GLC

Guideless Cylinder

ø40, ø50, ø63, ø80, ø100

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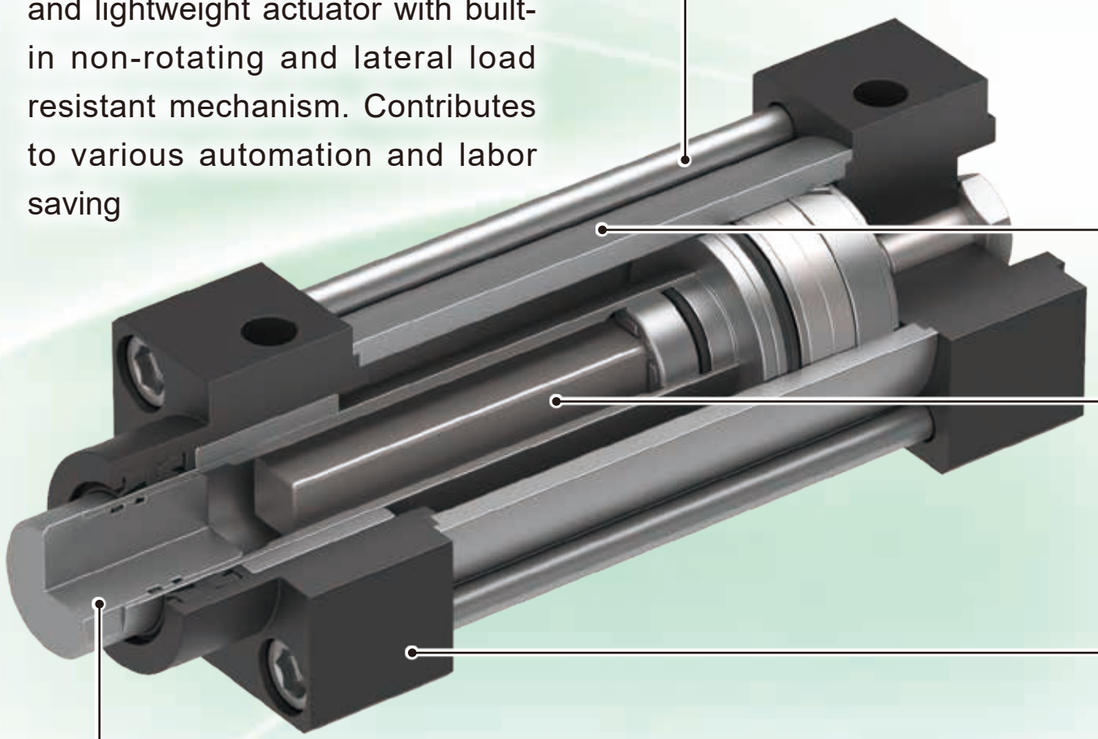
Demonstrates strength against lateral loads

High-performance cylinder (ø40 to ø100) that does not require a guide, adopting a non-rotating and lateral load resistant mechanism

Guideless cylinder is a compact and lightweight actuator with built-in non-rotating and lateral load resistant mechanism. Contributes to various automation and labor saving



R-type and H-type switches can be installed. Easy position confirmation.

R-type Switch

H-type Switch

Lightweight by adopting aluminum tube.

Built-in non-rotating mechanism with square non-rotating shaft and long width non-rotating plate (bearing). Contributes to device downsizing.

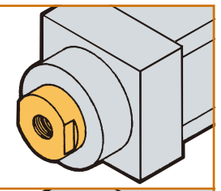
Lightweight by adopting aluminum material for cover and piston.

Adopts a thick Piston Rod that can sufficiently withstand lateral loads.

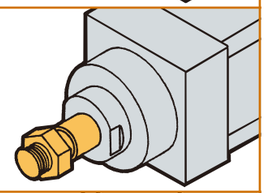
Selectable Rod End shape

The Rod End shape can be selected from female thread type (Blank), male thread type (N), and flange type (F) according to the application.

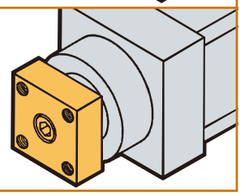
●Female Thread Type (Blank)



●Male thread (N)



●Flange (F)



High lateral load strength

Adopts a Piston Rod with a large shaft diameter. Can withstand large lateral loads.

Detection switch installable

Two types can be installed: solid state switch R-type and strong magnetic field proof switch H-type. Piston position can be easily confirmed.

Compact design

Built-in non-rotating mechanism. Achieves a compact body.

Lightweight

Aluminum material is used for parts other than strength parts. Achieves weight reduction.

