

Made to Order Common Specifications: -XB13: Low Speed Cylinder (5 to 50 mm/s)



9 Low Speed Cylinder (5 to 50 mm/s)

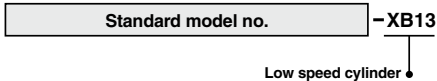
Symbol
-XB13

Even if driving at lower speeds 5 to 50 mm/s (CY: 7 to 50 mm/s), there would be no stick-slip phenomenon and it can run smoothly.

Applicable Series

Series	Description	Model	Action	Note	Vol. no. (for std model)
CJ2	Air cylinder	CJ2	Double acting, Single rod	Except with air cushion	②-1 From P. 46
CM2	Air cylinder	CM2	Double acting, Single rod	Except with rod boot and with air cushion	②-1 From P. 172
	Direct mount type	CM2R	Double acting, Single rod	Except with air cushion	
CG1	Air cylinder	CG1-Z	Double acting, Single rod	Except with rod boot and with air cushion	②-1 From P. 292
	Direct mount type	CG1R	Double acting, Single rod	Except with air cushion	
MB	Air cylinder	MB	Double acting, Single rod	Except ø125	②-1 From P. 392
CU	Free mount cylinder	CU	Double acting, Single rod		②-1 From P. 623
	Non-rotating rod type	CUK	Double acting, Single rod		
	Long stroke, standard type	CU	Double acting, Single rod		
	Long stroke, non-rotating rod type	CUK	Double acting, Single rod		
CQS	Compact cylinder	CQS	Double acting, Single rod	Except long stroke, non-rotating and anti-lateral load types	②-1 From P. 693
		CQSW	Double acting, Double rod	Except non-rotating type	
CQ2	Compact cylinder	CQ2-Z	Double acting, Single rod	Except long stroke, non-rotating, large bore and anti-lateral load types	②-1 From P. 773
		CQ2W-Z	Double acting, Double rod	Except non-rotating and large bore types	
	Axial piping type (Centralized piping type)	CQP2	Double acting, Single rod		
CX2	Slide unit	CX2	Slide bearing type		②-2 From P. 650
CXW	Slide unit	CXWM	Slide bearing type		②-2 From P. 659
		CXWL	Ball bushing bearing type		
MXH	Compact slide	MXH-Z	Double acting, Single rod		②-2 From P. 19
CXSJ	Dual rod cylinder	CXSJ	Standard type		②-2 From P. 737
CXS		CXS	Standard type		②-2 From P. 749
MGP	Compact guide cylinder	MGP ^M _L -Z	Double acting		②-2 From P. 432
MGG	Guide cylinder	MGGM	Double acting	Shock absorber cannot be mounted.	②-2 From P. 538
MGC	Guide cylinder	MGCM	Double acting	With rubber bumper. Port size Rc1/8 is applicable to ø20, 25.	②-2 From P. 578
CY	Magnetically coupled rodless cylinder	CY3B	Basic type		②-1 From P. 1468
		CY1S-Z	Slide bearing type		
		CY1L	Ball bushing bearing type		
CXT	Platform cylinder	CXT	Double acting	Except long stroke. Shock absorber cannot be mounted.	②-2 From P. 712

How to Order



- Note 1) Operate without lubrication from a pneumatic system lubricator.
Note 2) For the speed adjustment, use speed controllers for controlling at lower speeds. (AS-FM/AS-M series)

Specifications

Piston speed	5 to 50 mm/s (CY: 7 to 50 mm/s)
Dimensions	Same as standard type
Additional specifications	Same as standard type

⚠ Warning Operating Precautions

Be aware that smoking cigarettes, etc. after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type



20 Adjustable Stroke Cylinder/Adjustable Extension Type

It adjusts the extending stroke by the stroke adjustable mechanism equipped in the head side. (After the stroke is adjusted, with cushion on both sides is altered to single-sided, with cushion.)

