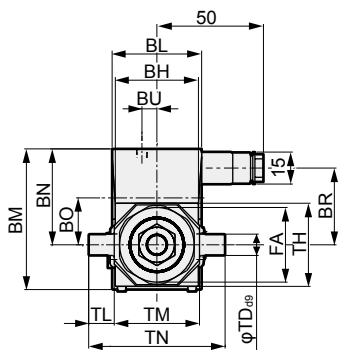
Code	Eye bracket integrated (CC) basic dimensions																			
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BL	BM	BN	BO	BP	BR	BS	BU	C	D	EE	F
φ20	20	13	58	66	9	30	19	5	34	55	38	19	38	29	4	3.8	18	21.4	M5	28
φ25	23	17	67	69	9.5	38.5	19	6	42	66	45	22	43.8	34.5	7	7	20	26.4	Rc1/8	32
φ32	23	17	67	69	9.5	38.5	19	6	42	66	45	22	43.8	34.5	7	7	20	33.6	Rc1/8	36
φ40	25	19	74	73	8	48	18	8	50	80.5	55.5	25	52	39.5	7	7	22	41.6	Rc1/8	45
Code											Mounting dimensions									
Bore size (mm)	K	KK	LL	MB	MM	T	U	V	WF	CA	CB	CC	CD	CJ	CM	CO	CQ	CR	CS	
φ20	12	M8×1.0	124	M18×1.5	10	5	24	14	24	189	12	9	8	160	21	22	16	56	76	
φ25	14	M10×1.25	135	M26×1.5	12	6	30	16	23	203	12	9	8	171	21	24	16	56	76	
φ32	14	M10×1.25	136	M26×1.5	12	6	34	16	23	208	14	12	10	173	26	24	16	56	76	
φ40	14	M12×1.5	147	M26×1.5	14	7	43	16	23	225	16	14	12	186	30	30	20	60	80	
Code	With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows											
Bore size (mm)	GC	GD	RD	HD	GC	GD	RD	HD	XF	b	d	l								
φ20	4.0	3.0	8.0	7.0	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6								
φ25	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7								
φ32	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7								
φ40	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7								

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

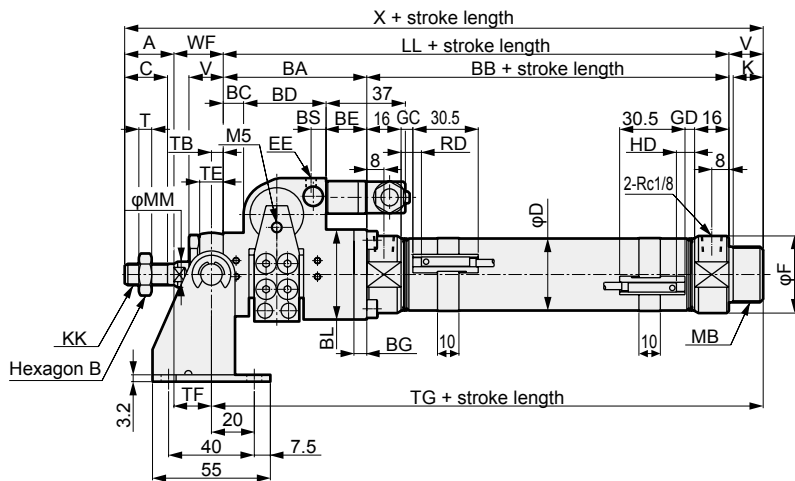
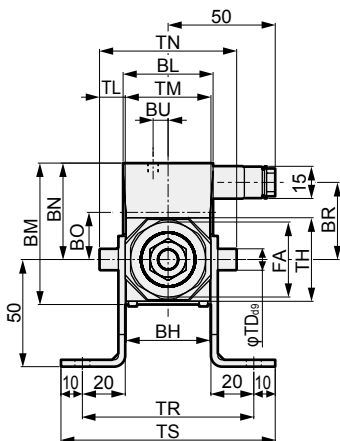
JSK2-V Series

Dimensions

● Rod side trunnion (TA)



● Rod side trunnion (TA) with bracket (option)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the ℓ dimension, round up below the decimal point.

*4 : Option with bracket cannot be selected for the brake section with cover "U".

*5 : For the dimensions of the accessories, refer to page 721.

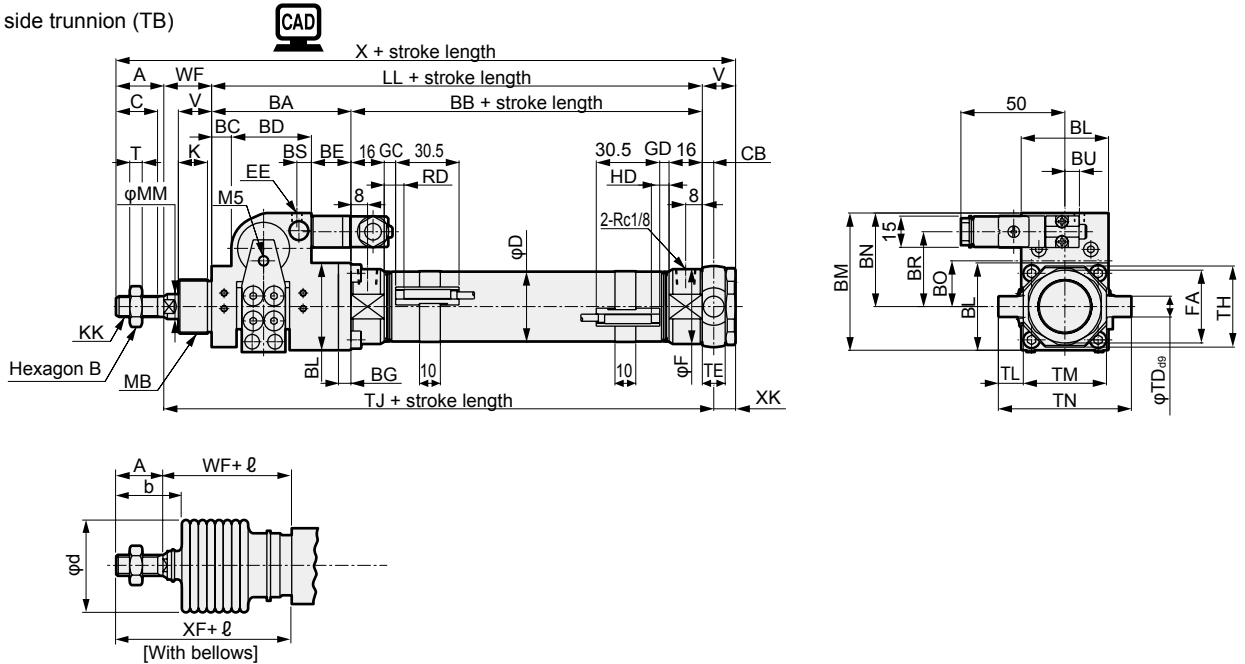
Code	Rod side trunnion (TA)																					
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BR	BS	BU	C	D	EE	F	FA	K
φ20	20	13	58	66	9	30	19	5	29	34	55	38	19	29	4	3.8	18	21.4	M5	28	26	12
φ25	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	34.5	7	7	20	26.4	Rc1/8	32	35	14
φ32	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	34.5	7	7	20	33.6	Rc1/8	36	35	14
φ40	25	19	74	73	8	48	18	8	50	50	80.5	55.5	25	39.5	7	7	22	41.6	Rc1/8	45	35	14

Code	Mounting dimensions																		
Bore size (mm)	KK	LL	MB	MM	T	TL	TM	TR	TS	V	WF	X	TB	TD	TE	TF	TG	TH	TL
φ20	M8×1.0	124	M18×1.5	10	5	8	30	70	90	14	24	182	4.5	8	9	19.5	142.5	29.5	8
φ25	M10×1.25	136	M26×1.5	12	6	12	40	80	100	16	23	198	5.5	10	11	17.5	157.5	39	12
φ32	M10×1.25	136	M26×1.5	12	6	12	40	80	100	16	23	198	5.5	10	11	17.5	157.5	39	12
φ40	M12×1.5	147	M26×1.5	14	7	9.5	53	93	113	16	23	211	5.5	10	11	17.5	168.5	44	9.5

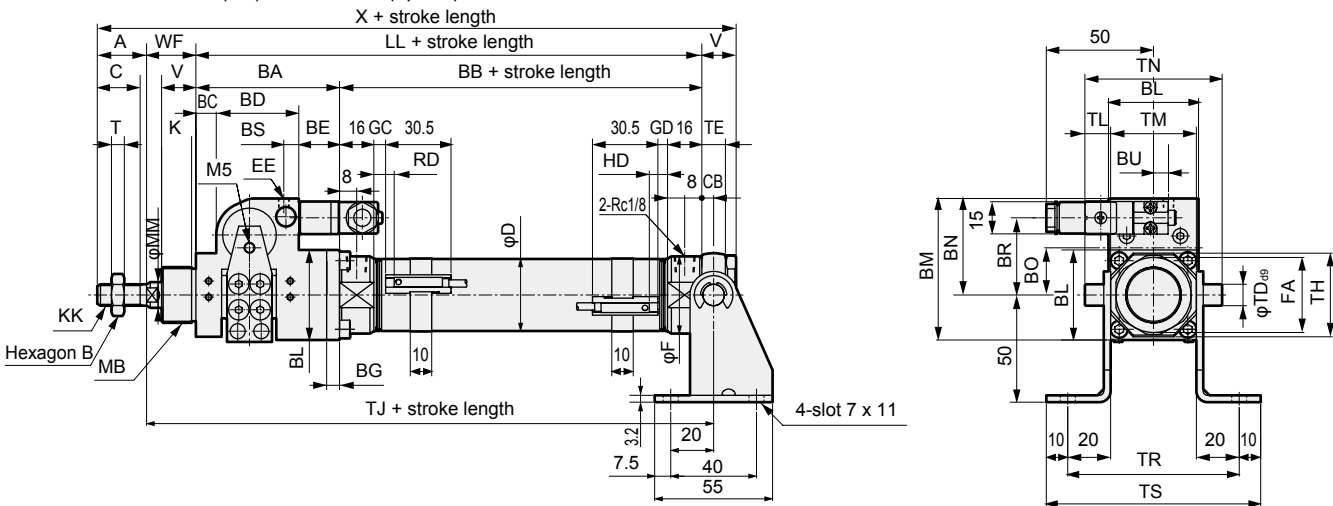
Code	With switch (T0, T5, T2, T3)										With switch (T2W, T3W)			With bellows			Boss cutoff	
Bore size (mm)	TM	TN	GC	GD	RD	HD	GC	GD	RD	HD	XF	b	d	ℓ	X1	TG1		
φ20	30	46	4.0	3.0	8.0	7.0	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6	168	128.5		
φ25	40	64	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7	182	141.5		
φ32	40	64	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7	182	141.5		
φ40	53	72	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7	195	152.5		

Dimensions

● Head side trunnion (TB)



● Head side trunnion (TB) with bracket (option)



1 : Refer to page 709 for HD, RD and protruding dimensions of T, T8*, and 2-color display switches.