Variation Table

Guideless Cylinder
GLC Series

●: Standard, ◎: Option, : Not available

Variation	Model No. Circuit Diagram Code	Bore Size (mm)	Standard Stroke (mm)					Stroke (mm)			Min Stroke (mm)	Max Stroke (mm)	Intermediate Stroke (per mm)	Mounting Type				Rod End shape			Piping Port Position				Switch	Page
			100	200	300	400	500	600	700	800				Basic type 00	Axial Foot Type LB	Rod side Flange Type FA	Head Side Flange Type FB	Female Thread Type Blank	Male Thread Type N	Flange type F	Upper side when viewed from rod side Blank	Right side when viewed from rod side R	Left side when viewed from rod side T	Lower side when viewed from rod side S		
Double Acting Type	GLC	ø40, ø50, ø63	●	●	●	●	●				5	500	5	●	●	●	●	●	◎	◎	●	◎	◎	◎	◎	1018
		ø80	●	●	●	●	●	●	●			700														
		ø100	●	●	●	●	●	●	●	●		800														

Special
MVC
STK
MCP
GLC
BBS
NHS
HR
LN
Cylinder Switch
Ending

Guideless Cylinder (Double Acting type)

GLC Series

● Equivalent Bore Size: ø40, ø50, ø63, ø80, ø100

Circuit Diagram Code

RoHS

Model No. Notation

Without Switch
(Built-in magnet for switch)

GLC - LB - 40 - 100 ——— N - R

Model No. ❶ ❷ ❸ ❻ ❼

With R-type Switch
(Built-in magnet for switch)

GLC - LB - 40 - 100 - R0 - R - N - R

Model No. ❶ ❷ ❸ ❹ ❺ ❻ ❼

H-type (Strong magnetic field) With Switch
(Built-in magnet for switch)

GLC-L2 - LB - 40 - 100 - H0 - R - N - R

Model No. ❷ Bore Size ❹ Switch Model No. ❻ Rod End shape

❶ Mounting type ❸ Stroke ❺ Number of Switches ❼ Piping Port Position

❶ Mounting Type

Mounting bracket is pre-assembled on the product at the time of shipment.

Code	Content	
00	Basic type	
LB	Axial foot type	
FA	Rod Side Flange Type	
FB	Head Side Flange Type	

❷ Bore Size (mm)

Code	Contents
40	ø40
50	ø50
63	ø63
80	ø80
100	ø100

❸ Stroke (mm)

Bore Size	Stroke	Intermediate Stroke
ø40	5 to 500	Every 5 mm
ø50	5 to 500	
ø63	5 to 500	
ø80	5 to 700	
ø100	5 to 800	

❹ Switch Model

For switch details, refer to P. 1457. Switches are pre-assembled on the product before shipment.

Contact	Indicator LED Special Function	Wiring (Output)	Load Voltage (V) AC	Load Voltage (V) DC	Load Current (mA) AC	Load Current (mA) DC	Lead wire *1 Straight	Lead wire *1 L-shape	
Solid State	1-Color	2-wire	85 to 265	—	5 to 100	—	R1□	R1B	
			—	10 to 30	-	5 to 30	R2□	R2B	
	1-Color	3-wire (NPN)	—	30 or less	—	200 or Less	R3□	R3B	
Reed	1-Color	2-wire	110/220	12/24	7 to 20/7 to 10	5 to 50	R0□	R0B	
	1-Color Lights up when OFF		110/220	—	20 to 220/ 10 to 200	—	R4□	R4B	
	Without Indicator Lamp		110/220	5/12/24	20/10 or less	50 or less	R5□	R5B	
	1-Color With DC self-holding function		—	24 ± 10%	—	5 to 50	R6□	R6B	
	1-Color For strong magnetic field	2-wire	110	12/24	7 to 20	5 to 50	H0□	—	

*1: Insert the code selected in the "*Lead wire length" table into "□" of the switch Model No..
*2: Switches other than the above switch Model No.s are also available. (Custom Product) For details, refer to P. 1457.

*** Lead wire length**

Code	Content
Blank	1 m (Standard)
3	3 m (Option)
5	5m (Option)

Example) Lead wire length
1 m R0
3 m R0 3
5 m R0 5

❺ Number of Switches

Code	Content
R	With 1 pc on rod side
H	With 1 pc on head side
D	With 2 pcs

❻ Rod End shape

Code	Content	
Blank	Female Thread Type	
N	Male Thread Type	
F	Flange type	

❼ Piping Port Position

Code	Content	
Blank	Upper side when viewed from rod side	Standard T R S
R	Right side when viewed from rod side	
T	Left side when viewed from rod side	
S	Lower side when viewed from rod side	

R-type Switch Single Unit Model No. Notation

A) Switch body+Mounting bracket

GLC - R0□ - 40

❹ Switch Model No. ❷ Bore Size

B) Switch body only

SW - R0□

❹ Switch Model No.

C) Mounting bracket set (ø50 to ø100: **Rubber plate** included)

GLC - R - 40

❷ Bore Size

D) Terminal box only

● For R□B

SW - RB

Note: When using cylinder switches R1□, R2□, R3□, please attach the included rubber plate to the bottom surface of the switch.
Number of sheets to attach
(ø40 : 0)
ø50 : 4
ø63 : 3
ø80 : 5
ø100 : 3

H type switch single item Model No. notation

A) Switch body+Mounting bracket set

GLC-L2 - H0□ - 40

❹ Switch Model No. ❷ Bore Size

B) Switch body only

SW - H0□

❹ Switch Model No.

