



Compact Guide Cylinder With End Lock

Series MGP

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

How to Order

MGP M 32 100 H N Y7BW

Bearing type

M	Slide bearing
L	Ball bushing bearing

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Thread type

Nil	Rc
N	NPT
TF	G

Cylinder stroke (mm)
Refer to "Standard Stroke" on page 8-19-42.

Number of auto switches

Nil	2 pcs.
S	1 pc.

Auto switch

Nil	Without auto switch (Built-in magnet)
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* For the applicable auto switch model, refer to the table below.
* Auto switches are shipped together, (but not assembled). (Except D-P5DW)

Manual release type

N	Non-lock type
L	Lock type

Lock position

H	Head end lock
R	Rod end lock

MX

MTS

MY

CY

MG

CX

D-

-X

20-

Data

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	Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)	IC circuit		Relay, PLC	
															5 V
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	—	Z76	●	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	—	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	●	●	○	○		
				3-wire (PNP)				Y7PWV	Y7PW	●	●	○	○		
				2-wire				Y7BWV	Y7BW	●	●	○	○		
				Water resistant (2-color indication)				—	Y7BA	—	●	○	○		
Magnetic field resistant (2-color indication)	—	P5DW	—	●	●	○									

* Lead wire length symbols: 0.5 m..... Nil
3 m..... L
5 m..... Z

(Example) Y59A
(Example) Y59AL
(Example) Y59AZ

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

* D-P5DW type can be mounted only on bore sizes 40 to 100.

- Since there are other applicable auto switches than listed, refer to page 8-19-44 for details.
- For details about auto switches with pre-wire connector, refer to page 8-30-52.

Series MGP



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

Symbol	Specifications
-XC79	Machining tapped hole, drilled hole and pin hole additionally.

Auto Switch Mounting Bracket Part No. for D-P5DW

Bore size (mm)	Mounting bracket part no.	Note
40, 50, 63, 80, 100	BMG1-040	Switch mounting bracket Hexagon socket head cap screw (M2.5 x 0.45 x 8) 2 pcs. Hexagon socket head cap screw (M3 x 0.5 x 16) 2 pcs. Spring washer (Nominal size 3)

Specifications

Action	Double acting	
Fluid	Air	
Proof pressure	1.5 MPa	
Maximum operating pressure	1.0 MPa	
Minimum operating pressure	0.15 MPa *	
Ambient and fluid temperature	-10 to 60°C (No freezing)	
Piston speed	ø20 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	

* 0.1 MPa except the lock unit.

Lock Specifications

Lock position	Head end, Rod end							
Holding force (Max.) N	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
	215	330	550	860	1340	2140	3450	5390
Backlash	2 mm or less							
Manual release	Non-lock type, Lock type							

Adjust switch positions for operation at both the stroke end and backlash (2 mm) movement positions.

Standard Stroke

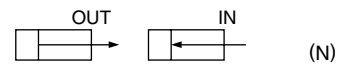
Bore size (mm)	Standard stroke (mm)
20, 25, 32, 40, 50, 63, 80, 100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

Manufacture of Intermediate Stroke

Description	Spacer installation type Dealing with the stroke by the 5 mm interval is available by installing spacer with standard stroke cylinder.
Part no.	Refer to "How to Order" for the standard model numbers on page 8-19-41.
Applicable stroke (mm)	5 to 395
Example	Part no.: MGPM50-35-HN A spacer 15 mm in width is installed in a MGPM50-50-HN. C dimension is 119 mm.

Note 1) The minimum stroke for mounting auto switches is 10 stroke or more for two switches, and 5 stroke or more for one switch.
Note 2) Intermediate stroke (by the 1 mm interval) based on an exclusive body will be available upon request for special.

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	
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)

Weight

Slide Bearing: MGPM20 to 100 (Basic weight)

(kg)

Bore size (mm)	Model	Standard stroke (mm)											
		25	50	75	100	125	150	175	200	250	300	350	400
20	MGPM20	0.86	1.12	1.32	1.52	1.71	1.91	2.11	2.31	2.78	3.18	3.57	3.97
25	MGPM25	1.18	1.56	1.83	2.10	2.38	2.65	2.92	3.19	3.85	4.39	4.94	5.48
32	MGPM32	1.92	2.32	2.70	3.09	3.47	3.85	4.23	4.61	5.56	6.32	7.09	7.85
40	MGPM40	2.20	2.66	3.08	3.51	3.93	4.36	4.78	5.20	6.24	7.10	7.95	8.80
50	MGPM50	3.73	4.46	5.10	5.74	6.38	7.02	7.66	8.30	9.91	11.2	12.5	13.8
63	MGPM63	4.61	5.45	6.21	6.96	7.72	8.47	9.23	9.99	11.8	13.3	14.8	16.3
80	MGPM80	7.88	8.70	9.49	10.3	11.2	12.0	12.8	13.9	15.5	17.2	18.8	20.5
100	MGPM100	12.1	13.2	14.4	15.6	16.8	18.0	19.1	20.6	22.9	25.3	27.6	30.0