*2 : The size of the exhaust port of brake section is the same as that of EE.

*3 : For the ℓ dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 721.

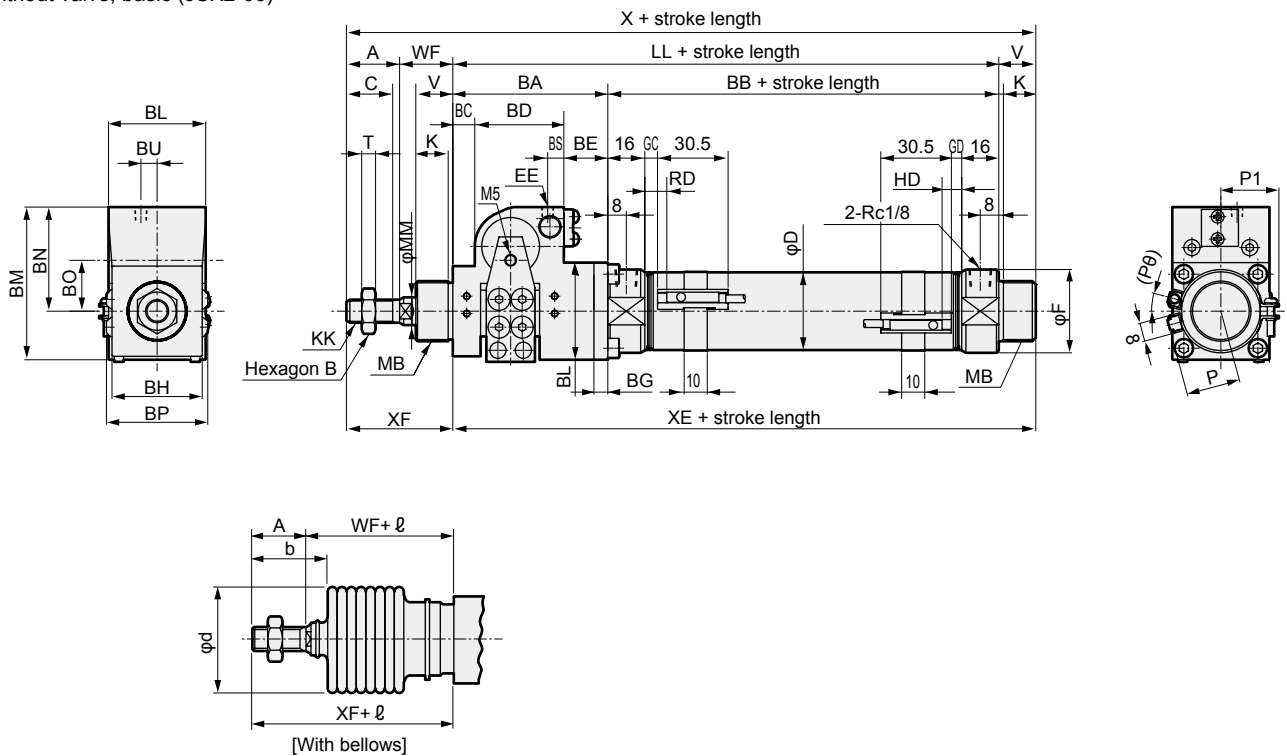
Code	Head side trunnion (TB) basic dimensions																				
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BL	BM	BN	BO	BR	BS	BU	C	CB	D	EE	F	FA
φ20	20	13	58	66	9	30	19	5	34	55	38	19	29	4	3.8	18	4.5	21.4	M5	28	26
φ25	23	17	67	69	9.5	38.5	19	6	42	66	45	22	34.5	7	7	20	5.5	26.4	Rc1/8	32	35
φ32	23	17	67	69	9.5	38.5	19	6	42	66	45	22	34.5	7	7	20	5.5	33.6	Rc1/8	36	35
φ40	25	19	74	73	8	48	18	8	50	80.5	55.5	25	39.5	7	7	22	5.5	41.6	Rc1/8	45	35
Code											Mounting dimensions										
Bore size (mm)	K	KK	LL	MB	MM	T	V	WF	X	XK	TD	TE	TH	TJ	TL	TM	TN	TR	TS		
φ20	12	M8×1.0	124	M18×1.5	10	5	14	24	182	9.5	8	9	29.5	152.5	8	30	46	70	90		
φ25	14	M10×1.25	136	M26×1.5	12	6	16	23	198	10.5	10	11	39	164.5	12	40	64	80	100		
φ32	14	M10×1.25	136	M26×1.5	12	6	16	23	198	10.5	10	11	39	164.5	12	40	64	80	100		
φ40	14	M12×1.5	147	M26×1.5	14	7	16	23	211	10.5	10	11	44	175.5	9.5	53	72	93	113		
Code	With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows												
Bore size (mm)	GC	GD	RD	HD	GC	GD	RD	HD	XF	b	d	ℓ									
φ20	4.0	3.0	8.0	7.0	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6									
φ25	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7									
φ32	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7									
φ40	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7									

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2**
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

Dimensions



● Without valve, basic (JSK2-00)



- *1 : Refer to page 709 for HD, RD and protruding dimensions of T*, T8*, and 2-color display switches.
- *2 : The mounting dimensions are the same as those of JSK2-V (with valve). Refer to pages 702 to 707.
- *3 : For the \varnothing dimension, round up below the decimal point.
- *4 : For the dimensions of the accessories, refer to page 721.

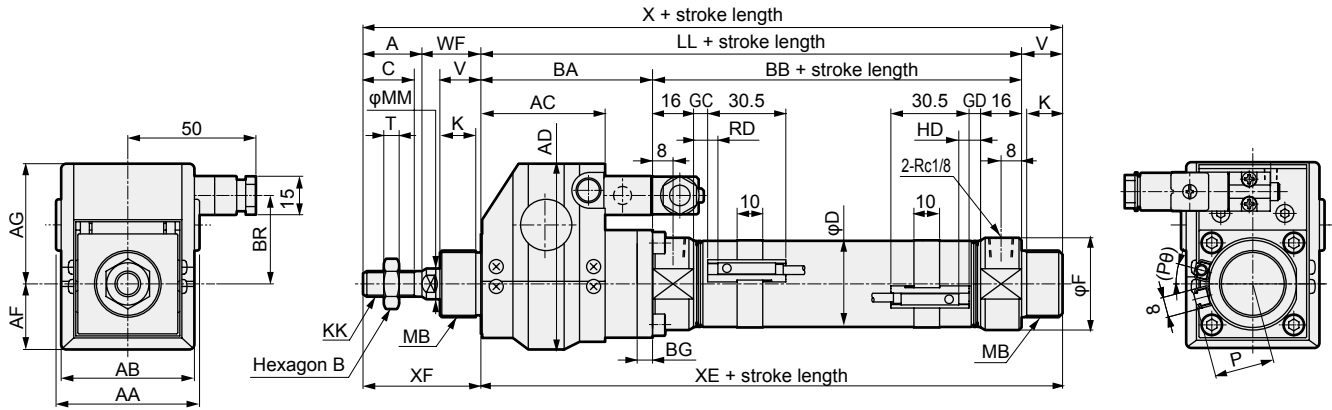
Code	Without valve/basic (JSK2-00) basic dimensions																		
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BP	BS	BU	C	D	EE
$\varnothing 20$	20	13	58	66	9	30	19	5	29	34	55	38	19	38	4	3.8	18	21.4	M5
$\varnothing 25$	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	43.8	7	7	20	26.4	Rc1/8
$\varnothing 32$	23	17	67	69	9.5	38.5	19	6	39	42	66	45	22	43.8	7	7	20	33.6	Rc1/8
$\varnothing 40$	25	19	74	73	8	48	18	8	50	50	80.5	55.5	25	52	7	7	22	41.6	Rc1/8

Code	Without valve/basic (JSK2-00) basic dimensions												With switch (T0, T5, T2, T3)			With switch (T2W, T3W)			
Bore size (mm)	F	K	KK	LL	MB	MM	T	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD
$\varnothing 20$	28	12	M8 \times 1.0	124	M18 \times 1.5	10	5	14	24	182	138	44	4.0	3.0	8.0	7.0	6.0	5.0	10.0
$\varnothing 25$	32	14	M10 \times 1.25	136	M26 \times 1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	7.5	6.5	11.5
$\varnothing 32$	36	14	M10 \times 1.25	136	M26 \times 1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	7.5	6.5	11.5
$\varnothing 40$	45	14	M12 \times 1.5	147	M26 \times 1.5	14	7	16	23	211	163	48	7.5	6.5	11.5	10.5	9.5	8.5	13.5

Code	With bellows						
Bore size (mm)	HD	P	P1	(P θ) ^o	b	d	\varnothing
$\varnothing 20$	9.0	17.3	19.5	22	30	30	(Stroke length/3) + 6
$\varnothing 25$	10.5	19.8	22.0	18	32	46	(Stroke length/3.25) + 7
$\varnothing 32$	10.5	24.3	25.5	15	32	46	(Stroke length/3.25) + 7
$\varnothing 40$	12.5	28.3	29.5	12	34	46	(Stroke length/3.25) + 7

Dimensions

- Brake section with cover (U)/basic (JSK2-00)



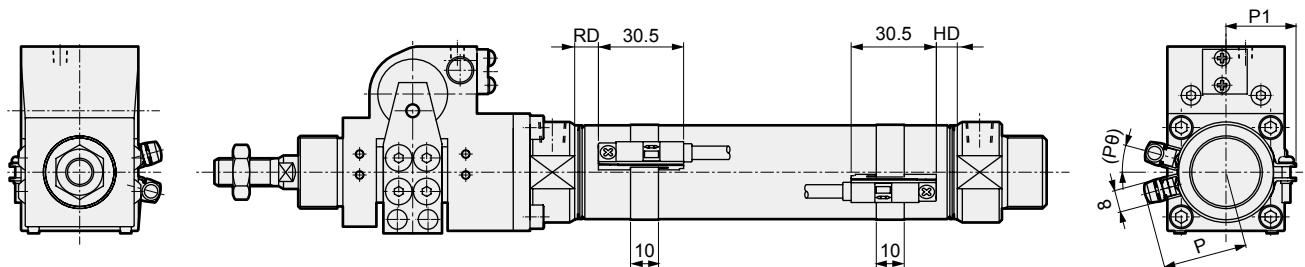
RD: Rod side max. sensitivity position
 HD: Head side max. sensitivity position