C) Mounting bracket set

GLC-L2 - H - 40

❷ Bore Size

Specifications

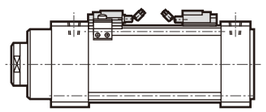
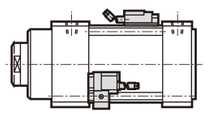
Item		GLC				
Bore Size	mm	ø40	ø50	ø63	ø80	ø100
Actuation method		Double Acting Type				
Operating Fluid		Compressed Air				
Max Operating Pressure	MPa	1.0				
Min Operating Pressure	MPa	0.15				
Proof Pressure	MPa	1.6				
Ambient Temperature	°C	-10 to 60 (No freezing)				
Port size	Rc	1/8	1/4		3/8	
Stroke Tolerance	mm	$^{+0.5}_{0}$ (Stroke 300 or less), $^{+1.0}_{0}$ (Stroke exceeding 300)				
Operating Piston Speed	mm/s	50 to 500 (Please use within the allowable absorbed energy.)				
Cushion		Rubber Cushion				
Lubrication		Not required (When lubricating, use turbine oil type 1 ISO VG32)				
Allowable Absorbed Energy	J	0.73	1.01	2.42	4.63	9.94

Stroke

Bore Size (mm)	Standard Stroke (mm)	Maximum Stroke (mm)	Min Stroke (mm)
ø40	100, 200, 300, 400, 500	500	5 (*2)
ø50			
ø63			
ø80	100, 200, 300, 400, 500, 600, 700	700	
ø100	100, 200, 300, 400, 500, 600, 700, 800	800	

*1: Intermediate strokes can be manufactured in 5 mm increments.
*2: For models with switch, the minimum stroke changes depending on the mounting method. Refer to the table below.

Minimum stroke with switch

Diagram	When mounting on the same surface		When mounting on different surfaces	
				
I.D.	R-type Switch	H-type Switch	R-type Switch	H-type Switch
ø40	34	34	20	25
ø50				
ø63	20	25		
ø80				
ø100				

Cylinder Weight

(Unit: kg)

Bore Size (mm)	Product weight at stroke (S) 0 mm			Switch Weight	Mounting Bracket Weight		Added weight per S = 50 mm	Added weight for N-type	Added weight for F-type
	Basic type (00)	Axial Foot Type (LB)	Flange Type (FA/FB)		R-type	H type			
ø40	1.15	1.3	1.4	Refer to the weight listed in the switch specifications on P. 1457.	0.023	0.028	0.3	0.07	0.17
ø50	1.68	1.8	2.24		0.021	0.026	0.48	0.09	0.3
ø63	2.4	2.7	3.0		0.019	0.024	0.6	0.13	0.35
ø80	4.4	4.8	5.5		0.025	0.029	0.97	0.24	1.0
ø100	6.93	7.8	9.0		0.023	0.028	1.02	0.46	1.4

(Example) Product weight of GLC-00-40-200-R0-D-R

- Product weight for 0 mm stroke.....1.15 Kg
- Additional weight for stroke 200 mm.....$0.3 \times \frac{200}{50} = 1.2$ Kg
- Weight of 2 R0 switches.....0.042×2=0.084 Kg
- Weight of 2 mounting brackets .....0.023×2=0.046 Kg
- Product weight .....1.15+1.2+0.084+0.046=2.480 Kg

Theoretical Thrust Table

(Unit: N)

Bore Size (mm)	Operating Direction	Operating Pressure MPa									
		0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø40	Push	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	1.14×10^{2}	1.53×10^{2}	2.30×10^{2}	3.06×10^{2}	3.83×10^{2}	4.59×10^{2}	5.36×10^{2}	6.13×10^{2}	6.89×10^{2}	7.66×10^{2}
ø50	Push	2.94×10^{2}	3.93×10^{2}	5.89×10^{2}	7.85×10^{2}	9.82×10^{2}	1.18×10^{3}	1.37×10^{3}	1.57×10^{3}	1.77×10^{3}	1.96×10^{3}
	Pull	1.50×10^{2}	2.00×10^{2}	3.00×10^{2}	4.01×10^{2}	5.01×10^{2}	6.01×10^{2}	7.01×10^{2}	8.01×10^{2}	9.01×10^{2}	1.00×10^{3}
ø63	Push	4.67×10^{2}	6.23×10^{2}	9.35×10^{2}	1.25×10^{3}	1.56×10^{3}	1.87×10^{3}	2.18×10^{3}	2.49×10^{3}	2.81×10^{3}	3.12×10^{3}
	Pull	2.79×10^{2}	3.72×10^{2}	5.58×10^{2}	7.44×10^{2}	9.30×10^{2}	1.12×10^{3}	1.30×10^{3}	1.49×10^{3}	1.67×10^{3}	1.86×10^{3}
ø80	Push	7.53×10^{2}	1.01×10^{3}	1.51×10^{3}	2.01×10^{3}	2.51×10^{3}	3.02×10^{3}	3.52×10^{3}	4.02×10^{3}	4.52×10^{3}	5.03×10^{3}
	Pull	4.59×10^{2}	6.13×10^{2}	9.19×10^{2}	1.23×10^{3}	1.53×10^{3}	1.84×10^{3}	2.14×10^{3}	2.45×10^{3}	2.76×10^{3}	3.06×10^{3}
ø100	Push	1.17×10^{2}	1.57×10^{3}	2.36×10^{3}	3.14×10^{3}	3.93×10^{3}	4.71×10^{3}	5.50×10^{3}	6.28×10^{3}	7.07×10^{3}	7.85×10^{3}
	Pull	7.53×10^{2}	1.01×10^{3}	1.51×10^{3}	2.01×10^{3}	2.51×10^{3}	3.02×10^{3}	3.52×10^{3}	4.02×10^{3}	4.52×10^{3}	5.03×10^{3}

