

LCM
 LCR
 LCG
 LCW
 LCX
 STM
 STG
 STS/STL
 STR2
 UCA2
 ULK*
 JSK/M2
 JSG
 JSC3/JSC4
 USSD
 UFCD
 USC
 UB
 JSB3
 LMB
 LML
 HCM
 HCA
 LBC
 CAC4
 UCAC2
 CAC-N
 UCAC-N
 RCS2
 RCC2
 PCC
SHC
 MCP
 GLC
 MFC
 BBS
 RRC
 GRC
 RV3*
 NHS
 HRL
 LN
 Hand
 Chuk
 MecHnd/Chuk
 ShkAbs
 FJ
 FK
 SpdContr
 Ending



High power cylinder/double acting/double force

SHC Series

● Equivalent bore size: $\varnothing 40/\varnothing 50/\varnothing 63/\varnothing 80/\varnothing 100$

JIS symbol



Specifications

Item		SHC				
Bore size mm		ø40	ø50	ø63	ø80	ø100
Actuation		Double acting/projection double force				
Working fluid		Compressed air				
Max. working pressure MPa		0.9 (≈130 psi, 9 bar)				
Min. working pressure MPa		0.2 (≈29 psi, 2 bar)	0.15 (≈22 psi, 1.5 bar)			
Proof pressure MPa		1.35 (≈200 psi, 13.5 bar)				
Ambient temperature °C		-10 (14°F) to 60 (140°F) (no freezing)				
Port size Rc		1/8	1/4	1/4	3/8	3/8
Stroke tolerance mm		+ ^{1.3} ₀ (to 300), + ^{1.7} ₀ (to 1000), + ^{2.1} ₀ (1000 to)				
Working piston speed Cylinder		50 to 500				
*1	mm/s	40 to 70 (booster section single control)				
Cushion		Air cushion				
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)				
Rod side allowable absorbed energy (J)		12.2	22.9	31.3	47.2	76.2
Head side allowable absorbed energy (J)		5.84	9.99	15.1	25.5	41.0

*1: As the piston speed differs depending on the supply pressure, refer to the technical data on page 1166.

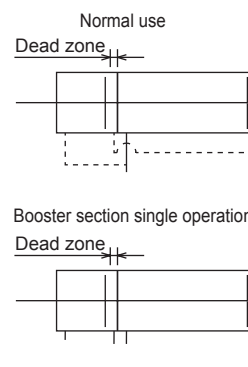
Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Booster stroke (mm)	Dead zone
				(mm)
$\varnothing 40$	100, 150, 200, 250, 300, 400, 500	700	10, 20	1.9
$\varnothing 50$				1.9
$\varnothing 63$		800		2
$\varnothing 80$		900		2.3
$\varnothing 100$		1000		2.8

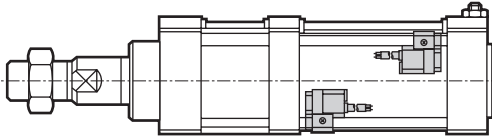
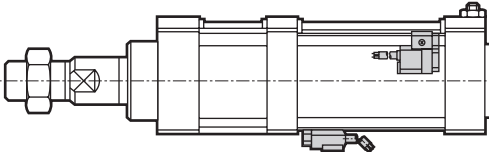
*1: The custom stroke is available in 5 mm increments.

*2: Dead zone (area not generating boosted thrust) stroke, until connection with booster piston completes, is included in the booster stroke.

*3: Min. stroke is 40 mm with or without switch. For types with switch, minimum stroke varies depending on mounting method. Refer to the following table.



Min. stroke with switch

Bore size (mm)	When mounted on the same surface	When mounted on different surfaces
		
	ø40	40
	ø50	
	ø63	
	ø80	
ø100		

Switch specifications

- 1-color/2-color LED

Item		Proximity 2-wire			Proximity 3-wire	
		R1	R2	R2Y (2-color LED)	R3	R3Y (2-color LED)
Applications		Programmable controller, relay, compact solenoid valve	Dedicated for programmable controller		For programmable controller, relay, IC circuit, solenoid valve	
Output method		-			NPN output	
Power supply voltage		-			4.5 VDC to 28 VDC	
Load voltage		85 VAC to 265 VAC	10 to 30 VDC		30 VDC or less	
Load current		5 to 100 mA	5 to 30 mA		200 mA or less	100 mA or less
Indicator		LED (Lit when ON)		Red/green LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current		1 mA or less with 100 VAC, 2 mA or less with 200 VAC	1 mA or less	1.2 mA or less	10 μA or less	
Weight g	Grommet	1 m:42 3 m:100 5 m:158		1 m:56 3 m:114 5 m:172	1 m:42 3 m:100 5 m:158	1 m:56 3 m:114 5 m:172
	Terminal box	68		82	68	82

Item		Reed 2-wire									
		R0			R4		R5			R6	
Applications		Relay, programmable controller			For high capacity relay, solenoid valve		For programmable controller, relay, IC circuit (without indicator lamp), serial connection			Dedicated for programmable controller (with DC self-hold)	
Load voltage		12/24 VDC	110 VAC	220 VAC	110 VAC	220 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC	
Load current		5 to 50 mA	7 to 20 mA	7 to 10 mA	20 to 200 mA	10 to 200 mA	50 mA or less	20 mA or less	10 mA or less	5 to 50 mA	
Indicator		LED (Lit when ON)			Neon lamp (Lit when OFF)		No indicator lamp			LED (Lit when ON)	
Leakage current		0 mA			1 mA or less		0 mA			0.1 mA or less	
Weight g	Grommet	1 m:42 3 m:100 5 m:158									
	Terminal box	68									

- Strong magnetic field proof

Item	Reed 2-wire		
	H0		
Applications	For relay, programmable controller		
Load voltage	12/24 VDC	110 VAC	
Load current	5 to 50 mA	7 to 20 mA	
Indicator	Green LED (Lit when ON)		
Leakage current	10 μA or less		
Weight	g	1 m:76	3 m:181 5 m:289

*1: Refer to Ending Page 1 for detailed switch specifications and dimensions.

Cylinder weight

(Unit: kg)

Bore size (mm)	Product weight when at 0 mm stroke						Switch weight	Mounting bracket weight		Additional weight per 100 mm cylinder stroke	Additional weight per 10 mm booster stroke	Additional weight of F type
	Basic	Axial foot	Flange	Eye bracket	Clevis bracket	Trunnion		R type	H type			
	(00)	(LB)	(FA/FB)	(CA)	(CB)	(TA/TB/TC)						
ø40	1.84	1.99	2.21	2.19	2.19	2.27	Refer to the weight in the switch specifications.	0.023	0.028	0.43	0.08	0.16
ø50	2.80	3.02	3.23	3.24	3.24	3.37		0.021	0.026	0.45	0.10	0.28
ø63	4.02	4.35	5.02	4.57	4.62	4.92		0.019	0.024	0.60	0.13	0.30
ø80	6.78	7.40	8.48	8.32	8.33	8.18		0.025	0.029	0.79	0.19	0.50
ø100	9.85	9.93	12.35	12.00	11.96	12.45		0.023	0.028	1.23	0.40	0.49

Formula for product weight

(Example) SHC-LB-40H-200-20-R0-D-F

- Product weight at 0 mm stroke.....1.99 kg
- Additional weight per 200 mm stroke0.43x $\frac{200}{100}$ =0.86 kg
- Additional weight per 20 mm booster stroke0.08x $\frac{20}{10}$ =0.16 kg
- Additional weight of F type0.16 kg
- Weight of two RO switches0.042x2=0.084 kg
- Weight of 2 mounting brackets.....0.023x2=0.046 kg
- Product weight.....1.99+0.86+0.16+0.16+0.084+0.046=3.300 kg

How to order

- Without switch (built-in magnet for switch)
SHC - LB - 40 H - 100 - 20 - S I
- R type with switch (built-in magnet for switch)
SHC - LB - 40 H - 100 - 20 - R0 - R - S I
- With strong magnetic field proof switch (H0, H0Y) (built-in magnet for switch)
SHC-L2 - LB - 40 H - 100 - 20 - H0 - R - S I

A Mounting
*2
*3
*4

B Bore size

C Cushion

D Stroke
*5

E Booster stroke

⚠ Precautions for model No. selection

- *1 : Mounting bracket will be shipped assembled with the product.
- *2 : For TA (rod side trunnion), the booster single control ports C/D are located on the bottom when viewed from the rod side.
Refer to the booster single control port position full view on page 1162.
- *3 : In the case of the TA (rod side trunnion), since the trunnion mounting position is placed at the moving part of the stroke projection or booster section return, the position of the stroke projection of the cylinder switch or the booster section return cannot be detected.
- *4 : For TA (rod side trunnion) and TB (head side trunnion), piping port position cannot be specified on the trunnion shaft projecting surface.
- *5 : For the stroke indicated in Item **D** Stroke, indicate the full stroke (movement stroke + booster stroke).
- *6 : Refer to page 1144 for min. stroke with switch.
- *7 : When selecting TA or TB as mounting, the switch quantity is limited to "H" (1 on head side) for TA, and "R" (1 on rod side) for TB.
- *8 : L (bellows (for max. ambient temperature 250°C)) is available as a made-to-order product.
- *9 : Booster cylinder can be individually controlled.
In this case, select option A (booster single control port).
- *10 : "I" and "Y" cannot be selected together.
- *11 : The piping port position R and T cannot be selected for FA (rod side flange).

[Example of model No.]

SHC-LB-40H-100-20-R0-R-SI

Model No.: High power cylinder Double acting/double force

- A** Mounting : Axial foot
- B** Bore size : ø40 mm
- C** Cushion : Head side cushioned
- D** Stroke : 100 mm
(movement stroke 80 mm + booster stroke 20 mm)
- E** Booster stroke : 20 mm
- F** Switch model No.: Reed R0 switch, lead wire 1 m
- G** Switch quantity : 1 on rod side
- H** Option : Piping port position, bottom from rod side
- I** Accessory : Rod eye

Code	Description
A Mounting	
00	Basic
LB	Axial foot
FA	Rod side flange
FB	Head side flange
CA	Eye bracket
CB	Clevis bracket (pin and snap ring attached)
TA	Rod side trunnion
TB	Head side trunnion
TC	Intermediate trunnion

B Bore size (mm)

40	ø40
50	ø50
63	ø63
80	ø80
100	ø100

C Cushion

H	Head side cushioned
N	Without cushion

D Stroke (mm)

Bore size	Stroke *6	Custom stroke
ø40	40 to 700	In 5 mm increments
ø50	40 to 700	
ø63	40 to 800	
ø80	40 to 900	
ø100	40 to 1000	

E Booster stroke (mm)

10	10
20	20

F Switch model No.

Grommet	Terminal box	Contact	Voltage AC/DC	Indicator	Lead wire
R1*	R1B	Proximity	●	1-color LED	2-wire
R2*	R2B		●	2-color LED	
R2Y*	R2YB		●	1-color LED	3-wire
R3*	R3B		●	2-color LED	
R3Y*	R3YB	Reed	●	1-color LED	2-wire
R0*	R0B		●	no indicator lamp	
R4*	R4B		●	1-color LED	
R5*	R5B		●	1-color LED	
R6*	R6B		●	Strong magn field proof SW	
HO*	-				

* Lead wire length

Code	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
5	5

H Option

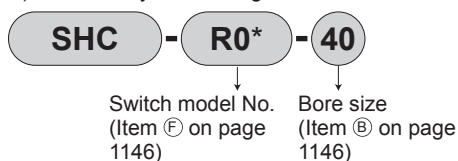
	Max. ambient temperature	instantaneous max. temp
J	Bellows 100°C	200°C
L	Bellows 250°C	400°C
Blank	Rod end form/male thread (standard)	
F	Rod end form/flange	
Blank	Piping port position, top from rod side (standard)	
R	Piping port position, right from rod side	
S	Piping port position, bottom from rod side	
T	Piping port position, left from rod side	
G1	Metal scraper	
P6	Copper and PTFE free	
A	Booster single control port	

I Accessory

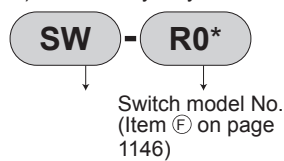
I	Rod eye
Y	Rod clevis (pin and snap ring attached)
B11	Eye bracket (for clevis)
B21	Clevis bracket (for clevis)
B12	Eye bracket (for rod eye)
B22	Clevis bracket (for rod eye) (pin and snap ring attached)

How to order R-switch

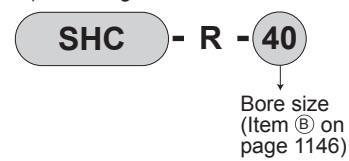
A) Switch body + mounting bracket



B) Switch body only



C) Mounting bracket set



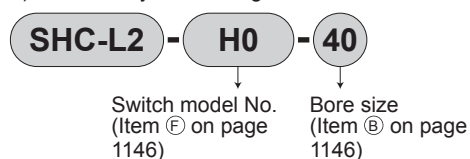
● Terminal box only

For R□B

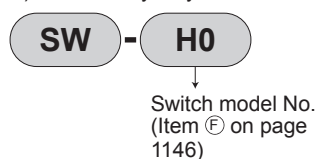


How to order H-switch

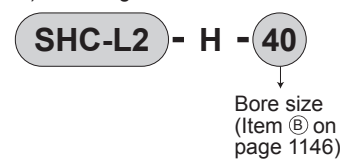
A) Switch body + mounting bracket set



B) Switch body only



C) Mounting bracket set



How to order mounting bracket

Table inside diameter (mm)	ø40	ø50	ø63	ø80	ø100
Mounting bracket					
Foot (LB) *1	SHC-LB-40	SHC-LB-50	SHC-LB-63	SHC-LB-80	SHC-LB-100
Rod side flange (FA)	SHC-FA-40	SHC-FA-50	SHC-FA-63	SHC-FA-80	SHC-FA-100
Head side flange (FB)	SHC-FB-40	SHC-FB-50	SHC-FB-63	SHC-FB-80	SHC-FB-100
Eye bracket (CA)	SHC-CA-40	SHC-CA-50	SHC-CA-63	SHC-CA-80	SHC-CA-100
Clevis bracket (CB)	SHC-CB-40	SHC-CB-50	SHC-CB-63	SHC-CB-80	SHC-CB-100

*1: The foot mounting bracket is provided as 2 pcs./set.

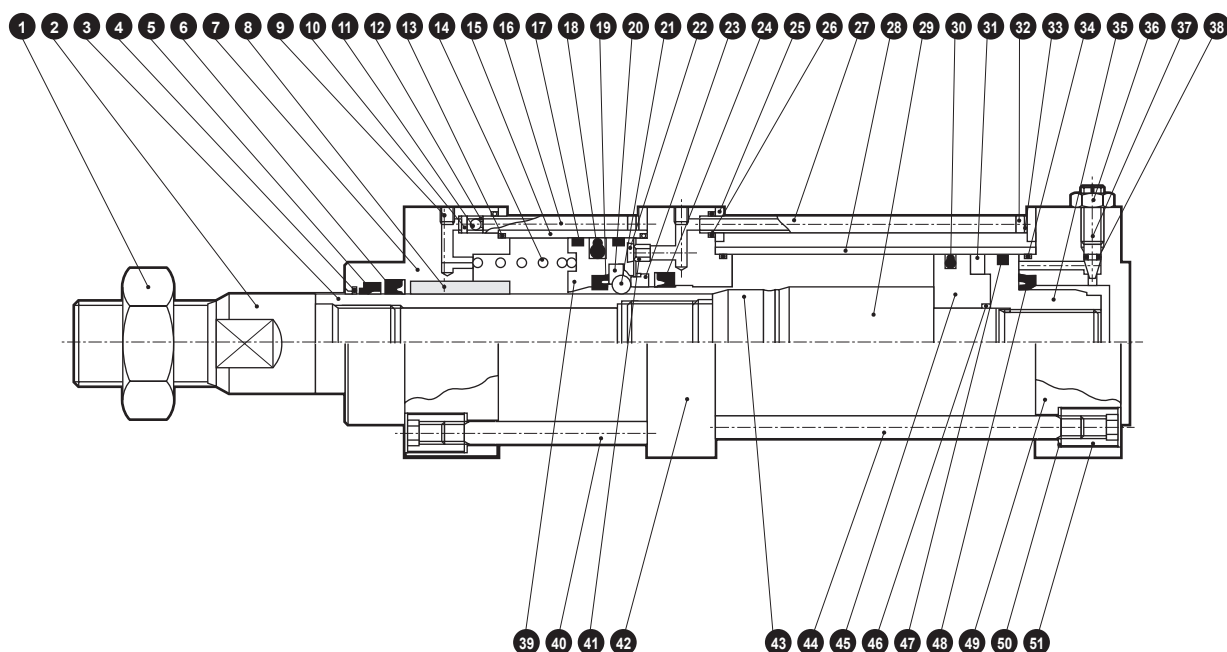
Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Piston position	Working pressure MPa							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
			Thrust	Thrust	Thrust	Thrust	Thrust	Thrust	Thrust	Thrust
ø40	Push	Thrust	2.51x10 ²	3.76x10 ²	5.02x10 ²	6.28x10 ²	7.53x10 ²	8.79x10 ²	1.0x10 ³	1.13x10 ³
		Booster section	5.2x10 ²	7.8x10 ²	1.04x10 ³	1.30x10 ³	1.56x10 ³	1.82x10 ³	2.08x10 ³	2.34x10 ³
	Pull	Thrust	1.28x10 ²	1.92x10 ²	2.56x10 ²	3.20x10 ²	3.84x10 ²	4.48x10 ²	5.12x10 ²	5.76x10 ²
		Booster section	3.97x10 ²	5.96x10 ²	7.95x10 ²	9.94x10 ²	1.19x10 ³	1.39x10 ³	1.59x10 ³	1.79x10 ³
ø50	Push	Thrust	3.92x10 ²	5.88x10 ²	7.85x10 ²	9.81x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³
		Booster section	8.55x10 ²	1.28x10 ³	1.71x10 ³	2.14x10 ³	2.57x10 ³	2.99x10 ³	3.42x10 ³	3.85x10 ³
	Pull	Thrust	2.31x10 ²	3.47x10 ²	4.63x10 ²	5.79x10 ²	6.95x10 ²	8.11x10 ²	9.27x10 ²	1.04x10 ³
		Booster section	6.94x10 ²	1.04x10 ³	1.39x10 ³	1.74x10 ³	2.08x10 ³	2.43x10 ³	2.78x10 ³	3.12x10 ³
ø63	Push	Thrust	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³
		Booster section	1.26x10 ³	1.88x10 ³	2.51x10 ³	3.14x10 ³	3.77x10 ³	4.39x10 ³	5.02x10 ³	5.65x10 ³
	Pull	Thrust	3.72x10 ²	5.58x10 ²	7.44x10 ²	9.30x10 ²	1.12x10 ³	1.30x10 ³	1.49x10 ³	1.67x10 ³
		Booster section	1.00x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.01x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³
ø80	Push	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³
		Booster section	1.88x10 ³	2.82x10 ³	3.77x10 ³	4.71x10 ³	5.65x10 ³	6.59x10 ³	7.53x10 ³	8.47x10 ³
	Pull	Thrust	6.12x10 ²	9.18x10 ²	1.23x10 ³	1.53x10 ³	1.84x10 ³	2.14x10 ³	2.45x10 ³	2.76x10 ³
		Booster section	1.49x10 ³	2.24x10 ³	2.98x10 ³	3.73x10 ³	4.47x10 ³	5.22x10 ³	5.96x10 ³	6.71x10 ³
ø100	Push	Thrust	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.5x10 ³	6.28x10 ³	7.07x10 ³
		Booster section	2.91x10 ³	4.36x10 ³	5.81x10 ³	7.26x10 ³	8.72x10 ³	1.02x10 ⁴	1.16x10 ⁴	1.31x10 ⁴
	Pull	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³
		Booster section	2.34x10 ³	3.51x10 ³	4.68x10 ³	5.85x10 ³	7.02x10 ³	8.19x10 ³	9.36x10 ³	1.05x10 ⁴

Note: When the booster section is pulled (backward), due to product structure, theoretical thrust is reduced to approximately 70% when the connection is released.

Internal structure and parts list



Cannot be disassembled

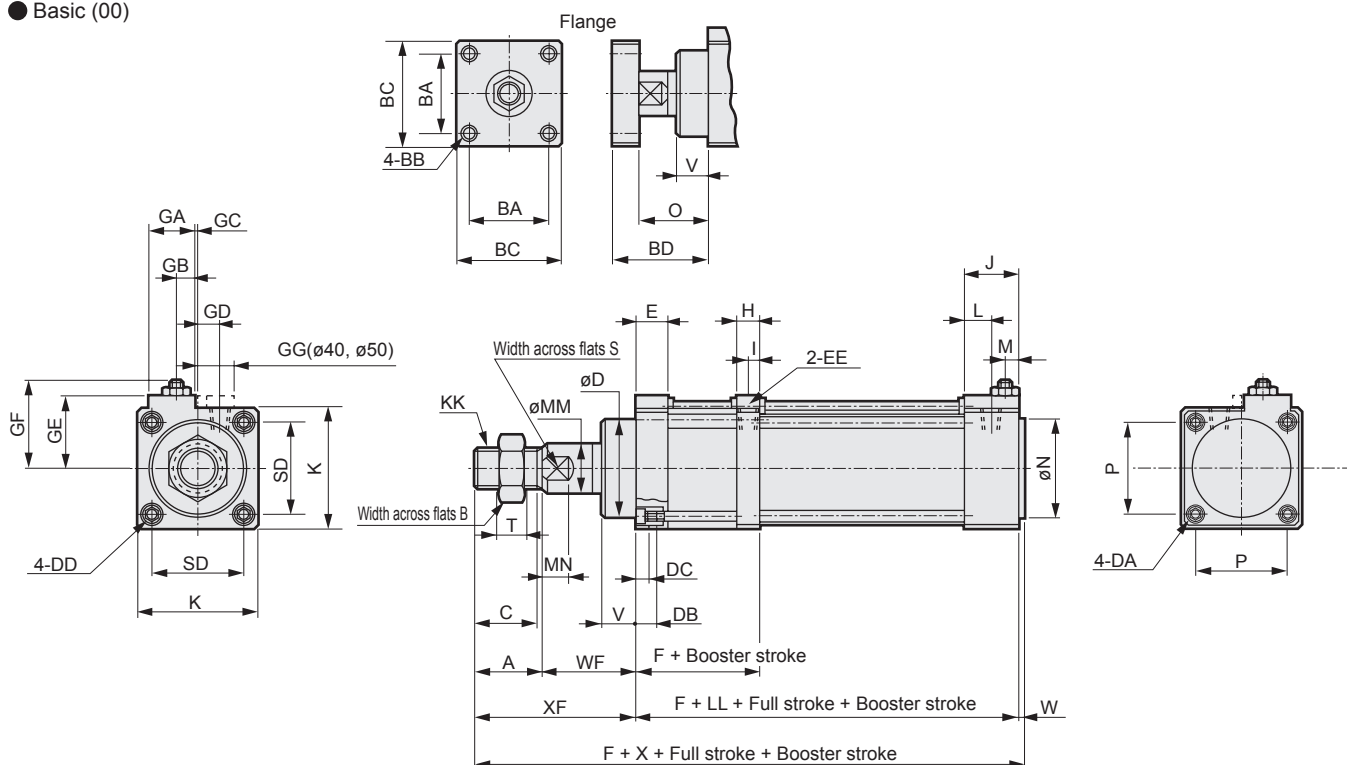
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	27	Pass-pipe (2)	Stainless steel	
2	Cap	Steel	Manganese phosphate	28	Cylinder tube	Aluminum alloy	Hard alumite
3	Piston rod	Steel	Industrial chrome plating	29	Connection piston	Steel	Industrial chrome plating
4	Metal scraper	Copper alloy	G1 type only	30	Piston packing (2)	Nitrile rubber	
5	Dust wiper	Nitrile rubber		31	Magnet	Plastic	
6	Rod packing (1)	Nitrile rubber		32	Hexagon socket head cap screw	Alloy steel	Black finish
7	Rod cover	Aluminum alloy	Black alumite	33	Spring washer	Steel	Black finish
8	Bush	Copper alloy casting	Oil impregnation	34	Cylinder gasket (2)	Nitrile rubber	
9	Hexagon socket set screw	Alloy steel	Black finish	35	Piston (H)	Aluminum alloy	
10	Spring pin	Steel		36	Needle nut	Copper alloy	Zinc chromate
11	Check ball	Alloy steel		37	Cushion needle	Copper alloy	
12	Fixed orifice	Copper alloy		38	Needle gasket	Nitrile rubber	
13	Cylinder gasket (1)	Nitrile rubber		39	Booster piston	Alloy steel	
14	Compression spring	Steel	Electrodeposition	40	Tie rod (1)	Steel	Zinc chromate
15	Booster pipe	Aluminum alloy	Hard alumite	41	Valve seat	Copper alloy	
16	Pass-pipe (1)	Stainless steel		42	Intermediate cover	Aluminum alloy	Black alumite
17	Wear ring (1)	Polyacetal		43	Connection collar	Alloy steel	
18	Piston packing (1)	Nitrile rubber		44	Tie rod (2)	Steel	Zinc chromate
19	Cushion packing (1)	Nitrile rubber		45	Piston (R)	Aluminum alloy	
20	Steel ball bearing	Nitrile rubber		46	Piston gasket	Nitrile rubber	
21	Steel ball	Alloy steel		47	Wear ring (2)	Acetal resin	
22	Seal cushion	Nitrile rubber		48	Cushion packing (2)	Nitrile rubber	
23	Ball stopper	Steel		49	Head cover	Aluminum alloy	Black alumite
24	Rod packing (2)	Nitrile rubber		50	Conical spring washer	Steel	Black finish
25	Packing holder	Steel	Manganese phosphate	51	Round nut	Steel	Zinc chromate
26	Pass-pipe gasket	Nitrile rubber					

Note: This product cannot be disassembled.

Dimensions



● Basic (00)



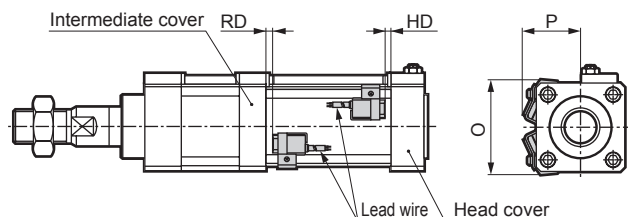
*1 : GG dimension applies to ø40 and ø50.

*2 : For dimensions with bellows, refer to page 1162.

*3 : For the dimensions of the accessories, refer to page 1163.

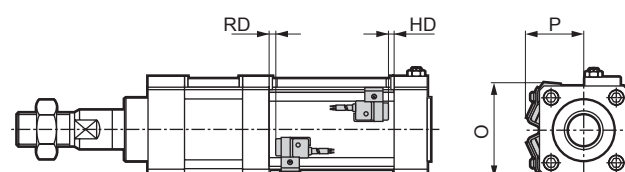
Bore size (mm)	Basic (00) basic dimensions																					
	A	B	BA	BB	BC	BD	C	D	DA	DB	DC	DD	E	EE	F	GA	GB	GC	GD	GE	GF	H
ø40	36	32	32	M8	50	68	34	ø43	M8	9	3.5	M6	25	Rc1/8	74.5	26	4	-	8.5	36.5	47.5	18
ø50	45	41	40	M10	60	75	43	ø51	M8	9	3.5	M6	26.5	Rc1/4	81	30	2	-	10	43	53.5	22
ø63	50	46	48	M12	70	74.5	47	ø57	M8	12	4	M8	33	Rc1/4	90	32	9	1	13	48	58	24
ø80	56	55	54	M14	80	89	53	ø62.5	M12	12	4	M10	34	Rc3/8	105	38	8	1	16	59	69	28
ø100	72	70	70	M16	100	100	69	ø75	M12	15	5	M12	37	Rc3/8	110.5	41	12.5	5	20	71	81	26
Bore size (mm)																						
	I	J	K	KK	L	LL	M	MM	MN	N	O	P	S	SD	T	V	W	WF	X	XF	GG	
ø40	8	26	57	M22x1.5	7	65.5	8	ø25	14	ø31	52	40.5	23	44	13	24	2	48	151.5	84	20	
ø50	10.5	32	69	M26x1.5	9	73.5	9	ø30	17	ø38	54	48	26	56	16	24	2	53	173.5	98	20	
ø63	11	30	80	M30x1.5	15	73	10	ø35	20	ø38	53	59	31	63	18	21	3	63	189	113	-	
ø80	13	34	98	M36x1.5	17	87.5	11	ø40	26	ø43	64	74	36	78	21	24	2	70	215.5	126	-	
ø100	14	37	118	M45x1.5	22	96	15	ø50	26	ø51	71	90	46	96	27	30	2	87	257	159	-	

● R-switch mounting position



Bore size (mm)	RD	HD	O	P
ø40	6	4	66	42
ø50	4.5	7	73	44
ø63	7	6	84	47
ø80	12	11.5	104	58
ø100	12	16	120	64

● H-switch mounting position

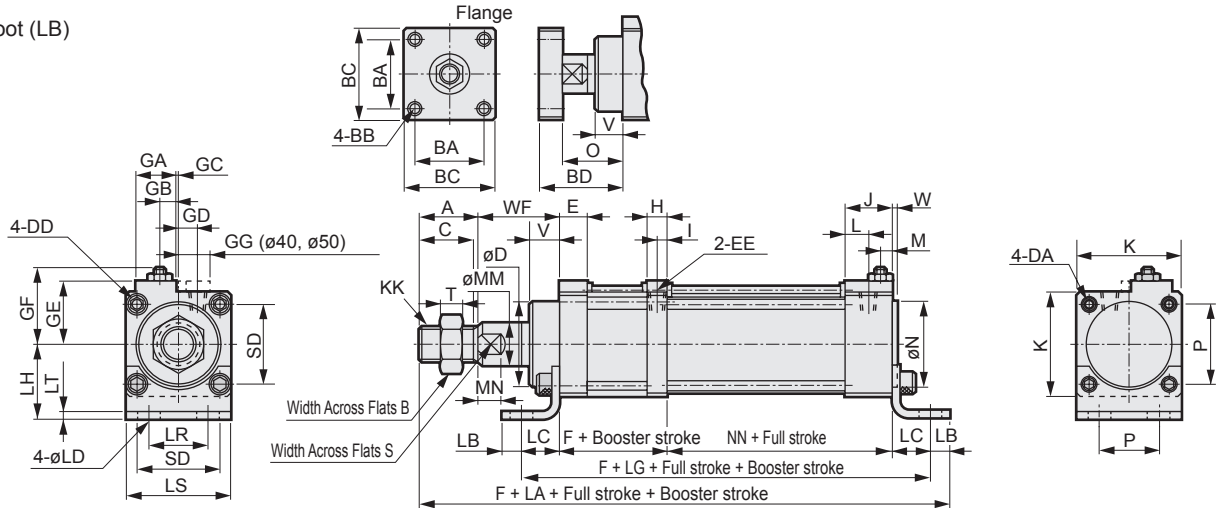


Bore size (mm)	RD	HD	O	P
ø40	4.5	2.5	66	42
ø50	3	5.5	73	44
ø63	5.5	4.5	84	47
ø80	10.5	10	104	58
ø100	10.5	14.5	120	64

LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending



● Axial foot (LB)



*1 : GG dimension applies to ø40 and ø50.

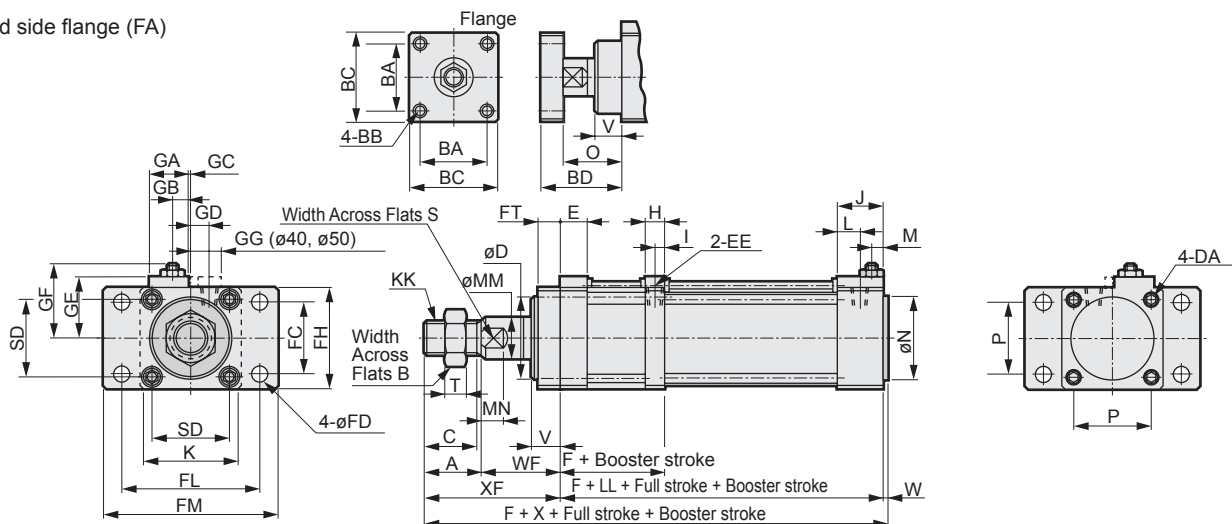
*2 : For dimensions with bellows, refer to page 1162.

*3 : For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Axial foot (LB) basic dimensions																			
	A	B	BA	BB	BC	BD	C	D	DA	DD	E	EE	F	GA	GB	GC	GD	GE	GF	H
ø40	36	32	32	M8	50	68	34	ø43	M8	M6	25	Rc1/8	74.5	26	4	-	8.5	36.5	47.5	18
ø50	45	41	40	M10	60	75	43	ø51	M8	M6	26.5	Rc1/4	81	30	2	-	10	43	53.5	22
ø63	50	46	48	M12	70	74.5	47	ø57	M8	M8	33	Rc1/4	90	32	9	1	13	48	58	24
ø80	56	55	54	M14	80	89	53	ø62.5	M12	M10	34	Rc3/8	105	38	8	1	16	59	69	28
ø100	72	70	70	M16	100	100	69	ø75	M12	M12	37	Rc3/8	110.5	41	12.5	5	20	71	81	26

Bore size (mm)	Axial foot (LB) basic dimensions																			
	KK	L	LA	LB	LC	LD	LG	LH	LR	LS	LT	M	MM	MN	N	NN	O	P	S	SD
ø40	M 22 x 1.5	7	179	10	19.5	9	104.5	40	40	57	3.2	8	ø25	14	ø31	65.5	52	40.5	23	44
ø50	M 26 x 1.5	9	205.5	12	22	9	117.5	40	46	69	4.5	9	ø30	17	ø38	73.5	54	48	26	56
ø63	M 30 x 1.5	15	228	12	30	11	133	50	60	80	4.5	10	ø35	20	ø38	73	53	59	31	63
ø80	M 36 x 1.5	17	264.5	14	37	14	161.5	60	74	98	6.0	11	ø40	26	ø43	87.5	64	74	36	78
ø100	M 45 x 1.5	22	307	21	31	14	158	67	80	118	6.0	15	ø50	26	ø51	96	71	90	46	96

● Rod side flange (FA)



*1 : GG dimension applies to ø40 and ø50.

*2 : For dimensions with bellows, refer to page 1162.

*3 : For the dimensions of the accessories, refer to page 1163.

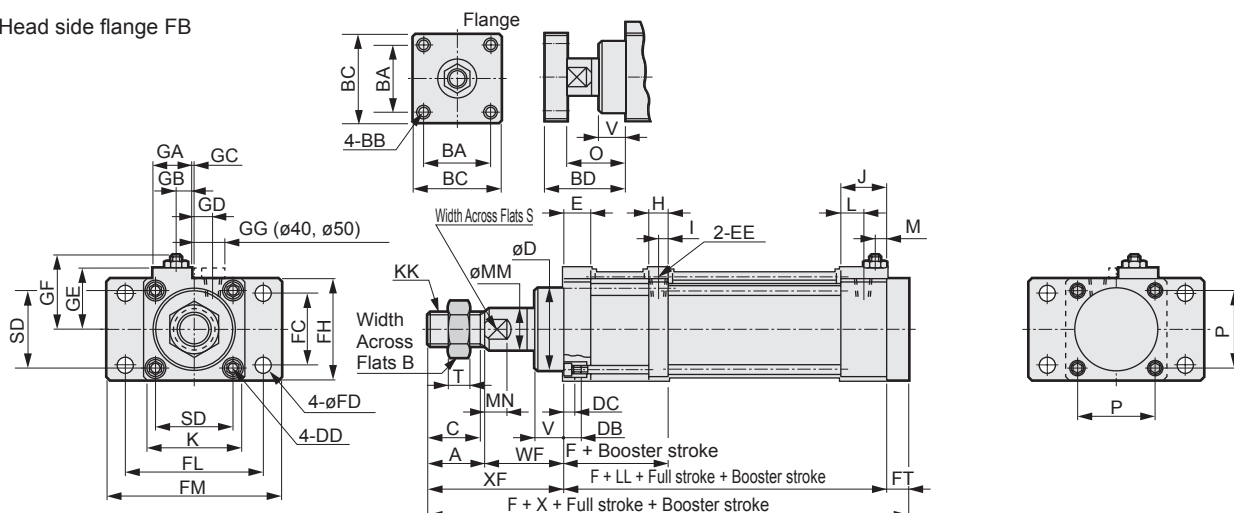
Bore size (mm)	Rod side flange (FA) basic dimensions																			
	A	B	BA	BB	BC	BD	C	D	DA	E	EE	F	FC	FD	FH	FL	FM	FT	GA	GB
ø40	36	32	32	M8	50	68	34	ø43	M8	25	Rc1/8	74.5	40	ø9	57	80	100	12	26	4
ø50	45	41	40	M10	60	75	43	ø51	M8	26.5	Rc1/4	81	47	ø9	69	85	108	12	30	2
ø63	50	46	48	M12	70	74.5	47	ø57	M8	33	Rc1/4	90	60	ø11	80	106	130	16	32	9
ø80	56	55	54	M14	80	89	53	ø62.5	M12	34	Rc3/8	105	74	ø14	98	125	153	19	38	8
ø100	72	70	70	M16	100	100	69	ø75	M12	37	Rc3/8	110.5	88	ø14	118	144	180	19	41	12.5

Bore size (mm)	Rod side flange (FA) basic dimensions																			
	GE	GF	H	I	J	K	KK	L	LL	M	MM	MN	N	O	P	S	SD	T	V	W
ø40	36.5	47.5	18	8	26	57	M 22 x 1.5	7	65.5	8	ø25	14	ø31	52	40.5	23	44	13	24	2
ø50	43	53.5	22	10.5	32	69	M 26 x 1.5	9	73.5	9	ø30	17	ø38	54	48	26	56	16	24	2
ø63	48	58	24	11	30	80	M 30 x 1.5	15	73	10	ø35	20	ø38	53	59	31	63	18	21	3
ø80	59	69	28	13	34	98	M 36 x 1.5	17	87.5	11	ø40	26	ø43	64	74	36	78	21	24	2
ø100	71	81	26	14	37	118	M 45 x 1.5	22	96	15	ø50	26	ø51	71	90	46	96	27	30	2

Dimensions



● Head side flange (FB)



*1 : GG dimension applies to ø40 and ø50.

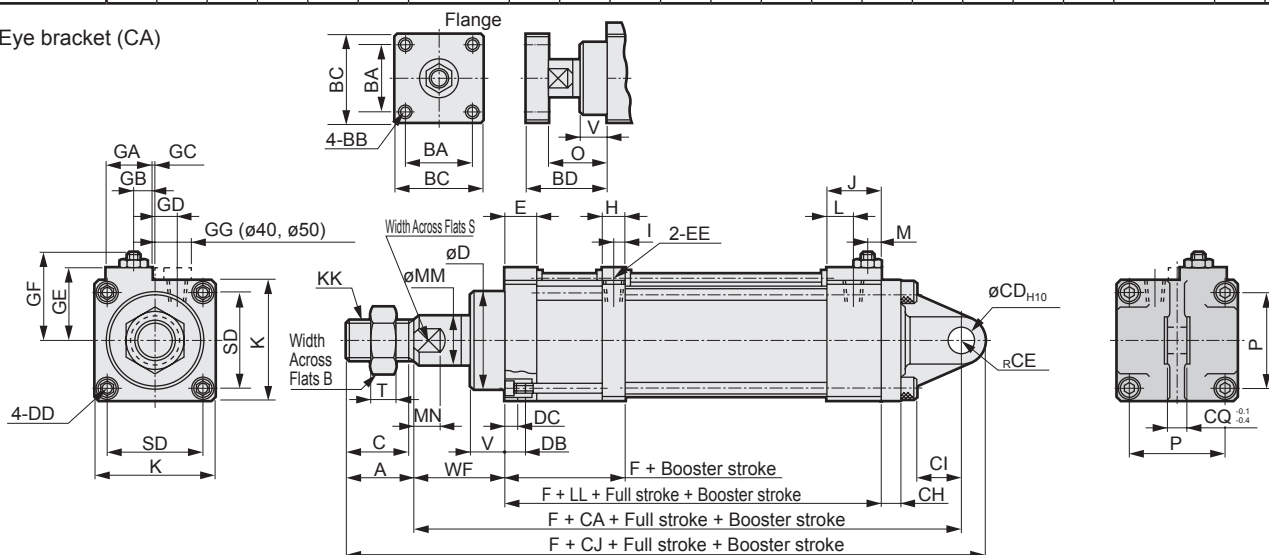
*2 : For dimensions with bellows, refer to page 1162.

*3 : For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Head side flange (FB) basic dimensions																							
	A	B	BA	BB	BC	BD	C	D	DB	DC	DD	E	EE	F	FC	FD	FH	FL	FM	FT	GA	GB	GC	GD
ø40	36	32	32	M8	50	68	34	ø43	9	3.5	M6	25	Rc1/8	74.5	40	ø9	57	80	100	12	26	4	-	8.5
ø50	45	41	40	M10	60	75	43	ø51	9	3.5	M6	26.5	Rc1/4	81	47	ø9	69	85	108	12	30	2	-	10
ø63	50	46	48	M12	70	74.5	47	ø57	12	4	M8	33	Rc1/4	90	60	ø11	80	106	130	16	32	9	1	13
ø80	56	55	54	M14	80	89	53	ø62.5	12	4	M10	34	Rc3/8	105	74	ø14	98	125	153	19	38	8	1	16
ø100	72	70	70	M16	100	100	69	ø75	15	5	M12	37	Rc3/8	110.5	88	ø14	118	144	180	19	41	12.5	5	20

Bore size (mm)	Head side flange (FB) basic dimensions																							
	GE	GF	H	I	J	K	KK	L	LL	M	MM	MN	O	P	S	SD	T	V	WF	X	XF	GG		
ø40	36.5	47.5	18	8	26	57	M 22 x 1.5	7	65.5	8	ø25	14	52	40.5	23	44	13	24	48	161.5	84	20		
ø50	43	53.5	22	10.5	32	69	M 26 x 1.5	9	73.5	9	ø30	17	54	48	26	56	16	24	53	183.5	98	20		
ø63	48	58	24	11	30	80	M 30 x 1.5	15	73	10	ø35	20	53	59	31	63	18	21	63	202	113	-		
ø80	59	69	28	13	34	98	M 36 x 1.5	17	87.5	11	ø40	26	64	74	36	78	21	24	70	232.5	126	-		
ø100	71	81	26	14	37	118	M 45 x 1.5	22	96	15	ø50	26	71	90	46	96	27	30	87	274	159	-		

● Eye bracket (CA)



*1 : GG dimension applies to ø40 and ø50.

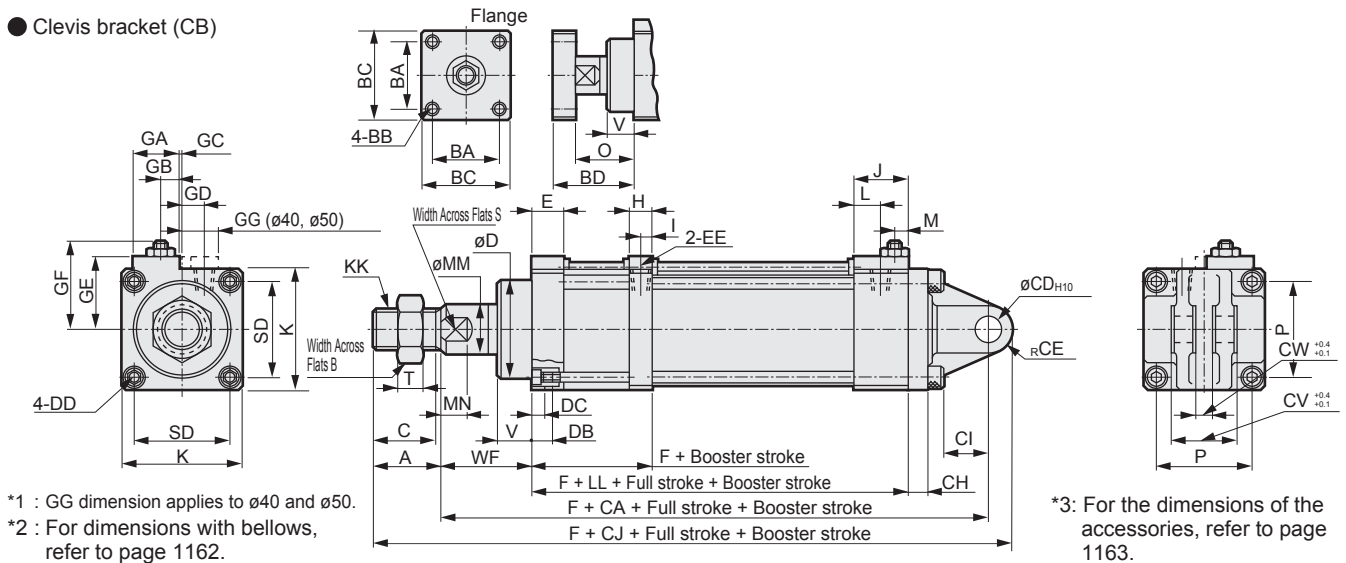
*2 : For dimensions with bellows, refer to page 1162.

*3 : For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Eye bracket (CA) basic dimensions																						
	A	B	BA	BB	BC	BD	C	CA	CD	CE	CH	CI	CJ	CQ	D	DB	DC	DD	E	EE	F	GA	
ø40	36	32	32	M8	50	68	34	145.5	12	12	10	18	193.5	18	ø43	9	3.5	M6	25	Rc1/8	74.5	26	
ø50	45	41	40	M10	60	75	43	158.5	12	12	10	18	215.5	18	ø51	9	3.5	M6	26.5	Rc1/4	81	30	
ø63	50	46	48	M12	70	74.5	47	173	14	16	10	24	239	20	ø57	12	4	M8	33	Rc1/4	90	32	
ø80	56	55	54	M14	80	89	53	209.5	20	20	14	30	285.5	28	ø62.5	12	4	M10	34	Rc3/8	105	38	
ø100	72	70	70	M16	100	100	69	235	20	20	16	30	327	28	ø75	15	5	M12	37	Rc3/8	110.5	41	
Bore size (mm)																							
	GB	GC	GD	GE	GF	H	I	J	K	KK	L	LL	M	MM	MN	O	P	S	SD	T	V	WF	GG
ø40	4	-	8.5	36.5	47.5	18	8	26	57	M 22 x 1.5	7	65.5	8	ø25	14	52	40.5	23	44	13	24	48	20
ø50	2	-	10	43	53.5	22	10.5	32	69	M 26 x 1.5	9	73.5	9	ø30	17	54	48	26	56	16	24	53	20
ø63	9	1	13	48	58	24	11	30	80	M 30 x 1.5	15	73	10	ø35	20	53	59	31	63	18	21	63	-
ø80	8	1	16	59	69	28	13	34	98	M 36 x 1.5	17	87.5	11	ø40	26	64	74	36	78	21	24	70	-
ø100	12.5	5	20	71	81	26	14	37	118	M 45 x 1.5	22	96	15	ø50	26	71	90	46	96	27	30	87	-

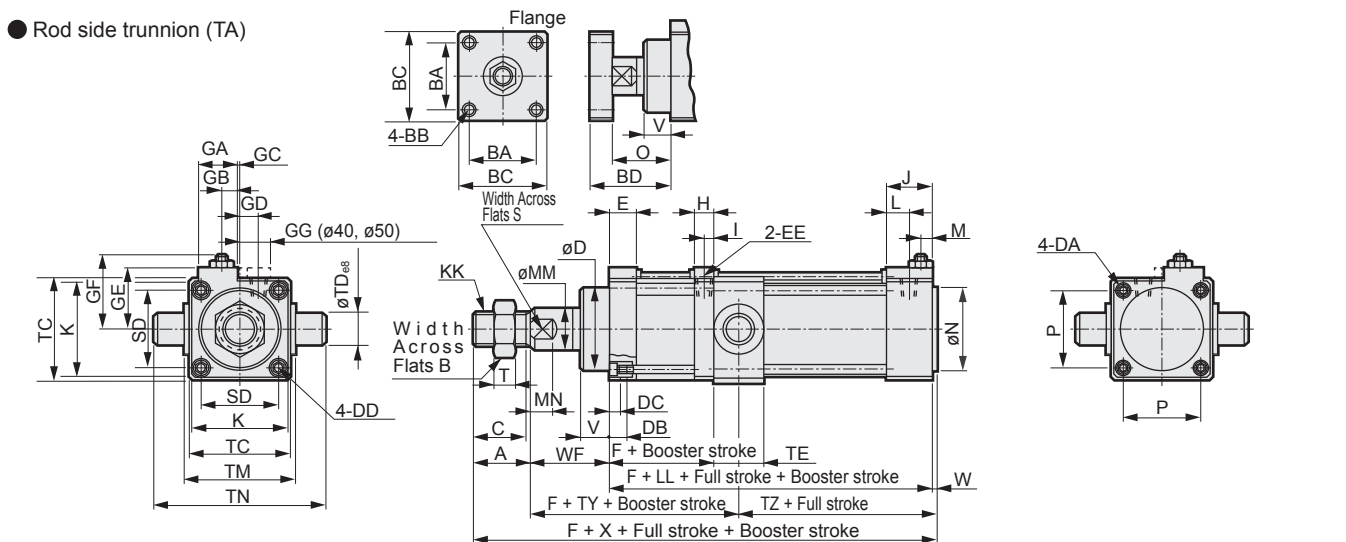


● Clevis bracket (CB)



Bore size (mm)	Clevis bracket (CB) basic dimensions																							
	A	B	BA	BB	BC	BD	C	CA	CD	CE	CH	CI	CJ	CV	CW	D	DB	DC	DD	E	EE	F		
ø40	36	32	32	M8	50	68	34	145.5	12	12	10	18	193.5	36	18	ø43	9	3.5	M6	25	Rc1/8	74.5		
ø50	45	41	40	M10	60	75	43	158.5	12	12	10	18	215.5	36	18	ø51	9	3.5	M6	26.5	Rc1/4	81		
ø63	50	46	48	M12	70	74.5	47	173	14	16	10	24	239	40	20	ø57	12	4	M8	33	Rc1/4	90		
ø80	56	55	54	M14	80	89	53	209.5	20	20	14	30	285.5	56	28	ø62.5	12	4	M10	34	Rc3/8	105		
ø100	72	70	70	M16	100	100	69	235	20	20	16	30	327	56	28	ø75	15	5	M12	37	Rc3/8	110.5		
Bore size (mm)																								
	GA	GB	GC	GD	GE	GF	H	I	J	K	KK	L	LL	M	MM	MN	O	P	S	SD	T	V	WF	GG
ø40	26	4	-	8.5	36.5	47.5	18	8	26	57	M 22 x 1.5	7	65.5	8	ø25	14	52	40.5	23	44	13	24	48	20
ø50	30	2	-	10	43	53.5	22	10.5	32	69	M 26 x 1.5	9	73.5	9	ø30	17	54	48	26	56	16	24	53	20
ø63	32	9	1	13	48	58	24	11	30	80	M 30 x 1.5	15	73	10	ø35	20	53	59	31	63	18	21	63	-
ø80	38	8	1	16	59	69	28	13	34	98	M 36 x 1.5	17	87.5	11	ø40	26	64	74	36	78	21	24	70	-
ø100	41	12.5	5	20	71	81	26	14	37	118	M 45 x 1.5	22	96	15	ø50	26	71	90	46	96	27	30	87	-

● Rod side trunnion (TA)



*1 : GG dimension applies to ø40 and ø50.

*2 : Since it would hit the trunnion, a switch cannot be installed at the forward end.

*3 : For dimensions with bellows, refer to page 1162.

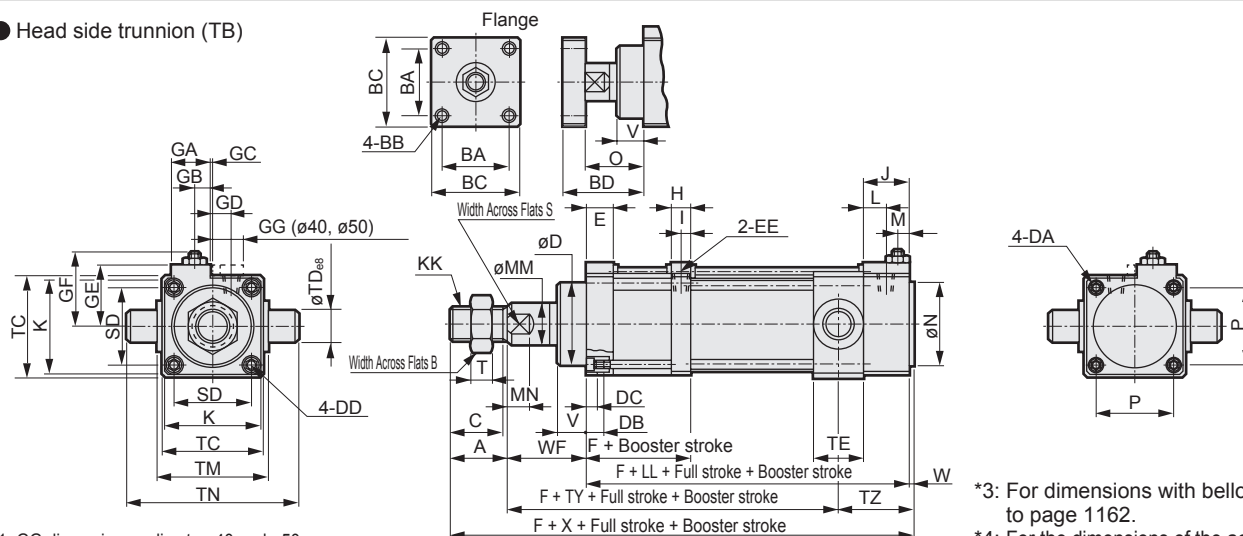
*4 : For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Rod side trunnion (TA) basic dimensions																								
	A	B	BA	BB	BC	BD	C	D	DA	DB	DC	DD	E	EE	F	GA	GB	GC	GD	GE	GF	H	I	J	K
ø40	36	32	32	M8	50	68	34	ø43	M8	9	3.5	M6	25	Rc1/8	74.5	26	4	-	8.5	36.5	47.5	18	8	26	57
ø50	45	41	40	M10	60	75	43	ø51	M8	9	3.5	M6	26.5	Rc1/4	81	30	2	-	10	43	53.5	22	10.5	32	69
ø63	50	46	48	M12	70	74.5	47	ø57	M8	12	4	M8	33	Rc1/4	90	32	9	1	13	48	58	24	11	30	80
ø80	56	55	54	M14	80	89	53	ø62.5	M12	12	4	M10	34	Rc3/8	105	38	8	1	16	59	69	28	13	34	98
ø100	72	70	70	M16	100	100	69	ø75	M12	15	5	M12	37	Rc3/8	110.5	41	12.5	5	20	71	81	26	14	37	118
Bore size (mm)																									
	KK	L	LL	M	MM	MN	N	O	P	S	SD	T	TC	TD	TE	TM	TN	TY	TZ	V	W	WF	X	GG	
ø40	M 22 x 1.5	7	65.5	8	ø25	14	ø31	52	40.5	23	44	13	57	16	30	63	95	63	52.5	24	2	48	151.5	20	
ø50	M 26 x 1.5	9	73.5	9	ø30	17	ø38	54	48	26	56	16	67	18	30	80	116	68	60.5	24	2	53	173.5	20	
ø63	M 30 x 1.5	15	73	10	ø35	20	ø38	53	59	31	63	18	82	20	35	90	130	80.5	58.5	21	3	63	189	-	
ø80	M 36 x 1.5	17	87.5	11	ø40	26	ø43	64	74	36	78	21	100	25	40	115	165	90	69.5	24	2	70	215.5	-	
ø100	M 45 x 1.5	22	96	15	ø50	26	ø51	71	90	46	96	27	121	35	50	135	205	112	73	30	2	87	257	-	

Dimensions



● Head side trunnion (TB)



*1: GG dimension applies to ø40 and ø50.

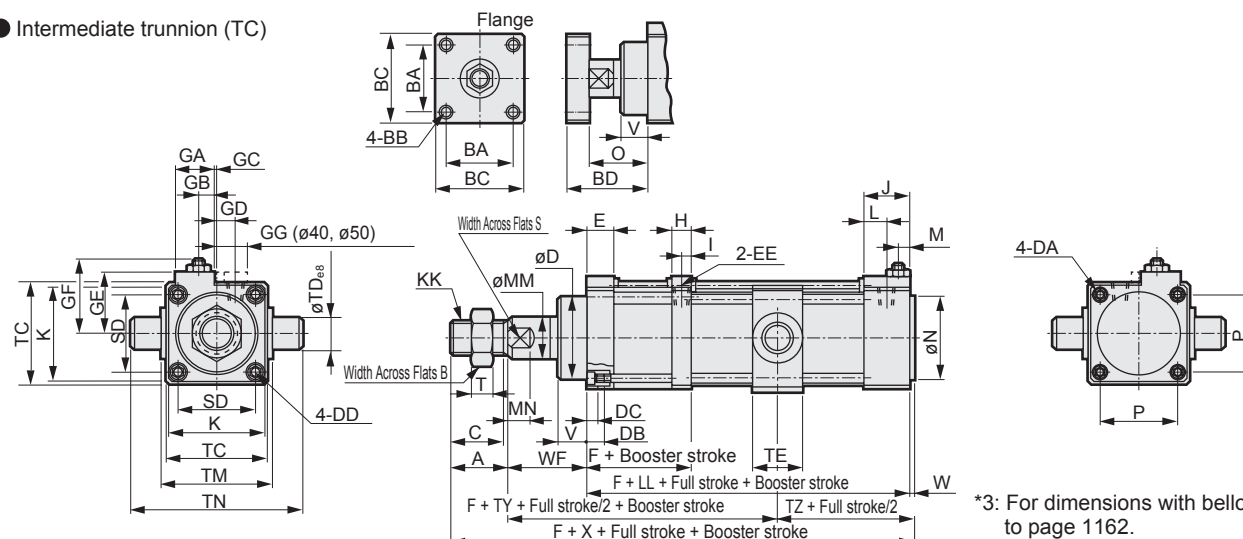
*2: For all strokes 100mm or less, a cylinder switch cannot be installed.

*3: For dimensions with bellows, refer to page 1162.

*4: For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Head side trunnion (TB) basic dimensions																									
	A	B	BA	BB	BC	BD	C	D	DA	DB	DC	DD	E	EE	F	GA	GB	GC	GD	GE	GF	H	I	J	K	
ø40	36	32	32	M8	50	68	34	ø43	M8	9	3.5	M6	25	Rc1/8	74.5	26	4	-	8.5	36.5	47.5	18	8	26	57	
ø50	45	41	40	M10	60	75	43	ø51	M8	9	3.5	M6	26.5	Rc1/4	81	30	2	-	10	43	53.5	22	10.5	32	69	
ø63	50	46	48	M12	70	74.5	47	ø57	M8	12	4	M8	33	Rc1/4	90	32	9	1	13	48	58	24	11	30	80	
ø80	56	55	54	M14	80	89	53	ø62.5	M12	12	4	M10	34	Rc3/8	105	38	8	1	16	59	69	28	13	34	98	
ø100	72	70	70	M16	100	100	69	ø75	M12	15	5	M12	37	Rc3/8	110.5	46	12.5	5	20	71	81	26	14	37	118	
Bore size (mm)																										
	KK	L	LL	M	MM	MN	N	O	P	S	SD	T	TC	TD	TE	TM	TN	TY	TZ	V	W	WF	X	GG		
ø40	M 22 x 1.5	7	65.5	8	ø25	14	ø31	52	40.5	23	44	13	57	16	30	63	95	72.5	43	24	2	48	151.5	20		
ø50	M 26 x 1.5	9	73.5	9	ø30	17	ø38	54	48	26	56	16	67	18	30	80	116	79.5	49	24	2	53	173.5	20		
ø63	M 30 x 1.5	15	73	10	ø35	20	ø38	53	59	31	63	18	82	20	35	90	130	88.5	50.5	21	3	63	189	-		
ø80	M 36 x 1.5	17	87.5	11	ø40	26	ø43	64	74	36	78	21	100	25	40	115	165	103.5	56	24	2	70	215.5	-		
ø100	M 45 x 1.5	22	96	15	ø50	26	ø51	71	90	46	96	27	121	35	50	135	205	121	64	30	2	87	257	-		

● Intermediate trunnion (TC)



*1: GG dimension applies to ø40 and ø50.

*2: For all strokes 100mm or less, a cylinder switch cannot be installed.

*3: For dimensions with bellows, refer to page 1162.

*4: For the dimensions of the accessories, refer to page 1163.

Bore size (mm)	Intermediate trunnion (TC) basic dimensions																								
	A	B	BA	BB	BC	BD	C	D	DA	DB	DC	DD	E	EE	F	GA	GB	GC	GD	GE	GF	H	I	J	K
ø40	36	32	32	M8	50	68	34	ø43	M8	9	3.5	M6	25	Rc1/8	74.5	26	4	-	8.5	36.5	47.5	18	8	26	57
ø50	45	41	40	M10	60	75	43	ø51	M8	9	3.5	M6	26.5	Rc1/4	81	30	2	-	10	43	53.5	22	11	32	69
ø63	50	46	48	M12	70	74.5	47	ø57	M8	12	4	M8	33	Rc1/4	90	32	9	1	13	48	58	24	11	30	80
ø80	56	55	54	M14	80	89	53	ø62.5	M12	12	4	M10	34	Rc3/8	105	38	8	1	16	59	69	28	13	34	98
ø100	72	70	70	M16	100	100	69	ø75	M12	15	5	M12	37	Rc3/8	110.5	41	12.5	5	20	71	81	26	14	37	118
Bore size (mm)																									
	KK		L	LL	M	MM	MN	N	O	P	S	SD	T	TC	TD	TE	TM	TN	TY	TZ	V	W	WF	X	GG
ø40	M 22 x 1.5		7	65.5	8	ø25	14	ø31	52	40.5	23	44	13	57	16	30	63	95	68	47.5	24	2	48	151.5	20
ø50	M 26 x 1.5		9	73.5	9	ø30	17	ø38	54	48	26	56	16	67	18	30	80	116	74	54.5	24	2	53	173.5	20
ø63	M 30 x 1.5		15	73	10	ø35	20	ø38	53	59	31	63	18	82	20	35	90	130	84.5	54.5	21	3	63	189	-
ø80	M 36 x 1.5		17	87.5	11	ø40	26	ø43	64	74	36	78	21	100	25	40	115	165	97	62.5	24	2	70	215.5	-
ø100	M 45 x 1.5		22	96	15	ø50	26	ø51	71	90	46	96	27	121	35	50	135	205	116.5	68.5	30	2	87	257	-

LCM
 LCR
 LCG
 LCW
 LCX
 STM
 STG
 STS/STL
 STR2
 UCA2
 ULK*
 JSK/M2
 JSG
 USC3/JSC4
 USSD
 UFCD
 USC
 UB
 JSB3
 LMB
 LML
 HCM
 HCA
 LBC
 CAC4
 UCAC2
 CAC-N
 UCAC-N
 RCS2
 RCC2
 PCC
 SHC
 MCP
 GLC
 MFC
 BBS
 RRC
 GRC
 RV3*
 NHS
 HRL
 LN
 Hand
 Chuk
 MecHnd/Chuk
 ShkAbs
 FJ
 FK
 SpdContr
 Ending



High power cylinder/double acting/quad force

SHC-K Series

● Equivalent bore size: $\varnothing 40/\varnothing 50/\varnothing 63/\varnothing 80/\varnothing 100$

JIS symbol



Specifications

Item		SHC-K				
Bore size mm		ø40	ø50	ø63	ø80	ø100
Actuation		Double acting/projection quad force				
Working fluid		Compressed air				
Max. working pressure MPa		0.9 (≈130 psi, 9 bar)				
Min. working pressure MPa		0.2 (≈29 psi, 2 bar)	0.15 (≈22 psi, 1.5 bar)			
Proof pressure MPa		1.35 (≈200 psi, 13.5 bar)				
Ambient temperature °C		-10 (14°F) to 60 (140°F) (no freezing)				
Port size Rc		1/8	1/4	1/4	3/8	3/8
Stroke tolerance mm		^{+1.3} ₀ (to 300), ^{+1.7} ₀ (to 1000), ^{+2.1} ₀ (1000 to)				
Working piston	Cylinder	50 to 500				
speed *1 mm/s	Booster section	10 to 30 (booster section single control)				
Cushion		Air cushion				
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)				
Rod side allowable absorbed energy (J)		23.3	39.9	60.2	102	164
Head side allowable absorbed energy (J)		5.84	9.99	15.1	25.5	41.0

*1: As the piston speed differs depending on the supply pressure, refer to the technical data on page 1166.

Stroke

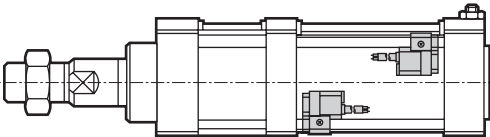
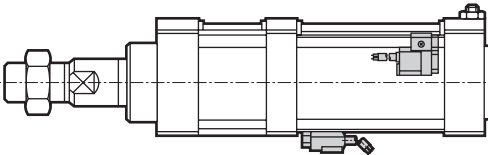
Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Booster stroke	Dead zone
$\varnothing 40$	100, 150, 200, 250, 300, 400, 500	700	10, 20	1.9
$\varnothing 50$				1.9
$\varnothing 63$		800		2
$\varnothing 80$		900		2.3
$\varnothing 100$		1000		2.8

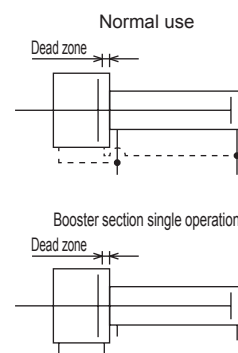
*1: The custom stroke is available in 5 mm increments.

*2: Dead zone (area not generating boosted thrust) stroke, until connection with booster piston completes, is included in the booster stroke.

*3: Min. stroke is 40 mm with or without switch. For types with switch, minimum stroke varies depending on mounting method. Refer to the following table.

Min. stroke with switch

Bore size (mm)	When mounted on the same surface	When mounted on different surfaces
		
	ø40	40
	ø50	
	ø63	
	ø80	
ø100		
	65	
	40	



Switch specifications

- 1-color/2-color LED

Item	Proximity 2-wire			Proximity 3-wire	
	R1	R2	R2Y (2-color LED)	R3	R3Y (2-color LED)
Applications	Programmable controller, relay, compact solenoid valve		Dedicated for programmable controller	For programmable controller, relay, IC circuit, solenoid valve	
Output method	-			NPN output	
Power supply voltage	-			4.5 VDC to 28 VDC	
Load voltage	85 VAC to 265 VAC		10 to 30 VDC	30 VDC or less	
Load current	5 to 100 mA		5 to 30 mA	200 mA DC or less	100 mA DC or less
Indicator	LED (Lit when ON)		Red/green LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current	1 mA or less with 100 VAC, 2 mA or less with 200 VAC		1 mA or less	1.2 mA or less	10 µA or less
Weightg	Grommet	1 m:42 3 m:100 5 m:158		1 m:42 3 m:100 5 m:158	1 m:56 3 m:114 5 m:172
	Terminal box	68		68	82

Item		Reed 2-wire								
		R0			R4		R5			R6
Applications		Relay, programmable controller			For high capacity relay, solenoid valve		For programmable controller, relay, IC circuit (without indicator lamp), serial connection			Dedicated for programmable controller (with DC self-hold)
Load voltage		12/24 VDC	110 VAC	220 VAC	110 VAC	220 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC
Load current		5 to 50 mA	7 to 20 mA	7 to 10 mA	20 to 200 mA	10 to 200 mA	50 mA or less	20 mA or less	10 mA or less	5 to 50 mA
Indicator		LED (Lit when ON)			Neon lamp (Lit when OFF)		No indicator lamp			LED (Lit when ON)
Leakage current		0 mA			1 mA or less		0 mA			0.1 mA or less
Weightg	Grommet	1 m:42 3 m:100 5 m:158								
	Terminal box	68								

- Strong magnetic field

Item	Reed 2-wire	
	H0	
Applications	For relay, programmable controller	
Load voltage	12/24 VDC	110 VAC
Load current	5 to 50 mA	7 to 20 mA
Indicator	Green LED (Lit when ON)	
Leakage current	10 µA or less	
Weightg	1 m:76 3 m:181 5 m:289	

*1: Refer to Ending Page 1 for detailed switch specifications and dimensions.

Cylinder weight

(Unit: kg)

Bore size (mm)	Product weight when at 0 mm stroke				Switch weight	Mounting bracket weight		Additional weight per 100 mm cylinder stroke	Additional weight per 10 mm booster stroke	Additional weight of F type
	Basic (00)	Axial foot (LB)	Flange (FA)	Trunnion (TA)		R type	H type			
ø40	3.37	4.14	5.22	4.73	Refer to the weight in the switch specifications.	0.023	0.028	0.43	0.15	0.16
ø50	5.17	6.09	7.82	7.69		0.021	0.026	0.48	0.15	0.28
ø63	7.35	8.95	10.40	10.85		0.019	0.024	0.59	0.27	0.30
ø80	13.93	17.23	20.65	20.43		0.025	0.029	0.96	0.36	0.50
ø100	21.76	28.13	34.36	33.56		0.023	0.028	0.93	0.65	0.49

Formula for product weight	
(Example) SHC-K-LB-40H-200-20-R0-D-F	
● Product weight at 0 mm stroke.....	4.14 kg
● Additional weight per 200 mm stroke	$0.43 \times \frac{200}{100} = 0.86$ kg
● Additional weight per 20 mm booster stroke	$0.15 \times \frac{20}{10} = 0.30$ kg
● Additional weight of F type	0.16 kg
● Weight of two RO switches	$0.042 \times 2 = 0.084$ kg
● Weight of 2 mounting brackets.....	$0.023 \times 2 = 0.046$ kg
● Product weight.....	$4.14 + 0.86 + 0.30 + 0.16 + 0.084 + 0.046 = 5.590$ kg

SHC-K Series

LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

● Without switch (built-in magnet for switch)

SHC-K — **LB** — **40** **H** — **100** — **20** — **S** **I**

● R type with switch (built-in magnet for switch)

SHC-K — **LB** — **40** **H** — **100** — **20** — **R0** — **R** — **S** **I**

● With strong magnetic field proof switch (H0, H0Y) (built-in magnet for switch)

SHC-K-L2 — **LB** — **40** **H** — **100** — **20** — **H0** — **R** — **S** **I**

A Mounting

*2

*3

B Bore size

C Cushion

D Stroke

*4

E Booster stroke

F Switch model No.

* indicates the lead wire length.

G Switch quantity

*6

H Option

*7

*8

I Accessory

⚠ Precautions for model No. selection

*1 : Mounting bracket will be shipped assembled with the product.

*2 : In the case of TA (rod side trunnion), since the trunnion mounting position is placed at the moving part of the stroke projection or booster section return, the position of the stroke projection of the cylinder switch and the booster section return cannot be detected.

*3 : For TA (rod side trunnion) and TB (head side trunnion), piping port position cannot be specified on the trunnion shaft projecting surface.

*4 : For the stroke indicated in Item **D** Stroke, indicate the full stroke (movement stroke + booster stroke).

*5 : Refer to page 1154 for the min. stroke with switch.

*6 : When selecting TA or TB as mounting, the number of switches is limited to "H" (1 on head side) for TA, and "R" (1 on rod side) for TB.

*7 : L (bellows (for max. ambient temperature 100°C)) is available as a made-to-order product.

*8 : Booster cylinder can be individually controlled. In this case, select option A (booster single control port).

[Example of model No.]

SHC-K-LB-40H-100-20-R0-R-S-I

Model No.: High power cylinder Double acting/quad force

A Mounting : Axial foot

B Bore size : ø40 mm

C Cushion : Head side cushioned

D Stroke : 100 mm
(movement stroke 80 mm + booster stroke 20 mm)

E Booster stroke : 20 mm

F Switch model No. : Reed R0 switch, lead wire 1 m

G Switch quantity : 1 on rod side

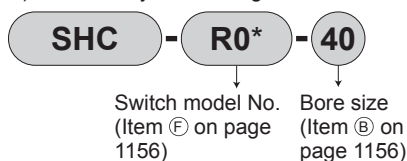
H Option : Piping port position, bottom from rod side

I Accessory : Rod eye

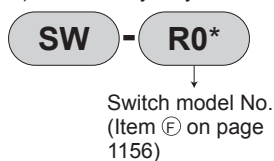
Code	Description				
(A) Mounting					
LB	Axial foot				
FA	Rod side flange				
TA	Rod side trunnion				
(B) Bore size (mm)					
40	ø40				
50	ø50				
63	ø63				
80	ø80				
100	ø100				
(C) Cushion					
H	Head side cushioned				
N	Without cushion				
(D) Stroke (mm)					
Bore size	Stroke *5	Custom stroke			
ø40	40 to 700	In 5 mm increments			
ø50	40 to 700				
ø63	40 to 800				
ø80	40 to 900				
ø100	40 to 1000				
(E) Booster stroke (mm)					
10	10				
20	20				
(F) Switch model No.					
Grommet	Terminal box	Contact	Voltage	Indicator	Lead wire
R1*	R1B	Proximity	●	1-color LED	2-wire
R2*	R2B		●		
R2Y*	R2YB		●	2-color LED	3-wire
R3*	R3B		●	1-color LED	
R3Y*	R3YB		●	2-color LED	
R0*	R0B	Reed	●	1-color LED	2-wire
R4*	R4B		●		
R5*	R5B		●	No indicator lamp	
R6*	R6B		●	1-color LED	
H0*	-		●	Strong magn field proof SW	2-wire
* 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				
5	5				
(H) Option					
		Max. ambient temperature		Instantaneous max. temp	
J	Bellows	100°C	200°C		
L	Bellows	250°C	400°C		
Blank	Rod end form/male thread (standard)				
F	Rod end form/flange				
Blank	Piping port position, top from rod side (standard)				
R	Piping port position, right from rod side				
S	Piping port position, bottom from rod side				
T	Piping port position, left from rod side				
G1	Metal scraper				
P6	Copper and PTFE free				
A	Booster single control port				
(I) Accessory					
I	Rod eye				
Y	Rod clevis (pin and snap ring attached)				
B12	Eye bracket (for rod eye)				
B22	Clevis bracket (for rod eye) (pin and snap ring attached)				

How to order R-switch

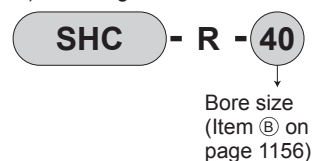
A) Switch body + mounting bracket



B) Switch body only



C) Mounting bracket set



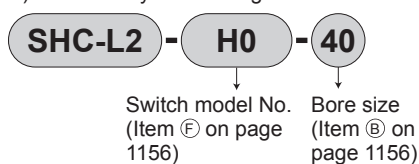
● Terminal box only

For R□B

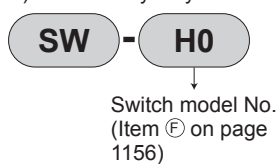


How to order H-switch

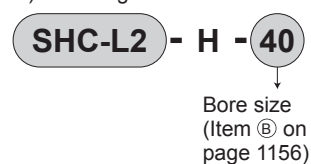
A) Switch body + mounting bracket set



B) Switch body only



C) Mounting bracket set



How to order mounting bracket

Bore size (mm)	ø40	ø50
Mounting bracket		
Rod side flange (FA)	SHC-K-FA-40	SHC-K-FA-50

*1: Order for mounting bracket only is not possible for ø63 to ø100.

Theoretical thrust table

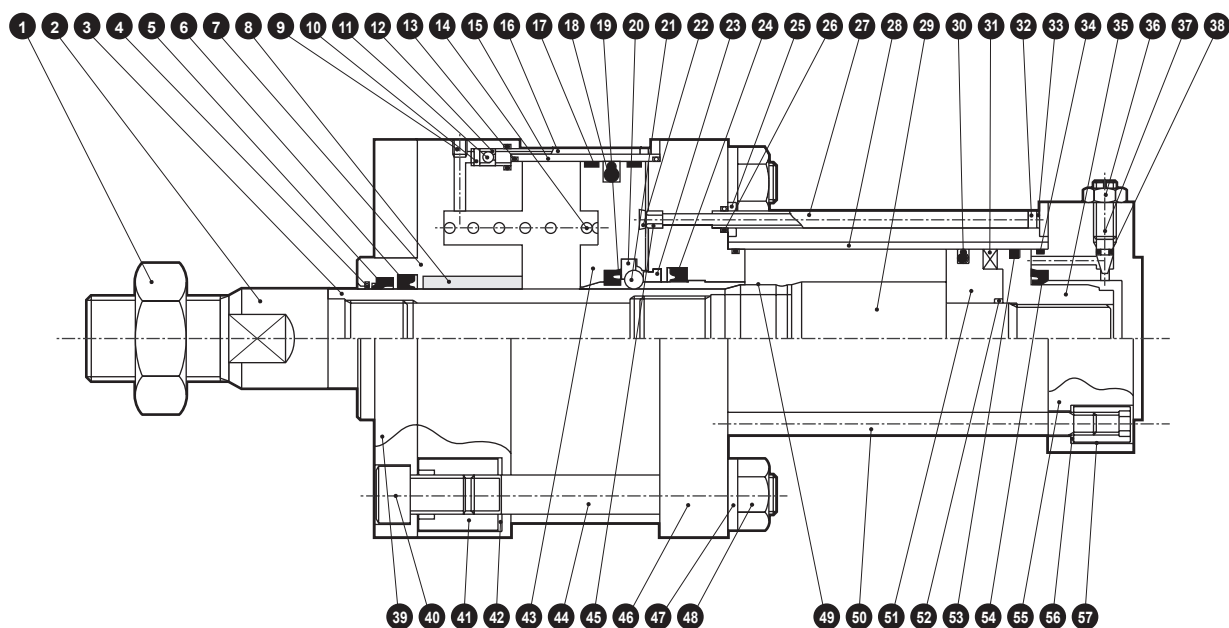
(Unit: N)

Bore size (mm)	Operating direction	Piston position	Working pressure MPa							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
ø40	Push	Thrust	2.51x10 ²	3.76x10 ²	5.02x10 ²	6.28x10 ²	7.53x10 ²	8.79x10 ²	1.0x10 ³	1.13x10 ³
		Booster section	1.13x10 ³	1.70x10 ³	2.27x10 ³	2.83x10 ³	3.40x10 ³	3.97x10 ³	4.53x10 ³	5.10x10 ³
	Pull	Thrust	1.28x10 ²	1.92x10 ²	2.56x10 ²	3.20x10 ²	3.84x10 ²	4.48x10 ²	5.12x10 ²	5.76x10 ²
		Booster section	1.01x10 ³	1.52x10 ³	2.02x10 ³	2.53x10 ³	3.03x10 ³	3.54x10 ³	4.04x10 ³	4.55x10 ³
ø50	Push	Thrust	3.92x10 ²	5.88x10 ²	7.85x10 ²	9.81x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³
		Booster section	1.80x10 ³	2.70x10 ³	3.60x10 ³	4.51x10 ³	5.41x10 ³	6.31x10 ³	7.21x10 ³	8.11x10 ³
	Pull	Thrust	2.31x10 ²	3.47x10 ²	4.63x10 ²	5.79x10 ²	6.95x10 ²	8.11x10 ²	9.27x10 ²	1.04x10 ³
		Booster section	1.64x10 ³	2.46x10 ³	3.28x10 ³	4.10x10 ³	4.92x10 ³	5.75x10 ³	6.57x10 ³	7.39x10 ³
ø63	Push	Thrust	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³
		Booster section	2.83x10 ³	4.24x10 ³	5.65x10 ³	7.07x10 ³	8.48x10 ³	9.89x10 ³	1.13x10 ⁴	1.27x10 ⁴
	Pull	Thrust	3.72x10 ²	5.58x10 ²	7.44x10 ²	9.30x10 ²	1.12x10 ³	1.30x10 ³	1.49x10 ³	1.67x10 ³
		Booster section	2.58x10 ³	3.86x10 ³	5.15x10 ³	6.44x10 ³	7.73x10 ³	9.01x10 ³	1.03x10 ⁴	1.16x10 ⁴
ø80	Push	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³
		Booster section	4.63x10 ³	6.95x10 ³	9.27x10 ³	1.16x10 ⁴	1.39x10 ⁴	1.62x10 ⁴	1.85x10 ⁴	2.09x10 ⁴
	Pull	Thrust	6.12x10 ²	9.18x10 ²	1.23x10 ³	1.53x10 ³	1.84x10 ³	2.14x10 ³	2.45x10 ³	2.76x10 ³
		Booster section	4.24x10 ³	6.36x10 ³	8.48x10 ³	1.06x10 ⁴	1.27x10 ⁴	1.48x10 ⁴	1.70x10 ⁴	1.91x10 ⁴
ø100	Push	Thrust	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.50x10 ³	6.28x10 ³	7.07x10 ³
		Booster section	7.29x10 ³	1.09x10 ⁴	1.46x10 ⁴	1.82x10 ⁴	2.19x10 ⁴	2.55x10 ⁴	2.91x10 ⁴	3.28x10 ⁴
	Pull	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³
		Booster section	6.72x10 ³	1.01x10 ⁴	1.34x10 ⁴	1.68x10 ⁴	2.02x10 ⁴	2.35x10 ⁴	2.69x10 ⁴	3.02x10 ⁴

Note: When the booster section is pulled (backward), due to product structure, theoretical thrust is reduced to approximately 70% when the connection is released.

LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MeatHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

Internal structure and parts list (ø40, ø50)

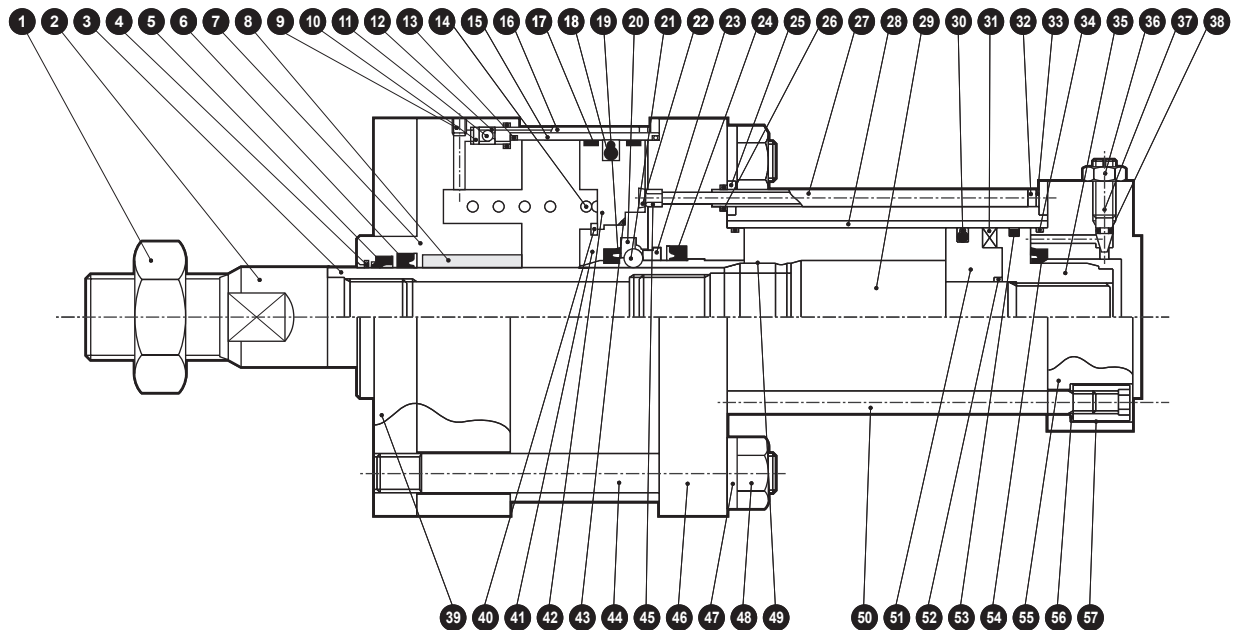


Cannot be disassembled

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	30	Piston packing (2)	Nitrile rubber	
2	Cap	Steel	Manganese phosphate	31	Magnet	Plastic	
3	Piston rod	Steel	Industrial chrome plating	32	Hexagon socket head cap screw	Alloy steel	Black finish
4	Metal scraper	Copper alloy	G1 type only	33	Spring washer	Steel	Black finish
5	Dust wiper	Nitrile rubber		34	Cylinder gasket (2)	Nitrile rubber	
6	Rod packing (1)	Nitrile rubber		35	Piston (H)	Aluminum alloy	
7	Rod cover	Aluminum alloy	Black alumite	36	Needle nut	Copper alloy	Zinc chromate
8	Bush	Copper alloy casting	Oil impregnation	37	Cushion needle	Copper alloy	
9	Hexagon socket set screw	Alloy steel	Black finish	38	Needle gasket	Nitrile rubber	
10	Spring pin	Steel		39	FA flange	Steel	Paint
11	Check ball	Alloy steel		40	Hexagon socket head cap screw	Alloy steel	Black finish
12	Fixed orifice	Copper alloy		41	Round nut (1)	Steel	Zinc chromate
13	Cylinder gasket (1)	Nitrile rubber		42	Conical spring washer (1)	Steel	Black finish
14	Compression spring	Steel	Electrodeposition	43	Booster piston	Alloy steel	
15	Booster pipe	Aluminum alloy	Hard alumite	44	Tie rod (1)	Steel	Zinc chromate
16	Pass-pipe (1)	Stainless steel		45	Valve seat	Copper alloy	
17	Wear ring (1)	Polyacetal		46	Intermediate cover	Aluminum alloy	Black alumite
18	Piston packing (1)	Nitrile rubber		47	Toothed washer	Steel	Zinc chromate
19	Cushion packing (1)	Nitrile rubber		48	Hexagon nut	Steel	Zinc chromate
20	Steel ball bearing	Nitrile rubber		49	Connection collar	Alloy steel	
21	Steel ball	Alloy steel		50	Tie rod (2)	Steel	Zinc chromate
22	Seal cushion	Nitrile rubber		51	Piston (R)	Aluminum alloy	
23	Ball stopper	Steel		52	Piston gasket	Nitrile rubber	
24	Rod packing (2)	Nitrile rubber		53	Wear ring (2)	Polyacetal	
25	Packing holder	Steel	Manganese phosphate	54	Cushion packing (2)	Nitrile rubber	
26	Pass-pipe gasket	Nitrile rubber		55	Head cover	Aluminum alloy	Black alumite
27	Pass-pipe (2)	Stainless steel		56	Conical spring washer	Steel	Black finish
28	Cylinder tube	Aluminum alloy	Hard alumite	57	Round nut (2)	Steel	Zinc chromate
29	Connection piston	Steel	Industrial chrome plating				

Note: This product cannot be disassembled.

Internal structure and parts list (ø63 to ø100)

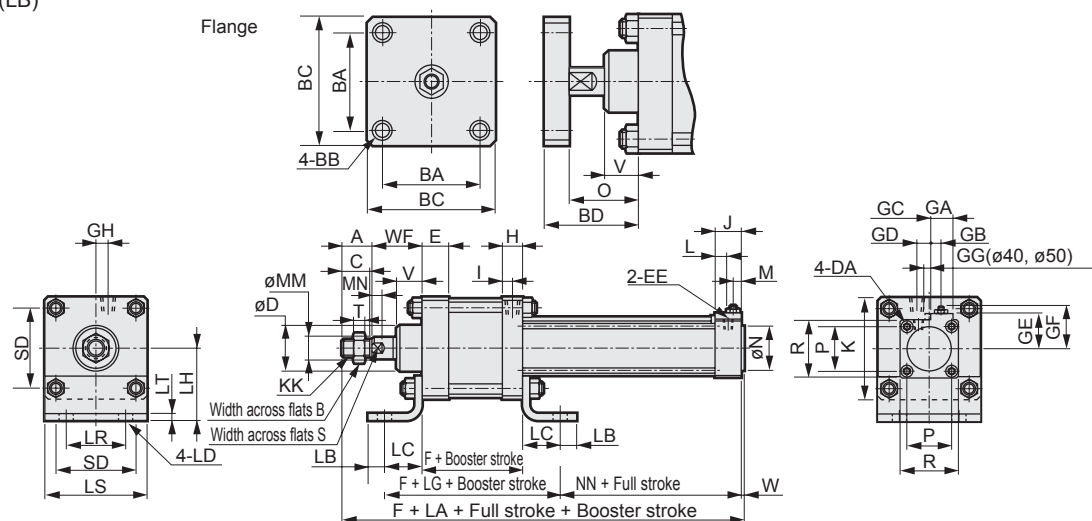


Cannot be disassembled

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	30	Piston packing (2)	Nitrile rubber	
2	Cap	Steel	Manganese phosphate	31	Magnet	Plastic	
3	Piston rod	Steel	Industrial chrome plating	32	Hexagon socket head cap screw	Steel	Black finish
4	Metal scraper	Copper alloy	G1 type only	33	Spring washer	Steel	Black finish
5	Dust wiper	Nitrile rubber		34	Cylinder gasket (2)	Nitrile rubber	
6	Rod packing (1)	Nitrile rubber		35	Piston (H)	Aluminum alloy	
7	Rod cover	Aluminum alloy	Black alumite	36	Needle nut	Copper alloy	Zinc chromate
8	Bush	Copper alloy casting	Oil impregnation	37	Cushion needle	Copper alloy	
9	Hexagon socket set screw	Alloy steel	Black finish	38	Needle gasket	Nitrile rubber	
10	Spring pin	Steel		39	FA flange	Steel	Electrodeposition
11	Check ball	Alloy steel		40	C-snap ring	Steel	
12	Fixed orifice	Copper alloy		41	Booster piston (A)	Alloy steel	
13	Cylinder gasket (1)	Nitrile rubber		42	Booster piston (B)	Steel	Zinc chromate
14	Compression spring	Steel	Electrodeposition	43	Gasket	Nitrile rubber	
15	Booster pipe	Aluminum alloy	Hard alumite	44	Tie rod (1)	Steel	Zinc chromate
16	Pass-pipe (1)	Stainless steel		45	Valve seat	Copper alloy	
17	Wear ring (1)	Polyacetal		46	Intermediate cover	Aluminum alloy	Black alumite
18	Piston packing (1)	Nitrile rubber		47	Toothed washer	Steel	Zinc chromate
19	Cushion packing (1)	Nitrile rubber		48	Hexagon nut	Steel	Zinc chromate
20	Steel ball bearing	Nitrile rubber		49	Connection collar	Alloy steel	
21	Steel ball	Alloy steel		50	Tie rod (2)	Steel	Zinc chromate
22	Seal cushion	Urethane rubber		51	Piston (R)	Aluminum alloy	
23	Ball stopper	Steel		52	Piston gasket	Nitrile rubber	
24	Rod packing (2)	Nitrile rubber		53	Wear ring (2)	Polyacetal	
25	Packing holder	Steel	Manganese phosphate	54	Cushion packing (2)	Nitrile rubber	
26	Pass-pipe gasket	Nitrile rubber		55	Head cover	Aluminum alloy	Black alumite
27	Pass-pipe (2)	Stainless steel		56	Conical spring washer	Steel	Black finish
28	Cylinder tube	Aluminum alloy	Hard alumite	57	Round nut	Steel	Zinc chromate
29	Connection piston	Steel	Industrial chrome plating				

Note: This product cannot be disassembled.

- Axial foot (LB)

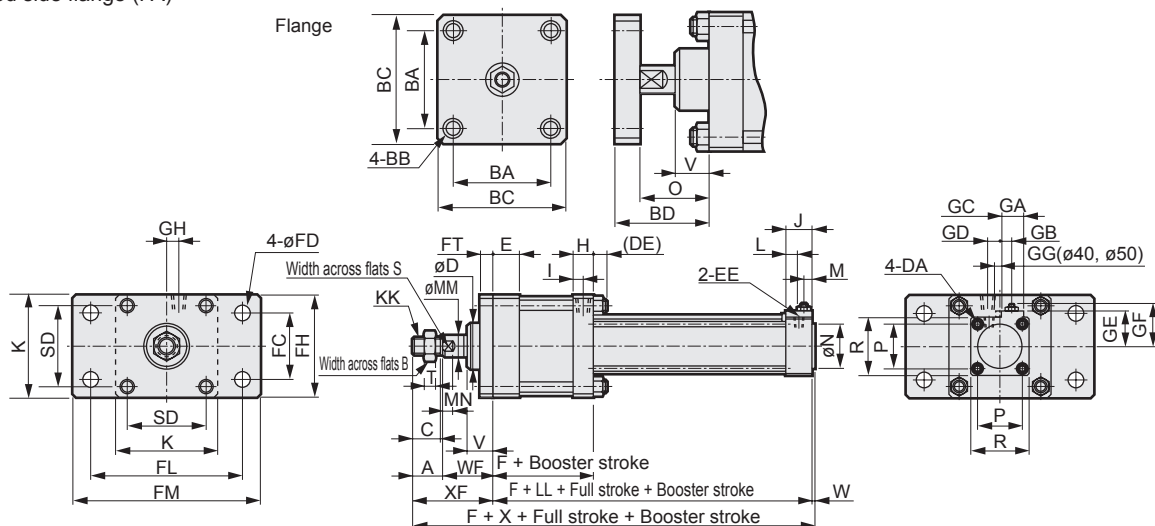


*3 : For the dimensions of the accessories, refer to page 1163.

*2 : For dimensions with bellows, refer to page 1162.

Bore size (mm)	A	B	BA	BB	BC	BD	C	D	DA	E	EE	F	GA	GB	GC	GD	GE	GF	GH	H	I	J	K	KK	
ø40	36	32	50	M12	74	68	34	ø43	M8	35	Rc1/8	84.5	26	4	-	8.5	36.5	47.5	12	18	10	26	98	M22x1.5	
ø50	45	41	60	M12	90	75	43	ø51	M8	36	Rc1/4	90.5	30	2	-	10	43	53.5	16	22	11.5	32	118	M26x1.5	
ø63	50	46	80	M14	110	74	47	ø57	M8	33	Rc1/4	90	32	9	1	13	48	58	13	24	13	30	140	M30x1.5	
ø80	56	55	110	M16	142	89	53	ø62.5	M12	34	Rc3/8	105	38	8	1	16	59	69	15	28	15	34	177	M36x1.5	
ø100	72	70	130	M20	175	100	69	ø75	M12	37	Rc3/8	110.5	41	12.5	5	20	71	81	20	26	13	37	220	M45x1.5	
Bore size (mm)	L	LA	LB	LC	LD	LG	LH	LR	LS	LT	M	MM	MN	N	NN	O	P	S	SD	T	V	W	WF	GG	R
ø40	7	151.5	14	37	14	74	60	74	98	6	8	ø25	14	ø31	28.5	52	40.5	23	74	13	24	2	48	20	57
ø50	9	173.5	21	31	14	62	67	80	118	6	9	ø30	17	ø38	42.5	54	48	26	90	16	24	2	53	20	69
ø63	15	189	20	45	19	90	85	100	140	7	10	ø35	20	ø38	28	53	59	31	110	18	21	3	63	-	80
ø80	17	215.5	20	53	19	106	106	118	177	10	11	ø40	26	ø43	34.5	64	74	36	142	21	24	2	70	-	98
ø100	22	257	27	62	24	124	132	150	220	12	15	ø50	26	ø51	34	71	90	46	175	27	30	2	87	-	118

- Rod side flange (FA)



*3 : For the dimensions of the accessories, refer to page 1163.

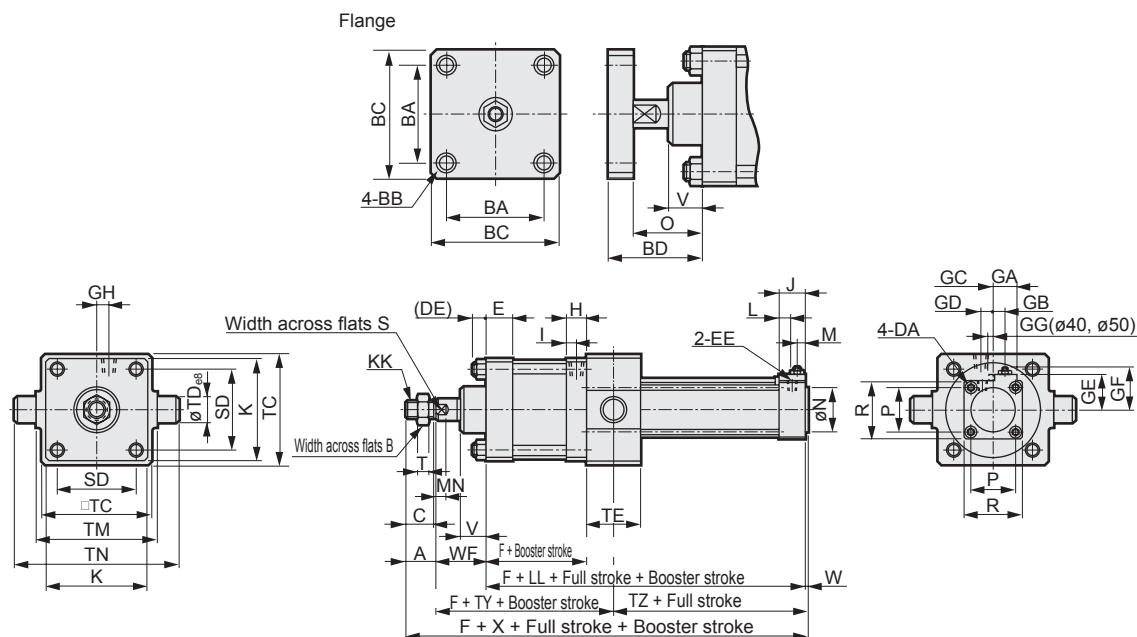
*2 : For dimensions with bellows, refer to page 1162.

Bore size (mm)	A	B	BA	BB	BC	BD	C	D	DA	DE	E	EE	F	FC	FD	FH	FL	FM	FT	GA	GB	GC	GD	GE	GF
ø40	36	32	50	M12	74	68	34	ø43	M8	-	35	Rc1/8	84.5	74	14	98	125	153	19	26	4	-	8.5	36.5	47.5
ø50	45	41	60	M12	90	75	43	ø51	M8	-	36	Rc1/4	90.5	88	14	118	144	180	19	30	2	-	10	43	53.5
ø63	50	46	80	M14	110	74	47	ø57	M8	18	33	Rc1/4	90	100	19	140	190	230	14	32	9	1	13	48	58
ø80	56	55	110	M16	142	89	53	ø62.5	M12	20	34	Rc3/8	105	118	19	177	236	280	19	38	8	1	16	59	69
ø100	72	70	130	M20	175	100	69	ø75	M12	24	37	Rc3/8	110.5	150	24	220	280	330	25	41	12.5	5	20	71	87
Bore size (mm)	GH	H	I	J	K	KK	L	LL	M	MM	MN	N	O	P	R	S	SD	T	V	W	WF	X	XF	GG	
ø40	12	18	10	26	98	M22x1.5	7	65.5	8	ø25	14	ø31	52	40.5	57	23	74	13	24	2	48	151.5	84	20	
ø50	16	22	11.5	32	118	M26x1.5	9	73.5	9	ø30	17	ø38	54	48	69	26	90	16	24	2	53	173.5	98	20	
ø63	13	24	13	30	140	M30x1.5	15	73	10	ø35	20	ø38	53	59	80	31	110	18	21	3	63	189	113	-	
ø80	15	28	15	34	177	M36x1.5	17	87.5	11	ø40	26	ø43	64	74	88	36	142	21	24	2	70	215.5	126	-	
ø100	20	26	13	37	220	M45x1.5	22	96	15	ø50	26	ø51	71	90	118	46	175	27	30	2	87	257	159	-	

Dimensions [rod side trunnion (TA)]



● Rod side trunnion (TA)



*1 : GG dimension applies to ø40 and ø50.

*2 : Since it would hit the trunnion, a switch cannot be installed at the forward end.

*3 : A piping port cannot be attached on the side where the trunnion shaft is protruding out.

*4 : For dimensions with bellows, refer to page 1162.

*5 : For the dimensions of the accessories, refer to page 1163.

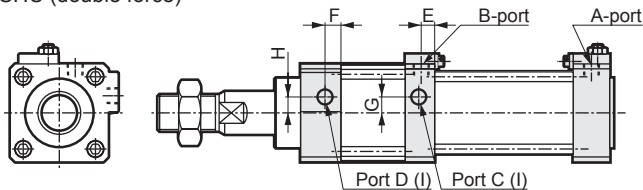
Bore size (mm)	A	B	BA	BB	BC	BD	C	D	DA	DE	E	EE	F	GA	GB	GC	GD	GE	GF	GH	H	I	J	K	
ø40	36	32	50	M12	74	68	34	ø43	M8	-	35	Rc1/8	84.5	26	4	-	8.5	36.5	47.5	12	18	10	26	98	
ø50	45	41	60	M12	90	75	43	ø51	M8	-	36	Rc1/4	90.5	30	2	-	10	43	53.5	16	22	11.5	32	118	
ø63	50	46	80	M14	110	74	47	ø57	M8	18	33	Rc1/4	90	32	9	1	13	48	58	13	24	13	30	140	
ø80	56	55	110	M16	142	89	53	ø62.5	M12	20	34	Rc3/8	105	38	8	1	16	59	69	15	28	15	34	177	
ø100	72	70	130	M20	175	100	69	ø75	M12	24	37	Rc3/8	110.5	41	12.5	5	20	71	81	20	26	13	37	220	
Bore size (mm)	KK	L	LL	M	MM	MN	N	O	P	R	S	SD	T	TC	TD	TE	TM	TN	TY	TZ	V	W	WF	X	GG
ø40	M22x1.5	7	65.5	8	ø25	14	ø31	52	40.5	57	23	74	13	100	25	40	115	165	68	47.5	24	2	48	151.5	20
ø50	M26x1.5	9	73.5	9	ø30	17	ø38	54	48	69	26	90	16	121	35	50	135	205	78	50.5	24	2	53	173.5	20
ø63	M30x1.5	15	73	10	ø35	20	ø38	53	59	80	31	110	18	150	32	50	170	234	88	51	21	3	63	189	-
ø80	M36x1.5	17	87.5	11	ø40	26	ø43	64	74	98	36	142	21	190	40	60	212	292	100	59.5	24	2	70	215.5	-
ø100	M45x1.5	22	96	15	ø50	26	ø51	71	90	118	46	175	27	242	45	70	265	355	122	63	30	2	87	257	-

LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

SHC/SHC-K Series

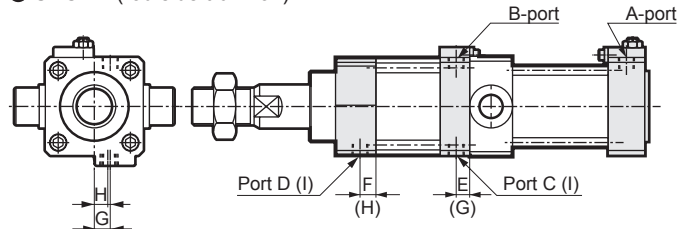
Booster single control port position dimensions (option)

● SHC (double force)

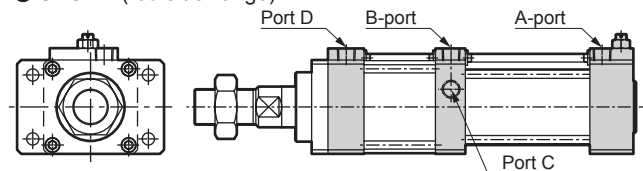


Bore size (mm)	E	F	G	H	2-I
ø40	10	11	10	2	Rc1/8
ø50	11	13	13	5	Rc1/4
ø63	13	17.5	14	9.5	Rc1/4
ø80	14	17	18	12	Rc3/8
ø100	13	19	26	15	Rc3/8

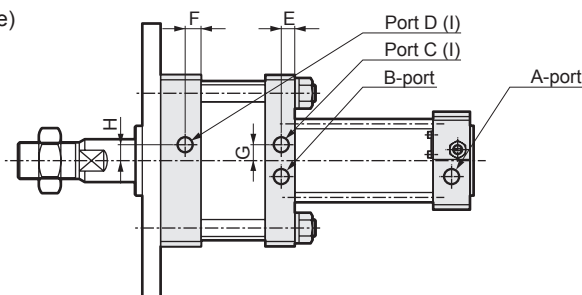
● SHC-TA (rod side trunnion)



● SHC-FA (rod side flange)



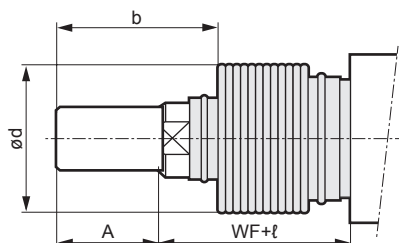
● SHC-K (quad force)



Bore size (mm)	E	F	G	H	2-I
ø40	8	10	6	6	Rc1/8
ø50	10.5	11	6	6	Rc1/4
ø63	13	13	13	13	Rc1/4
ø80	14	14	14	14	Rc3/8
ø100	13	13	21	42	Rc3/8

Dimensions with bellows (common to SHC and SHC-K)

● Standard



● SHC

Bore size (mm)	A	b	d	WF
ø40	36	51.5	53	42
ø50	45	65	61	47
ø63	50	80	75	55.5
ø80	56	88	80	61
ø100	72	108	95	71

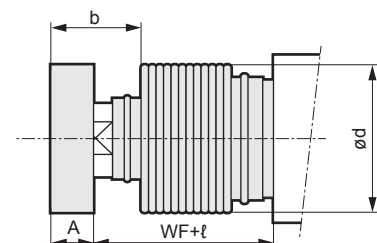
Bore size (mm)	ℓ							
ø40	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	14	26	38	49	72	96	119	(Full stroke/4.3) + 2.5
ø50	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	20	32	42	53	76	98	120	(Full stroke/4.5) + 9
ø63	(Full stroke/4.55) + 11							
ø80	(Full stroke/5.15) + 9							
ø100	(Full stroke/5.3) + 9							

● SHC-K

Bore size (mm)	A	b	d	WF
ø40	36	51.5	53	42
ø50	45	65	61	47
ø63	50	80	75	55.5
ø80	56	88	80	61
ø100	72	108	95	71

Bore size (mm)	ℓ							
ø40	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	14	26	38	49	72	96	119	(Full stroke/4.3) + 2.5
ø50	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	20	32	42	53	76	98	120	(Full stroke/4.5) + 9
ø63	(Full stroke/4.55) + 11							
ø80	(Full stroke/5.15) + 9							
ø100	(Full stroke/5.3) + 9							

● Rod end flange



● SHC

Bore size (mm)	A	b	d	WF
ø40	16	35.5	53	46
ø50	21	42	61	48
ø63	21	41	75	45.5
ø80	25	51	80	56
ø100	29	49	95	55

Bore size (mm)	ℓ							
ø40	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	14	26	38	49	72	96	119	(Full stroke/4.3) + 2.5
ø50	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	20	32	42	53	76	98	120	(Full stroke/4.5) + 9
ø63	(Full stroke/4.55) + 11							
ø80	(Full stroke/5.15) + 9							
ø100	(Full stroke/5.3) + 9							

● SHC-K

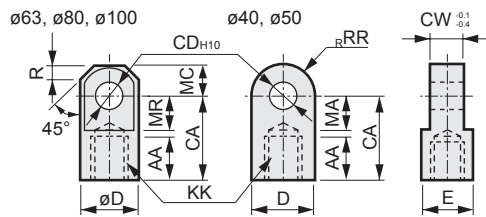
Bore size (mm)	A	b	d	WF
ø40	16	35.5	53	46
ø50	21	42	61	48
ø63	21	41	75	45.5
ø80	25	51	80	56
ø100	29	49	95	55

Bore size (mm)	ℓ							
ø40	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	14	26	38	49	72	96	119	(Full stroke/4.3) + 2.5
ø50	50 or less	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 or more
	20	32	42	53	76	98	120	(Full stroke/4.5) + 9
ø63	(Full stroke/4.55) + 11							
ø80	(Full stroke/5.15) + 9							
ø100	(Full stroke/5.3) + 9							

Accessory dimensions (rod eye/clevis bracket/pin)

● Rod eye (I)

Material: Cast iron Painting

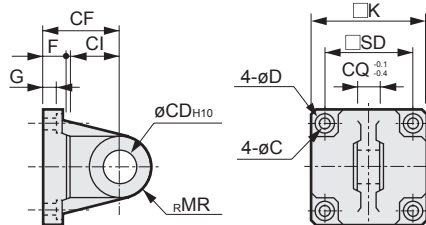


Model No.	Bore size (mm)	AA	CA	CD	CW	D	E	KK	MA	MC	R	RR	Weight (kg)
SHC-I-40	ø40	30	70	20	28	46	41	M22x1.5	30	-	-	25	0.83
SHC-I-50	ø50	30	70	20	28	46	41	M26x1.5	30	-	-	25	0.83
SHC-I-63	ø63	50	85	25	32	55	-	M30x1.5	32	27.5	15.5	-	1.2
SHC-I-80	ø80	60	105	32	40	70	-	M36x1.5	40	35	21	-	2.5
SHC-I-100	ø100	75	125	40	50	85	-	M45x1.5	47.5	42.5	29	-	4.2

A) Second bracket for clevis

Material: Cast iron Painting

● Eye bracket (B11)

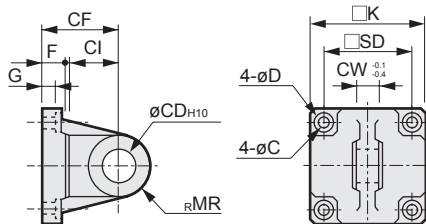


Model No.	Bore size (mm)	C	CD	CF	CI	CQ	D	F	G	K	MR	SD	Weight (kg)
SHC-B11-40	ø40	9	12	32	18	18	14	10	6.5	57	12	40.5	0.27
SHC-B11-50	ø50	9	12	32	18	18	14	10	6.5	66	12	48	0.33
SHC-B11-63	ø63	9	14	37	24	20	14	10	7.5	80	16	59	0.54
SHC-B11-80	ø80	14	20	52	30	28	20	14	10.5	98	20	74	1.3
SHC-B11-100	ø100	14	20	52	30	28	20	16	10.5	118	20	90	1.7

B) Second bracket for rod eye

Material: Cast iron Painting

● Eye bracket (B12)

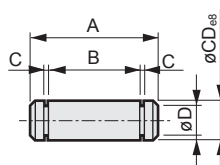


Model No.	Bore size (mm)	C	CD	CF	CI	CW	D	F	G	K	MR	SD	Weight (kg)
SHC-B12-40	ø40	14	20	52	30	28	20	14	10.5	98	20	74	1.3
SHC-B12-50	ø50	14	20	52	30	28	20	16	10.5	118	20	90	1.7
SHC-B12-63	ø63	16	25	63	35	32	23	20	18	140	25	110	2.3
SHC-B12-80	ø80	18	32	75	40	40	26	24	22	174	32	142	4.6
SHC-B12-100	ø100	22	40	90	55	50	32	30	28	220	40	175	8.9

Clevis pin

● Pin (P)

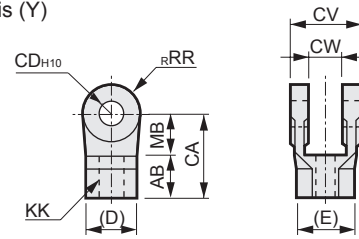
Material: Carbon steel
Zinc chromate treatment



Model No.	Applicable bore size (mm)	A	B	C	D	CD	Applicable snap ring	Weight (kg)
S1-P-40	ø40,50	43.5	36.3	1.15	11.5	12	C type for shaft 12	0.04
S1-P-63	ø63	47.5	40.2	1.15	13.4	14	C type for shaft 14	0.04
S1-P-80	ø80,100	64	56.2	1.35	19	20	C type for shaft 20	0.16

● Rod clevis (Y)

Material: Cast iron Painting

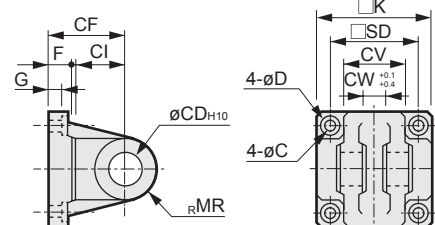


Model No.	Bore size (mm)	AB	CA	CD	CW	CV	D	E	KK	MB	RR	Weight (kg)
SHC-Y-40	ø40	35	70	20	28	56	41	47.3	M22x1.5	30	25	0.7
SHC-Y-50	ø50	35	70	20	28	56	41	47.3	M26x1.5	30	25	0.7
SHC-Y-63	ø63	50	85	25	32	64	46	53.1	M30x1.5	35	27.5	1
SHC-Y-80	ø80	60	105	32	40	80	55	63.5	M36x1.5	45	35	2
SHC-Y-100	ø100	75	125	40	50	100	70	80.8	M45x1.5	50	42.5	3.7

Note: A pin and a snap ring are attached.

● Clevis bracket (B21)

Material: Cast iron Painting

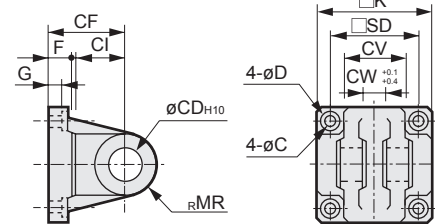


Model No.	Bore size (mm)	C	CD	CF	CI	CV	CW	D	F	G	K	MR	SD	Weight (kg)
SHC-B21-40	ø40	9	12	32	18	36	18	14	10	6.5	57	12	40.5	0.28
SHC-B21-50	ø50	9	12	32	18	36	18	14	10	6.5	66	12	48	0.33
SHC-B21-63	ø63	9	14	37	24	40	20	14	10	7.5	80	16	59	0.53
SHC-B21-80	ø80	14	20	52	30	56	28	20	14	10.5	98	20	74	1.3
SHC-B21-100	ø100	14	20	52	30	56	28	20	16	10.5	118	20	90	1.7

Note: A pin and a snap ring are attached.

● Clevis bracket (B22)

Material: Cast iron Painting



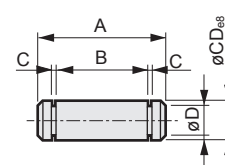
Model No.	Bore size (mm)	C	CD	CF	CI	CV	CW	D	F	G	K	MR	SD	Weight (kg)
SHC-B22-40	ø40	14	20	52	30	56	28	20	14	10.5	98	20	74	1.3
SHC-B22-50	ø50	14	20	52	30	56	28	20	16	10.5	118	20	90	1.7
SHC-B22-63	ø63	16	25	63	35	64	32	23	20	18	140	25	110	2.6
SHC-B22-80	ø80	18	32	75	40	80	40	26	24	22	174	32	142	5
SHC-B22-100	ø100	22	40	90	55	100	50	32	30	28	220	40	175	9.2

Note: A pin and a snap ring are attached.

Pin for rod eye

● Pin (P)

Material: Carbon steel
Zinc chromate treatment



Model No.	Applicable bore size (mm)	A	B	C	D	CD	Applicable snap ring	Weight (kg)
S1-P-80	ø40,50	64	56.2	1.35	19	20	C type for shaft 20	0.16
SCS-125-P	ø63	75	66.3	1.35	23.9	25	C type for shaft 25	0.27
SCS-160-P	ø80	92	82.7	1.65	30.3	32	C type for shaft 32	0.56
SCS-180-P	ø100	115	103.2	1.9	38	40	C type for shaft 40	1.1