

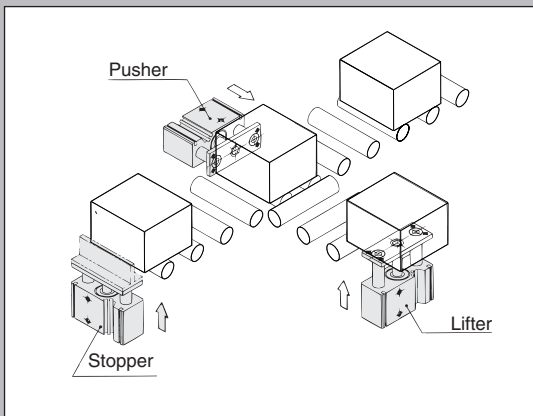


Compact Guide Cylinder Series MGQ

ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

Air cylinder with guide integrated that has achieved anti-lateral load and high non-rotating accuracy.

Space-saving cylinder.
Suitable as stoppers or lifters in conveyor line.



Two types of guide rod bearing for different applications

Slide bearing

Slide bearing Strength against side load is more than 2 times as compared conventional stopper cylinder.

Ball bushing bearing

Smooth operation is suitable for pushing, lifter and applications where high precision is required.

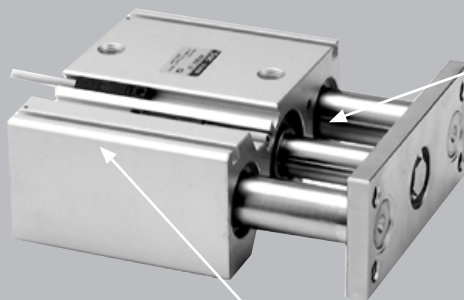
- MX
- MTS
- MY
- CY
- MG**
- CX
- D-
- X
- 20-
- Data

Cylinder position can be detected.

All models have built-in magnets for auto switches.

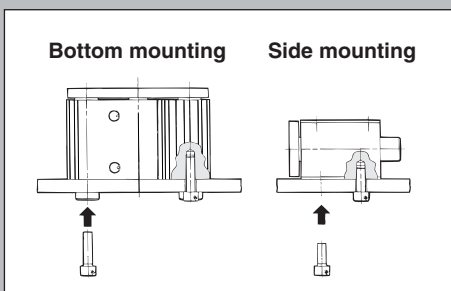


Non-rotating accuracy



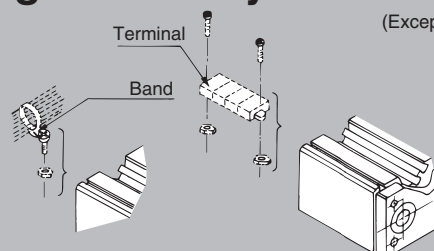
Bore size (mm)	Non-rotating accuracy θ	
	MGQM	MGQL
12		
16	$\pm 0.08^\circ$	$\pm 0.10^\circ$
20	$\pm 0.07^\circ$	$\pm 0.09^\circ$
25		
32	$\pm 0.06^\circ$	$\pm 0.08^\circ$
40		
50	$\pm 0.05^\circ$	$\pm 0.06^\circ$
63		
80	$\pm 0.04^\circ$	$\pm 0.05^\circ$
100		

Can be mounted from two directions



Auto switches, lead wires and terminals can be fixed in the groove of cylinder body.

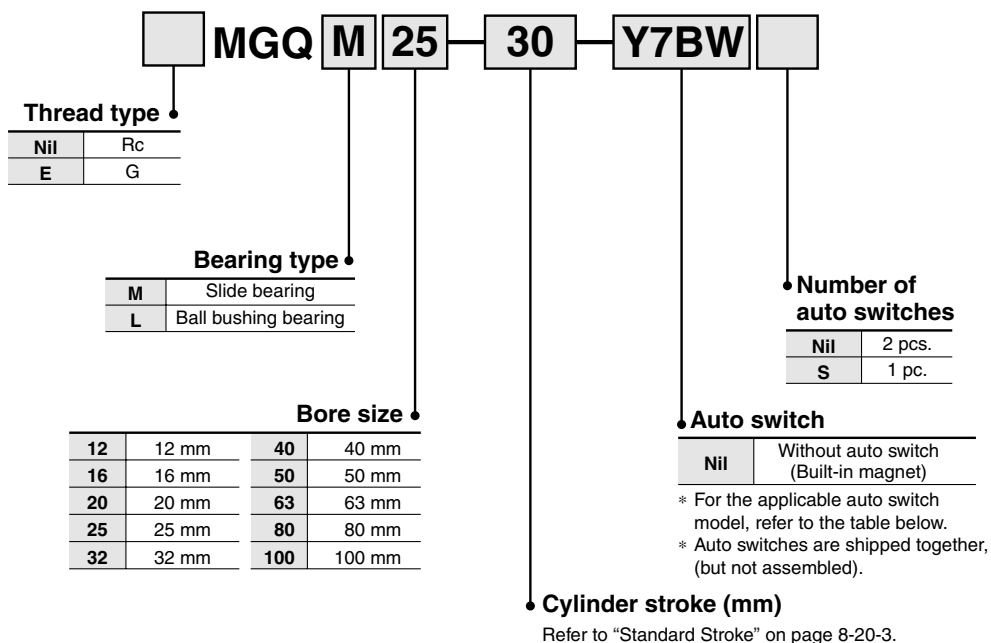
(Except ø12, ø16, ø20, ø25)



Compact Guide Cylinder Series **MGQ**

ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order



Applicable Auto Switch/Refer to page 8-30-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length (m)*			Pre-wire connector	Applicable load	
					DC	AC	100 V or less	Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)		IC circuit	Relay, PLC
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	—	Z76	●	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V or less	—	Z73	●	●	●	—	—	Relay, PLC
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	Y69A	Y59A	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				Y7PV	Y7P	●	●	○	○		
				2-wire				Y69B	Y59B	●	●	○	○	—	
				3-wire (NPN)				Y7NWV	Y7NW	●	●	○	○	IC circuit	
				3-wire (PNP)				Y7PWV	Y7PW	●	●	○	○	IC circuit	
				2-wire				Y7BWV	Y7BW	●	●	○	○	—	

* Lead wire length symbols: 0.5 m Nil (Example) Y59A
 3 m L (Example) Y59AL
 5 m Z (Example) Y59AZ

* Solid state switches marked with "○" are produced upon receipt of order.