Applicable Series

Series	Description	Model	Action	Note	Vol. no. (for std model)
CJ2	Air cylinder	CJ2-Z	Double acting	Except double clevis type and with air cushion	②-1 From P. 46
	Air cylinder	CM2-Z	Double acting	Except boss-cut and clevis types	
CM2	Non-rotating rod type	CM2K-Z	Double acting	Except boss-cut and clevis types	②-1 From P. 172
	Direct mount type	CM2R-Z	Double acting	Head cover is equipped with boss.	
	End lock cylinder	CBM2	Double acting	Except clevis type Head side locking type only, Except with air cushion	
	Air-hydro type	CM2H-Z	Double acting	Except clevis type	
	Direct mount type, air-hydro type	CM2HR-Z	Double acting	Head cover is equipped with boss.	
CG1	Air cylinder	CG1-Z	Double acting	Except head side flange and clevis types, ø80, and ø100	②-1 From P. 292
	Non-rotating rod type	CG1K-Z	Double acting	Except head side flange, clevis types and with air cushion	
	Direct mount type	CG1R-Z	Double acting	Except with air cushion	
	Direct mount, Non-rotating rod type	CG1KR-Z	Double acting	Except with air cushion	
MB	Air cylinder	MB-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	②-1 From P. 392
	Non-rotating rod type	MBK-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	
MB1	Air cylinder	MB1-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	②-1 From P. 440
	Non-rotating rod type	MB1K-Z	Double acting	Except head side flange and clevis types	
CA2	Air cylinder	CA2-Z	Double acting	Except head side flange and clevis types	②-1 From P. 470
	Non-rotating rod type	CA2K	Double acting	Except head side flange and clevis types	
	End lock cylinder	CBA2	Double acting	Except head side flange and clevis types, Locking in head side only	
CS1	Air cylinder	CS1	Double acting	Except head side flange and clevis types	②-1 From P. 530
	Air-hydro type	CS1H	Double acting	Except head side flange and clevis types	
CQS	Compact cylinder	CQS	Double acting	Except with rubber bumper and with mounting bracket	②-1 From P. 693
	Non-rotating rod	CQSK	Double acting	Except with rubber bumper and with mounting bracket	
	Compact cylinder	CQ2-Z	Double acting	Except with rubber bumper and with mounting bracket	
CQ2	Non-rotating rod type	CQ2K-Z	Double acting	Except with rubber bumper and with mounting bracket	②-1 From P. 773
	Air-hydro type	CQ2H-Z	Double acting	Except with mounting bracket	
MTS	Precision cylinder	MTS	Double acting		②-2 From P. 384
		MGPM-Z	Double acting		
MGP	Compact guide cylinder	MGPL-Z	Double acting		②-2 From P. 432
		MGPA-Z	Double acting		
MGG	Guide cylinder	MGG	Double acting		②-2 From P. 538
MGC	Guide cylinder	MGC	Double acting		②-2 From P. 578

How to Order

CJ2	Mounting type	Bore size	Stroke	Z - XC8				
CM2	Mounting type	Bore size	Stroke	Cushion	Rod end type symbol	Z - XC8	Stroke adjustment symbol	
CG1	Mounting type	Type	Bore size	Stroke	Rod end type symbol	Stroke adjustment symbol	Z - XC8	
CBM2	Mounting type	Bore size	Stroke	Stroke adjustment symbol	-H	Manual release type	Z - XC8	
CBA2	Mounting type	Bore size	Stroke	Suffix	Stroke adjustment symbol	Z - XC8		
MB	Mounting type	Bore size	Stroke	Suffix	Stroke adjustment symbol	Z - XC8		
MB1	* Except head side flange and clevis types							
CA2	Mounting type	Bore size	Stroke	Suffix	Stroke adjustment symbol	Z - XC8		
CA2K	Mounting type	Bore size	Stroke	Suffix	Stroke adjustment symbol	Z - XC8		
CA2K	* Except head side flange and clevis types							
CS1	Mounting type	Tubing material	Type	Bore size	Stroke	Suffix	Stroke adjustment symbol	Z - XC8
CS1	* Except head side flange and clevis types							
CQSB	Bore size	Stroke	D(M)	Z - XC8				
CQ2B(H)	Bore size	Stroke	D(M) (Z)	Z - XC8				
MTS	Bore size	Stroke	(R)	Z - XC8				
MGP	Bearing type	Bore size	Stroke	Stroke adjustment symbol	Z - XC8			
MGG	Bearing type	Mounting type	Bore size	Port thread type	Stroke	Stroke adjustment symbol	Z - XC8	
MGC	Bearing type	Mounting type	Bore size	Port thread type	Stroke	Stroke adjustment symbol	- Equipped/Not equipped back plate	Z - XC8

Adjustable stroke cylinder/Adjustable extend type

Made to Order Common Specifications: Adjustable Stroke Cylinder/Adjustable Extension Type

Symbol
-XC8

Specifications

Series	Stroke adjustment symbol	Stroke adjustment range (mm)
CJ2	—	0 to 15
CM2 CG1 MB MB1 CA2 CS1	A	0 to 25
	B	0 to 50

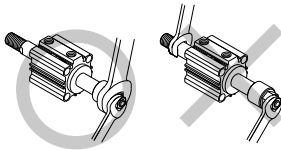
Note) Specifications other than above are the same as standard type.