Code	Basic (00) basic dimensions																	
Bore size (mm)	A	AA	AB	AC	AD	AF	AG	B	BA	BB	BG	BR	C	D	F	K	KK	LL
φ20	20	51	47	39	58.5	19.5	39	13	58	66	5	29	18	21.4	28	12	M8×1.0	124
φ25	23	56	52	48.5	72.5	25	47.5	17	67	69	6	34.5	20	26.4	32	14	M10×1.25	136
φ32	23	56	52	48.5	72.5	25	47.5	17	67	69	6	34.5	20	33.6	36	14	M10×1.25	136
φ40	25	69	65	56	85.75	28.75	57	19	74	73	8	39.5	22	41.6	45	14	M12×1.5	147

Code	Basic (00) basic dimensions								With switch (T0, T5, T2, T3)				With switch (T2W, T3W)					
Bore size (mm)	MB	MM	T	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD	HD	P	(Pθ)°
φ20	M18×1.5	10	5	14	24	182	138	44	4.0	3.0	8.0	7.0	6.0	5.0	10.0	9.0	17.3	22
φ25	M26×1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	19.8	18
φ32	M26×1.5	12	6	16	23	198	152	46	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	24.3	15
φ40	M26×1.5	14	7	16	23	211	163	48	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	28.3	12

JSK2 Series common dimensions (with T1, T8 switches, with 2-color display switch)

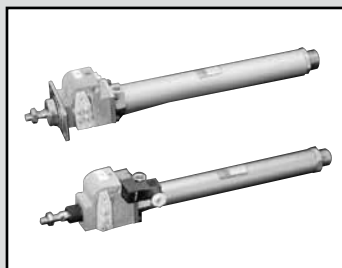
- JSK2-**-**-T1H/V, T8H/V, T₃²YH/V



Switch installation dimensions

Code	1-color display (T1, T8) 2-color display (T Y) ² / ₃							
	RD *1		HD *2		P		P1	(Pθ)°
	T1, T ₃ ² Y	T8	T1, T ₃ ² Y	T8	T1	T ₃ ² Y, T8		
φ20	7.0	2.0	6.0	1	28.5	23.1	19.5	22
φ25	8.5	3.5	7.5	2.5	31.0	25.6	22.0	18
φ32	8.5	3.5	7.5	2.5	35.5	30.1	25.5	15
φ40	10.5	5.5	9.5	4.5	39.5	34.1	29.5	12

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2**
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

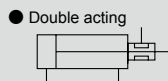


Brake cylinder Small bore size, disassembly
Double acting/double acting with valve

JSM2/JSM2-V Series

● Bore size: $\phi 20/\phi 30/\phi 40$

JIS symbol



Specifications

Descriptions	JSM2			JSM2-V		
	$\phi 20$	$\phi 30$	$\phi 40$	$\phi 20$	$\phi 30$	$\phi 40$
Bore size mm	$\phi 20$	$\phi 30$	$\phi 40$	$\phi 20$	$\phi 30$	$\phi 40$
Actuation	Double acting			Double acting/with valve		
Working fluid	Compressed air					
Max. working pressure MPa	0.7 (≈ 100 psi, 7 bar)			0.6 (≈ 87 psi, 6 bar)		
Min. working pressure MPa	Brake section	0.35 (≈ 51 psi, 3.5 bar)				
	Cylinder	0.10 (≈ 15 psi, 1 bar)				
Proof pressure MPa	1.05 (≈ 150 psi, 10.5 bar)					
Ambient temperature $^{\circ}\text{C}$	-10 (14 $^{\circ}\text{F}$) to 60 (140 $^{\circ}\text{F}$) (no freezing)			-10 (14 $^{\circ}\text{F}$) to 50 (122 $^{\circ}\text{F}$) (no freezing)		
Port size	Brake section	M5	Rc1/8	M5	Rc1/8	
	Cylinder	Rc1/8				
Stroke tolerance mm	$^{+1.0}_0$ (to 200)			$^{+1.2}_0$ (to 1000)		
Working piston speed mm/s	50 to 500					
Cushion	None					
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)					
Stopping accuracy mm	± 1.0 (300 mm/s, no load)					
Holding force N	186	431	765	186	431	765
Allowable absorbed energy J	0.024	0.05	0.093	0.024	0.05	0.093

Note: This product cannot absorb high energy generated by external load. We recommend attaching an external shock absorber.

Electrical specification for brake valve

Descriptions	JSM2-V-VALVE-KIT- Voltage		
Rated voltage (V)	100 AC(50/60 Hz)	200 AC(50/60 Hz)	24 DC
Starting current (A)	0.056/0.044	0.034/0.026	0.075
Holding current (A)	0.028/0.022	0.017/0.013	
Power consumption (W)	1.8/1.4	2.1/1.6	1.8
Voltage fluctuation range	$\pm 10\%$		
Thermal class	Class B molded coil		

*1 : 100/200 VAC coil is available for 110/220 VAC (60 Hz).

*2 : Refer to "Pneumatic Valves (CB-23SA)" for details on valves (P5136 Series).

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
$\phi 20$	25/50/75/100/125/150 175/200/250/300	700	1
$\phi 30$			
$\phi 40$			

● For types with switch, minimum stroke length varies depending on mounting method. Refer to the following table.
The custom stroke length is available in 1 mm increments.

Min. stroke length with switch (T switch)

Switch model No.	1	2	3
T0, T5, T2, T3	10	27	51
T2W, T3W	10	31	55
T2Y, T3Y, T1	10	25	49
T8	10	23	47

Switch specifications (T type switch)

● 1-color/2-color display

Descriptions	Proximity 2-wire		Proximity 2-wire				Proximity 3-wire				Reed 2-wire													
	T1H/T1V	T2H/T2V/ T2JH/T2JV	T2YH/ T2YV	T2WH/ T2WV	T3H/ T3V	T3PH/T3PV (custom)	T3YH/ T3YV	T3WH/ T3WV	T0H/T0V	T5H/T5V		T8H/T8V												
Applications	For programmable controller, relay, compact solenoid valve		Dedicated for programmable controller				For programmable controller, relay				For programmable controller, relay		For programmable controller, relay, IC circuit (no indicator lamp), serial connection											
Output method	-		-				NPN output		PNP output		NPN output		NPN output											
Pwr. supp. V.	-		-				10 to 28 VDC						-											
Load voltage	85 to 265 VAC		10 to 30 VDC		24 VDC ±10%		30 VDC or less				12/24 VDC		100/110 VAC		5/12/24 VDC		100/110 VAC		12/24 VDC		110 VAC		220 VAC	
Load current	5 to 100 mA		5 to 20 mA (*2)				100 mA or less		50 mA or less		5 to 50 mA		7 to 20 mA		50 mA or less		20 mA or less		5 to 50 mA		7 to 20 mA		7 to 10 mA	
Indicator lamp	LED (Lit when ON)		LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)										
Leakage current	≤ 1 mA at 100 VAC, ≤ 2 mA at 200 VAC		1 mA or less				10 µA or less				0 mA													
Weight g	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:18 3 m:49 5 m:80		1 m:33 3 m:87 5 m:142		1 m:18 3 m:49 5 m:80		1 m:18 3 m:49 5 m:80		1 m:33 3 m:87 5 m:142											

*1 : Refer to Ending Page 1 for other switch specifications.

*2 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*3 : The T0/T5 switch can also be used with 220 VAC. Contact CKD about working conditions.

*4 : Dimensions depend on switch model No. Refer to Ending Page 18 for details.

Cylinder weight

(Unit: kg)

Item/mounting	Product weight when stroke length (S) = 0 mm					Switch weight	Switch rail + band weight	Valve weight	Additional weight per S = 10 mm
	Bore size (mm)	Basic (00)	Axial foot (LB)	Flange (FA)	Clevis (CA)				
φ20	0.48	0.63	0.54	0.61	0.53	Refer to the weight in the switch specifications.	0.005	0.07	0.01
φ30	0.94	1.20	1.09	1.15	1.04		0.005		0.014
φ40	1.57	1.83	1.72	1.79	0.73		0.009		0.02

(Example) JSM2-V-LB-20-100-2-TOH-D	Product weight when S = 0 mm	0.73 kg
	Additional weight when S = 100 mm	$0.01 \times \frac{100}{10} = 0.1 \text{ kg}$
	Weight of 2 switches	$(0.018 + 0.005) \times 2 = 0.046 \text{ kg}$
	Product weight	$0.73 \text{ kg} + 0.1 \text{ kg} + 0.046 \text{ kg} = 0.88 \text{ kg}$

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa							
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7
φ20	Push	31.4	47.1	62.8	94.2	1.26×10^2	1.57×10^2	1.88×10^2	2.20×10^2
	Pull	23.6	35.3	47.1	70.7	94.2	1.18×10^2	1.41×10^2	1.65×10^2
φ30	Push	70.7	1.06×10^2	1.41×10^2	2.12×10^2	2.83×10^2	3.53×10^2	4.24×10^2	4.95×10^2
	Pull	59.4	89.1	1.19×10^2	1.78×10^2	2.38×10^2	2.97×10^2	3.56×10^2	4.16×10^2
φ40	Push	1.26×10^2	1.88×10^2	2.51×10^2	3.77×10^2	5.03×10^2	6.28×10^2	7.54×10^2	8.80×10^2
	Pull	1.10×10^2	1.65×10^2	2.21×10^2	3.31×10^2	4.41×10^2	5.51×10^2	6.62×10^2	7.72×10^2

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

JSM2/JSM2-V Series

How to order

● Without valve

Without switch (built-in magnet for switch)

JSM2 - LB - 20 - 50 - 1 - P I

With switch (built-in magnet for switch)

JSM2 - LB - 20 - 50 - 1 - T0H - R - P I

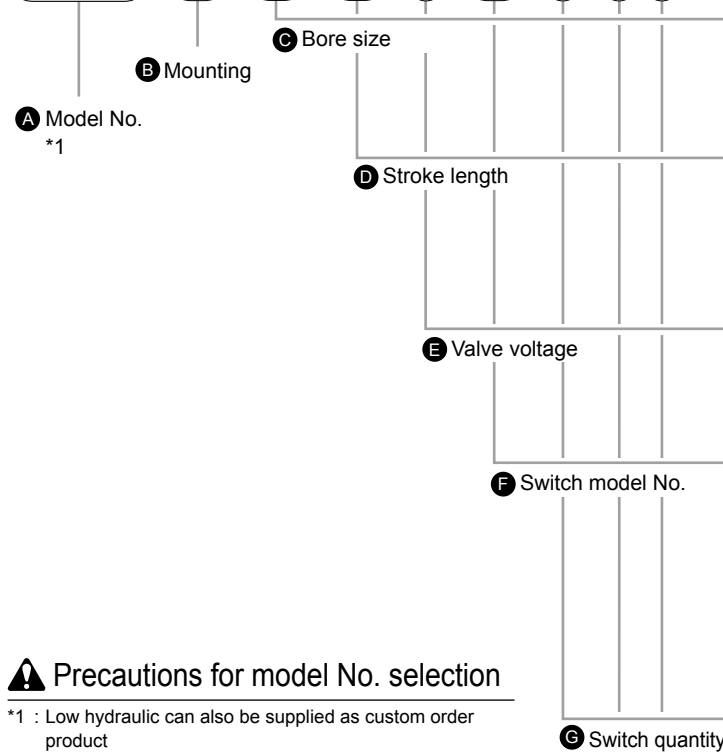
● With valve

Without switch (built-in magnet for switch)

JSM2-V - LB - 20 - 50 - 1 - P I

With switch (built-in magnet for switch)

JSM2-V - LB - 20 - 50 - 1 - T0H - R - P I



⚠ Precautions for model No. selection

- *1 : Low hydraulic can also be supplied as custom order product
Model numbers are JSM2-H and JSM2-VH.
- *2 : Refer to page 710 for the min. stroke length with switch.
- *3 : For a TA mounting, the brake section with cover (U) cannot be selected.