- Since there are other applicable auto switches than listed, refer to page 8-20-11 for details.
- For details about auto switches with pre-wire connector, refer to page 8-30-52.

Compact Guide Cylinder Series MGQ

Air cylinder integrated with guide has achieved anti-lateral load and high non-rotating accuracy.

Space-saving and compact design

Suitable as stoppers or lifters in conveyor line

2 types of guide rod bearing are available depending upon the application

Slide bearing/Ball bushing bearing



Specifications

Bearing type	Slide bearing		Ball bushing bearing
Model	MGQM		MGQL
Bore size (mm)	12, 16, 20, 25, 32, 40, 50, 63, 80, 100		
Action	Double acting		
Fluid	Air		
Proof pressure	1.5 MPa		
Max. operating pressure	1.0 MPa		
Min. operating pressure	ø12, ø16	0.12 MPa	
	ø20 to ø100	0.1 MPa	
Ambient and fluid temperature	-10 to 60°C (No freezing)		
Piston speed	ø12 to ø63	50 to 500 mm/s	
	ø80, ø100	50 to 400 mm/s	
Cushion	Rubber bumper on both ends		
Lubrication	Non-lube		
Stroke length tolerance	$+1.5$ 0 mm		

Standard Stroke

Model	Standard stroke (mm)	Intermediate stroke (mm)
MGQ ^M _L 12, 16	10, 20, 30, 40, 50, 75, 100	As for the intermediate strokes other than the standard strokes at left are manufactured by means of installing a spacer. ø12 to ø32 Stroke available by the 1 stroke interval ø40 to ø100 Stroke available by the 5 stroke interval (Example) 1. For MGQM20-21 st, MGQM20-30 st is provided with a 5 mm + 4 mm ≤ 9 mm width spacer. 2. For MGQM50-40 st, MGQM50-50 st is provided with a 10 mm width spacer.
MGQ ^M _L 20, 25	20, 30, 40, 50, 75, 100 125, 150, 175, 200	
MGQ ^M _L 32, 40 50, 63 80, 100	25, 50, 75, 100, 125 150, 175, 200	

Theoretical Output



Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)										
				0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0		
12	6	OUT	113	23	34	45	57	68	79	90	102	113		
		IN	85	17	26	34	43	51	60	68	77	85		
16	8	OUT	201	40	60	80	101	121	141	161	181	201		
		IN	151	30	45	60	76	91	106	121	136	151		
20	10	OUT	314	63	94	126	157	188	220	251	283	314		
		IN	236	47	71	94	118	142	165	189	212	236		
25	12	OUT	491	98	147	196	246	295	344	393	442	491		
		IN	378	76	113	151	189	227	265	302	340	378		
32	16	OUT	804	161	241	322	402	482	563	643	724	804		
		IN	603	121	181	241	302	362	422	482	543	603		
40	16	OUT	1257	251	377	503	629	754	880	1006	1131	1257		
		IN	1056	211	317	422	528	634	739	845	950	1056		
50	20	OUT	1963	393	589	785	982	1178	1374	1570	1767	1963		
		IN	1649	330	495	660	825	990	1154	1319	1484	1649		
63	20	OUT	3117	623	935	1247	1559	1870	2182	2494	2805	3117		
		IN	2803	561	841	1121	1402	1682	1962	2242	2523	2803		
80	25	OUT	5027	1005	1508	2011	2514	3016	3519	4022	4524	5027		
		IN	4536	907	1361	1814	2268	2722	3175	3629	4082	4536		
100	30	OUT	7854	1571	2356	3142	3927	4712	5498	6283	7069	7854		
		IN	7147	1429	2144	2859	3574	4288	5003	5718	6432	7147		

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm²)



Made to Order Specifications
(For details, refer to page 8-31-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XB6	Heat resistant cylinder (150°C)
-XB9	Low speed cylinder (10 to 50 mm/s)
-XB10	Intermediate stroke (Using exclusive body)
-XC18	NPT finish piping port
-XC22	Fluoro rubber seals
-XC56	With knock pin holes
-XC79	Machining tapped hole, drilled hole, and pin hole additionally
-XC168	Helical insert thread
-XC367	Bottom mounting style
-XC399	Long bushing
-XC563	With anti-strong magnetic field switch (D-P5DW)

Series MGQ

Weight/Slide Bearing: MGQM12 to 100

(kg)

Bore size (mm)	Model	Standard stroke (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	MGQM12	0.23	0.27	—	0.31	0.34	0.38	0.48	0.58	—	—	—	—
16	MGQM16	0.34	0.39	—	0.45	0.50	0.55	0.68	0.80	—	—	—	—
20	MGQM20	—	0.54	—	0.61	0.69	0.76	0.94	1.09	1.24	1.39	1.54	1.69
25	MGQM25	—	0.83	—	0.93	1.04	1.13	1.44	1.68	1.92	2.16	2.40	2.64
32	MGQM32	—	—	1.51	—	—	1.91	2.29	2.69	3.09	3.49	3.89	4.29
40	MGQM40	—	—	1.65	—	—	2.24	2.46	2.87	3.28	3.69	4.10	4.51
50	MGQM50	—	—	2.54	—	—	3.09	3.65	4.21	4.77	5.33	5.89	6.45
63	MGQM63	—	—	3.01	—	—	3.63	4.23	4.85	5.47	6.09	6.71	7.33
80	MGQM80	—	—	5.66	—	—	6.59	7.49	8.41	9.33	10.25	11.17	12.09
100	MGQM100	—	—	8.96	—	—	10.27	11.57	12.90	14.23	15.56	16.89	18.22

Weight/Ball Bushing Bearing: MGQL12 to 100

(kg)

Bore size (mm)	Model	Standard stroke (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	MGQL12	0.23	0.26	—	0.29	0.35	0.38	0.46	0.53	—	—	—	—
16	MGQL16	0.35	0.39	—	0.44	0.52	0.57	0.70	0.82	—	—	—	—
20	MGQL20	—	0.54	—	0.60	0.70	0.75	0.90	1.04	1.18	1.32	1.46	1.60
25	MGQL25	—	0.84	—	0.93	1.08	1.17	1.37	1.58	1.79	2.00	2.21	2.42
32	MGQL32	—	—	1.32	—	—	1.67	2.09	2.45	2.81	3.17	3.53	3.89
40	MGQL40	—	—	1.46	—	—	1.82	2.27	2.63	2.99	3.35	3.71	4.07
50	MGQL50	—	—	2.11	—	—	2.59	3.19	3.68	4.17	4.66	5.15	5.64
63	MGQL63	—	—	2.65	—	—	3.19	3.85	4.39	4.93	5.47	6.01	6.55
80	MGQL80	—	—	5.49	—	—	6.38	7.95	8.79	9.63	10.47	11.31	12.15
100	MGQL100	—	—	8.34	—	—	9.53	11.78	12.96	14.14	15.32	16.50	17.68

Copper-free (For CRT manufacturing process)

To prevent the influence of copper ions or halogen ions during CRT manufacturing processes, copper and fluorine materials are not used in the component parts.