Series	Stroke adjustment symbol	Stroke adjustment range (mm)
CQ2 CQS	—	0 to 10
MGG MGC	A	0 to 25
	B	0 to 50
MGP	A	0 to 10
	B	0 to 25
MTS	—	0 to 10 (ø8)
		0 to 25 (ø12 to ø40)

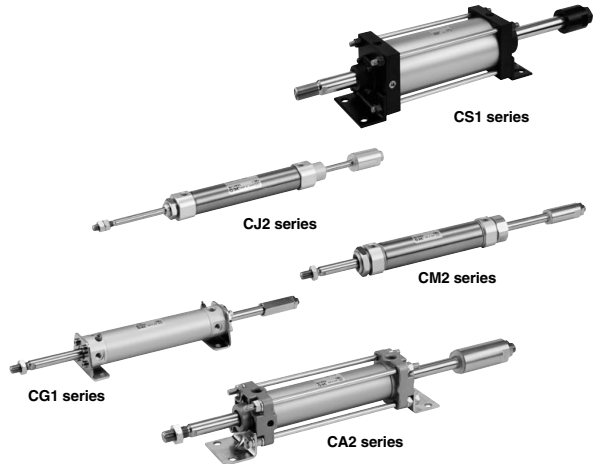
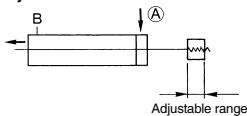
Precautions

⚠ Warning

- When the cylinder is operating, if something gets caught between the stopper bracket for adjusting the stroke and the cylinder body, it could cause bodily injury or damage the peripheral equipment. Therefore, take preventive measures as necessary, such as installing a protective cover.
- To adjust the stroke, make sure to secure the wrench flats of the stopper bracket by a wrench, etc. before loosening the lock nut. If the lock nut is loosened without securing the stopper bracket, be aware that the area that joins the load to the piston rod or the area in which the piston rod is joined with the load side and the stopper bracket side could loosen first. It may cause an accident or malfunction.



Symbol



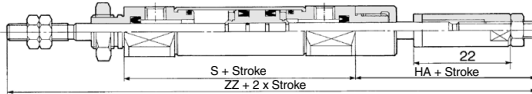
Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type



20 Adjustable Stroke Cylinder/Adjustable Extension Type

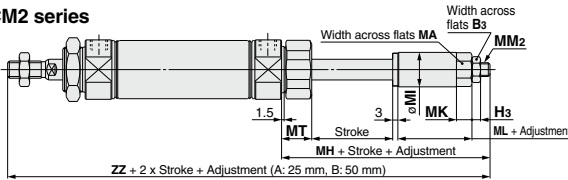
Dimensions (Dimensions other than below are the same as standard type.)

CJ2 series



Bore size (mm)	HA	S	ZZ
10	37	49	114
16	37	50	115

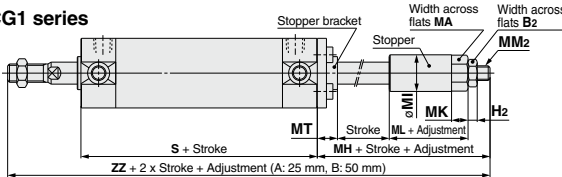
CM2 series



CM2 Series

Bore size (mm)	B ₃	H ₃	MA	MI	MK	MM ₂	MT	MH	ML	ZZ
20	10	3.6	12	14	7	M6 x 1	16.5	47	18	150
25	13	5	17	20	9	M8 x 1.25	17.5	49	18	156
32	13	5	17	20	9	M8 x 1.25	17.5	49	18	158
40	17	6	19	25	10	M10 x 1.25	21.5	60	24	198

CG1 series

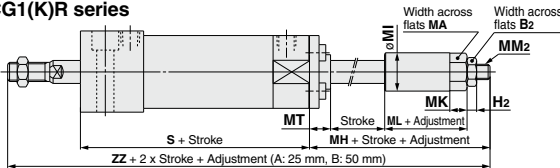


CG1 Series

Bore size (mm)	B ₂	H ₂	MA	MH	MI	MK	ML	MM ₂	MT	S	ZZ
20	10	3.6	12	38	14	7	18	M6 x 1	9	77	150
25	13	5	17	41	20	9	18	M8 x 1.25	11	77	158
32	13	5	17	41	20	9	18	M8 x 1.25	11	79	160
40	17	6	19	47	25	10	24	M10 x 1.25	11	87	184
50	19	8	24	60	32	13	32	M14 x 1.5	11	102	220
63	19	8	24	60	32	13	32	M14 x 1.5	13	102	220

* On the axial foot type, the foot bracket is wedged and bolted between the cylinder and the stopper bracket at the time of shipment. On other types, it is placed in the same package (not assembled).

CG1(KR) series



CG1(KR) Series

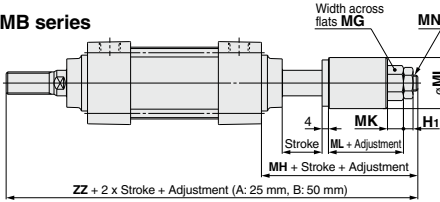
Bore size (mm)	B ₂	H ₂	MA	MH	MI	MK	ML	MM ₂	MT	S	ZZ
20	10	3.6	12	38	14	7	18	M6 x 1	9	83	148
25	13	5	17	41	20	9	18	M8 x 1.25	11	85	158
32	13	5	17	41	20	9	18	M8 x 1.25	11	91	164
40	17	6	19	47	25	10	24	M10 x 1.25	11	103	189
50	19	8	24	60	32	13	32	M14 x 1.5	11	120	225
63	19	8	24	60	32	13	32	M14 x 1.5	13	126	231

Made to Order Common Specifications: Adjustable Stroke Cylinder/Adjustable Extension Type

Symbol
-XC8

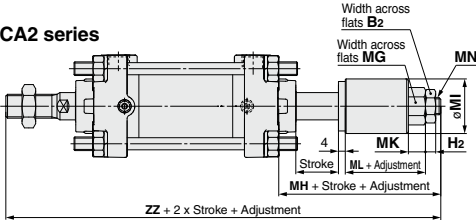
Dimensions (Dimensions other than below are the same as standard type.)

