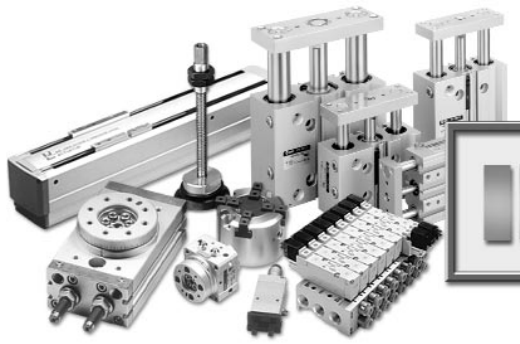


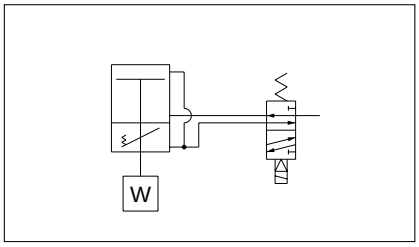
INFORMATION New!

Compact Guide Cylinder with One-way Lock
Series MLGP ø40, ø50, ø63

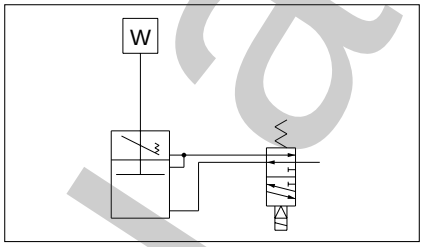
Prevents dropping when air supply pressure falls or residual pressure is exhausted

Can be locked at any position
The locking position can be changed to accommodate an external stopper position or the thickness of clamped work pieces, etc.

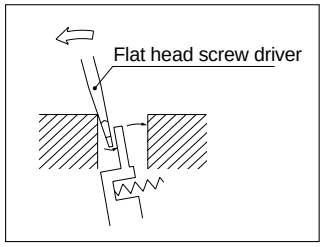
Locking direction can be selected
Extension locking



Retraction locking

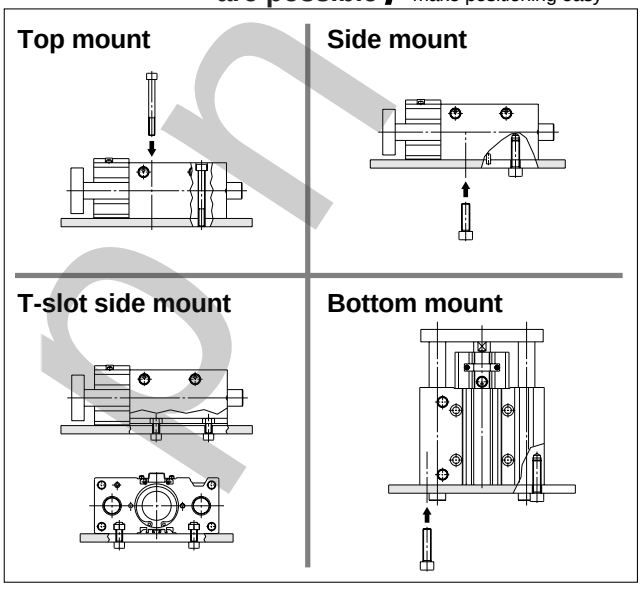


Easy manual unlocking



Two types of guide rod bearing to accommodate the application
Slide bearing
Excellent abrasion resistance allows use with high loads
Ball bushing
High precision and smooth operation

Four types of mounting are possible / Knock pin holes provided on each mounting surface make positioning easy

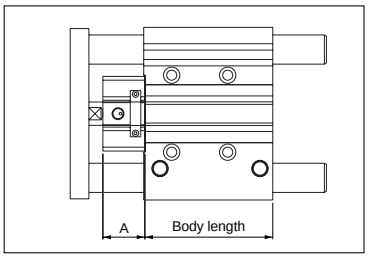


Compact type
Extension of the overall length dimension is minimized by the compact lock unit.
Body length is the same as the compact cylinder with lock series MGP.