Specifications

Applicable series	MGQM	MGQL
Bearing type	Slide bearing	Ball bushing bearing
Bore size (mm)	12, 16, 20, 25, 32 40, 50, 63, 80, 100	

How to Order

20 — MGQ **M** **Bore size** — **Stroke**

Bearing type

M	Slide bearing
L	Ball bushing bearing

Copper-free

⚠ Precautions

Be sure to read before handling. For Safety Instructions and Actuator Precautions, refer to pages 8-34-3 to 8-34-6.

Mounting

⚠ Warning

1. Avoid placing your hands or fingers between the plate and the body.

- Be very careful to prevent your hands or fingers from getting caught in the gap between the cylinder body and the plate when air is applied.

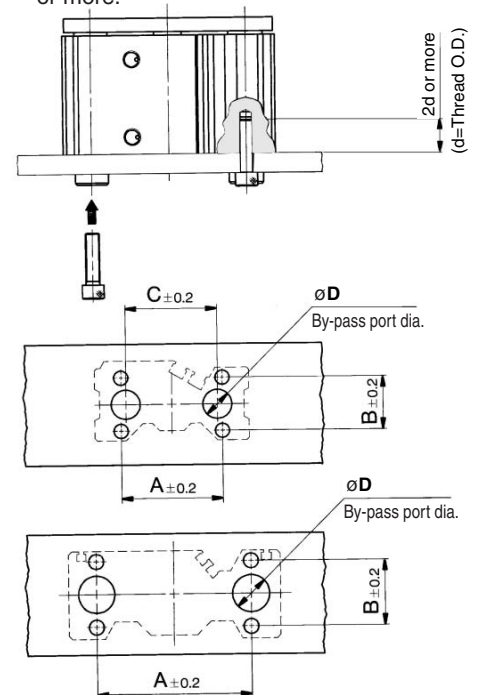
⚠ Caution

1. Do not scratch or gouge the sliding portion of the piston rod and the guide rod.

- Damaged seals, etc. will result in leakage or malfunction.

2. When mounting on the bottom of the cylinder, the guide rod protrudes from the bottom at the retraction stroke end. Therefore, drill holes for the hexagon socket bolts used for mounting purposes, and relief holes for the guide rods.

Moreover, in applications where impact occurs from a stopper, etc., the mounting bolts should be inserted to a depth of 2d or more.



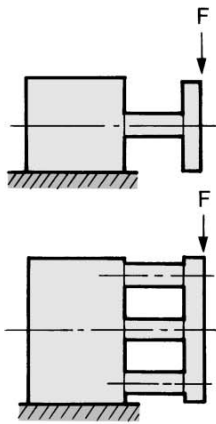
Bore size (mm)	A (mm)	B (mm)	C (mm)	øD (mm)		Hexagon socket head cap screw
				MGQM	MGQL	
12	40	18	36	10	8	M4 x 0.7
16	42	22	38	12	10	M5 x 0.8
20	52	26	46	14	12	M5 x 0.8
25	62	32	56	18	15	M6 x 1
32	80	38	—	22	18	M8 x 1.25
40	90	38	—	22	18	M8 x 1.25
50	100	44	—	27	22	M10 x 1.5
63	110	44	—	27	22	M10 x 1.5
80	140	56	—	31	28	M12 x 1.75
100	170	62	—	39	33	M14 x 2

C dimension for a bore size of 32 to 100 is identical to the A dimension.

Compact Guide Cylinder Series MGQ

Operating Conditions

Allowable Lateral Load (Ordinary load)



Bore size (mm)	Bearing type	Stroke (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	MGQM	21	18	—	15	13	12	9	8	—	—	—	—
	MGQL	27	22	—	17	21	19	15	13	—	—	—	—
16	MGQM	34	28	—	25	22	19	15	13	—	—	—	—
	MGQL	38	30	—	26	37	33	28	23	—	—	—	—
20	MGQM	—	51	—	44	38	34	57	49	42	37	33	30
	MGQL	—	55	—	47	78	69	53	44	30	26	23	21
25	MGQM	—	70	—	60	53	47	77	65	56	49	44	40
	MGQL	—	71	—	61	77	72	59	51	42	36	32	29
32	MGQM	—	—	196	—	—	167	137	108	87	77	69	63
	MGQL	—	—	88	—	—	59	275	216	156	136	121	109
40	MGQM	—	—	196	—	—	167	137	108	87	77	69	63
	MGQL	—	—	88	—	—	59	275	216	156	136	121	109
50	MGQM	—	—	294	—	—	255	215	176	138	123	111	101
	MGQL	—	—	137	—	—	88	392	313	207	182	162	146
63	MGQM	—	—	294	—	—	255	215	176	138	123	111	101
	MGQL	—	—	137	—	—	88	392	313	207	182	162	146
80	MGQM	—	—	353	—	—	304	255	206	168	151	137	126
	MGQL	—	—	235	—	—	157	863	686	465	411	368	333
100	MGQM	—	—	539	—	—	470	412	343	278	252	230	211
	MGQL	—	—	470	—	—	313	1370	1070	708	627	562	509