Mounting Bracket Model No. Notation

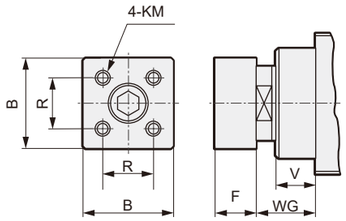
Bore Size (mm) / Mounting bracket	ø40	ø50	ø63	ø80	ø100
Foot (LB) *1	GLC-40-LB	GLC-50-LB	GLC-63-LB	GLC-80-LB	GLC-100-LB
Flange (FA/FB)	GLC-40-FA	GLC-50-FA	GLC-63-FA	GLC-80-FA	GLC-100-FA

***1: Foot type mounting brackets are 2 pcs/set.**

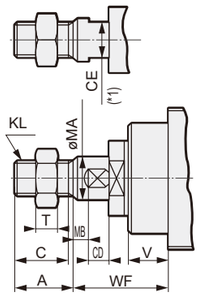
Dimensional Drawings

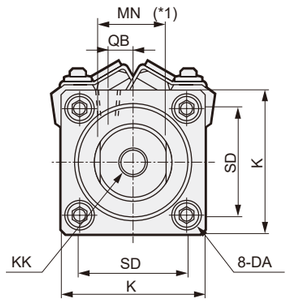
● Basic type (00)

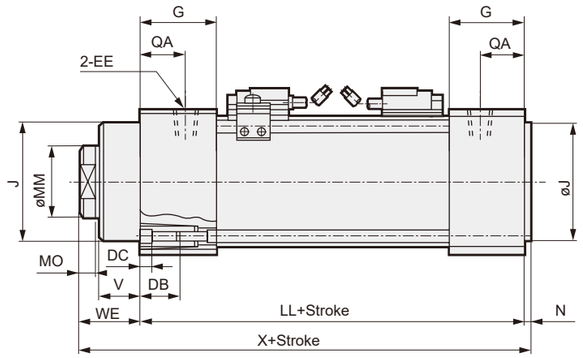
Flange type



Male Thread Type







Code	Basic Type (00) Basic Dimensions																
Bore Size (mm)	A	B	C	CD	CE	DA	DB	DC	EE	F	G	J	K	KK	KL	KM	LL
ø40	21.5	35	20	6.5	14	M8	12	4	Rc1/8	18	30	40	57	M10 Depth 15	M14×1.5	M6	97
ø50	23.5	45	22	9	17	M8	12	4	Rc1/4	20	34	52	66	M12 Depth 18	M16×1.5	M8	107
ø63	26.5	50	25	10	17	M8	12	4	Rc1/4	20	34	64	80	M14 Depth 20	M18×1.5	M8	110.5
ø80	30	70	29	14	22	M12	16	5	Rc3/8	27	41	75	98	M18 Depth 25	M22×1.5	M10	134.5
ø100	34.5	80	34	13.5	27	M12	16	5	Rc3/8	30	46	95	118	M20 Depth 30	M27×2	M10	151.5

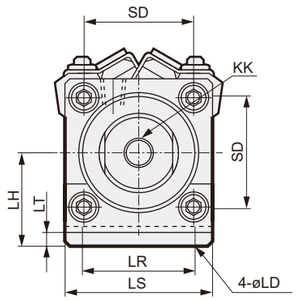
Code																
Bore Size (mm)	MA	MB	MM	MN	MO	N	QA	QB	R	SD	T	V	WE	WF	WG	X
ø40	17	11.5	25	23	8	2	18	7.5	24	40.5	8	20	35	54.5	33.5	134
ø50	19	11.5	35	31	8	2	20	9	32	48	10	20	35	56.5	33.5	144
ø63	21	11.5	40	36	8	2	22	10	36	59	11	24	39	62.5	37.5	151.5
ø80	26	12	50	44	10	2	25	10	50	74	13	27	44	72	42.5	180.5
ø100	34	13.5	60	54	10	2	25	10	60	90	16	27	47	77.5	45.5	200.5

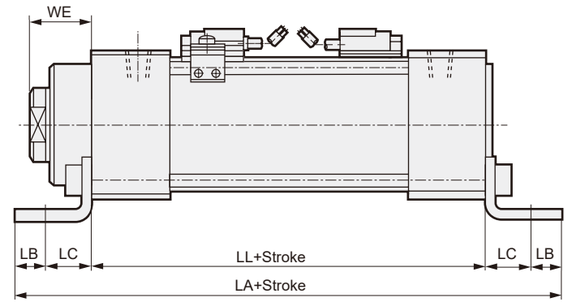
*1: Width Across Flats (female thread: MN, male thread: CE) position is unspecified.