[Example of model No.]

JSM2-V-LB-20-50-1-T0H-R-PI

Model: Brake cylinder with valve

- A** Model No. : With valve
- B** Mounting : Axial foot
- C** Bore size : φ20 mm
- D** Stroke length : 50 mm
- E** Valve voltage : 100 VAC
- F** Switch model No. : Reed T0H switch,
- G** Switch quantity : 1 on rod side
- H** Option : Same port position
- I** Accessory : Rod eye

A Model No.	
Double acting	With valve
JSM2	JSM2-V

Code	Content	Double acting	With valve
B Mounting			
00	Basic	●	●
LB	Axial foot	●	●
FA	Rod side flange	●	●
CA	Eye bracket	●	●
TA	Rod side trunnion	●	●
TB	Head side trunnion	●	●

C Bore size (mm)			
20	φ20	●	●
30	φ30	●	●
40	φ40	●	●

D Stroke length (mm)			
Bore size	Stroke length *2	Custom stroke length	
φ20	1 to 700	In 1 mm increments	
φ30	1 to 700		
φ40	1 to 700		

E Valve voltage			
1	100 VAC(50/60 Hz)	●	●
2	200 VAC(50/60 Hz)	●	●
3	24 VDC	●	●

F Switch model No.			
Refer to the switch model No. table on the following page.			

* Lead wire length			
Blank	1 m (standard)	●	●
3	3 m (option)	●	●
5	5 m (option)	●	●

G Switch quantity			
R	1 on rod side	●	●
H	1 on head side	●	●
D	2	●	●
T	3	●	●
4	4 (when there are more than 4 switches, indicate switch quantity.)	●	●

H Option					
		Max. ambient temperature	Instantaneous max. temp	Double acting	With valve
J	Bellows	100°C	200°C	●	●
L	Bellows	250°C	400°C	●	●
M	Piston rod material (stainless steel)			●	●
P	Same port position			●	●
U	Brake section with cover			●	●

I Accessory			
I	Rod eye	●	●
Y	Rod clevis (pin, washer, split pin attached)	●	●
B2	Clevis bracket (pin, snap ring attached)	●	●

[F] Switch model No.

T type switch						
Axial lead wire	Radial lead wire	Contact	Voltage		Display	Lead wire
			AC	DC		
TOH*	TOV*	Reed	●	●	1-color display	2-wire
T5H*	T5V*		●	●	Without indicator lamp	
T8H*	T8V*		●	●	1-color display	
T1H*	T1V*	Proximity	●		1-color display	2-wire
T2H*	T2V*			●		
T3H*	T3V*			●	1-color display (custom order)	3-wire
T3PH*	T3PV*			●		
T2WH*	T2WV*			●	2-color display	2-wire
T2YH*	T2YV*			●		
T3WH*	T3WV*			●		
T3YH*	T3YV*		●			
T2JH*	T2JV*		●	Off-delay	2-wire	

How to order switch

[T type switch]

● Switch body + mounting bracket set

JSM2 - T0H - 20

Switch model No.
(Item ⑤ on the previous page)

Bore size
(Item ③ on the previous page)

● Switch body only

SW - T0H

Switch model No.
(Item ⑤ on the previous page)

● Mounting bracket set

JSM2 - T - 20

Mounting bracket

How to order brake valve

JSK2-V - VALVE-KIT - 1

① Valve voltage

Code	Content
1	100 VAC(50/60 Hz)
2	200 VAC(50/60 Hz)
3	24 VDC

How to order mounting bracket

Bore size (mm)	φ20	φ30	φ40
Mounting bracket			
Basic (00) *3	M1-0020	M1-00-30	M1-00-30
Axial foot (LB)	M1-LB-20	M1-LB-30	M1-LB-30
Flange (FA)	M1-FA-20	M1-FA-30	M1-FA-30
Eye bracket (CA)	M1-CA-20	M1-CA-30	M1-CA-30
Trunnion (TA/TB)	M1-TA-20	M1-TA-30	M1-TA-40

*1: As for mounting brackets, the axial foot and flange include mounting nuts and toothed washers, and the trunnion includes mounting nuts.

2: For axial foot, 2 sets of the above "M1-LB-" are required.

*3: Mounting nut, toothed washer only. Although 1 set is attached with the basic of the product (00), use this when needed.

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

JSM2/JSM2-V Series

Material of mounting bracket

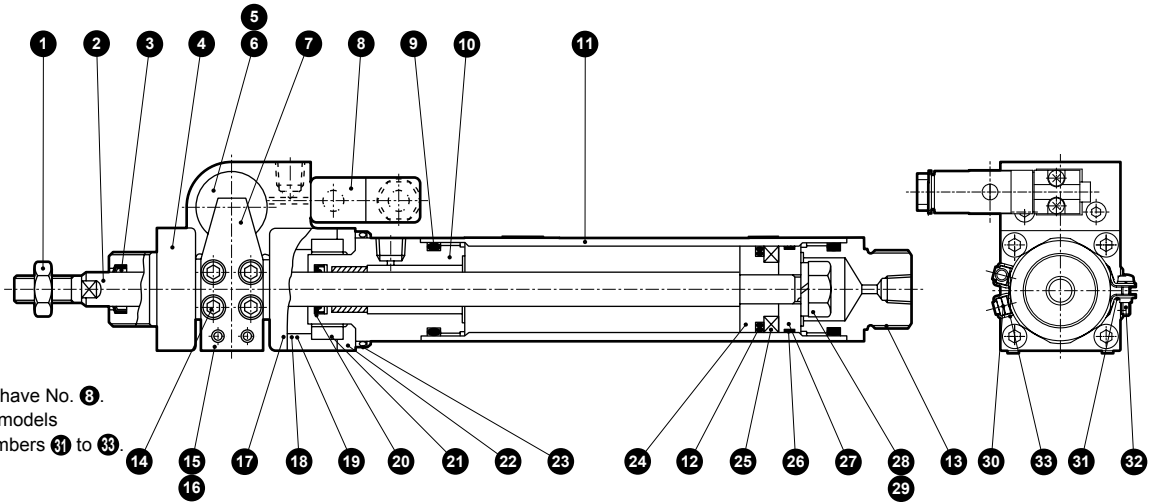
Mounting	Material	Remarks
LB	Steel	Zinc chromate
FA	Steel	Zinc chromate
TA/TB	Steel	Zinc chromate
CA	Steel	Zinc chromate

Note: Mounting bracket will be shipped with the product.

However, if the product is supplied with bellows and the mounting bracket is LB, FA, or TA, it will be shipped assembled.

Internal structure and parts list

- JSM2 (double acting/with switch)
- JSM2-V (with valve and switch)



- Note: JSM2 does not have No. 8.
- Note: The switchless models do not have numbers 31 to 33.

Parts list

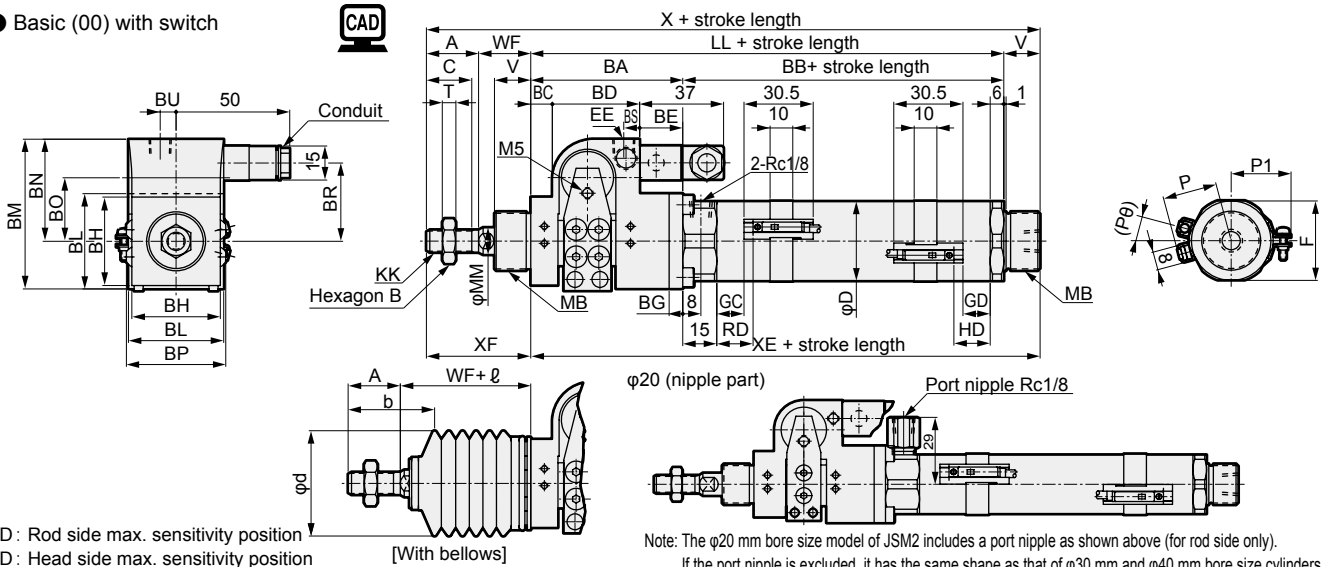
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	17	Brake shoe metal	Cast iron	
2	Piston rod	φ20/φ30 stainless steel φ40 carbon steel	Industrial chrome plating	18	Bush	Dry bearing	
3	Scraper	Nitrile rubber		19	Ring	Steel	
4	Brake body	Cast iron	Zinc chromate	20	Rod packing	Nitrile rubber	
5	Brake piston	Copper alloy casting		21	Fixed ring	Steel	Zinc chromate
6	Piston packing	Nitrile rubber		22	Square flange	Steel	Zinc chromate
7	Lever	Steel	Zinc chromate	23	Hex socket screw	Steel	Black finish
8	Valve for brake release	---	P5136MO	24	Piston A	Aluminum alloy	
9	Cylinder gasket	Nitrile rubber		25	Magnet	Plastic	
10	Rod cover	Aluminum alloy		26	Wear ring	Acetal resin	
11	Cylinder tube	Aluminum alloy	Alumite	27	Piston B	Aluminum alloy	
12	Piston packing	Nitrile rubber		28	Hexagon nut	Steel	Zinc chromate
13	Head cover	Aluminum alloy		29	Spring washer	Steel	Zinc chromate
14	Hex socket screw	Steel	Black finish	With switch			
15	Hex socket screw	Steel	Black finish	30	Switch body	---	
16	Brake spring	Steel	Black finish	31	Band	Stainless steel	
				32	Pan head machine screw	Stainless steel	
				33	Switch rail	Stainless steel	