MB series



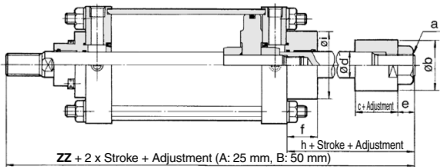
Bore size (mm)	MG	MH	MI	MK	ML	MN	ZZ
32	17	44	23	9	20	M8 x 1.25	175
40	19	48	32	10	22	M10 x 1.25	183
50	24	53	38	13	24	M14 x 1.5	205
63	24	53	38	13	24	M14 x 1.5	205
80	27	72	45	14	32	M16 x 1.5	258
100	32	75	55	17	35	M20 x 1.5	261

CA2 series



Bore size (mm)	H2	MG	MH	MI	MK	ML	MN	ZZ
40	6	19	45	32	10	22	M10 x 1.25	180
50	8	24	49	38	13	24	M14 x 1.5	197
63	8	24	49	38	13	24	M14 x 1.5	205
80	10	27	66	45	14	32	M16 x 1.5	253
100	12	32	69	55	17	35	M20 x 1.5	267

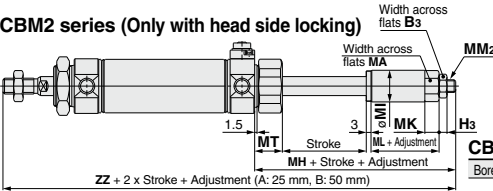
CS1 series



Bore size (mm)	a	ob	c	od	e	f	h	oi	ZZ
125	M30 x 1.5	70	43	36	27	40	110	90	318
140	M30 x 1.5	70	43	36	27	40	110	90	318
160	M30 x 1.5	70	43	36	27	40	110	90	336
180	M42 x 1.5	80	50	45	37.5	45	132.5	115	378.5*
200	M42 x 1.5	80	50	50	37.5	45	132.5	115	378.5*
250	M56 x 2	110	70	60	50	55	175	140	476
300	M56 x 2	110	70	70	50	55	175	140	496

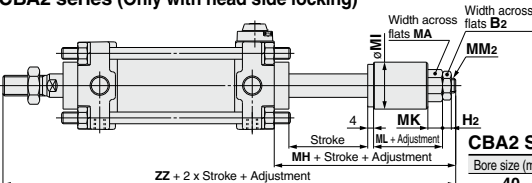
* With auto switch ø180: 382.5, ø200: 387.5

CBM2 series (Only with head side locking)



Bore size (mm)	B3	H3	MA	MI	MK	MM2	MT	MH	ML	ZZ
20	10	3.6	12	14	7	M6 x 1	16.5	47	18	150
25	13	5	17	20	9	M8 x 1.25	17.5	49	18	156
32	13	5	17	20	9	M8 x 1.25	17.5	49	18	158
40	17	6	19	25	10	M10 x 1.25	21.5	60	24	198

CBA2 series (Only with head side locking)



Bore size (mm)	B2	H2	MA	MI	MK	MM2	MH	ML	ZZ
40	17	6	19	32	10	M10 x 1.25	45	22	180
50	22	8	24	38	13	M14 x 1.5	51	24	199
63	22	8	24	38	13	M14 x 1.5	49	24	205
80	24	10	27	45	14	M16 x 1.5	66	32	253
100	30	12	32	55	17	M20 x 1.5	69	35	267

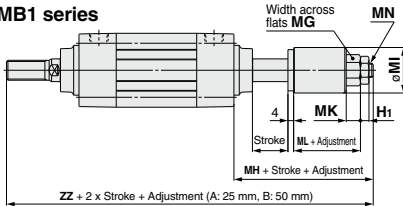
Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type



20 Adjustable Stroke Cylinder/Adjustable Extension Type

Dimensions (Dimensions other than below are the same as standard type.)