MX□

MTS

MY□

CY□

MG□

CX□

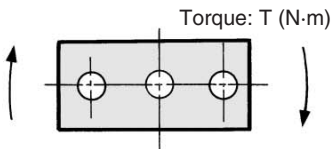
D-

-X

20-

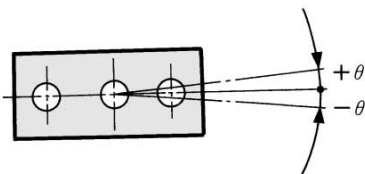
Data

Allowable Rotational Torque of Plate



Bore size (mm)	Bearing type	Stroke (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	MGQM	0.29	0.24	—	0.21	0.18	0.16	0.13	0.10	—	—	—	—
	MGQL	0.48	0.39	—	0.31	0.37	0.33	0.27	0.23	—	—	—	—
16	MGQM	0.51	0.43	—	0.35	0.31	0.27	0.23	0.19	—	—	—	—
	MGQL	0.73	0.58	—	0.48	0.71	0.64	0.53	0.44	—	—	—	—
20	MGQM	—	0.91	—	0.78	0.71	0.63	1.04	0.88	0.77	0.68	0.60	0.55
	MGQL	—	1.26	—	1.06	1.77	1.58	1.22	1.01	0.69	0.60	0.53	0.48
25	MGQM	—	1.53	—	1.31	1.16	1.03	1.68	1.42	1.24	1.09	0.98	0.88
	MGQL	—	1.96	—	1.69	2.16	2.00	1.65	1.41	1.18	1.01	0.90	0.81
32	MGQM	—	—	3.92	—	—	2.94	2.45	3.46	1.72	1.53	1.37	1.24
	MGQL	—	—	1.96	—	—	0.98	5.88	4.41	3.12	2.72	2.42	2.18
40	MGQM	—	—	4.41	—	—	3.43	2.94	2.45	1.94	1.72	1.54	1.40
	MGQL	—	—	2.45	—	—	1.47	6.37	5.39	3.51	3.06	2.72	2.45
50	MGQM	—	—	7.35	—	—	5.88	4.90	4.41	3.43	3.06	2.77	2.52
	MGQL	—	—	3.43	—	—	2.20	10.78	8.33	5.18	4.55	4.05	3.65
63	MGQM	—	—	7.84	—	—	6.37	5.39	4.90	3.77	3.37	3.04	2.77
	MGQL	—	—	3.92	—	—	2.45	11.76	9.31	5.69	5.01	4.46	4.02
80	MGQM	—	—	11.76	—	—	9.80	7.84	6.86	5.88	5.28	4.79	4.39
	MGQL	—	—	9.31	—	—	5.88	31.36	24.50	16.28	14.39	12.88	11.66
100	MGQM	—	—	22.54	—	—	19.60	16.66	14.70	11.81	10.67	9.74	8.96
	MGQL	—	—	21.56	—	—	13.72	63.70	49.00	30.09	26.65	23.89	21.63

Non-rotating Accuracy of Plate



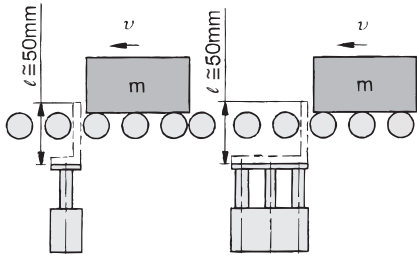
For non-rotating accuracy θ without load, use a value no more than the values in the table as a guide.

Bore size (mm)	Non-rotating accuracy θ	
	MGQM	MGQL
12		
16	$\pm 0.08^\circ$	$\pm 0.10^\circ$
20		
25	$\pm 0.07^\circ$	$\pm 0.09^\circ$
32		
40	$\pm 0.06^\circ$	$\pm 0.08^\circ$
50		
63	$\pm 0.05^\circ$	$\pm 0.06^\circ$
80		
100	$\pm 0.04^\circ$	$\pm 0.05^\circ$

Series MGQ

Operating Range when Used as Stopper

Bore Size $\phi 12$ to $\phi 25$ /MGQM12 to 25 (Slide bearing)



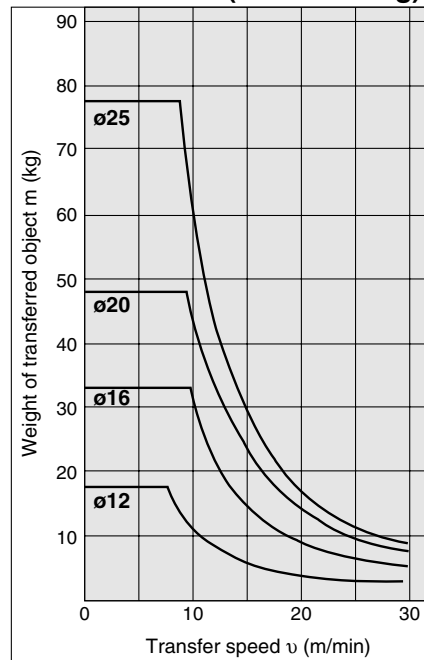
* When selecting a model with a longer l dimension, be sure to choose a bore size which is sufficiently large.

Caution on handling

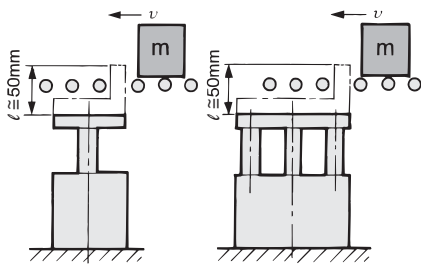
Note 1) When using as a stopper, select a model with 30 stroke or less.

Note 2) Model MGPL (Ball bushing bearing) cannot be used as a stopper.

MGQM12 to 25 (Slide bearing)



Bore Size $\phi 32$ to $\phi 100$ /MGQM32 to 100 (Slide bearing)



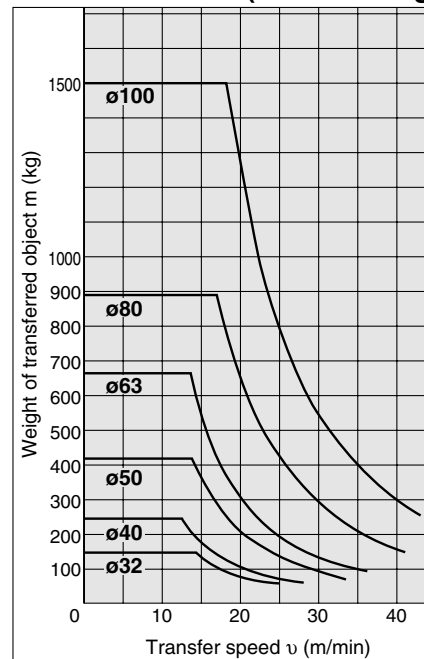
* When selecting a model with a longer l dimension, be sure to choose a bore size which is sufficiently large.