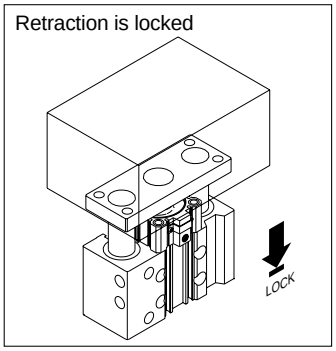
Lock unit thickness (mm)

Bore size (mm)	A
40	34
50	35
63	38

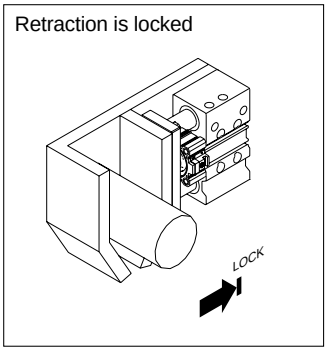
(1in = 25.4mm)



Application examples
Drop prevention for a upward facing cylinder



Holding a clamped condition



Series MLGP

How to Order

MLGP M 40 50 F Z73 □

Compact guide cylinder with one-way lock

Bearing type

M	Slide bearing
L	Ball bushing

Bore size

40	40mm
50	50mm
63	63mm

Cylinder stroke (mm)
Refer to the standard stroke table on page 3.

Locking direction

F	Extension locking
B	Retraction locking

Auto switch type

Nil	Without auto switch (built-in magnet cylinder)

∗ Refer to the table below for auto switch models.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Applicable auto switches

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage DC	Load voltage AC	Auto switch model: Electrical entry direction Perpendicular	Auto switch model: Electrical entry direction In-line	Lead wire length (m) 0.5 (Nil)	3 (L)	5 (Z)	Applicable load	
Reed switch	———	Grommet	Yes	3 wire	——	5V	——	——	**Z76**	●	●	—	IC circuit	——
			Yes	2 wire	24V	12V	100V	——	**Z73**	●	●	●	——	Relay, PLC
			No			5V 12V	100V or less	——	**Z80**	●	●	—	IC circuit	
Solid state switch	———	Grommet	Yes	3 wire (NPN)	24V	5V 12V	——	**Y69A**	**Y59A**	●	●	○	IC circuit	Relay, PLC
				3 wire (PNP)				**Y7PV**	**Y7P**	●	●	○	IC circuit	
				2 wire		12V		**Y69B**	**Y59B**	●	●	○	——	
	Diagnostic indication (2 color indicator)			3 wire (NPN)		5V 12V		**Y7NWV**	**Y7NW**	●	●	○	IC circuit	
				3 wire (PNP)				**Y7PWV**	**Y7PW**	●	●	○		
								Y7BWV	**Y7BW**	●	●	○		
	Water resistant (2 color indicator)			2 wire		12V	——	**Y7BA**		●	○	——		
	Magnetic field resistant (2 color indicator)							**P5DW**		●	●			

∗ Lead wire length symbols 0.5m ……Nil (Example) Y69B
3m ……. L (Example) Y59BL
5m …… Z (Example) Y69BZ

∗∗ Solid state switches marked with a "○" symbol are produced upon receipt of order.

Cylinder Specifications

Action	Double acting
Fluid	Air
Proof pressure	1.5MPa (217 psi)
Maximum operating pressure	1.0MPa (145 psi)
Minimum operating pressure	0.15MPa (22 psi)
Ambient and fluid temperature	-10°C to 60°C (14° to 140°F)
Piston speed	50 to 500 m/s (2 to 19 in/s)
Cushion	Double side rubber bumper
Lubrication	Non-lube
Stroke length tolerance	$^{+1.5}_{0}$ mm ($^{+0.06}_{0}$ in)

Lock Specifications

Bore size (mm)	40	50	63
Locking action	Spring locking (exhaust locking)		
Unlocking pressure	0.2MPa or more (29 psi)		
Locking pressure	0.05MPa or less (72 psi)		
Locking direction	One direction (extension locking, retraction locking)		
Maximum operating pressure	1.0MPa (145 psi)		
Unlocking port size	Rc 1/8		
Holding force N (lb_f) (maximum static load)	629 (141)	982 (220)	1559 (350)

Standard Strokes

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

1in = 25.4mm

Manufacture of Intermediate Strokes

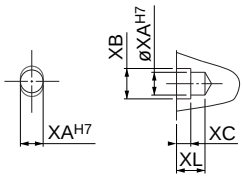
Modification method	Spacers installed 5mm spacers are installed in standard stroke cylinders.
Ordering method	Refer to standard part numbers and ordering.
Applicable stroke (mm)	5 to 350
Ordering example	Model: **MLGPM40-45-B** A 5mm spacer is installed in MLGPM40-50-B

Note) The minimum stroke for mounting auto switches is 10mm or more for 2 pcs., and 5mm or more for 1pc.