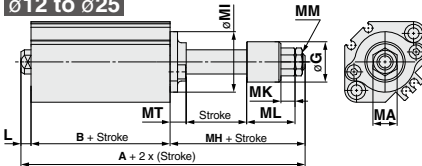
MB1 series



Bore size	MG	MH	MI	MK	ML	MN	ZZ
32	17	44	23	9	20	M8 x 1.25	175
40	19	48	32	10	22	M10 x 1.25	183
50	24	53	38	13	24	M14 x 1.5	205
63	24	53	38	13	24	M14 x 1.5	205
80	27	72	45	14	32	M16 x 1.5	258
100	32	75	55	17	35	M20 x 1.5	261

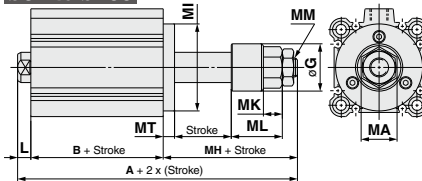
CQ2, CQ2H series

ø12 to ø25

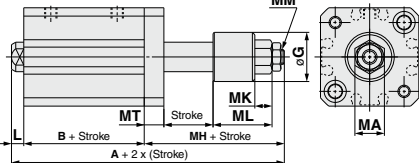


Bore size	A	B	L	MH	MT	MA	MI	MM	MK	ML	øG	Stroke adjustment range
12	57.7 (64.9)	25.2 (32.4)	3.5	29	5	8	□25 (ø15)	M4 x 0.7	5.5	20	14	5 to 30
16	58.5 (68.5)	26 (36)	3.5	29	5	10	□28 (ø20)	M5 x 0.8	5.5	20	14	5 to 30
20	67.5 (79.5)	26 (38)	4.5	37	8	12	□36 (ø25)	M6 x 1	7	24	20	5 to 50
25	71 (81)	29 (39)	5	37	8	12	□40 (ø30)	M6 x 1	7	24	20	5 to 50
32	78.5 (88.5)	30.5 (40.5)	7	41	6	17	ø38	M8 x 1.25	9	28.5	25	5 to 50 75-100
40	88 (98)	40 (50)	7	41	6	19	ø46	M10 x 1.25	10	27	25	5 to 50 75-100
50	100.5 (110.5)	40.5 (50.5)	8	52	8	24	ø57	M14 x 1.5	13	31	35	10 to 50 75-100
63	102 (112)	42 (52)	8	52	10	24	ø68	M14 x 1.5	13	31	35	10 to 50 75-100
80	125 (135)	51 (61)	10	64	12	32	ø90	M20 x 1.5	16	40	45	10 to 50 75-100
100	138.5 (148.5)	60.5 (70.5)	12	66	14	32	ø110	M20 x 1.5	16	40	45	10 to 50 75-100

ø32 to ø100



CQS series



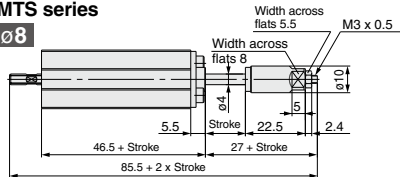
Note 1 () : Denotes the dimensions with auto switch.
Note 2) Applicable stroke available in 5 mm increments.

Bore size	A	B	L	MH	MT	MA	MM	MK	ML	øG	Stroke adjustment range
12	56.1 (61.1)	22 (27)	3.5	30.6	5	8	M4 x 0.7	5.5	20	14	5 to 30
16	56.5 (61.5)	22 (27)	3.5	31	5	10	M5 x 0.8	5.5	20	14	5 to 30
20	67.5 (77.5)	26 (36)	4.5	37	8	12	M6 x 1	7	24	20	5 to 50
25	71 (81)	29 (39)	5	37	8	12	M6 x 1	7	24	20	5 to 50

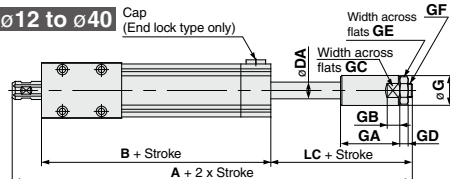
Note 1 () : Denotes the dimensions with auto switch.
Note 2) Applicable stroke available in 5 mm increments.

MTS series

ø8



ø12 to ø40



Basic Type

Bore size (mm)	A	B	LC	DA	G	GA	GB	GC	GD	GE	GF
12	145	80.5	49.5	6	13.5	42.5	6	11	4	8	M5 x 0.8
16	149.5	83	50.5	8	15.5	42.5	7	13	5	10	M6 x 1.0
20	175	106.5	50.5	10	19.5	42.5	8.5	17	5	13	M8 x 1.25
25	187	114.5	51.5	12	21.5	42.5	9	19	6	17	M10 x 1.25
32	222.5	142.5	56	16	27.5	45	10.5	24	8	22	M14 x 1.5
40	240	155	59	20	32.5	45	11.5	27	11	27	M18 x 1.5

With End Lock

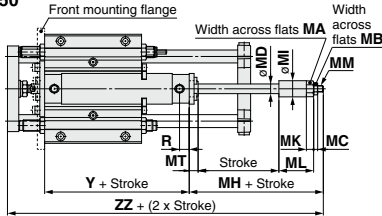
Bore size (mm)	A	B
12	163	98.5
16	165.5	99
20	191.5	123
25	201.5	129
32	238.5	158.5
40	258.5	173.5

Made to Order Common Specifications: Adjustable Stroke Cylinder/Adjustable Extension Type

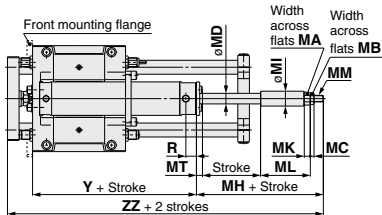
Symbol
-XC8

Dimensions (Dimensions other than below are the same as standard type.)