Repair parts list

No./part name	Kit No.	Repair parts No.
Bore size (mm)		
φ20	JSM2-20K	3 9 12
φ30	JSM2-30K	20 27
φ40	JSM2-40K	

Dimensions

● Basic (00) with switch

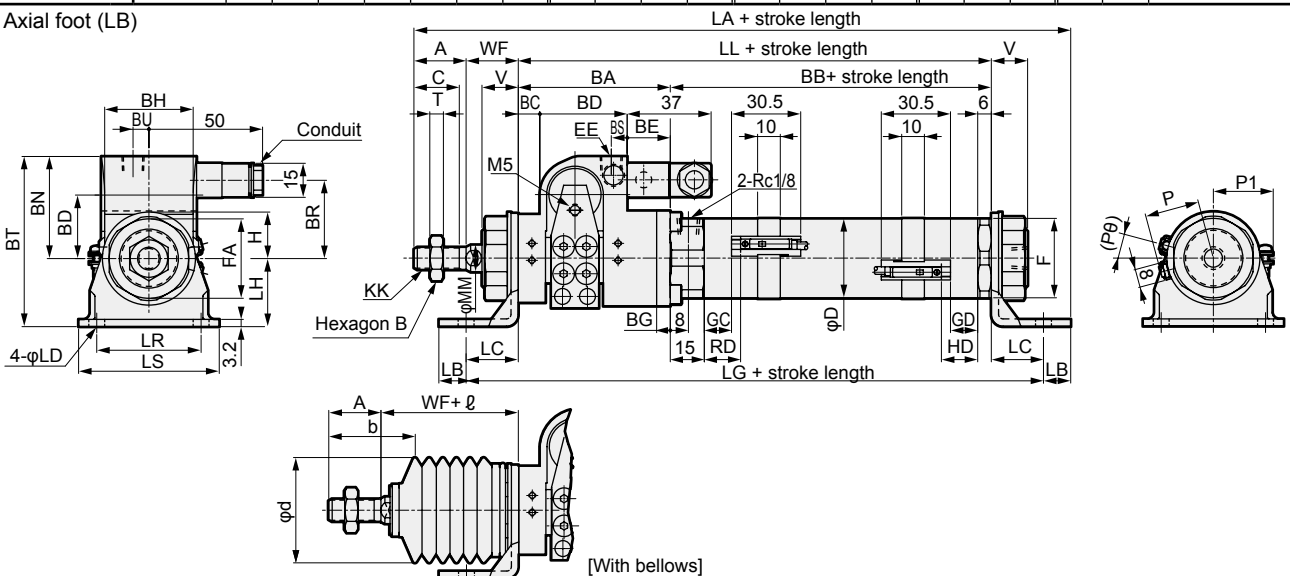


Note: The φ20 mm bore size model of JSM2 includes a port nipple as shown above (for rod side only). If the port nipple is excluded, it has the same shape as that of φ30 mm and φ40 mm bore size cylinders.

Code	Basic (00) basic dimensions																						
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BP	BR	BS	BU	C	D	EE	F	KK	LL
φ20	20	13	58	66	9	30	19	5	29	34	55	38	19	38	29	4	3.8	18	25	M5	26	M8×1.0	124
φ30	23	17	67	72	9.5	38.5	19	6	39	42	66	45	22	43.8	34.5	7	7	20	35	Rc1/8	35	M10×1.25	139
φ40	25	19	74	74	8	48	18	8	50	50	80.5	55	25	52	39.5	7	7	22	45	Rc1/8	46	M12×1.5	148

Code	With switch (T0, T5, T2, T3)												With switch (T2W, T3W)				With bellows					
Bore size (mm)	MB	MM	T	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(Pθ)°	b	d	ℓ
φ20	M18×1.5	10	5	14	24	182	138	44	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
φ30	M26×1.5	12	6	16	23	201	155	46	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
φ40	M26×1.5	14	7	16	23	212	164	48	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

● Axial foot (LB)



Note: The φ20 mm bore size model of JSM2 includes a port nipple as shown above (for rod side only). If the port nipple is excluded, it has the same shape as that of φ30 mm and φ40 mm bore size cylinders.

Code	Axial foot (LB) basic dimensions																						
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BT	BN	BO	BR	BS	BU	C	D	EE	F	FA	H	KK	LL
φ20	20	13	58	66	9	30	19	5	29	63	38	19	29	4	3.8	18	25	M5	26	26	15	M8×1.0	124
φ30	23	17	67	72	9.5	38.5	19	6	39	75	45	22	34.5	7	7	20	35	Rc1/8	35	35	20	M10×1.25	139
φ40	25	19	74	74	8	48	18	8	50	85.5	55.5	25	39.5	7	7	22	45	Rc1/8	46	35	20	M12×1.5	148

Code	Mounting dimensions												With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows					
Bore size (mm)	MM	T	V	WF	LA	LB	LC	LD	LG	LH	LR	LS	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(Pθ)°	b	d	ℓ
φ20	10	5	14	24	196	10	18	6	160	25	30	44	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
φ30	12	6	16	23	220	12	23	7	185	30	46	62	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
φ40	14	7	16	23	231	12	23	7	194	30	46	62	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

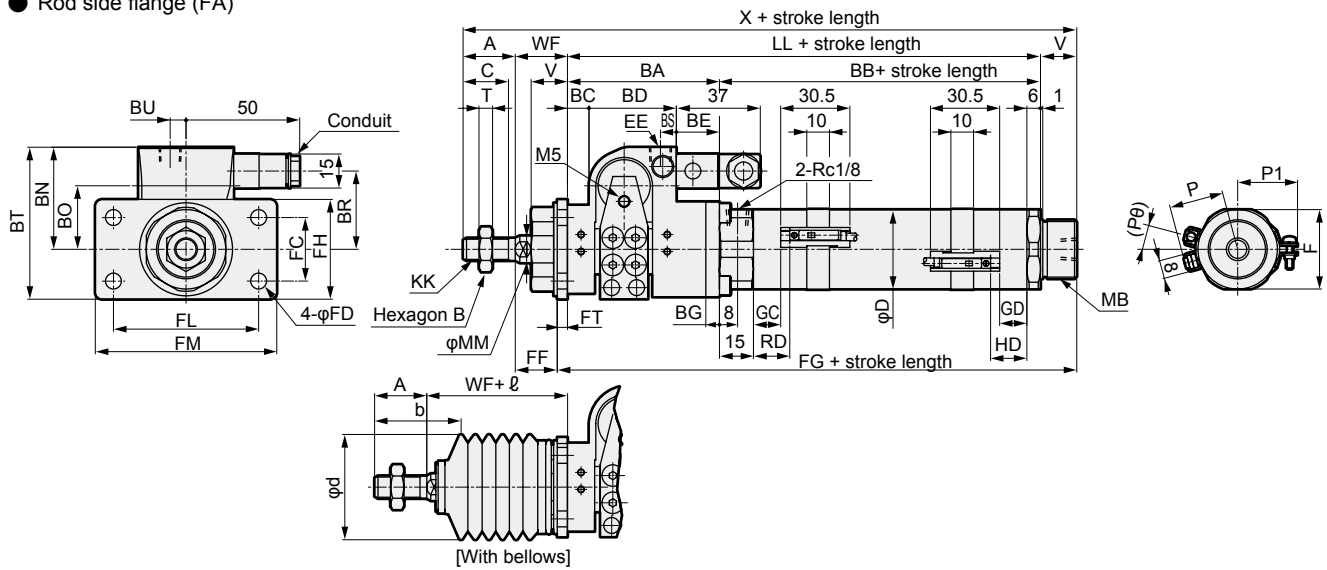
- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

JSM2-V Series

Dimensions



● Rod side flange (FA)

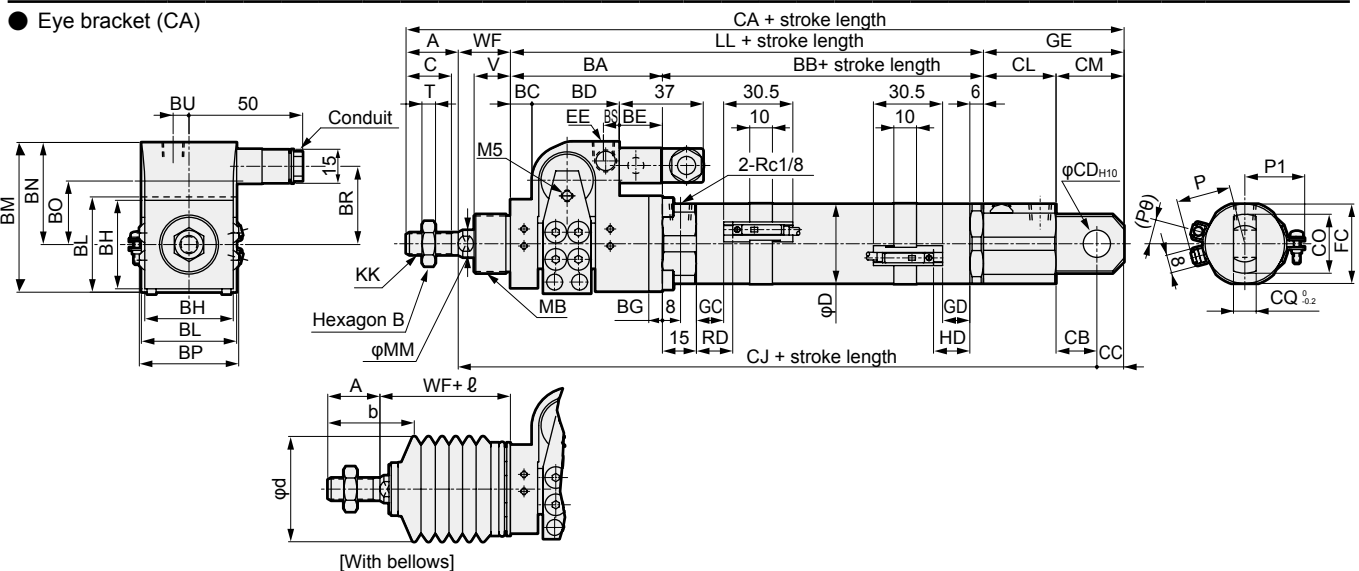


*1 : The size of the exhaust port of brake section is the same as that of EE. *3 : For the \varnothing dimension, round up below the decimal point.
 *2 : For the dimensions of the accessories, refer to page 721.