***2: For dimensions of models with switches, see P. 1026.**

Dimensional Drawings

●Axial Foot Type (LB)



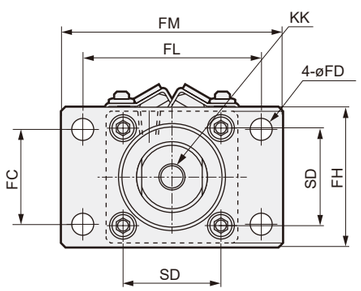


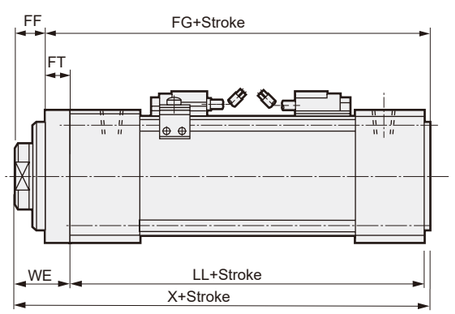
Code	Axial Foot Type (LB) Mounting Method											
Bore Size (mm)	KK	LL	SD	WE	LA	LB	LC	LD	LH	LR	LS	LT
ø40	M10 Depth 15	97	40.5	35	156	10	19.5	9	40	40	57	3.2
ø50	M12 Depth 18	107	48	35	175	12	22	9	40	46	66	4.5
ø63	M14 Depth 20	110.5	59	39	194.5	12	30	11	50	60	80	4.5
ø80	M18 Depth 25	134.5	74	44	236.5	14	37	14	60	74	98	6.0
ø100	M20 Depth 30	151.5	90	47	255.5	21	31	14	67	80	118	6.0

*1: Width Across Flats (female thread: MN, male thread: CE) position is unspecified.

***2: For dimensions of models with switches, see P. 1026.**

●Rod Side Flange Type (FA)





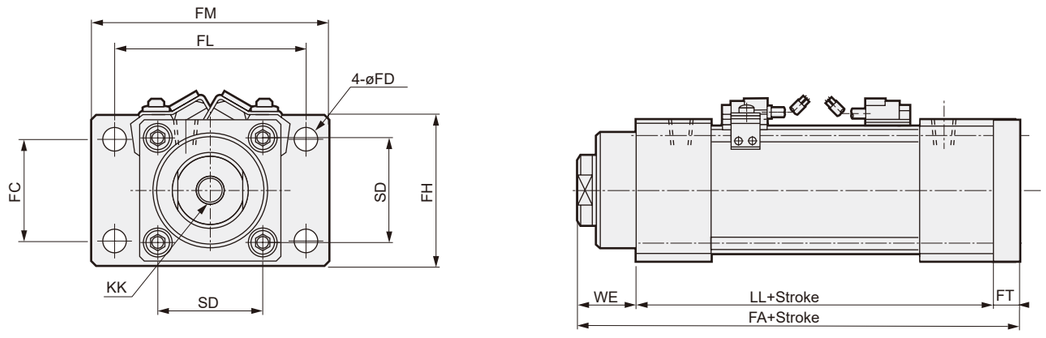
Code	Rod Side Flange Type (FA) Mounting Method												
Bore Size (mm)	KK	LL	SD	WE	X	FC	FD	FF	FG	FH	FL	FM	FT
ø40	M10 Depth 15	97	40.5	35	134	40	9	23	111	57	80	100	12
ø50	M12 Depth 18	107	48	35	144	47	9	23	121	65	85	108	12
ø63	M14 Depth 20	110.5	59	39	151.5	60	11	23	128.5	80	106	130	16
ø80	M18 Depth 25	134.5	74	44	180.5	74	14	25	155.5	98	125	153	19
ø100	M20 Depth 30	151.5	90	47	200.5	88	14	28	172.5	118	144	180	19

*1: Width Across Flats (female thread: MN, male thread: CE) position is unspecified.

***2: For dimensions of models with switches, see P. 1026.**

Dimensional Drawings

●Head Side Flange Type (FB)

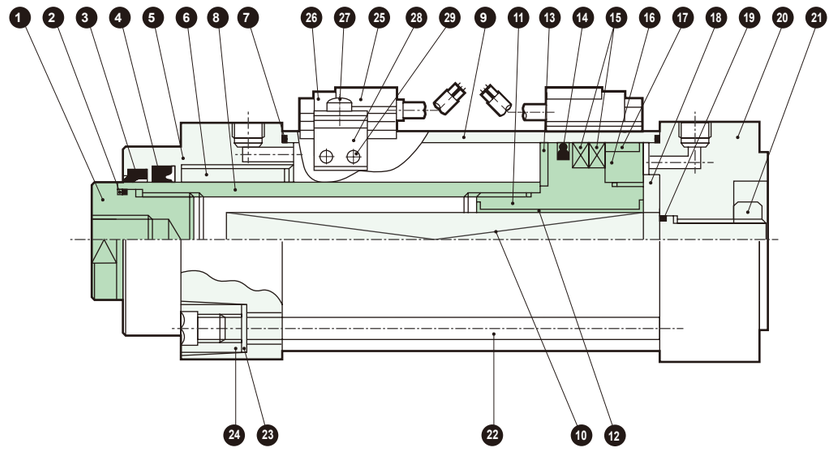


Code	Head Side Flange Type (FB) Mounting Method										
Bore Size (mm)	KK	LL	SD	WE	FA	FC	FD	FH	FL	FM	FT
ø40	M10 Depth 15	97	40.5	35	144	40	9	57	80	100	12
ø50	M12 Depth 18	107	48	35	154	47	9	65	85	108	12
ø63	M14 Depth 20	110.5	59	39	165.5	60	11	80	106	130	16
ø80	M18 Depth 25	134.5	74	44	197.5	74	14	98	125	153	19
ø100	M20 Depth 30	151.5	90	47	217.5	88	14	118	144	180	19

*1: Width Across Flats (female thread: MN, male thread: CE) position is unspecified.