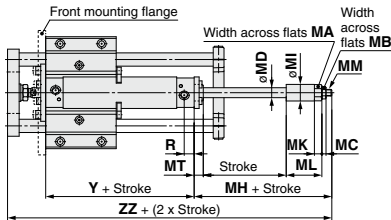
MGJ series ø20 to ø50



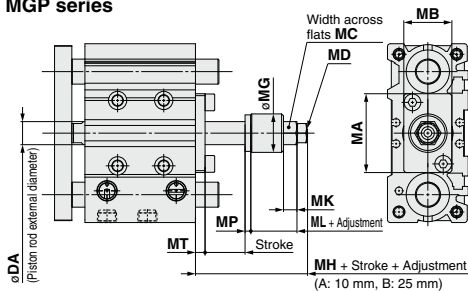
ø63



MGC series ø20 to ø50



MGP series



MGJ Series

Bore size (mm)	R	Y	MA	MB	MC	MD	MI	MK	MM	MT
20	12	77	12	10	3.6	8	14	7	M6 x 1	9
25	12	77	17	13	5	10	20	9	M8 x 1.25	11
32	12	79	17	13	5	12	20	9	M8 x 1.25	11
40	13	87	19	17	6	16	25	10	M10 x 1.25	11
50	14	102	24	19	8	20	32	13	M14 x 1.5	11
63	14	117	24	19	8	20	32	13	M14 x 1.5	13

Bore size (mm)	Adjustment 0 to 25 mm			Adjustment 0 to 50 mm		
	MH	ML	ZZ	MH	ML	ZZ
20	63	43	179	88	68	204
25	66	43	189	91	68	214
32	66	43	191	91	68	216
40	72	49	215	97	74	240
50	85	57	254	110	82	279
63	85	57	256	110	82	281

* The piston speed for the extension side is 50 to 500 mm/s.

MGC Series

Bore size (mm)	R	Y	MA	MB	MC	MD	MI	MK	MM	MT
20	12	77	12	10	3.6	8	14	7	M6 x 1	9
25	12	77	17	13	5	10	20	9	M8 x 1.25	11
32	12	79	17	13	5	12	20	9	M8 x 1.25	11
40	13	87	19	17	6	16	25	10	M10 x 1.25	11
50	14	102	24	19	8	20	32	13	M14 x 1.5	11

Bore size (mm)	Adjustment 0 to 25 mm			Adjustment 0 to 50 mm		
	MH	ML	ZZ	MH	ML	ZZ
20	63	43	179	88	68	204
25	66	43	189	91	68	214
32	66	43	191	91	68	216
40	72	49	215	97	74	240
50	85	57	254	110	82	279

* The piston speed for the extension side is 50 to 500 mm/s.

Common Dimensions: MGPM-Z, MGPL-Z, MGPA-Z

Bore size (mm)	DA	MA	MB	MC	MD	øMG	MH	MK	ML	MP	MT	MT
12	6	27	13	8	M4 x 0.7	14	20	5.5	10	3	3	3
16	8	28	16	10	M5 x 0.8	14	20	5.5	10	3	3	3
20	10	33	22	12	M6 x 1	20	26	7	14	3	4	4
25	12	41	25	12	M6 x 1	20	27	7	14	3	5	5
32	16	51	32	17	M8 x 1.25	25	35	9	18.5	4	6	6
40	16	60	32	19	M10 x 1.25	25	35	10	17	4	6	6
50	20	71	38	24	M14 x 1.5	35	46	13	21	4	8	8
63	20	84	50	24	M14 x 1.5	35	46	13	21	4	8	8
80	25	114	50	32	M20 x 1.5	45	55	16	30	4	9	9
100	30	140	65	32	M20 x 1.5	45	58	16	30	4	12	12

Made to Order Common Specifications: -XC9: Adjustable Stroke Cylinder/Adjustable Retraction Type



21 Adjustable Stroke Cylinder/Adjustable Retraction Type

The retract stroke of the cylinder can be adjusted by the adjustment bolt.