Ball Bushing Bearing: MGPL20 to 100

(kg)

Bore size (mm)	Model	Standard stroke (mm)											
		25	50	75	100	125	150	175	200	250	300	350	400
20	MGPL20	0.93	1.10	1.27	1.48	1.65	1.83	2.00	2.17	2.55	2.90	3.25	3.60
25	MGPL25	1.27	1.50	1.74	2.01	2.24	2.47	2.70	2.94	3.44	3.91	4.37	4.83
32	MGPL32	1.74	2.19	2.51	2.88	3.20	3.51	3.83	4.15	4.84	5.47	6.10	6.73
40	MGPL40	2.02	2.51	2.87	3.29	3.65	4.01	4.37	4.73	5.51	6.23	6.95	7.67
50	MGPL50	3.46	4.21	4.76	5.40	5.95	6.50	7.05	7.60	8.83	9.92	11.1	12.2
63	MGPL63	4.33	5.20	5.86	6.62	7.28	7.95	8.61	9.27	10.7	12.1	13.4	14.7
80	MGPL80	8.05	8.87	9.66	10.5	11.4	12.2	13.0	14.1	15.7	17.4	19.0	20.7
100	MGPL100	12.4	13.5	14.7	15.9	17.1	18.3	19.4	20.9	23.2	25.6	27.9	30.3

Lock Unit Additional Weight

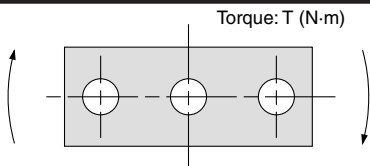
(kg)

Bore size (mm)	Head end lock		Rod end lock	
	HN	HL	RN	RL
20	0.05	0.07	0.05	0.06
25	0.06	0.07	0.05	0.07
32	0.09	0.10	0.09	0.10
40	0.15	0.18	0.14	0.18
50	0.24	0.27	0.23	0.27

Bore size (mm)	Head end lock		Rod end lock	
	HN	HL	RN	RL
63	0.36	0.40	0.35	0.39
80	0.90	0.97	1.03	1.10
100	1.52	1.60	1.60	1.68

Calculation: (Example) MGPM50-100-HN
 • Basic weight + Lock unit additional weight
 • 5.74 + 0.24 = 5.98 kg

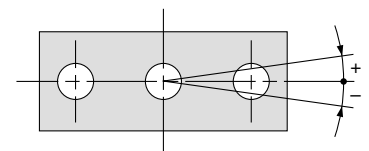
Allowable Rotational Torque of Plate



T (N·m)

Bore size (mm)	Bearing type	Stroke (mm)											
		25	50	75	100	125	150	175	200	250	300	350	400
20	MGPM	0.99	0.75	1.88	1.63	1.44	1.28	1.16	1.06	0.90	0.78	0.69	0.62
	MGPL	2.66	1.94	1.52	1.25	1.34	1.17	1.03	0.93	0.76	0.65	0.56	0.49
25	MGPM	1.64	1.25	2.96	2.57	2.26	2.02	1.83	1.67	1.42	1.24	1.09	0.98
	MGPL	4.08	3.02	2.38	1.97	2.05	1.78	1.58	1.41	1.16	0.98	0.85	0.74
32	MGPM	6.35	5.13	5.69	4.97	4.42	3.98	3.61	3.31	2.84	2.48	2.20	1.98
	MGPL	5.95	4.89	5.11	4.51	6.34	5.79	5.33	4.93	4.29	3.78	3.38	3.04
40	MGPM	7.00	5.66	6.27	5.48	4.87	4.38	5.98	3.65	3.13	2.74	2.43	2.19
	MGPL	6.55	5.39	5.62	4.96	6.98	6.38	5.87	5.43	4.72	4.16	3.71	3.35
50	MGPM	13.0	10.8	12.0	10.6	9.50	8.60	7.86	7.24	6.24	5.49	4.90	4.43
	MGPL	9.17	7.62	9.83	8.74	11.6	10.7	9.83	9.12	7.95	7.02	6.26	5.63
63	MGPM	14.7	12.1	13.5	11.9	10.7	9.69	8.86	8.16	7.04	6.19	5.52	4.99
	MGPL	10.2	8.48	11.0	9.74	13.0	11.9	11.0	10.2	8.84	7.80	6.94	6.24
80	MGPM	21.9	18.6	22.9	20.5	18.6	17.0	15.6	14.5	12.6	11.2	10.0	9.11
	MGPL	15.1	23.3	22.7	20.6	18.9	17.3	16.0	14.8	12.9	11.3	10.0	8.94
100	MGPM	38.8	33.5	37.5	33.8	30.9	28.4	26.2	24.4	21.4	19.1	17.2	15.7
	MGPL	27.1	30.6	37.9	34.6	31.8	29.3	27.2	25.3	22.1	19.5	17.3	15.5