Caution on handling

Note 1) When using as a stopper, select a model with 50 stroke or less.

Note 2) Model MGPL (Ball bushing bearing) cannot be used as a stopper.

MGQM32 to 100 (Slide bearing)

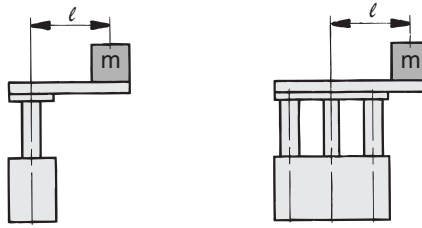


Compact Guide Cylinder Series MGQ

Operating Range when Used as Lifter

• Select the bore size so that the total load mass is below the theoretical output (see the table below).

Bore size (mm)	Theoretical output
12, 16	40% or below
20, 25	50% or below
32 to 100	60% or below



- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

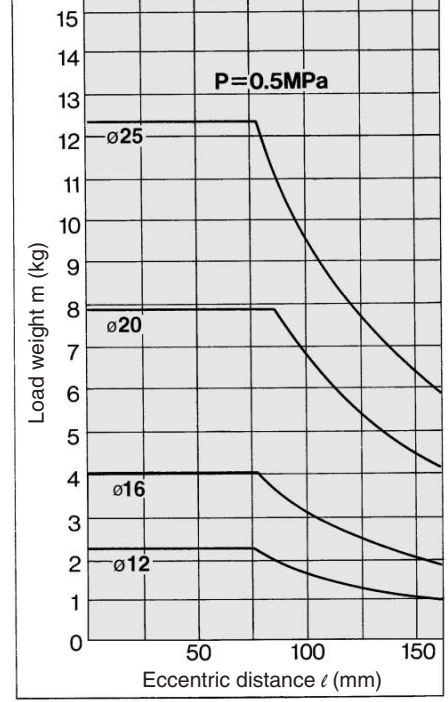
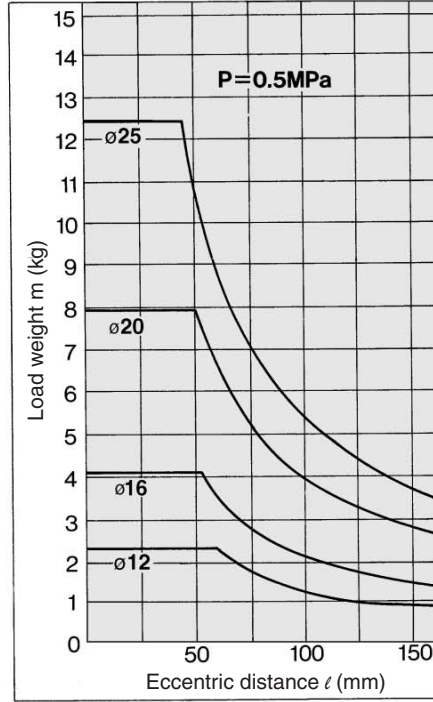
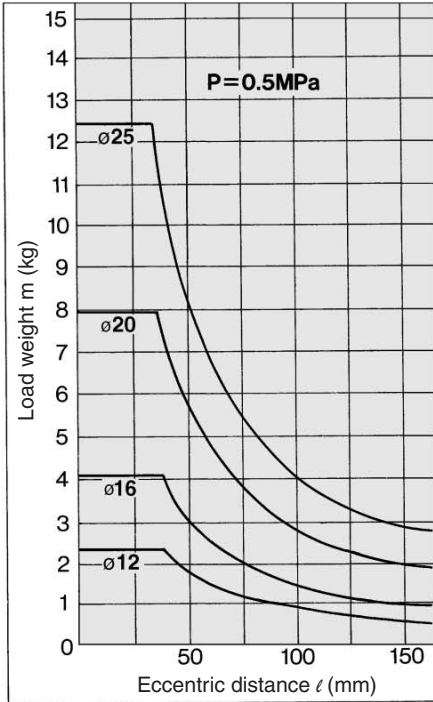
MGQM/Slide bearing

MGQM/Ball bushing bearing

MGQM12 to 25-□

MGQL12 to 25-¹⁰/₂₀-³⁰ (10, 20, 30 Stroke)

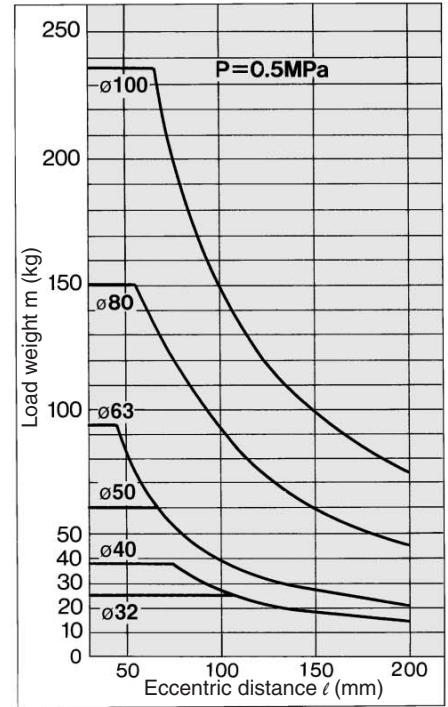
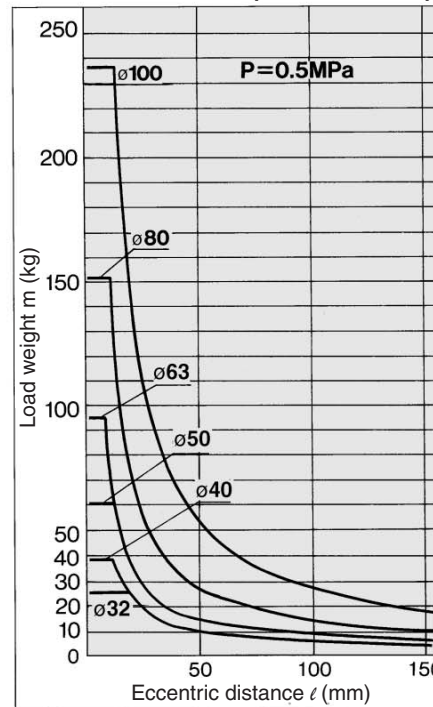
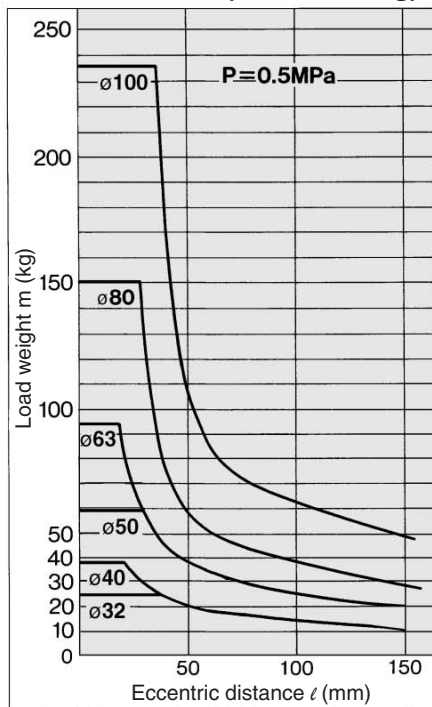
MGQL12 to 25-Over 30 stroke