Applicable Series

Series	Description	Model	Action	Note	Vol. no. (for std model)
CJ2	Air cylinder	CJ2-Z	Double acting, Single rod	Except double clevis type and with air cushion	②-1 From P. 46
	Non-rotating rod	CJ2K-Z	Double acting, Single rod		
	Direct mount type	CJ2R-Z	Double acting, Single rod	Except double clevis type	
	Non-rotating rod/Direct mount type	CJ2RK-Z	Double acting, Single rod		
	Smooth cylinder	CJ2Y-Z	Double acting, Single rod		
CM2	Air cylinder	CM2-Z	Double acting, Single rod	Except boss-cut and clevis types	②-1 From P. 172
	Non-rotating rod	CM2K-Z	Double acting, Single rod		
	Direct mount type	CM2R-Z	Double acting, Single rod	Except the head cover with boss	
	Non-rotating rod/Direct mount type	CM2RK-Z	Double acting, Single rod	Except the head cover with boss	
	Smooth cylinder	CM2Y-Z	Double acting, Single rod	Except boss-cut and clevis types	
CG1	Air cylinder	CG1-Z	Double acting, Single rod	Except head side flange and clevis types, ø80, and ø100	②-1 From P. 292
	Non-rotating rod	CG1K-Z	Double acting, Single rod	Except head side flange, clevis types and with air cushion	
	Direct mount type	CG1R-Z	Double acting, Single rod	Except with air cushion	
	Non-rotating rod/Direct mount type	CG1KR-Z	Double acting	Except with air cushion	
MB	Air cylinder	MB-Z	Double acting, Single rod	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	②-1 From P. 392
	Non-rotating rod	MBK-Z	Double acting, Single rod	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	
MB1	Air cylinder	MB1-Z	Double acting, Single rod	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types	②-1 From P. 440
	Non-rotating rod	MB1K-Z	Double acting, Single rod		
CA2	Air cylinder	CA2-Z	Double acting, Single rod	Except head side flange and clevis types	②-1 From P. 470
	Non-rotating rod	CA2K	Double acting, Single rod	Except head side flange and clevis types	
	End lock cylinder	CBA2	Double acting, Single rod	Except head side flange and clevis types	
CS1	Air cylinder	CS1	Double acting, Single rod	Except head side flange and clevis types, ø125 to ø160	②-1 From P. 530
	Air cylinder	CS2	Double acting, Single rod	Except head side flange and clevis types	
CS2	Smooth cylinder	CS2Y	Double acting, Single rod	Except head side flange and clevis types	②-1 From P. 568
	Smooth cylinder	CS2Y	Double acting, Single rod	Except head side flange and clevis types	
CQS	Compact cylinder	CQS	Double acting, Single rod	Except with rubber bumper and with mounting bracket	②-1 From P. 693
CQ2	Compact cylinder	CQ2-Z	Double acting, Single rod	Except with rubber bumper and with mounting bracket	②-1 From P. 773
	Non-rotating rod	CQ2K-Z	Double acting, Single rod		
MGP	Compact guide cylinder	MGPM-Z	Double acting		②-2 From P. 432
		MGPL-Z	Double acting		
		MGPA-Z	Double acting		
MGG	Guide cylinder	MGG	Double acting		②-2 From P. 538
MGC	Guide cylinder	MGC	Double acting		②-2 From P. 578

How to Order

CJ2	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	Z-	<input type="text" value="XC9"/>
* Except clevis type						
CM2	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Cushion"/>	<input type="text" value="Rod end type symbol"/>
* Except boss-cut and clevis types						
CM2R	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Rod end type symbol"/>	<input type="text" value="Stroke adjustment symbol"/>
CG1	<input type="text" value="Mounting type"/>	<input type="text" value="Type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Rod end type symbol"/>
* Except clevis type						
MB	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>	<input type="text" value="Stroke adjustment symbol"/>
MB1	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>	<input type="text" value="Stroke adjustment symbol"/>
* Except head side flange and clevis types						
CA2	<input type="text" value="Mounting type"/>	<input type="text" value="Type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>
* Except head side flange and clevis types						
CA2K	<input type="text" value="Mounting type"/>	<input type="text" value="Type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>
* Except head side flange and clevis types						
CBA2	<input type="text" value="Mounting type"/>	<input type="text" value="Type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Stroke adjustment symbol"/>
* Except head side flange and clevis types						
CS1	<input type="text" value="Mounting type"/>	<input type="text" value="Tubing material"/>	<input type="text" value="Type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>
* Except head side flange and clevis types						
CS2	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	<input type="text" value="Port suffix"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>
* Except head side flange and clevis types						
CS2Y	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	<input type="text" value="Port suffix"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Suffix"/>
* Except head side flange and clevis types						
CQ2B	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	D (M) (Z)	<input type="text" value="XC9"/>	
CQSB	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	D (M)	<input type="text" value="XC9"/>	
MGP	<input type="text" value="Bearing type"/>	<input type="text" value="Bore size"/>	-	<input type="text" value="Stroke"/>	<input type="text" value="Stroke adjustment symbol"/>	Z-
MGG	<input type="text" value="Bearing type"/>	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	<input type="text" value="Port thread type"/>	-	<input type="text" value="Stroke"/>
MGC	<input type="text" value="Bearing type"/>	<input type="text" value="Mounting type"/>	<input type="text" value="Bore size"/>	<input type="text" value="Port thread type"/>	-	<input type="text" value="Stroke"/>
* Equipped/Not equipped back plate						

Adjustable stroke cylinder/Adjustable retract type ●

(After adjusting stroke, both-side cushion type is changed into single side cushion type. CQ2 is without cushion.)