Non-rotating Accuracy of Plate



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

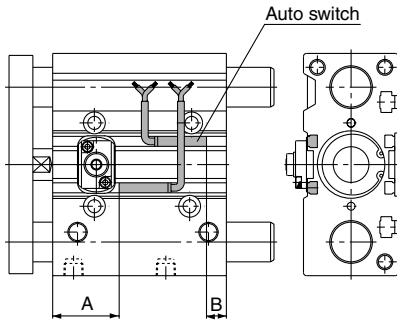
Bore size (mm)	Non-rotating accuracy θ	
	MGPM	MGPL
20	$\pm 0.07^\circ$	$\pm 0.09^\circ$
25	$\pm 0.07^\circ$	$\pm 0.09^\circ$
32	$\pm 0.06^\circ$	$\pm 0.08^\circ$
40	$\pm 0.06^\circ$	$\pm 0.08^\circ$
50	$\pm 0.05^\circ$	$\pm 0.06^\circ$
63	$\pm 0.05^\circ$	$\pm 0.06^\circ$
80	$\pm 0.04^\circ$	$\pm 0.05^\circ$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

Model selection is the same as MGP/standard type.
 Refer to page 8-19-11.

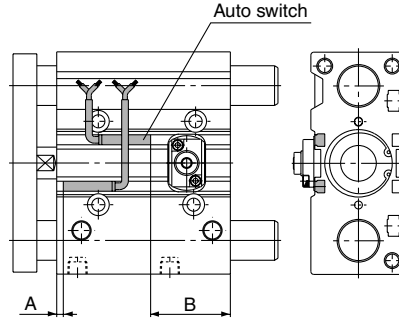
Series MGP

Proper Auto Switch Mounting Position (Detection at stroke end)

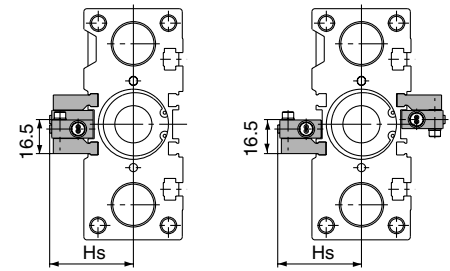
With rod end lock



With head end lock



For D-P5DW (* Cannot be mounted on bore sizes $\phi 32$ or less.)



Proper Mounting Position

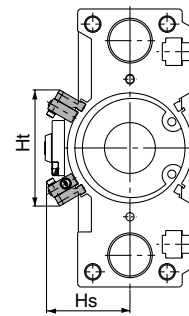
Bore size (mm)	A	B
20	29	8
25	29.5	8
32	30.5	7
40	34.5	9.5
50	32.5	11.5
63	35	14
80	63	18.5
100	67.5	23.5

* Minimum mountable strokes for auto switch are 10 stroke or more for two switches, and 5 stroke or more for one switch.

Bore size (mm)	A	B
20	4	33
25	4.5	33
32	5.5	32
40	9.5	34.5
50	7.5	36.5
63	10	39
80	13	68.5
100	17.5	73.5

* Minimum mountable strokes for auto switch are 10 stroke or more for two switches, and 5 stroke or more for one switch.

$\phi 80, \phi 100$



For 25 stroke

* For bore sizes $\phi 40$ to $\phi 63$ with two switches, one switch is mounted on each side.

Mounting of Auto Switch

⚠ Caution

In the case of 25 st or less with head side end lock type, it might not insert auto switch from the rod side. In this case, install it after removing the plate temporarily. Regarding the plate removal and the way of assembly, please consult with SMC.

Bore size (mm)	Hs	Ht
40	44.5	—
50	50	—
63	57	—
80	60.7	84.4
100	70.8	96.1

* Minimum mountable strokes for auto switch are 10 stroke or more for two switches, and 5 stroke or more for one switch.