***2: For dimensions of models with switches, see P. 1026.**

Internal Structure Diagram/Material



Part No.	Part Name	Material	Remarks	Part No.	Part Name	Material	Remarks
1	Tip cap	Steel	Manganese Phosphate	16	Piston (B)	Aluminum Alloy	
2	Gasket	Nitrile Rubber		17	Wear ring	Polyacetal	
3	Dust Wiper	Nitrile Rubber		18	Cushion Rubber	Urethane Rubber	
4	Rod Packing	Nitrile Rubber		19	Gasket	Nitrile Rubber	
5	Rod Cover	Aluminum Alloy	Black alumite	20	Head Cover	Aluminum Alloy	Black alumite
6	Bushing	Copper Alloy		21	Fixing Nut	Steel	Zinc Chromate
7	Cylinder Gasket	Nitrile Rubber		22	Tie rod	Steel	Zinc Chromate
8	Piston Rod	Steel	Industrial Hard Chrome Plating	23	Belleville washer	Steel	
9	Cylinder Tube	Aluminum Alloy	Hard Anodized	24	Round Nut	Steel	Zinc Chromate
10	Non-rotating shaft	Steel	Industrial Hard Chrome Plating	With Switch			
11	Piston (A)	Aluminum Alloy		25	Switch		
12	Non-rotating plate	Oil-Impregnated Bearing Alloy		26	Switch holder	Stainless Steel	
13	Cushion Rubber	Urethane Rubber		27	Pan Head Screw with captive washer and Phillips recess	Steel	Zinc Chromate
14	Piston Packing	Nitrile Rubber		28	Switch mounting base	Aluminum Alloy	
15	Magnet	Plastic		29	Hexagon Socket Set Screw	Alloy Steel	Black Oxide

Replacement Parts List

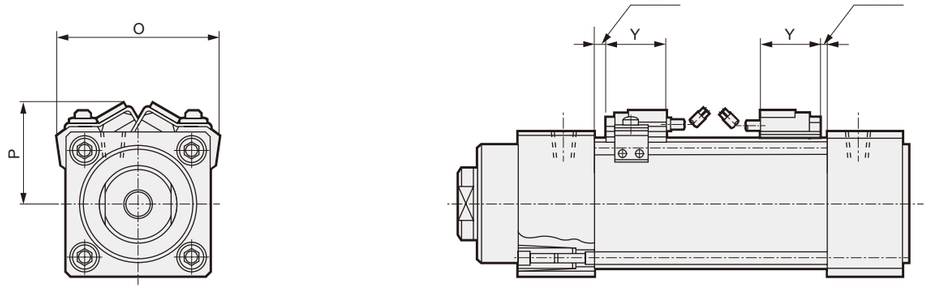
Bore Size (mm)	Kit Number	Replacement Part Number
ø40	**GLC-40K**	❸ ❹ ❼ ⓬ ⓮ ⓱
ø50	**GLC-50K**	
ø63	**GLC-63K**	
ø80	**GLC-80K**	
ø100	**GLC-100K**	

*1: Please specify the kit number when ordering consumable parts.

***2: The procedure for replacing consumable parts is different from that for general cylinders. For details, please refer to the Guideless Cylinder "Disassembly/Assembly Manual" (SM-323965).**

GLC Series External Dimensions Diagram with Switch

● R0/B, R4/B, R5/B, R6/B, R1/B, R2/B, R3/B, HO
GLC-(L2)



Code	R-type Switch							H-type Switch				
Bore Size (mm)	O	P	Y	R0, R4, R5, R6		R1, R2, R3		O	P	Y	RD	HD
				RD	HD	RD	HD					
ø40	66	39.5	31.5	0	3	0	4	66	39.5	33.5	0	4
ø50	74	44.5		2.5	5.5	3	6	74	44.5		3	6
ø63	90	51		4.5	7	5	7.5	90	51		5	7.5
ø80	114	59.5		7	14.5	7.5	15	114	59.5		7.5	15
ø100	128	67		8.5	18.5	10	19.5	128	67		10	19.5

*1: Width Across Flats (female thread: MN, male thread: CE) position is unspecified.

MEMO

Special
MVC
STK
MCP
GLC
BBS
NHS
HR
LN
Cylinder Switch
Ending

Model selection guide

Condition…stroke χ=300 mm, load weight at end m=15 kg, eccentricity L_2= 50 mm, distance b=50 mm from end to center of gravity of load, force F=m×g (N) applied to Rod End (g: Gravity acceleration 9.8 m/s²)

① First, calculate the lateral load moment F·L.

* For dimension a, first substitute 34 (mm) of the provisionally selected ø63 and calculate.