Code	Rod side flange (FA) basic dimensions																						
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BT	BN	BO	BR	BS	BU	C	D	EE	F	KK	LL	MB	MM	MB
$\varnothing 20$	20	13	58	66	9	30	19	5	55	38	19	29	4	3.8	18	25	M5	26	M8×1.0	124	M18×1.5	10	M18×1.5
$\varnothing 30$	23	17	67	72	9.5	38.5	19	6	67	45.5	22	34.5	7	7	20	35	Rc1/8	35	M10×1.25	139	M26×1.5	12	M26×1.5
$\varnothing 40$	25	19	74	74	8	48	18	8	77.5	55.5	25	39.5	7	7	22	45	Rc1/8	46	M12×1.5	148	M26×1.5	14	M26×1.5

Code	Mounting dimensions													With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows					
Bore size (mm)	MM	T	V	WF	X	FC	FD	FF	FG	FH	FL	FM	FT	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(P) $^\circ$	b	d	\varnothing
$\varnothing 20$	10	5	14	24	182	20	6	20.8	141.2	34	40	54	3.2	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
$\varnothing 30$	12	6	16	23	201	28	7	18.5	159.5	44	64	80	4.5	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
$\varnothing 40$	14	7	16	23	212	28	7	18.5	168.5	44	64	80	4.5	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

● Eye bracket (CA)



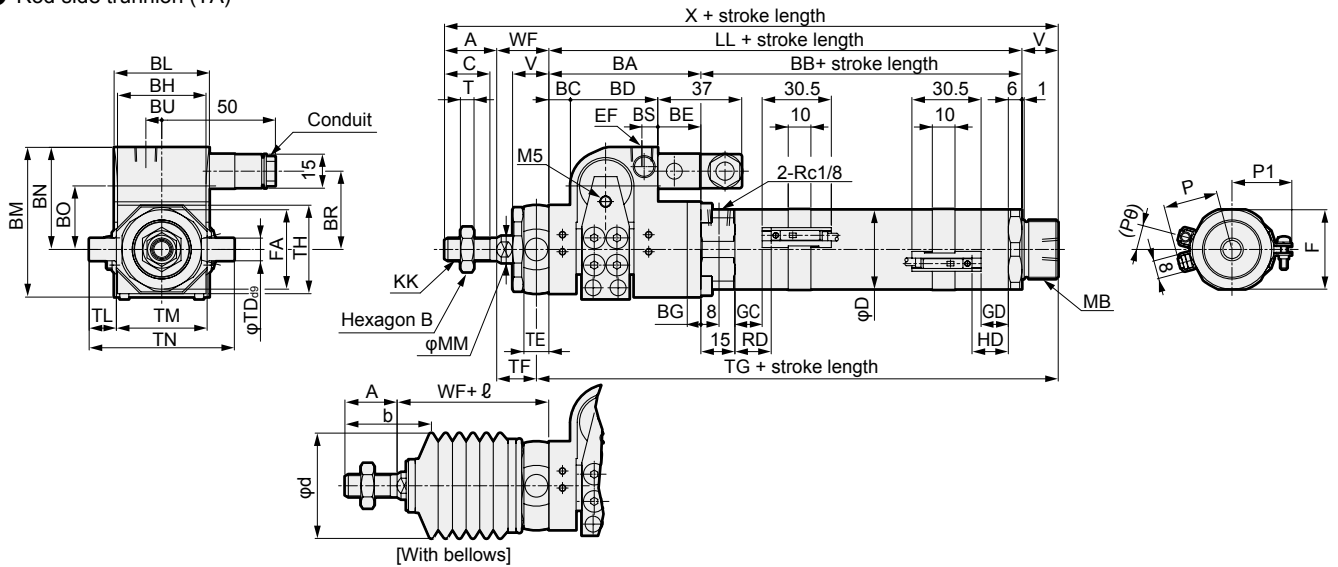
*1 : The size of the exhaust port of brake section is the same as that of EE. *2 : For the dimensions of the accessories, refer to page 721.
 *3 : For the \varnothing dimension, round up below the decimal point.

Code	Eye bracket (CA) basic dimensions																							
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BL	BM	BN	BO	BP	BR	BS	BU	C	D	EE	F	GE	KK	LL	MB
$\varnothing 20$	20	13	58	66	9	30	19	5	34	55	38	19	38	29	4	3.8	18	25	M5	26	55	M8×1.0	124	M18×1.5
$\varnothing 30$	23	17	67	72	9.5	38.5	19	6	42	66	45	22	43.8	34.5	7	7	20	35	Rc1/8	35	62	M10×1.25	139	M26×1.5
$\varnothing 40$	25	19	74	74	8	48	18	8	50	80.5	55.5	25	52	39.5	7	7	22	45	Rc1/8	35	62	M12×1.5	148	M26×1.5

Code	Mounting dimensions													With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows						
Bore size (mm)	MM	T	V	WF	CA	CB	CC	CD	CJ	CL	CM	CN	CO	CQ	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(P) $^\circ$	b	d	\varnothing
$\varnothing 20$	10	5	14	24	223	14	10	10	193	31	24	8	22	8	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke/3) + 6
$\varnothing 30$	12	6	16	23	247	18	12	12	212	32	30	7	26	10	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke/3.25) + 7
$\varnothing 40$	14	7	16	23	258	18	12	12	221	32	30	7	26	10	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke/3.25) + 7

Dimensions

● Rod side trunnion (TA)

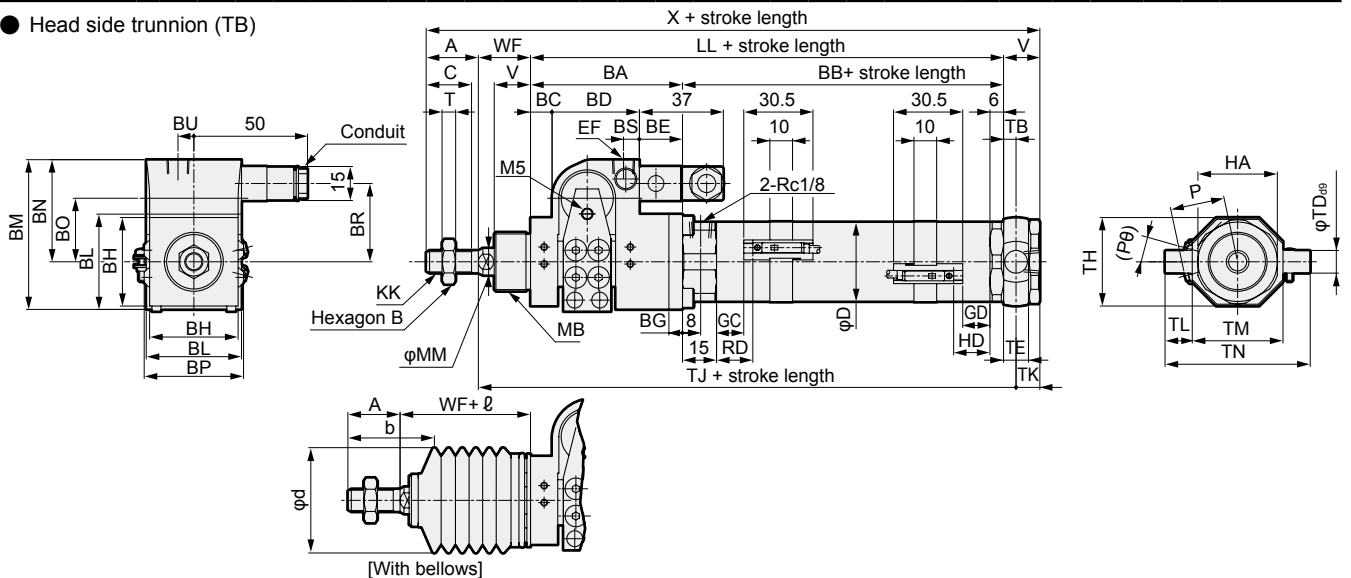


*1 : The size of the exhaust port of brake section is the same as that of EE. *3 : For the \varnothing dimension, round up below the decimal point.
 *2 : For the dimensions of the accessories, refer to page 721.

Code	Rod side trunnion (TA) basic dimensions																							
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BR	BS	BU	C	D	EE	F	FA	KK	LL	MB
$\varnothing 20$	20	13	58	66	9	30	19	5	29	34	55	38	19	29	4	3.8	18	25	M5	26	26	M8×1.0	124	M18×1.5
$\varnothing 30$	23	17	67	72	9.5	38.5	19	6	39	42	66	45.5	22	34.5	7	7	20	35	Rc1/8	35	35	M10×1.25	139	M26×1.5
$\varnothing 40$	25	19	74	74	8	48	18	8	50	50	80.5	55.5	25	39.5	7	7	22	45	Rc1/8	46	35	M12×1.5	148	M26×1.5

Code	Mounting dimensions										With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows									
Bore size (mm)	MM	T	V	WF	X	TB	TD	TE	TF	TG	TH	TL	TM	TN	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(P0) ^o	b	d	\varnothing
$\varnothing 20$	10	5	14	24	182	4.5	8	9	19.5	142.5	29.5	8	30	46	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
$\varnothing 30$	12	6	16	23	201	5.5	10	11	17.5	160.5	39	12	40	64	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
$\varnothing 40$	14	7	16	23	212	5.5	10	11	17.5	169.5	44	9.5	53	72	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

● Head side trunnion (TB)



*1 : The size of the exhaust port of brake section is the same as that of EE. *3 : For the \varnothing dimension, round up below the decimal point.
 *2 : For the dimensions of the accessories, refer to page 721.