Operating Range

Auto switch model	Applicable bore size (mm)							
	20	25	32	40	50	63	80	100
D-Z7□/Z80	10	10	10.5	10.5	10.5	11.5	11.5	12
D-Y59□/Y69□/Y7P/Y7PV D-Y7□W/Y7□WV	7.5	7	6.5	6	7	8	9.5	10
D-Y7BAL	5	5	6	6	6	6	6	6.5
D-P5DWL	—	—	—	4	4	5	4	4

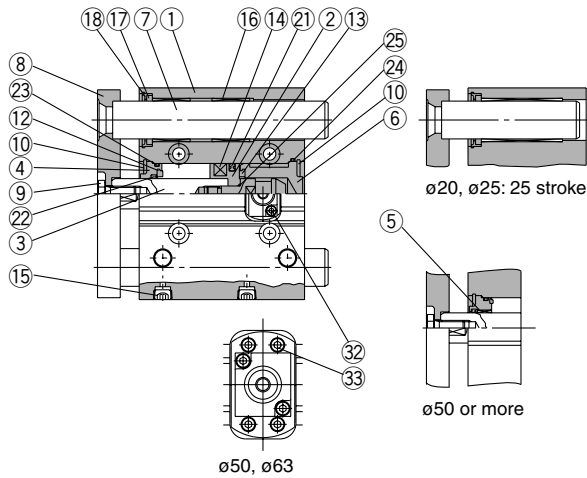
Other than the applicable auto switches listed in "How to Order", following auto switches can be mounted. For detailed specifications, refer to page 8-30-1.

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

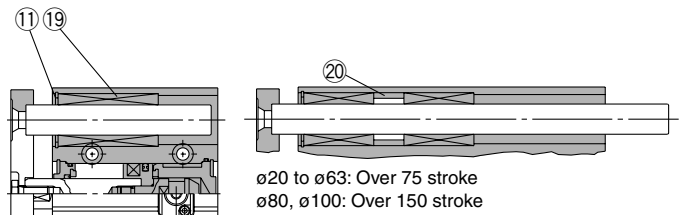
* Normally closed (NC = b contact), solid state switch (D-Y7G/Y7H type) are also available. For details, refer to page 8-30-32.

Construction

Series MGPM

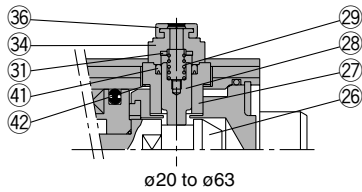


Series MGPL

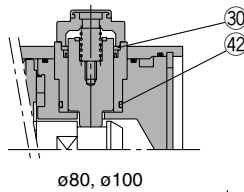


Non-locking type

(Head end lock)

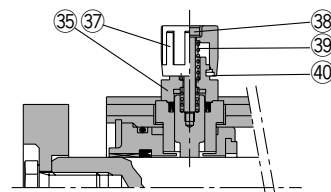


ø20 to ø63

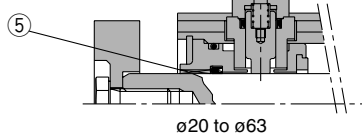


ø80, ø100

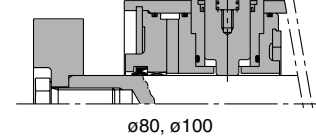
Lock type



(Rod end lock)



ø20 to ø63



ø80, ø100

Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Hard anodized
②	Piston	Aluminum alloy	Chromated
③	Piston rod	Stainless steel ø20, ø25	Hard chrome plated with rod end lock only
		Carbon steel ø32 to ø100	Hard chrome plated
④	Collar	Aluminum alloy	Clear anodized
			Painted only for ø50 to ø100 with head end lock
⑤	Bushing	Lead-bronze casting	
⑥	Head cover	Aluminum alloy	Colorless chromated
⑦	Guide rod	Carbon steel	Hard chrome plated
⑧	Plate	Carbon steel	Nickel plated
⑨	Plate mounting bolt	Carbon steel	Nickel plated
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	Hexagon socket head taper plug	Carbon steel	Nickel plated
⑯	Slide Bearing	Lead-bronze casted	
⑰	Felt	Felt	
⑱	Holder	Resin	
⑲	Ball bushing		
⑳*	Spacer	Aluminum alloy	

No.	Description	Material	Note
⑳*	Piston seal	NBR	
㉑*	Rod seal	NBR	
㉒*	Gasket A	NBR	
㉓*	Gasket B	NBR	
㉔*	Gasket B	NBR	
㉕	Piston gasket	NBR	ø32 to ø100 only
㉖	Lock bolt	Carbon steel	Electroless nickel plated
㉗	Lock holder	Brass	Electroless nickel plated
㉘	Lock piston	Carbon steel	Nickel plated after quenched
㉙	Lock spring	Stainless steel	
㉚	Seal retainer	Carbon steel	Zinc chromated (ø80, ø100 only)
㉛	Bumper	Urethane	
㉜*	Hexagon socket head cap screw	Carbon steel	Black zinc chromated
㉝*	Hexagon socket head cap screw	Carbon steel	Zinc chromated (ø50, ø63 only)
㉞	Cap A	Aluminum die-casted	Black painted
㉟	Cap B	Carbon steel	Oxide film treated
㊱	Rubber cap	Synthetic rubber	
㊲	M/O knob	Zinc die-casted	Black painted
㊳	M/O bolt	Alloy steel	Black zinc chromated
㊴	M/O spring	Steel wire	Zinc chromated
㊵	Stopper ring	Carbon steel	Zinc chromated
㊶*	Lock piston seal	NBR	
㊷*	Lock holder gasket	NBR	