MGQM32 to 100 (Slide bearing)

MGQL32 to 100-²⁵/₅₀ (25, 50 stroke)

MGQL32 to 100-Over 50 stroke



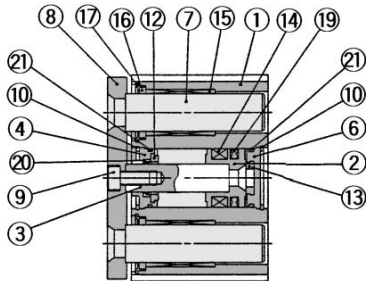
Series MGQ

Construction

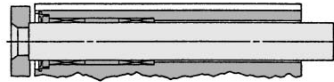
Series MGQM

Series MGQL

ø12 to ø25/MGQM12 to 25

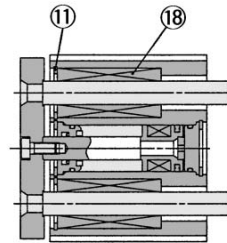


50 stroke or less

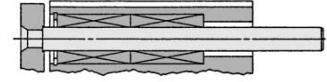


Over 50 stroke

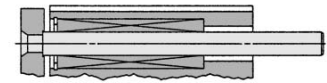
MGQL12 to 25



30 stroke or less

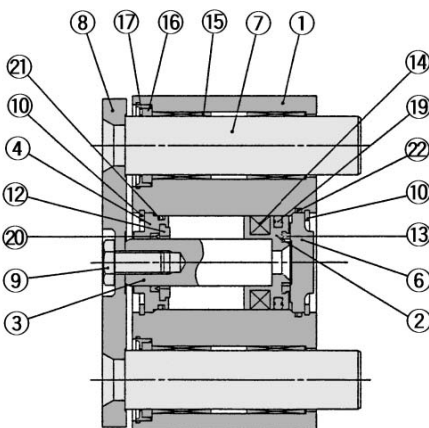


ø12, ø16 Over 30 stroke

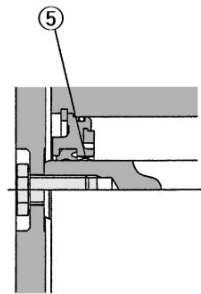


ø20, ø25 Over 30 stroke

ø32 to ø100/MGQM32 to 100

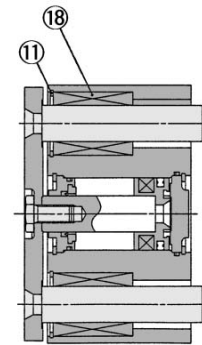


ø50 or more

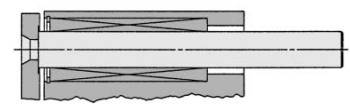


ø50 or more

MGQL32 to 100



50 stroke or less



Over 50 stroke

Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Hard anodized
②	Piston	Aluminum alloy	Chromated
③	Piston rod	ø12 to ø25	Stainless steel
		ø32 to ø100	Carbon steel
④	Collar	ø12 to ø40	Aluminum alloy
		ø50 to ø100	Aluminum alloy casted
⑤	Bushing	ø50 to ø100	Phosper bronze casted
⑥	Head cover	ø12 to ø63 ø80 to ø100	Aluminum alloy
			Colorless chromated Painted
⑦	Guide rod	MGQM	Carbon steel
		MGQL	High carbon chrome steel
⑧	Plate	Carbon steel	Nickel plated
⑨	Plate mounting bolt	Carbon steel	Nickel plated

No.	Description	Material	Note
⑩	Snap ring	Carbon tool steel	Phosphate coated
⑪	Snap ring	Carbon tool steel	Phosphate coated
⑫	Bumper A	Urethane	—
⑬	Bumper B	Urethane	—
⑭	Magnet	Magnetic material	—
⑮	Slide Bearing	Lead-bronze casted	—
⑯	Felt	Felt	—
⑰	Holder	Resin	—
⑱	Ball bushing	—	—
⑲	Piston seal	NBR	—
⑳	Rod seal	NBR	—
㉑	Gasket A	NBR	—
㉒	Gasket B	NBR	—

Replacement Parts: Seal Kit

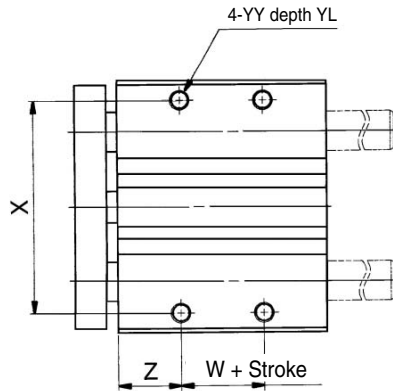
No.	Description	Kit no.									
		ø12	ø16	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
⑲	Seal kit	MGQ12-PS	MGQ16-PS	MGQ20-PS	MGQ25-PS	MGQ32-PS	MGQ40-PS	MGQ50-PS	MGQ63-PS	MGQ80-PS	MGQ100-PS

* Seal kit includes ⑲ to ㉒. Order the seal kit, based on each bore size.

Compact Guide Cylinder Series MGQ

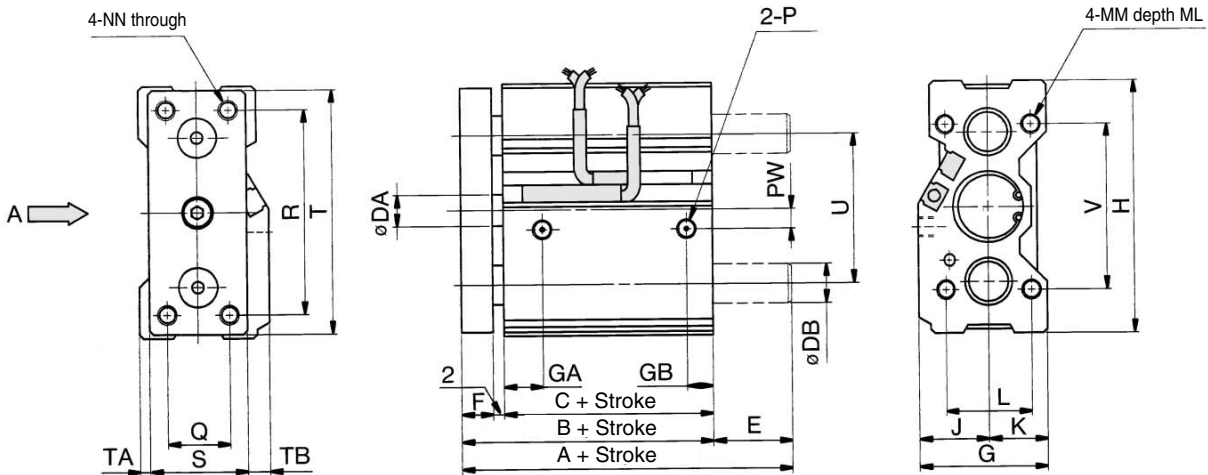


Bore Size
ø12 to ø25: MGQM, MGQL



View A

- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data



MGQM, MGQL Common Dimensions

* The intermediate strokes other than the standard strokes at left are manufactured by means of installing a spacer. (Refer to page 8-20-3.)

Bore size (mm)	Standard stroke (mm)	B	C	DA	F	G	GA	GB	H	J	K	L	MM	ML	NN	P	PW	Q	R	S	T	TA	TB	U	V	W	X	YY	YL	Z
12	10, 20, 30, 40, 50, 75, 100	39	29	6	8	29	11	7.5	58	16	13	18	M4 x 0.7	10	M4 x 0.7	M5 x 0.8	7	14	48	22	56	5	5	36	40	5	50	M4 x 0.7	7	12
16	10, 20, 30, 40, 50, 75, 100	43	33	8	8	33	11	8	64	18	15	22	M5 x 0.8	13	M5 x 0.8	M5 x 0.8	5	16	52	25	62	2.5	5.5	38	42	7	54	M5 x 0.8	8	13
20	20, 30, 40, 50, 75, 100, 125, 150, 175, 200	47	37	10	8	36	10.5	8.5	74	19	17	26	M5 x 0.8	13	M5 x 0.8	Rc 1/8	7	18	60	30	72	2	4	46	52	10	64	M5 x 0.8	8	13
25	20, 30, 40, 50, 75, 100, 125, 150, 175, 200	47.5	37.5	12	8	42	11.5	9	88	21	21	32	M6 x 1.0	15	M6 x 1.0	Rc 1/8	8	26	70	38	86	2	2	56	62	10	76	M6 x 1.0	9	14

MGQM (Slide bearing) A, DB, E Dimensions

Bore size (mm)	Symbol Stroke	A		DB	E	
		50 st or less	Over 50		50 st or less	Over 50
12		39		8	0	
16		43		10	0	
20		47	61.5	12	0	14.5
25		47.5	62	16	0	14.5

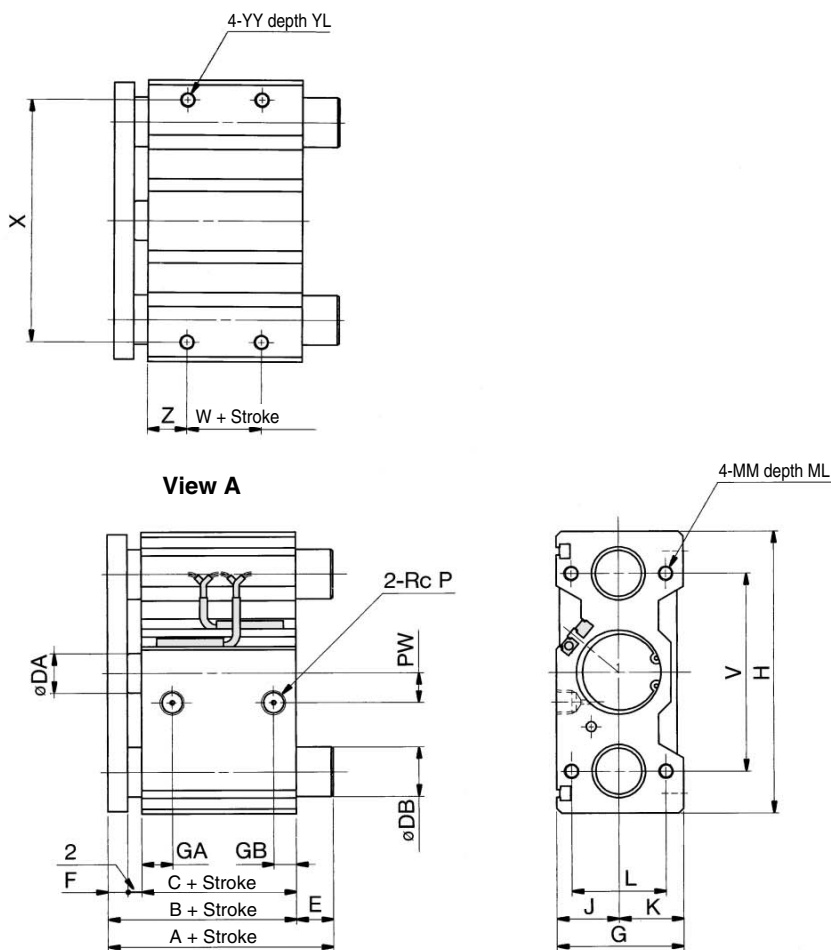
MGQL (Ball bushing bearing) A, DB, E Dimensions

Bore size (mm)	Symbol Stroke	A		DB	E	
		30 st or less	Over 30 st		30 st or less	Over 30 st
12		43	55	6	4	16
16		49	65	8	6	22
20		57	74	10	10	27
25		63.5	79.5	13	16	32

Series MGQ



Bore Size
ø32 to ø100: MGQM, MGQL



Note 1) The intermediate strokes other than the standard strokes at left are manufactured by means of installing a spacer. (Refer to page 8-20-3.)
 Note 2) Strokes exceeding standard stroke can be manufactured. (Refer to page 8-31-1.)