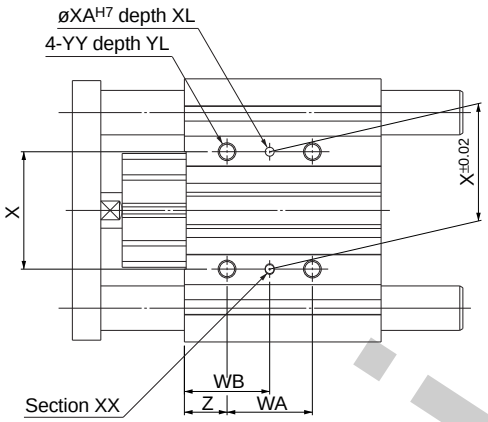
Dimensions ø40 to 63/MLGPM, MLGPL/Extension locking (mm)

LOCK

1in = 25.4mm

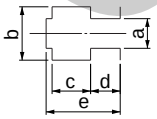


Section XX detail

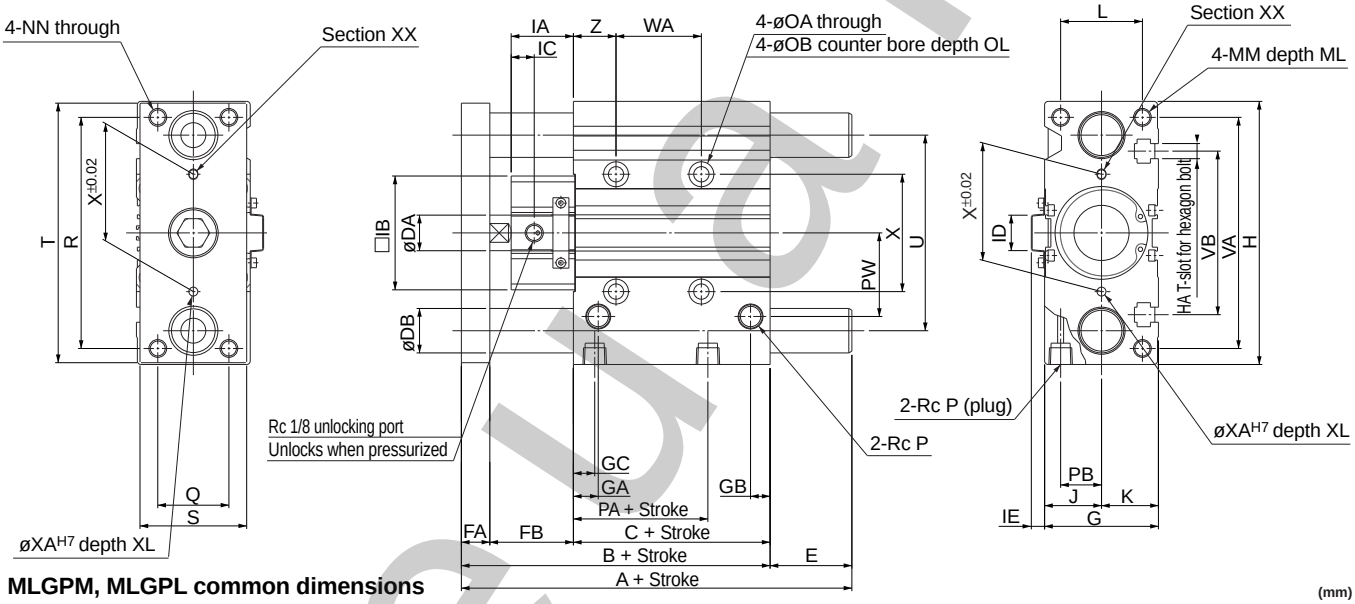


Bottom view

T-slot dimensions



Bore size (mm)	a	b	c	d	e
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



MLGPM, MLGPL common dimensions

(mm)

Bore size (mm)	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	IA	IB	IC	ID	IE
40	25, 50, 75 100, 125, 150, 175 200, 250, 300, 350	100	44	16	12	44	54	14	10	14	120	M6	34	52	11	14	4
50		107	44	20	16	47	64	14	11	12	148	M8	35	64	13	19	7
63		115	49	20	16	50	78	16.5	13.5	16.5	162	M10	38	77	16.5	19	6.5