Code	Head side trunnion (TB) basic dimensions																						
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BL	BM	BN	BO	BR	BS	BU	C	D	EE	FA	KK	LL	MB	MM
$\varnothing 20$	20	13	58	66	9	30	19	5	34	55	38	19	29	4	3.8	18	25	M5	26	M8×1.0	124	M18×1.5	10
$\varnothing 30$	23	17	67	72	9.5	38.5	19	6	42	66	45	22	34.5	7	4	20	35	Rc1/8	35	M10×1.25	139	M26×1.5	12
$\varnothing 40$	25	19	74	74	8	48	18	8	50	80.5	55.5	25	39.5	7	7	22	45	Rc1/8	35	M12×1.5	148	M26×1.5	14

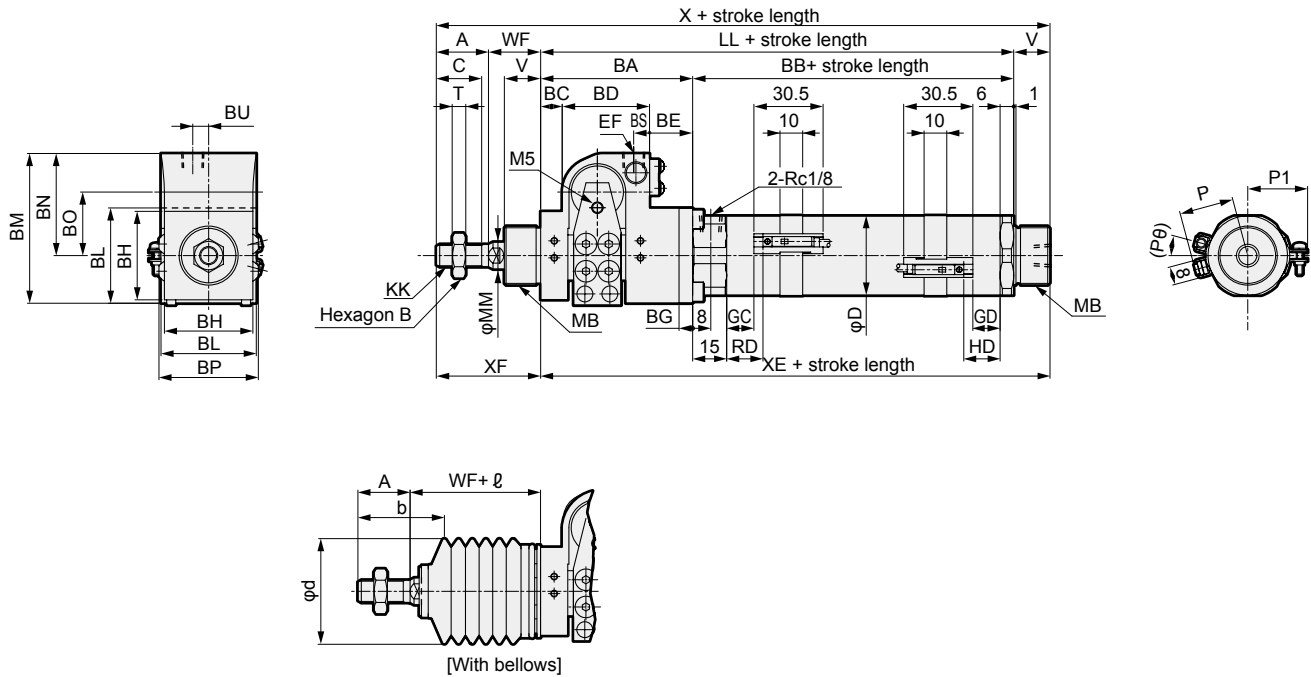
Code	Mounting dimensions										With switch (T0, T5, T2, T3)				With switch (T2W, T3W)				With bellows							
Bore size (mm)	T	V	WF	X	TB	TD	TE	TH	TJ	TK	TL	TM	TN	GC	GD	RD	HD	GC	GD	RD	HD	P	(P0) ^o	b	d	\varnothing
$\varnothing 20$	5	14	24	182	4.5	8	9	29.5	152.5	9.5	8	30	46	9	9	13	13	11	11	15	15	19.5	19	32	30	(Stroke length/3) + 6
$\varnothing 30$	6	16	23	201	5.5	10	11	39	167.5	10.5	12	40	64	12	12	16	16	14	14	18	18	24.5	15	38	46	(Stroke length/3.25) + 7
$\varnothing 40$	7	16	23	212	5.5	10	11	44	176.5	10.5	9.5	53	72	13	13	17	17	15	15	19	19	29.5	12	40	46	(Stroke length/3.25) + 7

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

JSM2/JSM2-V Series

Dimensions

● Without valve, basic (JSM2-00)



*1 : The mounting dimensions are the same as those of JSM2-V (with valve). Refer to pages 715 to 717.

*2 : For the dimensions of the accessories, refer to page 721.

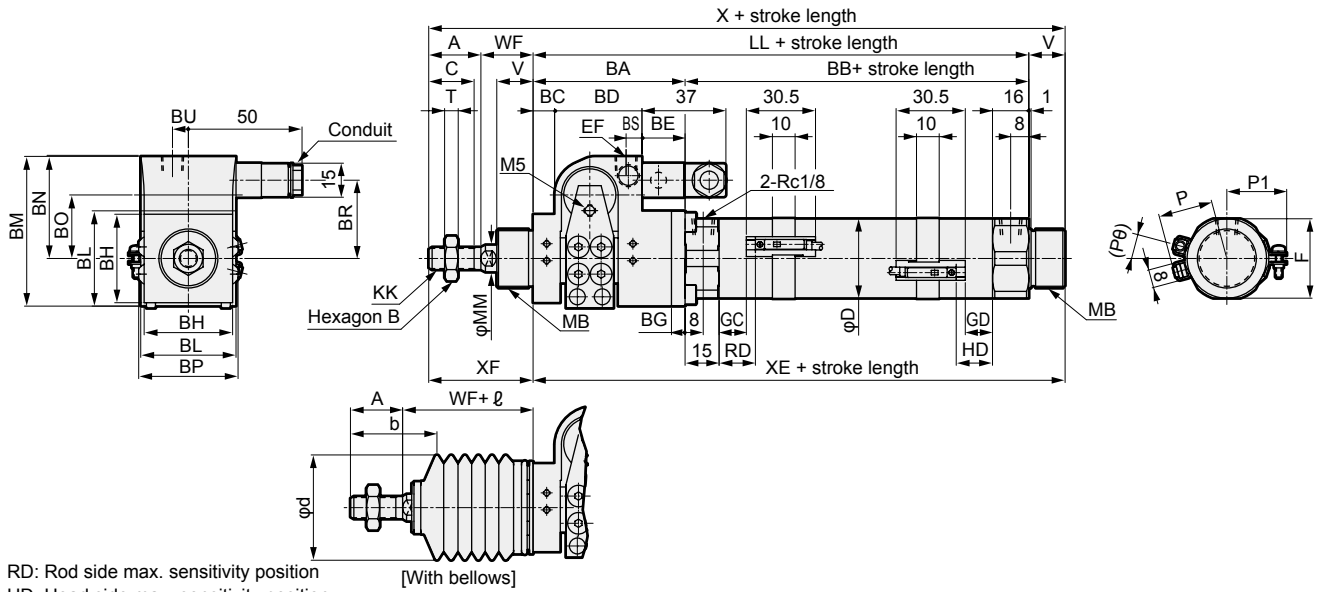
*3 : For the ℓ dimension, round up below the decimal point.

Code	Without valve, basic (JSM2-00) basic dimensions																					
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BH	BL	BM	BN	BO	BP	BS	BU	C	D	EE	F	KK	LL
φ20	20	13	58	66	9	30	19	5	29	34	55	38	25	38	4	3.8	18	25	M5	26	M8×1.0	124
φ30	23	17	67	72	9.5	38.5	19	6	39	42	66	45	32	43.8	7	7	20	35	Rc1/8	35	M10×1.25	139
φ40	25	19	74	74	8	48	18	8	50	50	80.5	55.5	36.5	52	7	7	22	45	Rc1/8	46	M12×1.5	148

Code	With switch (T0, T5, T2, T3)										With switch (T2W, T3W)				With bellows						
Bore size (mm)	MB	MM	T	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD	HD	P	(Pθ) [°]	b	d	ℓ
φ20	M18×1.5	10	5	14	24	182	138	44	9	9	13	13	11	11	15	15	19.5	19	32	30	(Stroke length/3) + 6
φ30	M26×1.5	12	6	16	23	201	155	46	12	12	16	16	14	14	18	18	24.5	15	38	46	(Stroke length/3.25) + 7
φ40	M26×1.5	14	7	16	23	212	164	48	13	13	17	17	15	15	19	19	29.5	12	40	46	(Stroke length/3.25) + 7

Dimensions

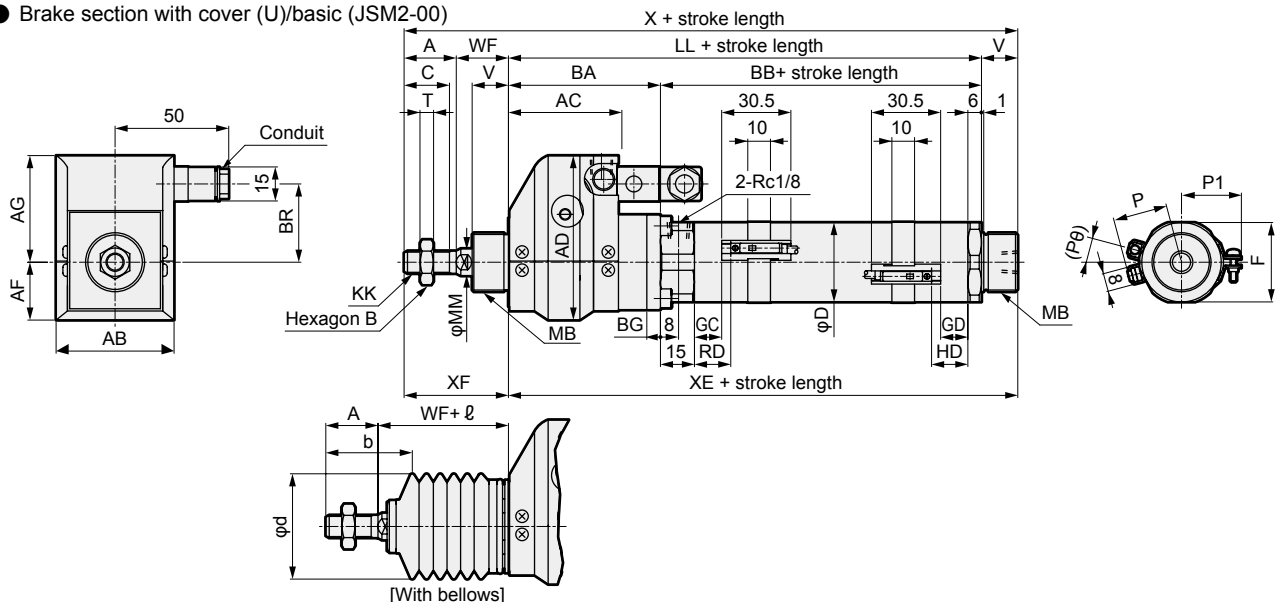
- Same port position (P)/basic (JSM2-00)