Replacement Parts: Seal Kit

Bore size (mm)	Kit no.	Contents
20	MGP20-B-PS	Set of nos. above ㉑, ㉒, ㉓, ㉔, ㉜, ㉝, ㉛, ㉞, ㉟, ㊱, ㊲
25	MGP25-B-PS	
32	MGP32-B-PS	
40	MGP40-B-PS	
50	MGP50-B-PS	

* Seal kit includes ㉑ to ㉔, ㉜, ㉝, ㉛, ㉞, ㉟, ㊱, ㊲. Order the seal kit, based on each bore size.

MX

MTS

MY

CY

MG

CX

D-

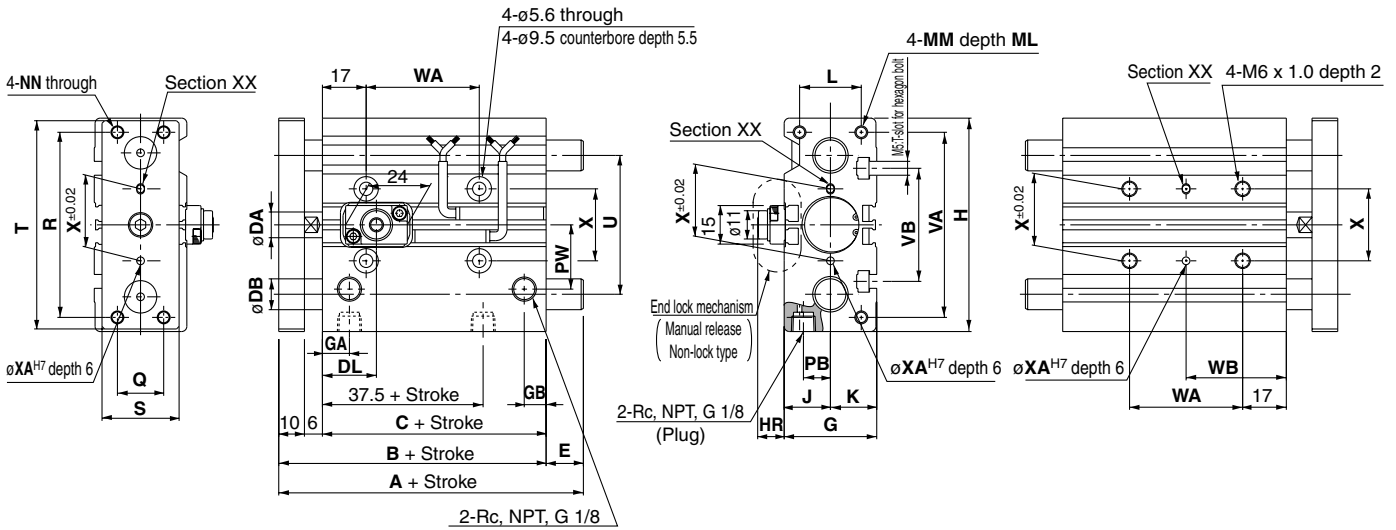
-X

20-

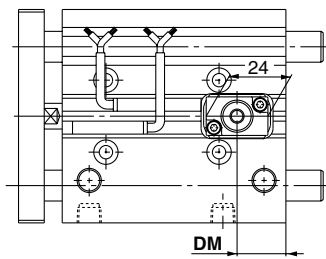
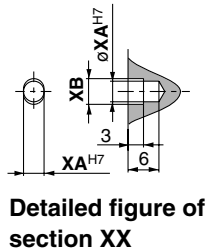
Data

Series MGP

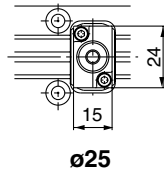
Dimensions: $\phi 20$, $\phi 25$



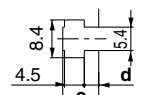
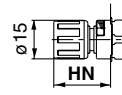
With rod end lock



With head end lock



End lock mechanism
(Manual release lock type)



T-slot dimensions

Bore size (mm)	d	e
20	2.8	7.8
25	3	8.2



For intermediate strokes, refer to "Manufacture of Intermediate Stroke" on page 8-19-42.