Bore size (mm)	J	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA
40	27	27	40	M8 x 1.25	20	M8 x 1.25	6.6	11	7.5	1/8	13	18	38	30	104	44	118	86	106
50	32	32	46	M10 x 1.5	22	M10 x 1.5	8.6	14	9	1/4	9	21.5	47	40	130	60	146	110	130
63	39	39	58	M10 x 1.5	22	M10 x 1.5	8.6	14	9	1/4	14	28	55	50	130	70	158	124	142

Bore size (mm)	VB	WA					WB					X	XA	XB	XC	XL	YY	YL	Z
		st≤25	25<st≤100	100<st≤200	200<st≤300	300<st≤350	st≤25	25<st≤100	100<st≤200	200<st≤300	300<st≤350								
40	72	24	48	124	200	300	34	46	84	122	172	50	4	4.5	3	6	M8 x 1.25	16	22
50	92	24	48	124	200	300	36	48	86	124	174	66	5	6	4	8	M10 x 1.5	20	24
63	110	28	52	128	200	300	38	50	88	124	174	80	5	6	4	8	M10 x 1.5	20	24

MLGPM (slide bearing)/A, DB, E dimensions

Bore size (mm)	A			DB	E		
	st≤50	50<st≤200	200<st≤350		st≤50	50<st≤200	200<st≤350
40	131	136	174	20	31	36	74
50	141.5	153	196	25	34.5	46	89
63	144.5	156	199	25	29.5	41	84

MLGPL (ball bushing)/A, DB, E dimensions

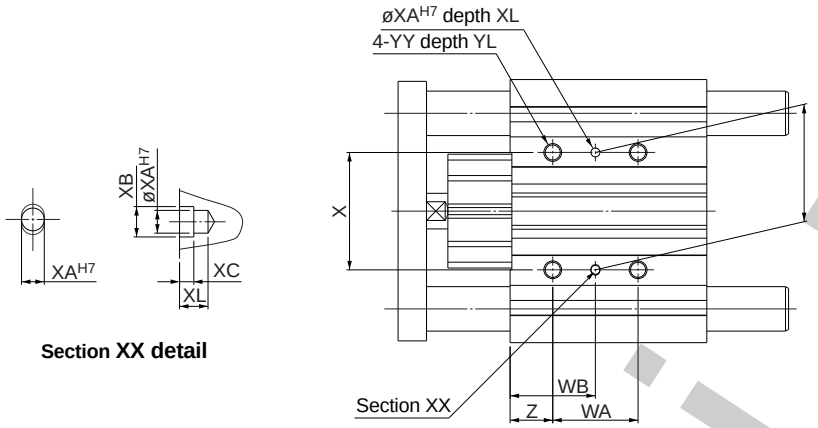
Bore size (mm)	A				DB	E			
	st≤50	50<st≤100	100<st≤200	200<st≤350		st≤50	50<st≤100	100<st≤200	200<st≤350
40	115	132	152	174	16	15	32	52	74
50	128	149	169	196	20	21	42	62	89
63	131	152	172	199	20	16	37	57	84

Note) Intermediate strokes other than the standard strokes are produced by installing spacers.

Dimensions ø40 to 63/MLGPM, MLGPL/Retraction locking (mm)