MGQM, MGQL Common Dimensions

Bore size (mm)	Standard stroke (mm)	B	C	DA	F	G	GA	GB	H	J	K	L	MM	ML	NN	P	PW	Q	R	S	T	TA	TB	V	W	X	YY	YL	Z
32		47.5	37.5	16	8	51	12.5	9	114	25	26	38	M8 x 1.25	20	M8 x 1.25	1/8	15	30	96	48	112	2	1	80	5	100	M8 x 1.25	11	16
40	25, 50	54	44	16	8	51	14	10	124	25	26	38	M8 x 1.25	20	M8 x 1.25	1/8	21	30	106	48	122	2	1	90	10	110	M8 x 1.25	11	17
50	75, 100	56	44	20	10	59	14	11	140	29	30	44	M10 x 1.5	25	M10 x 1.5	1/4	27	40	120	56	138	2	1	100	10	124	M10 x 1.5	12.5	17
63	125, 150	61	49	20	10	72	16.5	13.5	150	35.5	36.5	44	M10 x 1.5	25	M10 x 1.5	1/4	33	50	130	69	148	2	1	110	10	132	M10 x 1.5	15	19
80	175, 200	74.5	56.5	25	16	92	19	15.5	188	45.5	46.5	56	M12 x 1.75	30	M12 x 1.75	3/8	37	60	160	88	185	2.5	1.5	140	15	166	M12 x 1.75	18	21
100		84	66	30	16	112	23	19	224	55.5	56.5	62	M14 x 2	35	M14 x 2	3/8	40	80	190	108	221	2.5	1.5	170	15	200	M14 x 2	21	25

MGQM (Slide bearing) A, DB, E Dimensions

Bore size (mm)	A	DB	E
32	71.5	20	24
40	71.5	20	17.5
50	81	25	25
63	81	25	20
80	93	28	18.5
100	105	36	21

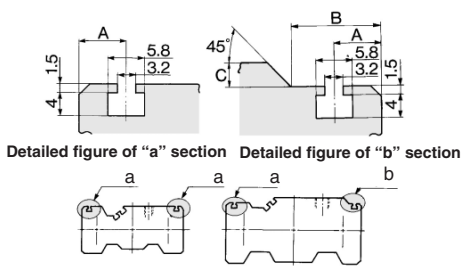
MGQL (Ball bushing bearing) A, DB, E Dimensions

Bore size (mm)	A		DB	E	
	50 st or less	Over 50 st		50 st or less	Over 50 st
32	53	90	16	5.5	42.5
40	54	90	16	0	36
50	60	102	20	4	46
63	61	102	20	0	41
80	84	143	25	9.5	68.5
100	89	153	30	5	69

Grooves (Except ø12, ø16, ø20, ø25)

Use grooves section "a" and section "b" in the figure below of the cylinder body for firmly fixing in the following case. (Applicable bolt size is M3.)

- These grooves can be used for firmly fixing the tying bands of lead wires of the auto switch, etc., and also terminal boards, etc., to the main body of the cylinder.
- When the terminal block is fixed on a cylinder directly.



MGQ□32 to 50 MGQ□63 to 100

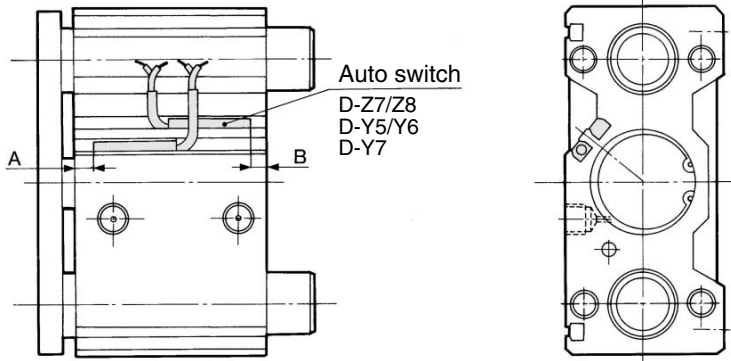
Model	A	B	C
MGQ□32	8	—	—
MGQ□40	8	—	—
MGQ□50	8	—	—
MGQ□63	8	19.5	6.5
MGQ□80	10	25	7
MGQ□100	10	29.5	14.5

Compact Guide Cylinder Series **MGQ**

Proper Auto Switch Mounting Position (Detection at stroke end)

Minimum Stroke for Auto Switch

	D-Z7□/Z80	D-Y5□/Y6□/Y7□(V)	D-Y7□W(V)
1 pc.	5	5	10
2 pcs.	10	5	15



- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

Bore size (mm)	12	16	20	25	32	40	50	63	80	100
A	1.5	4.5	4	4.5	5.5	9.5	7.5	10	13	17.5
B	3	4	8	8	7	9.5	11.5	14	18.5	23.5

Operating Range

Auto switch model	Applicable bore size (mm)									
	12	16	20	25	32	40	50	63	80	100
D-Z7□/Z80										
D-Y5□□/Y6□□/Y7□□	5	6	6	6.5	8.5	8.5	9	10	10	11.5

Other than the applicable auto switches listed in "How to Order", the following auto switches can be mounted. For detailed specifications, refer to page 8-30-1.

Type	Model	Electrical entry (Fetching direction)	Features
Reed switch	D-Z80	Grommet (In-line)	Without indicator light

* Normally closed (NC = b contact), solid state switch (D-Y7G/Y7H type) are also available. For details, refer to page 8-30-32.