L = 34+300+50 = 384 (mm) = 0.384 (m)
F = 15×9.8 = 147 (N)
F·L = 147×0.384 = 56.4 (N·m)

② Calculate the self-weight moment M due to the Piston Rod, etc.

$$M = \frac{\chi^2}{2} \times C \times g + (a+\chi) \times D \times g$$
$$= \frac{300^2}{2} \times 4.3 \times 10^{-3} \times 9.8 + (34+300) \times 0.24 \times 9.8$$
$$= 2682\ (N \cdot mm) \approx 2.7\ (N \cdot m)$$

③ The sum of ① and ② is the lateral load moment.

F·L+M = 56.4+2.7 = 59.1 (N·m)

④ Next, calculate the rotational torque F·L_2.

L_2 = 50 (mm) = 0.05 (m)
F = 147 (N)
F·L_2 = 147×0.05 = 7.35 (N·m)

⑤ Refer to the allowable lateral load moment table and allowable rotational torque table on the right to see if each moment is below the allowable value.

Current lateral load moment 59.1 (N·m)
Rotation torque 7.35 (N·m)

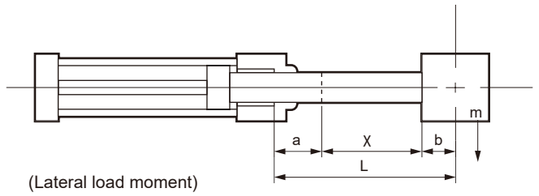
Allowable lateral load moment
ø50…92.8 N·m .....OK
ø63…144.6 N·m .....OK
Allowable rotational torque
ø50…4.2 N·m .....NG
ø63…8.8 N·m .....OK

In this case, ø50 may be acceptable for the lateral load moment, but since the rotational torque exceeds the allowable value, ø63 is used. Select so that both the lateral load moment and rotational torque are below the allowable values in this way.

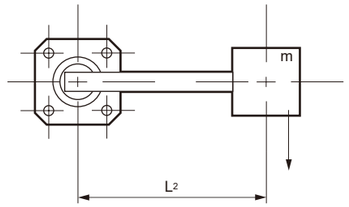
⑥ The minimum Operating Pressure is the sum of the Operating Pressures for rotational torque and lateral load moment.

0.18 MPa+0.23 MPa = 0.41 MPa

The Operating Pressure is obtained from the graph on the next page.



(Lateral load moment)

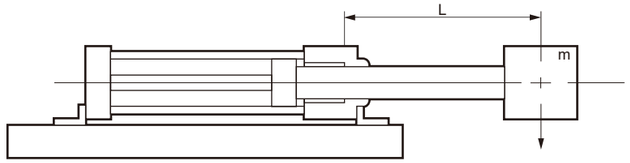


(Rotational torque)

m :	Payload				kg
L =	a + χ +b				mm
χ :	Stroke				mm
b :	Distance from top to load center				mm
a :	Dimensions of projecting section				mm
M :	Self-weight moment = $\frac{\chi^2}{2}$×C×g+(a+χ)×D×g				
g :	Gravity acceleration 9.8				m/s²
C :	Piston Rod mass per unit length				kg/mm
D :	Tip cap weight				kg

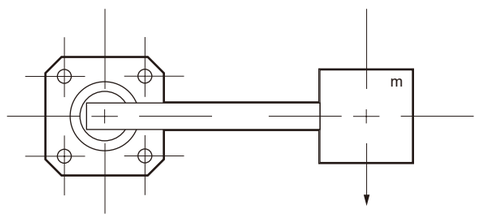
	ø40	ø50	ø63	ø80	ø100
a	32	34	34	36	39
C	1.3×10^{-3}	3.7×10^{-3}	4.3×10^{-3}	7.4×10^{-3}	9.7×10^{-3}
D	0.06	0.17	0.24	0.35	0.68

Allowable lateral load moment



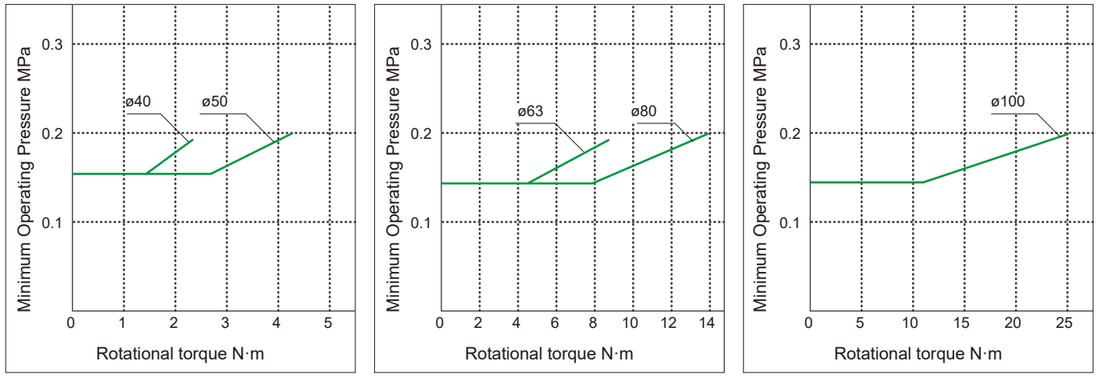
Bore Size	Allowable lateral load moment
ø40	54.6 N·m
ø50	92.8 N·m
ø63	144.6 N·m
ø80	275.0 N·m
ø100	468.1 N·m

Allowable rotational torque



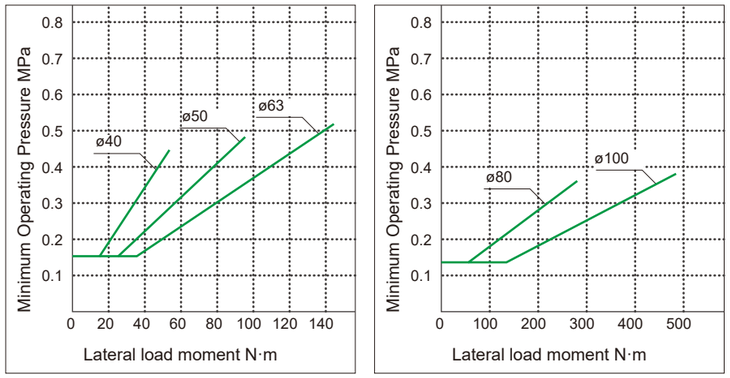
Bore Size	Allowable rotational torque
ø40	2.4 N·m
ø50	4.2 N·m
ø63	8.8 N·m
ø80	13.8 N·m
ø100	19.9 N·m

Relationship between rotational torque and minimum Operating Pressure



Note: Select within the allowable torque. (Ideally 70% or less of the allowable rotational torque.)

Relationship between lateral load moment and minimum Operating Pressure

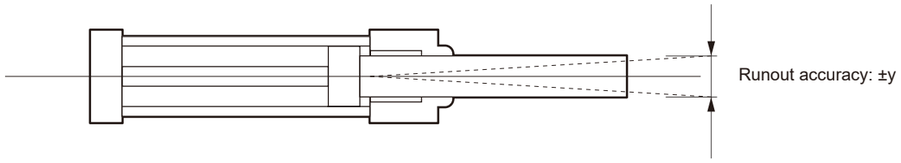


Note: Select within the allowable lateral load moment. (Ideally 70% or less of the allowable lateral load moment.)

Allowable Absorbed Energy

Bore Size	Allowable absorbed energy J
ø40	0.73
ø50	1.01
ø63	2.42
ø80	4.63
ø100	9.94

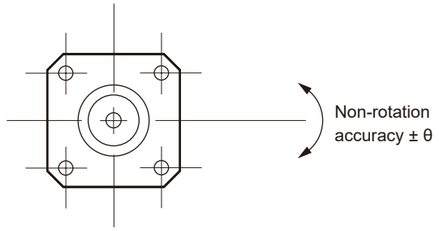
Runout accuracy



(Unit: mm)

Bore Size	Runout accuracy: ±y (Default value)	Standard Stroke						
		100	200	300	400	500	600	700
ø40	$y = (74+Stroke)\times3.66\times10^{-3}$	0.64	1.00	1.37	1.73	2.10	–	–
ø50	$y = (82.5+Stroke)\times3.50\times10^{-3}$	0.64	0.99	1.34	1.69	2.04	–	–
ø63	$y = (88+Stroke)\times3.36\times10^{-3}$	0.63	0.98	1.30	1.64	1.98	–	–
ø80	$y = (108+Stroke)\times3.36\times10^{-3}$	0.58	0.86	1.14	1.42	1.70	1.98	2.26
ø100	$y = (122.5+Stroke)\times3.36\times10^{-3}$	0.64	0.92	1.21	1.50	1.78	2.07	2.35

Non-rotation accuracy



(Unit: Degrees)

Bore Size	Non-rotation accuracy ±θ (Default value)
ø40	0.57
ø50	0.38
ø63	0.33
ø80	0.28
ø100	0.24

Pneumatic Equipment

To Use This Product Safely

Be sure to read this before use. For general cylinder information, see Intro 41, and for Cylinder Switches, see P. 1512.

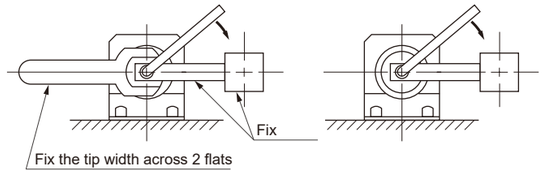
Individual Precautions: High rigidity guideless cylinder GLC Series

Design / Selection

Warning

■ Assembling the Piston Rod End

When assembling jigs, etc. to the Piston Rod tip (female thread type, male thread type, flange type), do not apply torque exceeding 5 times the allowable rotational torque to the cylinder and Piston Rod. This will cause damage to the non-rotating mechanism. When tightening, fix the width across 2 flats of the Rod End and the tip flange and tighten.



OK ✕

CAUTION

■ When using cylinder switch R1□, R2□ or R3□, place the attached rubber plate under the switch base when mounting.

Number of sheets to attach

ø40 : 0
ø50 : 4
ø63 : 3
ø80 : 5
ø100: 3

During Use

Warning

■ Cushion is provided (rubber cushion). Please use within the allowable absorbed energy. If used beyond the allowable value, the product may be damaged.

For precautions during mounting, installation, adjustment, use, and maintenance, refer to "During Use" in this catalog and the CKD Components Product website (https://www.ckd.co.jp/kiki/en/) -> "Model No." -> Instruction Manual.