LOCK

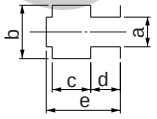
1in = 25.4mm



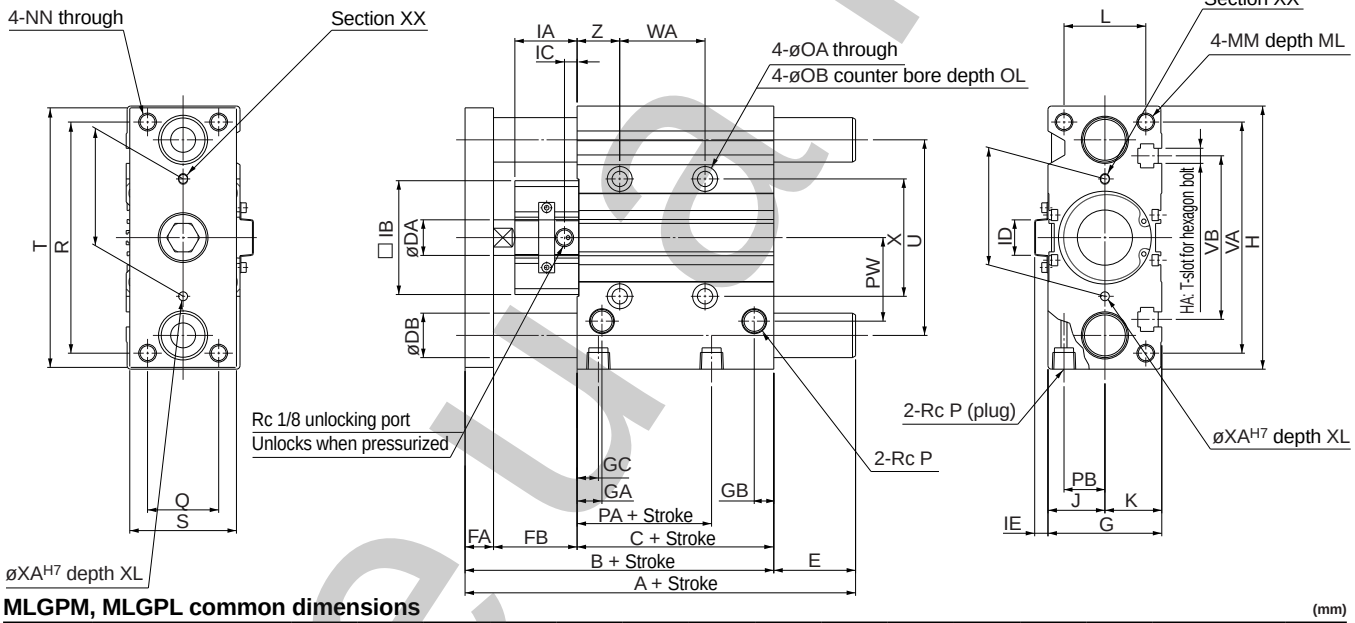
Section XX detail

Bottom view

T-slot dimensions



Bore size (mm)	a	b	c	d	e
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



MLGPM, MLGPL common dimensions

(mm)

Bore size (mm)	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	IA	IB	IC	ID	IE
40	25, 50, 75 100, 125, 150, 175 200, 250, 300, 350	100	44	16	12	44	54	14	10	14	120	M6	34	52	6.5	14	4
50		107	44	20	16	47	64	14	11	12	148	M8	35	64	6.8	19	7
63		115	49	20	16	50	78	16.5	13.5	16.5	162	M10	38	77	7.5	19	6.5

Bore size (mm)	J	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA
40	27	27	40	M8 x 1.25	20	M8 x 1.25	6.6	11	7.5	1/8	13	18	38	30	104	44	118	86	106
50	32	32	46	M10 x 1.5	22	M10 x 1.5	8.6	14	9	1/4	9	21.5	47	40	130	60	146	110	130
63	39	39	58	M10 x 1.5	22	M10 x 1.5	8.6	14	9	1/4	14	28	55	50	130	70	158	124	142

Bore size (mm)	VB	WA						WB					X	XA	XB	XC	XL	YY	YL	Z
		st≤25	25<st≤100	100<st≤200	200<st≤300	300<st≤350		st≤25	25<st≤100	100<st≤200	200<st≤300	300<st≤350								
40	72	24	48	124	200	300		34	46	84	122	172	50	4	4.5	3	6	M8 x 1.25	16	22
50	92	24	48	124	200	300		36	48	86	124	174	66	5	6	4	8	M10 x 1.5	20	24
63	110	28	52	128	200	300		38	50	88	124	174	80	5	6	4	8	M10 x 1.5	20	24

MLGPM (slide bearing)/A, DB, E dimensions

Bore size (mm)	A			DB	E		
	st≤50	50<st≤200	200<st≤350		st≤50	50<st≤200	200<st≤350
40	131	136	174	20	31	36	74
50	141.5	153	196	25	34.5	46	89
63	144.5	156	199	25	29.5	41	84

MLGPL (ball bushing)/A, DB, E dimensions

Bore size (mm)	A				DB	E			
	st≤50	50<st≤100	100<st≤200	200<st≤350		st≤50	50<st≤100	100<st≤200	200<st≤350
40	115	132	152	174	16	15	32	52	74
50	128	149	169	196	20	21	42	62	89
63	131	152	172	199	20	16	37	57	84

Note) Intermediate strokes other than standard strokes are produced by installing spacers.