Bore size (mm)	Standard stroke (mm)	B	C	DA	G	GA	GB	H	J	K	L	MM	ML	NN	PB	PW	Q	R
20	25, 50, 75, 100, 125, 150, 175	78	62	10	36	10.5	8.5	83	18	18	24	M5 x 0.8	13	M5 x 0.8	10.5	25	18	70
25	200, 250, 300, 350, 400	78.5	62.5	12	42	11.5	9	93	21	21	30	M6 x 1.0	15	M6 x 1.0	13.5	28.5	26	78

Bore size (mm)	S	T	U	VA	VB	WA				WB				X	XA	XB
						75 st or less	Over 75 st to 175 st	Over 175 st to 250 st	Over 250 st	75 st or less	Over 75 st to 175 st	Over 175 st to 275 st	Over 275 st			
20	30	81	54	72	44	44	120	200	300	39	77	117	167	28	3	3.5
25	38	91	64	82	50	44	120	200	300	39	77	117	167	34	4	4.5

End Lock Mechanism Dimensions

Bore size (mm)	DL	DM	HR	HN
20	21	19	10.5	22
25	26.5	16	8	19.5

MGPM (Slide bearing) A, DB, E Dimensions

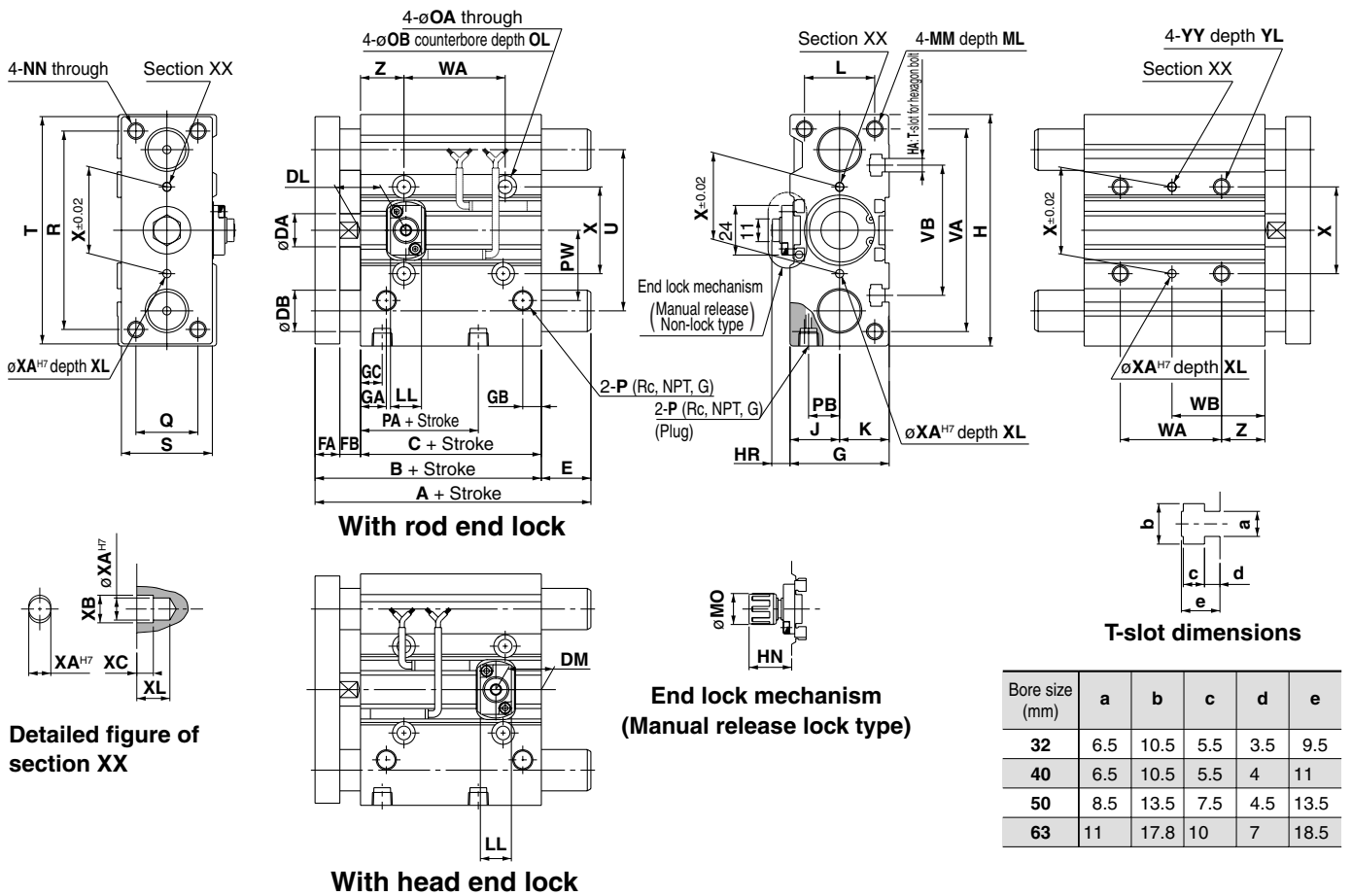
Bore size (mm)	A			DB	E		
	25 st or less	Over 25 st to 175 st	Over 175 st to 250 st		25 st or less	Over 25 st to 175 st	Over 175 st to 250 st
20	78	84.5	122	12	0	6.5	44
25	78.5	85	122	16	0	6.5	43.5

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

Bore size (mm)	A			DB	E		
	75 st or less	Over 75 st to 175 st	Over 175 st to 250 st		75 st or less	Over 75 st to 175 st	Over 175 st to 250 st
20	80	104	122	10	2	26	44
25	85.5	104.5	122	13	7	26	43.5

Compact Guide Cylinder With End Lock Series MGP

Dimensions: $\phi 32, \phi 63$



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

Bore size (mm)	a	b	c	d	e
32	6.5	10.5	5.5	3.5	9.5
40	6.5	10.5	5.5	4	11
50	8.5	13.5	7.5	4.5	13.5
63	11	17.8	10	7	18.5

Bore size (mm)	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	K	L	MM	ML	NN	OA
32	25, 50, 75, 100	84.5	62.5	16	12	10	48	12.5	9	12.5	112	M6	24	24	34	M8 x 1.25	20	M8 x 1.25	6.6
40	125, 150, 175	91	69	16	12	10	54	14	10	14	120	M6	27	27	40	M8 x 1.25	20	M8 x 1.25	6.6
50	200, 250, 300	97	69	20	16	12	64	14	11	12	148	M8	32	32	46	M10 x 1.5	22	M10 x 1.5	8.6
63	350, 400	102	74	20	16	12	78	16.5	13.5	16.5	162	M10	39	39	58	M10 x 1.5	22	M10 x 1.5	8.6

Bore size (mm)	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB	WA				WB			
														75 st or	Over 75 st to 175 st	Over 175 st to 275 st	Over 250 st	75 st or	Over 75 st to 175 st	Over 175 st to 275 st	Over 275 st
32	11	7.5	1/8	32	15	34	30	96	44	110	78	98	63	48	124	200	300	45	83	121	171
40	11	7.5	1/8	38	18	38	30	104	44	118	86	106	72	48	124	200	300	46	84	122	172
50	14	9	1/4	34	21.5	47	40	130	60	146	110	130	92	48	124	200	300	48	86	124	174
63	14	9	1/4	39	28	55	50	130	70	158	124	142	110	52	128	200	300	50	88	124	174

MGPM (Slide bearing) A, DB, E Dimensions

Bore size (mm)	X	XA	XB	XC	XL	YY	YL	Z
32	42	4	4.5	3	6	M8 x 1.25	16	21
40	50	4	4.5	3	6	M8 x 1.25	16	22
50	66	5	6	4	8	M10 x 1.5	20	24
63	80	5	6	4	8	M10 x 1.5	20	24

Bore size (mm)	A			DB	E		
	25 st or	Over 25 st to 75 st	Over 75 st to 175 st		25 st or	Over 25 st to 75 st	Over 75 st to 175 st
32	97	102	140	20	12.5	17.5	55.5
40	97	102	140	20	6	11	49
50	106.5	118	161	25	9.5	21	64
63	106.5	118	161	25	4.5	16	59

End Lock Mechanism Dimensions

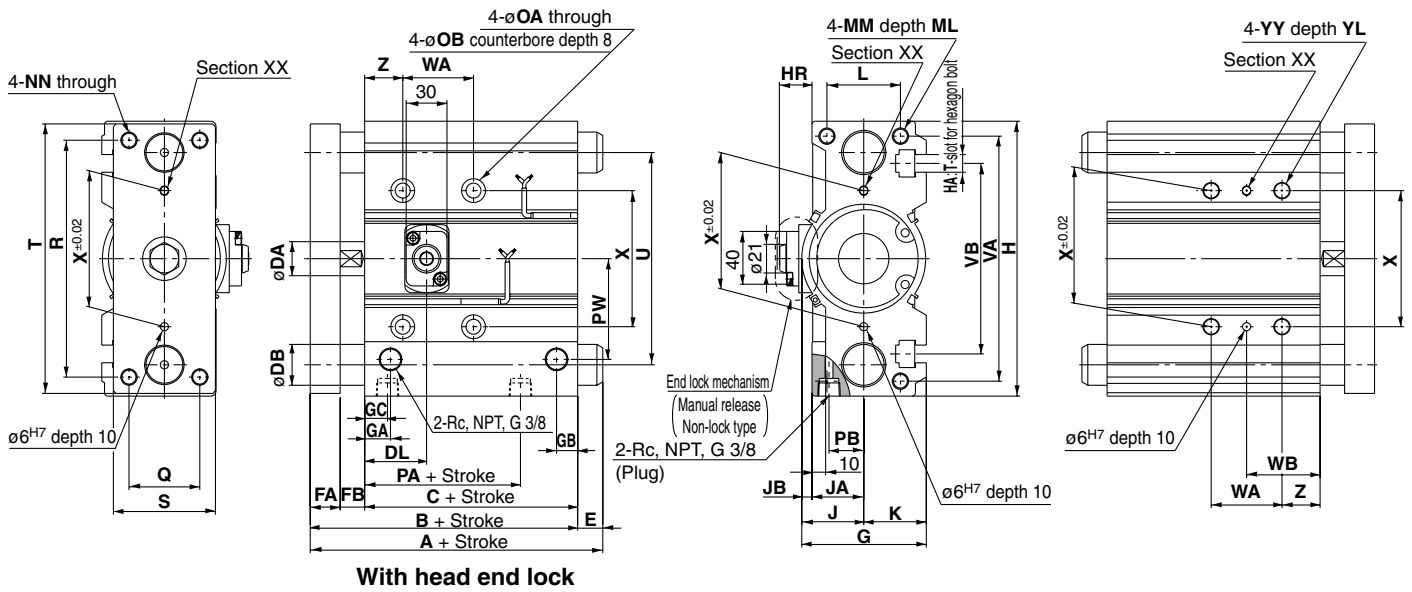
Bore size (mm)	DL	DM	HR	HN (Max.)	LL	MO
32	22	22	9.5	21	15	15
40	26	23	11.5	25.5	21	19
50	24	23	13	27	21	19
63	25	25.5	11	25	21	19

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

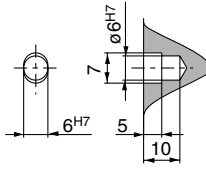
Bore size (mm)	A				DB	E			
	25 st or	Over 25 st to 75 st	Over 75 st to 175 st	Over 175 st to 250 st		25 st or less	Over 25 st to 75 st	Over 75 st to 175 st	Over 175 st to 250 st
32	84.5	98	118	140	16	0	13.5	33.5	55.5
40	91	98	118	140	16	0	7	27	49
50	97	114	134	161	20	0	17	37	64
63	102	114	134	161	20	0	12	32	59

Series MGP

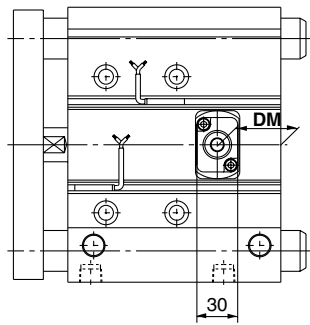
Dimensions: $\varnothing 80, \varnothing 100$



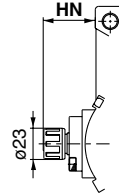
With head end lock



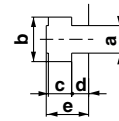
Detailed figure of section XX



With rod end lock



End lock mechanism (Manual release lock type)



T-slot dimensions

Bore size (mm)	a	b	c	d	e
80	13.3	20.3	12	8	22.5
100	15.3	23.3	13.5	10	30

Bore size (mm)	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	JA	JB	K	L
80	25, 50, 75, 100, 125, 150, 175	146.5	106.5	25	22	18	91.5	19	15.5	14.5	202	M12	45.5	38	7.5	46	54
100	200, 250, 300, 350, 400	166	116	30	25	25	111.5	23	19	18	240	M14	55.5	45	10.5	56	62

Bore size (mm)	MM	ML	NN	OA	OB	PA	PB	PW	Q	R	S	T	U	VA	VB	WA			
																50 st or less	Over 50 st to 150 st	Over 150 st to 250 st	Over 250 st
80	M12 x 1.75	25	M12 x 1.75	10.6	17.5	64.5	25.5	74	52	174	75	198	156	180	140	52	128	200	300
100	M14 x 2.0	31	M14 x 2.0	12.5	20	67.5	32.5	89	64	210	90	236	188	210	166	72	148	220	320

Bore size (mm)	WB				X	YY	YL	Z
	50 st or less	Over 50 st to 150 st	Over 150 st to 250 st	Over 250 st				
80	54	92	128	178	100	M12 x 1.75	24	28
100	47	85	121	171	124	M14 x 2.0	28	11

End Lock Mechanism Dimensions

Bore size (mm)	DL	DM	HR	HN
80	45.5	40.5	24	38.5
100	49	43.5	26.5	41

MGPM (Slide bearing) A, DB, E Dimensions

Bore size (mm)	A		DB	E	
	150 st or less	Over 150 st		150 st or less	Over 150 st
80	146.5	193	30	0	46.5
100	166	203	36	0	37

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

Bore size (mm)	A		DB	E	
	150 st or less	Over 150 st		150 st or less	Over 150 st
80	160	193	25	13.5	46.5
100	180	203	30	14	37