Code	Basic (00) basic dimensions																	
Bore size (mm)	A	B	BA	BB	BC	BD	BE	BG	BS	C	D	EE	F	KK	LL	MB	MM	T
φ20	20	13	58	76	9	30	19	5	4	18	25	M5	26	M8×1.0	134	M18×1.5	10	5
φ30	23	17	67	82	9.5	38.5	19	6	7	20	35	Rc1/8	35	M10×1.25	149	M26×1.5	12	6
φ40	25	19	74	84	8	48	18	8	7	22	45	Rc1/8	46	M12×1.5	158	M26×1.5	14	7

Code	With switch (T0, T5, T2, T3)										With switch (T2W, T3W)				With bellows				
Bore size (mm)	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(Pθ) ^o	b	d	ℓ
φ20	14	24	192	138	44	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
φ30	16	23	211	155	46	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
φ40	16	23	222	164	48	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

- Brake section with cover (U)/basic (JSM2-00)



Code	Basic (00) basic dimensions																	
Bore size (mm)	A	AB	AC	AD	AF	AG	B	BA	BB	BG	BR	C	D	F	KK	LL	MB	MM
φ20	20	47	39	58.5	19.5	39	13	58	66	5	29	18	25	26	M8×1.0	124	M18×1.5	10
φ30	23	52	48.5	72.5	25	47.5	17	67	72	6	34.5	20	35	35	M10×1.25	139	M26×1.5	12
φ40	25	65	56	85.75	28.75	57	19	74	74	8	39.5	22	45	46	M12×1.5	148	M26×1.5	14

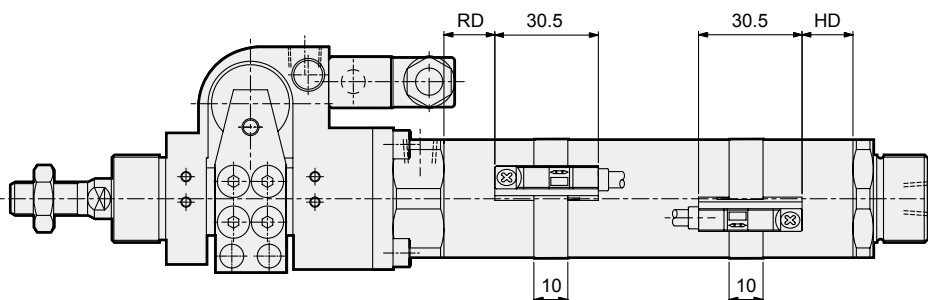
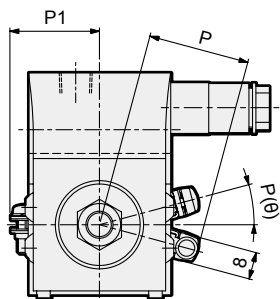
Code	With switch (T0, T5, T2, T3)										With switch (T2W, T3W)				With bellows					
Bore size (mm)	T	V	WF	X	XE	XF	GC	GD	RD	HD	GC	GD	RD	HD	P	P1	(Pθ) ^o	b	d	ℓ
φ20	5	14	24	182	138	44	9	9	13	13	11	11	15	15	19.5	21	19	32	30	(Stroke length/3) + 6
φ30	6	16	23	201	155	46	12	12	16	16	14	14	18	18	24.5	26	15	38	46	(Stroke length/3.25) + 7
φ40	7	16	23	212	164	48	13	13	17	17	15	15	19	19	29.5	31	12	40	46	(Stroke length/3.25) + 7

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

JSM2/JSM2-V Series

JSM2 Series common dimensions (with T1, T8 switches, with 2-color display switch)

● JSM2-**-**-T1H/V, T8H/V, T_{2/3}YH/V



Switch installation dimensions

Code	1-color display (T1, T8) 2-color display (T2/3 Y)							
	RD		HD		P		P1	(P0)°
	T1,T2/3Y,T2J	T8	T1,T2/3Y,T2J	T8	T2/3Y,T8,T2J	T1		
Bore size (mm)								
φ20	12	7	12	7	25	30	21	19
φ30	15	10	15	10	30	35	26	15
φ40	16	11	16	11	36	41	31	12

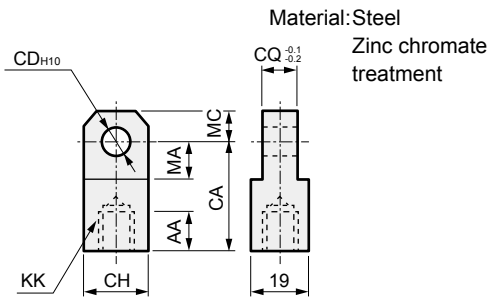
- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

JSK2/JSM2 Series

Common accessory dimensions

JSK2/JSM2 Series common accessory dimensions (rod eye, bracket, pin)

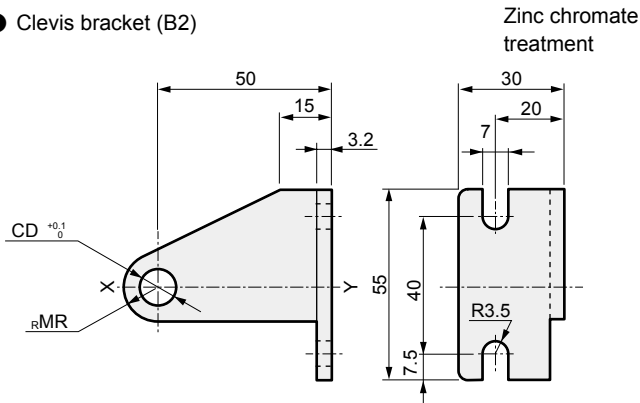
● Rod eye (I)



Model No.	Applicable bore size (mm)	AA	CA	CD	CH	CQ	KK	MA	MC	Wt (g)
M1-I-20	20	14	30	10	19	8	M8×1.0	13	10	60
M1-I-30	25/30/32	14	36	12	25	10	M10×1.25	16	12	106
M1-I-40	40	14	36	12	25	10	M12×1.5	16	12	100

Material: Steel

● Clevis bracket (B2)



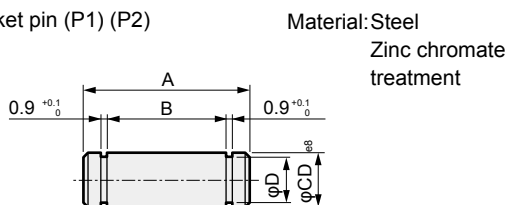
Model No.	Compatibility	Applicable bore size (mm)	CD	MR	Weight (g)
M1-B2-20-CC	JSK2-CC	20/25	8	8	145
M1-B2-30-CC		32	10	11	163
M1-B2-40-CC		40	12	11	170
M1-B2-20-CA	JSK2-CA	20	10	11	158
M1-B2-30-CA	JSM2-CA	25/32/40	12	11	162
M1-B2-20-TA	JSK2-TA/TB	20	8	8	132
M1-B2-30-TA	JSM2-TA/TB	25/32/40	10	11	142

*1 : One pair is composed of two pieces with XY symmetry.

*2 : The model No. above includes snap rings and pins. 2 pieces are included in a set. (However, the pin and snap rings are not attached with the trunnion.)

*3 : For mounting TA, this cannot be attached to the brake section with cover (U).

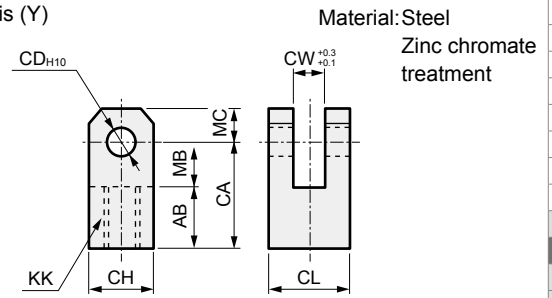
● Clevis bracket pin (P1) (P2)



Model No.	Compatible model and bore size (mm)	A	B	CD	D	Applicable snap ring	Weight (g)
M1-P1-20	JSK2-CC-20/25	33	28	8	7	E type 7	13
M1-P1-30	JSK2-CC-32	33	28	10	9	E type 9	21
M1-P1-40	JSK2-CC-40	37	32	12	9	E type 9	32
M1-P2-20	JSK2-CA-20 JSM2-CA-20	25	20	10	9	E type 9	16
M1-P2-30	JSK2-CA-25/32/40 JSM2-CA-30/40	27	22	12	9	E type 9	24

Note: A pin and snap ring for bracket use are attached with the product. (However, the pin and snap rings are not attached with the trunnion.)

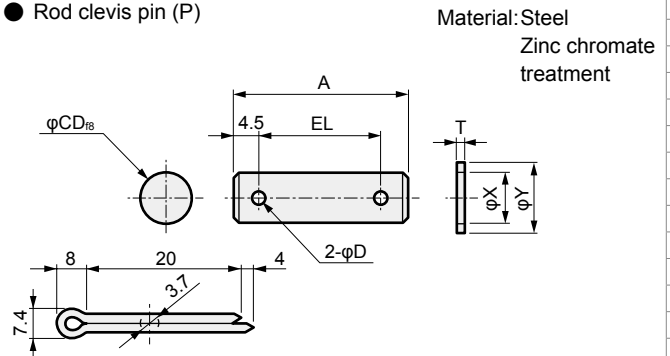
● Rod clevis (Y)



Model No.	Applicable bore size (mm)	AB	CA	CD	CH	CL	CW	KK	MB	MC	Wt (g)
M1-Y-20	20	17	30	10	19	19	8	M8×1.0	13	10	99
M1-Y-30	25/30/32	20	36	12	25	25	10	M10×1.25	16	12	197
M1-Y-40	40	20	36	12	25	25	10	M12×1.5	16	12	193

Note: A pin, a washer and a split pin are attached.

● Rod clevis pin (P)



Model No.	Applicable bore size (mm)	A	D	CD	EL	T	X	Y	Weight (g)
M1-P-20	20	37	4	10	28	2	10.5	18	29
M1-P-30	25/30/32/40	46	4	12	37	2.5	13	21	50

Note: A pin, a washer and a split pin for rod clevis use are attached with the product.

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending