

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  
MechHnd/Chuk  
ShkAbs  
FJ  
FK  
SpdContr  
Ending



High energy absorption cylinder Double acting/single rod

# HCM Series

● Bore size:  $\phi 20/\phi 25/\phi 32/\phi 40/\phi 50/\phi 63$

JIS symbol



## Specifications

Descriptions	HCM					
	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
Bore size mm	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
Actuation	Double acting					
Working fluid	Compressed air					
Max. working pressure MPa	1.0 ( $\approx 150$ psi, 10 bar)					
Min. working pressure MPa	0.15 ( $\approx 22$ psi, 1.5 bar)					
Proof pressure MPa	1.6 ( $\approx 230$ psi, 16 bar)					
Ambient temperature $^{\circ}\text{C}$	-10 ( $14^{\circ}\text{F}$ ) to 60 ( $140^{\circ}\text{F}$ ) (no freezing)					
Port size	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
Stroke tolerance mm	$^{+2.0}_0$			$^{+2.0}_0$		
Working piston speed mm/s	50 to 2000 (Operate within the allowable absorbed energy.)					
Cushion	With air cushion					
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)					
Max absorbed energy J *1 With air cushion	3	5	9	14	23	30
Effective air cushion length mm	56.5	56.5	56.5	55.5	58.5	58.5

\*1 : If kinetic energy exceeds these values, consider using a separate shock absorber.  
Refer to pages 954 to 957 for energy calculation and size selection.

## Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
$\phi 20$	200 to 700	700	1
$\phi 25$			
$\phi 32$			
$\phi 40$	200 to 1000	1000	
$\phi 50$			
$\phi 63$			

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

\*2 : Consult with CKD about stroke lengths other than the above.

\*3 : The stroke is available from 1 mm. However, this product's cushion area is longer than a typical cylinder, allowing high absorbed energy. Therefore, at the stroke length below or less, the cushion is usually applied, and the effects of high-speed use cannot be obtained.

Model No.	Stroke at which high-speed effects cannot be obtained	Recommended stroke length
HCM	150 mm stroke length or less	300 mm stroke length or more

## Number of installed switches and min. stroke length (mm)

Switch quantity	1		2		3		4		5	
	Proximity	Reed	Proximity	Reed	Proximity	Reed	Proximity	Reed	Proximity	Reed
$\phi 20$	10		25		40	50	55		75	85
$\phi 25$	10		25		40	50	55		75	85
$\phi 32$	10		25		40	50	55		75	85
$\phi 40$	10		25		40	50	55		75	85
$\phi 50$	10		25		40	50	55		75	85
$\phi 63$	10		25		40	50	55		75	85

### Switch specifications

- 1-color/2-color display/for AC magnetic field proof

Descriptions	Proximity 2-wire		Proximity 2-wire				Proximity 3-wire				Reed 2-wire				Proximity 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		T2YD			
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	For programmable controller		
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	24 VDC ±10%
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	≤20 mA	5 to 50 mA	7 to 20 mA	7 to 10 mA	5 to 20 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)		Red/green 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				1 mA or less			
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 m:61 3 m:166 5 m:272				

\*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 : Switch for AC magnetic field (T2YD) cannot be used in DC magnetic field.

\*4 : The T0/T5 switch can also be used with 220 VAC. Contact CKD about working conditions.

\*5 : Dimensions depend on switch model No. Refer to Ending Page 18 for details.

### Cylinder weight

(Unit: kg)

Bore size (mm)		φ20	φ25	φ32	φ40	φ50	φ63
Product weight for 0 mm stroke length	Basic 00	0.33	0.47	0.62	0.98	1.58	2.27
	Axial foot LB	0.44	0.6	0.78	1.2	2.06	2.99
	Flange FA/FB	0.36	0.51	0.68	1.06	1.92	2.77
Switch weight (per 1 pc.)		Refer to the weight indicated in the switch specifications.					
Additional weight per stroke length without switch rail 100 mm		0.012	0.016	0.017	0.027	0.040	0.044
Additional weight per stroke length with switch rail 100 mm		0.014	0.018	0.019	0.029	0.042	0.046

[Example of calculation]

Product weight of HCM-LB-40B-500-T2H-D

Product weight for stroke length 0 mm	1.2 kg
Additional weight for stroke length 500 mm	$0.029 \times \frac{500}{100} = 0.145$ kg
Weight of 2 switches	$0.018 \times 2 = 0.036$ kg
Product weight	$1.2 + 0.145 + 0.036 = 1.381$ kg

### Theoretical thrust table

(Unit: N)

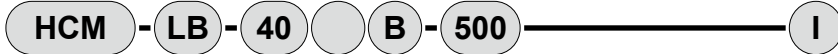
Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ20	Push	31.4	47.1	62.8	94.2	$1.26 \times 10^2$	$1.57 \times 10^2$	$1.88 \times 10^2$	$2.20 \times 10^2$	$2.51 \times 10^2$	$2.83 \times 10^2$	$3.14 \times 10^2$
	Pull	23.6	35.3	47.1	70.7	94.2	$1.18 \times 10^2$	$1.41 \times 10^2$	$1.65 \times 10^2$	$1.88 \times 10^2$	$2.12 \times 10^2$	$2.36 \times 10^2$
φ25	Push	49.1	73.6	98.2	$1.47 \times 10^2$	$1.96 \times 10^2$	$2.45 \times 10^2$	$2.95 \times 10^2$	$3.44 \times 10^2$	$3.93 \times 10^2$	$4.42 \times 10^2$	$4.91 \times 10^2$
	Pull	37.8	56.7	75.6	$1.13 \times 10^2$	$1.51 \times 10^2$	$1.89 \times 10^2$	$2.27 \times 10^2$	$2.64 \times 10^2$	$3.02 \times 10^2$	$3.40 \times 10^2$	$3.78 \times 10^2$
φ32	Push	80.4	$1.21 \times 10^2$	$1.61 \times 10^2$	$2.41 \times 10^2$	$3.22 \times 10^2$	$4.02 \times 10^2$	$4.83 \times 10^2$	$5.63 \times 10^2$	$6.43 \times 10^2$	$7.24 \times 10^2$	$8.04 \times 10^2$
	Pull	69.1	$1.04 \times 10^2$	$1.38 \times 10^2$	$2.07 \times 10^2$	$2.76 \times 10^2$	$3.46 \times 10^2$	$4.15 \times 10^2$	$4.84 \times 10^2$	$5.53 \times 10^2$	$6.22 \times 10^2$	$6.91 \times 10^2$
φ40	Push	$1.26 \times 10^2$	$1.88 \times 10^2$	$2.51 \times 10^2$	$3.77 \times 10^2$	$5.03 \times 10^2$	$6.28 \times 10^2$	$7.54 \times 10^2$	$8.80 \times 10^2$	$1.01 \times 10^3$	$1.13 \times 10^3$	$1.26 \times 10^3$
	Pull	$1.06 \times 10^2$	$1.58 \times 10^2$	$2.11 \times 10^2$	$3.17 \times 10^2$	$4.22 \times 10^2$	$5.28 \times 10^2$	$6.33 \times 10^2$	$7.39 \times 10^2$	$8.44 \times 10^2$	$9.50 \times 10^2$	$1.06 \times 10^3$
φ50	Push	$1.96 \times 10^2$	$2.95 \times 10^2$	$3.93 \times 10^2$	$5.89 \times 10^2$	$7.85 \times 10^2$	$9.82 \times 10^2$	$1.18 \times 10^3$	$1.37 \times 10^3$	$1.57 \times 10^3$	$1.77 \times 10^3$	$1.96 \times 10^3$
	Pull	$1.65 \times 10^2$	$2.47 \times 10^2$	$3.30 \times 10^2$	$4.95 \times 10^2$	$6.60 \times 10^2$	$8.25 \times 10^2$	$9.90 \times 10^2$	$1.15 \times 10^3$	$1.32 \times 10^3$	$1.48 \times 10^3$	$1.65 \times 10^3$
φ63	Push	$3.12 \times 10^2$	$4.68 \times 10^2$	$6.23 \times 10^2$	$9.35 \times 10^2$	$1.25 \times 10^3$	$1.56 \times 10^3$	$1.87 \times 10^3$	$2.18 \times 10^3$	$2.49 \times 10^3$	$2.81 \times 10^3$	$3.12 \times 10^3$
	Pull	$2.80 \times 10^2$	$4.20 \times 10^2$	$5.61 \times 10^2$	$8.41 \times 10^2$	$1.12 \times 10^3$	$1.40 \times 10^3$	$1.68 \times 10^3$	$1.96 \times 10^3$	$2.24 \times 10^3$	$2.52 \times 10^3$	$2.80 \times 10^3$

- 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

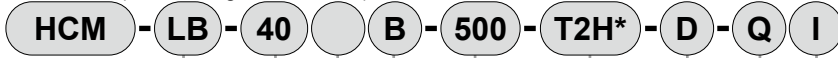
# HCM Series

## How to order

Without switch (built-in magnet for switch)



With switch (built-in magnet for switch)



**A** Mounting  
\*1

**B** Bore size

**C** Port thread

**D** Cushion

**E** Stroke length

**F** Switch model No.  
\*2

**G** Switch quantity

**H** Option

**I** Accessory  
\*3

Code	Content
<b>A Mounting</b>	
00	Basic
LB	Axial foot
FA	Rod side flange
FB	Head side flange

<b>B Bore size (mm)</b>	
20	φ20
25	φ25
32	φ32
40	φ40
50	φ50
63	φ63

<b>C Port thread</b>	
Blank	Rc thread
N	NPT thread (Custom order product)
G	G thread (Custom order product)

<b>D Cushion</b>	
B	Both sides cushioned
R	Rod side cushioned
H	Head side cushioned
N	Without cushion

<b>E Stroke length (mm)</b>		
Bore size	Stroke length	Custom stroke length
φ20 to φ32	1 to 700	In 1 mm
φ40 to φ63	1 to 1000	increments

<b>F Switch model No.</b>						
Axial lead wire	Radial lead wire	Contact	Voltage		Indicator	Lead wire
			AC	DC		
T0H*	T0V*	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)	3-wire
T3PH*	T3PV*		●	●		
T2WH*	T2WV*		●	●	2-color display	2-wire
T2YH*	T2YV*		●	●		
T3WH*	T3WV*		●	●	Strong magn field proof (For AC magnetic field)	2-wire
T3YH*	T3YV*	●	●			
T2YD*	-	●	●	Off-delay	2-wire	
T2YDT*	-	●	●			
T2JH*	T2JV*	●	●			

<b>* Lead wire length</b>	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option)

<b>G Switch quantity</b>	
R	1 on rod side
H	1 on head side
D	2
T	3
4	4
5	5

<b>H Option</b>	
Q	Switch rail attached at shipment
M	Piston rod material (stainless steel)

<b>I Accessory</b>	
I	Rod eye
Y	Rod clevis (pin and snap ring attached)

## ⚠ Precautions for model No. selection

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

\*2 : Switches other than **F** Switch model No. are also available.

(Custom order) Refer to Ending Page 1 for details.

\*3 : "I" and "Y" cannot be selected together.

[Example of model No.]

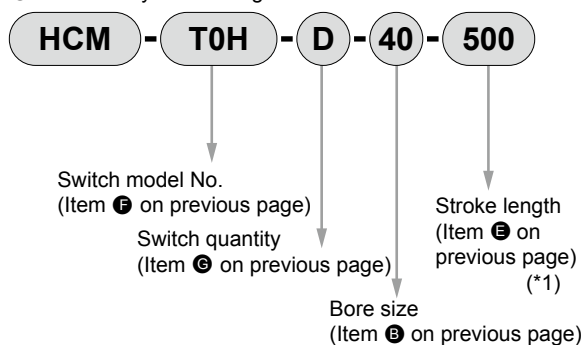
### HCM-LB-40B-500-T2H-D-QI

Model: High energy absorption cylinder double acting

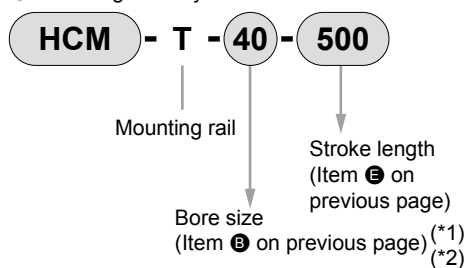
- A** Mounting : Axial foot
- B** Bore size : φ40 mm
- C** Port thread : Rc thread
- D** Cushion : Both sides cushioned
- E** Stroke length : 500 mm
- F** Switch model No.: Proximity T2H switch, lead wire 1 m
- G** Switch quantity : 2
- H** Option : Switch rail attached at shipment
- I** Accessory : Rod eye

### How to order switch

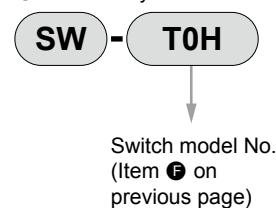
● Switch body + mounting rail set



● Mounting rail only



● Switch only



\*1 : Indicate X if the stroke length exceeds 300 mm. If exceeding 300 mm, a short rail (with 100 mm switch adjustment travel distance) will be included per switch.

\*2 : If indicating X when ordering mounting rails only, order the same number of rails as that of applicable switches.

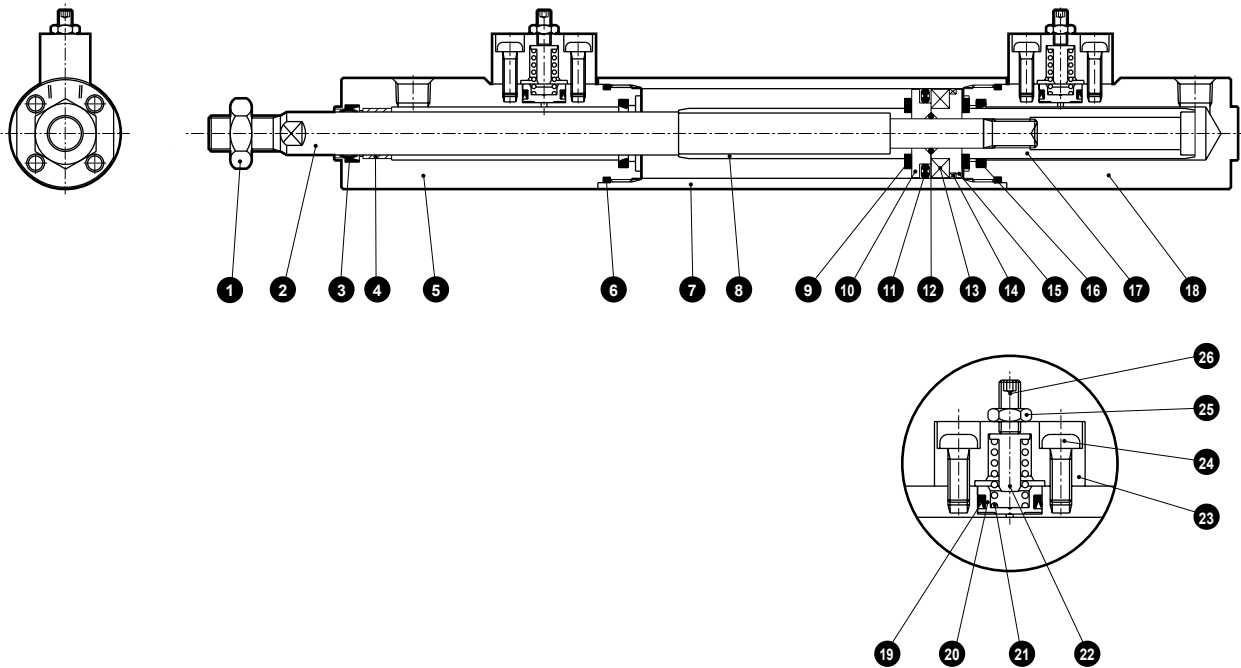
### Mounting bracket model No.

Bore size Mounting	Foot (LB)	Flange (FA/FB)
φ20	HCM-LB-20	HCM-FA-20
φ25	HCM-LB-25	HCM-FA-25
φ32	HCM-LB-32	HCM-FA-32
φ40	HCM-LB-40	HCM-FA-40
φ50	HCM-LB-50	HCM-FA-50
φ63	HCM-LB-63	HCM-FA-63

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

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
<b>HCM</b>
<b>HCA</b>
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

## Internal structure and parts list



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Nickeling	14	Wear ring	Resin	
2	Piston rod	φ20/φ25: Stainless steel φ32 to φ63: Steel	Industrial chrome plating	15	Piston (H)	Aluminum alloy	Chromate treatment
3	Rod packing	Nitrile rubber		16	Cushion packing	φ20 to φ32: Urethane φ40 to φ63: Urethane, steel	
4	Bush	Oil impregnated bearing alloy		17	Cushion ring (H)	Aluminum alloy	Chromate treatment
5	Rod cover	Aluminum alloy	Black alumite	18	Head cover	Aluminum alloy	Black alumite
6	Cylinder gasket	Nitrile rubber		19	Relief valve packing	Nitrile rubber	
7	Cylinder tube	Aluminum alloy	Hard alumite	20	Relief valve	Copper alloy	
8	Cushion ring (R)	Aluminum alloy	Chromate treatment	21	Spring	Steel	Electrodeposition
9	Cushion rubber	Urethane rubber		22	Spring collar	Steel	Chromate treatment
10	Piston (R)	Aluminum alloy	Chromate treatment	23	Relief valve holder	Aluminum alloy	Black alumite
11	Piston packing	Nitrile rubber		24	Cross-recessed pan head machine screw	Steel	Zinc chromate
12	Piston gasket	Nitrile rubber	φ25 to φ63	25	Hexagon nut	Steel	Black finish
13	Magnet	Plastic		26	Hexagon socket set screw	Steel	Black finish

## Repair parts list

Bore size (mm)	Kit No.	Repair parts No.
φ 20	HCM-20K	
φ 25	HCM-25K	
φ 32	HCM-32K	3 6 9 11 14
φ 40	HCM-40K	16 19
φ 50	HCM-50K	
φ 63	HCM-63K	

Note : Specify the kit No. when placing an order.

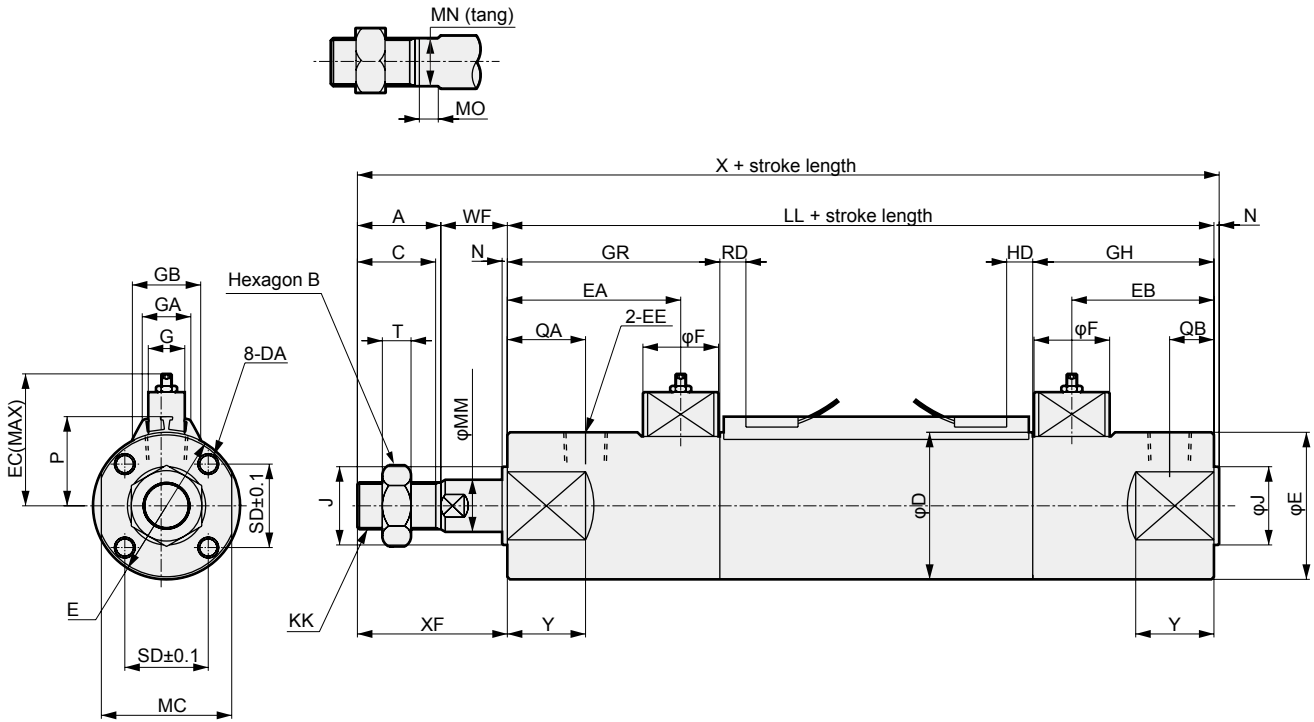
## Material and treatment of mounting bracket

Mounting	Material	Treatment
LB	Steel	Zinc chromate
FA/FB	φ20 to φ40	Aluminum alloy
	φ50/φ63	Steel

## Dimensions



● Basic (00)



Code	A	B	C	D	DA	E	EA	EB	EC	EE	F	G	J	KK	LL	MC	MM	MN	MO	N	
φ20	18	13	16	26	M4 depth 8	28	52	43	32.7	Rc1/8	29	14	13	M8	164	24	10	8	5	2	
φ25	20	17	18	31	M5 depth 9	31	56.5	47.5	34.5	Rc1/8	29	14	15	M10X1.25	173	27	12	10	6	2	
φ32	20	17	18	37	M5 depth 9	37	56.5	47.5	37.8	Rc1/4	29	14	18	M10X1.25	173	32	12	10	6	2	
φ40	26	22	24	46	M6 depth 10	46	62	51	47.3	Rc1/4	29	14	25	M14X1.5	186	41	16	14	7	2	
φ50	32	27	30	56.4	M8 depth 12	56.4	66.5	54.5	52.6	Rc3/8	29	14	30	M18X1.5	196	50	20	17	8	2	
φ63	32	27	30	69.4	M10 depth 15	69.4	66.5	54.5	59.3	Rc3/8	29	14	32	M18X1.5	196	60	20	17	8	2	
Code	QA	QB	SD	T	WF	X	XF	Y	GR	GH	GA	GB	P	T0/T5/T2/T3	T8	T2W/T3W	T1/T2/T2Y/T3Y/T2YD				
Bore size	RD	HD	RD	HD	RD	HD	RD	HD													
φ20	18	10	14	5	15.5	199.5	33.5	20	67	58	18	23	19.5	10	10	4	4	12	12	9	9
φ25	20	10	16.5	6	17	212	37	20	71.5	62.5	18	24.4	22	11	9	5	3	13	11	10	8
φ32	20	12	20	6	17	212	37	28	71.5	62.5	18	25	25	11	9	5	3	13	11	10	8
φ40	26	14	26	8	20.5	234.5	46.5	28	77	66	18	25.7	29.5	13	11	7	5	15	13	12	10
φ50	30	17	32	11	25.5	255.5	57.5	30	81.5	69.5	18	26.2	34.7	14	12	8	6	16	14	13	11
φ63	30	17	38	11	25.5	255.5	57.5	30	81.5	69.5	18	26.5	41.2	14	12	8	6	16	14	13	11

\*1 : Tube outer diameter φD and cover outer diameter φE are different for φ20 only.  
 \*2 : For the dimensions of the accessories, refer to page 953.

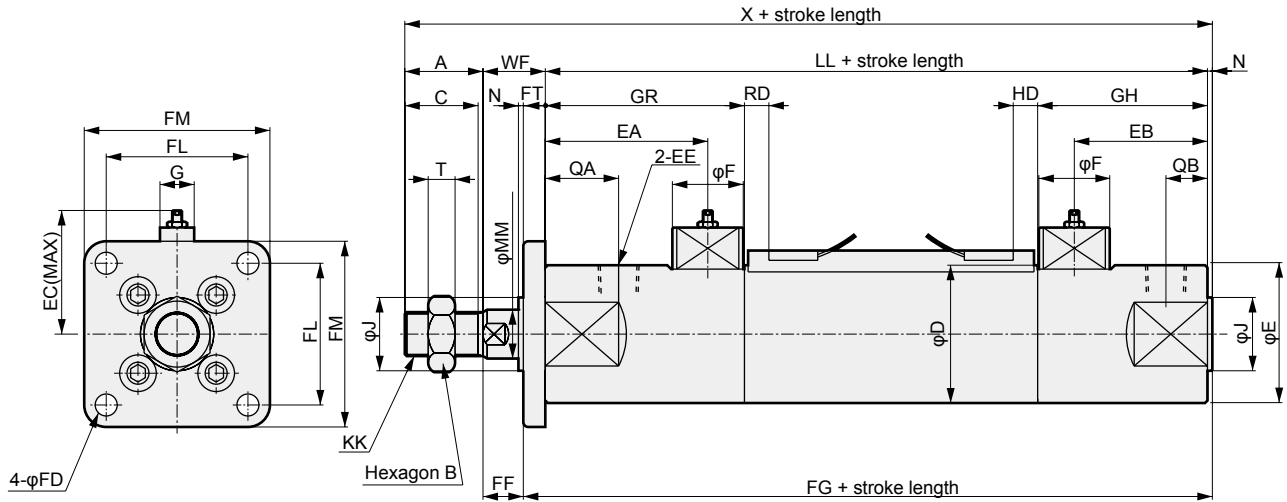
LCW  
 LCR  
 LCG  
 LCX  
 LCM  
 STM  
 STG  
 STS/STL  
 STR2  
 UCA2  
 ULK\*  
 JSK/M2  
 JSG  
 JSC3/JSC4  
 USSD  
 UFCD  
 USC  
 JSB3  
 LMB  
 LML  
**HCM**  
**HCA**  
 LBC  
 CAC4  
 UCAC2  
 CAC-N  
 UCAC-N  
 RCC2  
 RCS  
 PCC  
 SHC  
 MCP  
 GLC  
 MFC  
 BBS  
 RRC  
 GRC  
 RV3\* 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



## Dimensions



- Rod side flange (FA)



Code	A	B	C	D	E	EA	EB	EC	EE	F	FD	FF	FG	FL	FM	FT	G	J	KK	LL
φ20	18	13	16	26	28	52	43	32.7	Rc1/8	29	5.5	9.5	172	28	40	6	14	13	M8	164
φ25	20	17	18	31	31	56.5	47.5	34.5	Rc1/8	29	5.5	10	182	32	44	7	14	15	M10X1.25	173
φ32	20	17	18	37	37	56.5	47.5	37.8	Rc1/4	29	6.6	10	182	38	53	7	14	18	M10X1.25	173
φ40	26	22	24	46	46	62	51	47.3	Rc1/4	29	6.6	12.5	196	46	61	8	14	25	M14X1.5	186
φ50	32	27	30	56.4	56.4	66.5	54.5	52.6	Rc3/8	29	9	16.5	207	58	76	9	14	30	M18X1.5	196
φ63	32	27	30	69.4	69.4	66.5	54.5	59.3	Rc3/8	29	11	16.5	207	70	92	9	14	32	M18X1.5	196
Code	MM	N	QA	QB	T	WF	X	GR	GH	T0/T5/T2/T3		T8		T2W/T3W		T1/T2/T2Y/T3Y/T2YD				
Bore size										RD	HD	RD	HD	RD	HD	RD	HD			
φ20	10	2	18	10	5	15.5	199.5	67	58	10	10	4	4	12	12	9	9			
φ25	12	2	20	10	6	17	212	71.5	62.5	11	9	5	3	13	11	10	8			
φ32	12	2	20	12	6	17	212	71.5	62.5	11	9	5	3	13	11	10	8			
φ40	16	2	26	14	8	20.5	234.5	77	66	13	11	7	5	15	13	12	10			
φ50	20	2	30	17	11	25.5	255.5	81.5	69.5	14	12	8	6	16	14	13	11			
φ63	20	2	30	17	11	25.5	255.5	81.5	69.5	14	12	8	6	16	14	13	11			

\*1 : Tube outer diameter φD and cover outer diameter φE are different for φ20 only.  
 \*2 : For the dimensions of the accessories, refer to page 953.

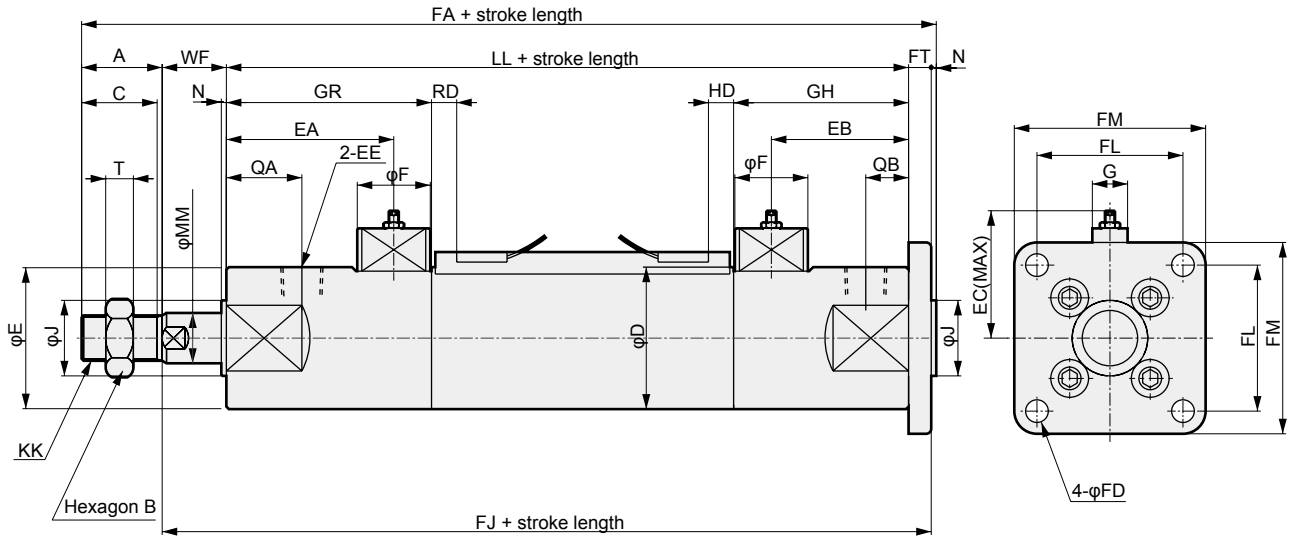
- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK\*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM**
- HCA**
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3\*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk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



## Dimensions



● Head side flange (FB)



Code	A	B	C	D	E	EA	EB	EC	EE	F	FA	FD	FJ	FL	FM	FT	G	J	KK
<b>Bore size</b>																			
φ20	18	13	16	26	28	52	43	32.7	Rc1/8	29	205.5	5.5	185.5	28	40	6	14	13	M8
φ25	20	17	18	31	31	56.5	47.5	34.5	Rc1/8	29	219	5.5	197	32	44	7	14	15	M10X1.25
φ32	20	17	18	37	37	56.5	47.5	37.8	Rc1/4	29	219	6.6	197	38	53	7	14	18	M10X1.25
φ40	26	22	24	46	46	62	51	47.3	Rc1/4	29	242.5	6.6	214.5	46	61	8	14	25	M14X1.5
φ50	32	27	30	56.4	56.4	66.5	54.5	52.6	Rc3/8	29	264.5	9	230.5	58	76	9	14	30	M18X1.5
φ63	32	27	30	69.4	69.4	66.5	54.5	59.3	Rc3/8	29	264.5	11	230.5	70	92	9	14	32	M18X1.5
Code	LL	MM	N	QA	QB	T	WF	GR	GH	T0/T5/T2/T3		T8		T2W/T3W		T1/T2/T3/T2YD			
<b>Bore size</b>										RD	HD	RD	HD	RD	HD	RD	HD		
φ20	164	10	2	18	10	5	15.5	67	58	10	10	4	4	12	12	9	9		
φ25	173	12	2	20	10	6	17	71.5	62.5	11	9	5	3	13	11	10	8		
φ32	173	12	2	20	12	6	17	71.5	62.5	11	9	5	3	13	11	10	8		
φ40	186	16	2	26	14	8	20.5	77	66	13	11	7	5	15	13	12	10		
φ50	196	20	2	30	17	11	25.5	81.5	69.5	14	12	8	6	16	14	13	11		
φ63	196	20	2	30	17	11	25.5	81.5	69.5	14	12	8	6	16	14	13	11		

\*1 : Tube outer diameter φD and cover outer diameter φE are different for φ20 only.

\*2 : For the dimensions of the accessories, refer to page 953.

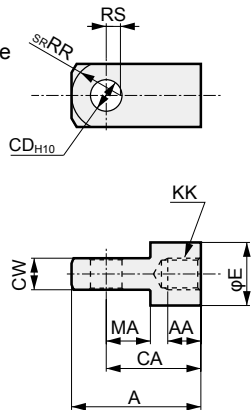
## Accessory dimensions

### Rod eye

● HCM-I-φ20 to φ25

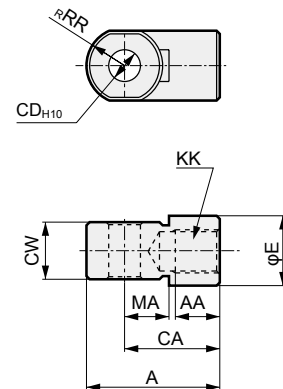


Material: Steel  
Zinc chromate treatment



● HCM-I-φ40 to φ63

Material: Cast iron  
Painting



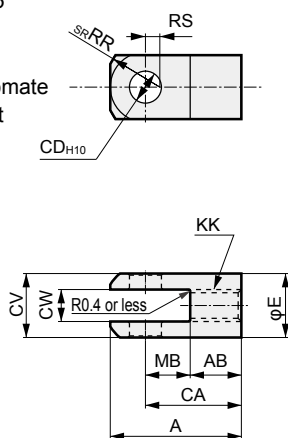
Model No.	Applicable bore size (mm)	A	AA	CA	CD	CW	E	KK	MA	RR	RS	Weight (g)
HCM-I-20	20	34	8.5	25	8	8 <sup>+0.2</sup> <sub>-0.4</sub>	16	M8	11.5	13.4	3.1	39
HCM-I-25	25/32	41	10.5	30	10	10 <sup>+0.2</sup> <sub>-0.4</sub>	20	M10×1.25	14	17.1	4.5	72
HCM-I-40	40	42	14	30	10	18 <sup>+0.3</sup> <sub>-0.5</sub>	22	M14×1.5	14	12	-	152
HCM-I-50	50/63	56	18	40	14	22 <sup>+0.3</sup> <sub>-0.5</sub>	28	M18×1.5	20	16	-	158

### Rod clevis

● HCM-Y-φ20 to φ25

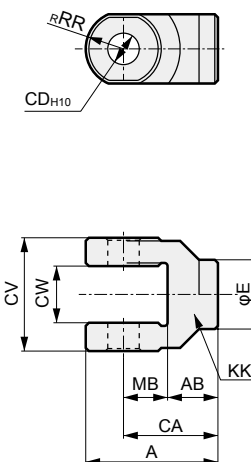


Material: Steel  
Zinc chromate treatment



● HCM-Y-φ40 to φ63

Material: Cast iron  
Painting

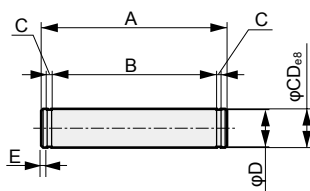


Model No.	Bore size (mm)	A	AB	CA	CD	CV	CW	E	KK	MB	RR	RS	Weight (g)	Applicable pin No.
HCM-Y-20	20	34	13.5	25	8	16	8 <sup>+0.2</sup> <sub>+0.4</sub>	16	M8	11.5	13.4	3.1	46	HCM-P-20
HCM-Y-25	25/32	41	16	30	10	20	10 <sup>+0.2</sup> <sub>+0.4</sub>	20	M10×1.25	14	17.1	4.5	85	HCM-P-25
HCM-Y-40	40	42	16	30	10	36	18 <sup>+0.3</sup> <sub>+0.5</sub>	22	M14×1.5	14	12	-	122	HCM-P-40
HCM-Y-50	50/63	56	20	40	14	44	22 <sup>+0.3</sup> <sub>+0.5</sub>	28	M18×1.5	20	16	-	258	HCM-P-50

Note : A pin and a snap ring are attached with the rod clevis.

### Pin for rod eye

Material: Steel  
Zinc chromate treatment



Model No.	Bore size (mm)	A	B	C	CD	D	E	Weight (g)	Applicable snap ring
HCM-P-20	20	21	16.2	0.9	8	7.6	1.5	9	C type for shaft 8
HCM-P-25	25/32	25.6	20.2	1.15	10	9.6	1.6	16	C type for shaft 10
HCM-P-40	40	41.6	36.2	1.15	10	9.6	1.6	26	C type for shaft 10
HCM-P-50	50/63	50.6	44.2	1.15	14	13.4	2.1	60	C type for shaft 14

Note : A pin and a snap ring are attached with the rod clevis.

- 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