Made to Order Common Specifications: Adjustable Stroke Cylinder/Adjustable Retraction Type

Symbol
-XC9

Specifications

Series	Stroke adjustment symbol	Stroke adjustment range (mm)
CJ2	—	0 to 15
CM2 CG1 MB MB1 CA2 CS1 CS2	A	0 to 25
	B	0 to 50

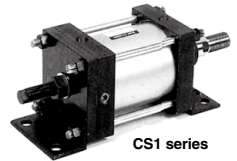
Series	Stroke adjustment symbol	Stroke adjustment range (mm)
CQ2 CQS	—	0 to 10
MGP	A	0 to 10
	B	0 to 25
MGG MGC	A	0 to 25
	B	0 to 50

Note) Specifications other than above are the same as standard type.

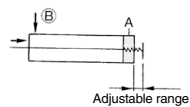
Precautions

⚠ Caution

- When air is supplied to the cylinder, if the stroke adjustment bolt is loosened in excess of the allowable stroke adjustment amount, be aware that the stroke adjustment bolt could fly out or air could be discharged, which could injure personnel or damage the peripheral equipment.
- Adjust the stroke when the cylinder is not pressurized. If it is adjusted in the pressurized state, the seal of the adjustment section could become deformed, leading to air leakage.

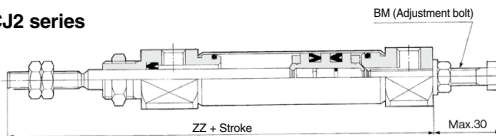


Symbol



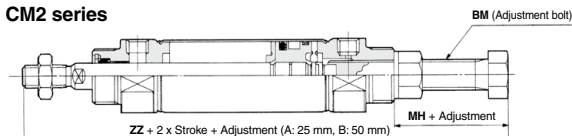
Dimensions (Dimensions other than below are the same as standard type.)

CJ2 series



Bore size (mm)	(mm)	
	BM	ZZ
10	M5 x 0.8	74
16	M5 x 0.8	75

CM2 series



Bore size (mm)	(mm)		
	BM	MH	ZZ
20	M10 x 1.25	26.5	142.5
25	M14 x 1.5	29	149
32	M14 x 1.5	29	151
40	M16 x 1.5	32	186

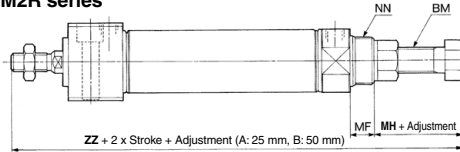
Made to Order Common Specifications: -XC9: Adjustable Stroke Cylinder/Adjustable Retraction Type



21 Adjustable Stroke Cylinder/Adjustable Retraction Type

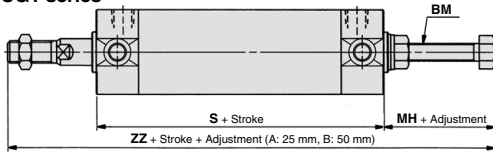
Dimensions (Dimensions other than below are the same as standard type.)

CM2R series



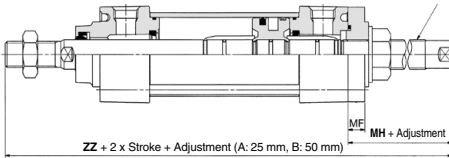
Bore size (mm)	BM	MF	MH	NN	ZZ
20	M10 x 12.5	13	26.5	M20 x 1.5	142.5
25	M14 x 1.5	13	29	M26 x 1.5	149
32	M14 x 1.5	13	29	M26 x 1.5	151
40	M16 x 1.5	16	32	M32 x 2	186

CG1 series



Bore size (mm)	BM	S	Rubber bumper		Air cushion	
			MH	ZZ	MH	ZZ
20	M6 x 1	77	23	135	21	133
25	M6 x 1	77	23	140	21	138
32	M8 x 1.25	79	25	144	25	144
40	M12 x 1.75	87	40	177	39	176
50	M12 x 1.75	102	33	193	37	197
63	M16 x 2	102	40	200	44	204

MB series



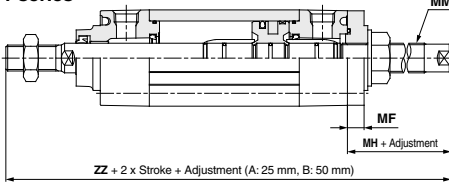
* In the case of axial foot type, the cushion is shipped after mounting. On other types, it is placed in the same package (not assembled).

* Dimensions other than above are the same as the CG1 series, long stroke type.

MB, MB1 Common

Bore size (mm)	b	c	d	ka	MM	ZZ
32	9	8	40	8	M12 x 1.25	171
40	9	8	39.5	8	M12 x 1.25	174.5
50	11	8	46	13	M16 x 1.5	198
63	11	8	52	17	M20 x 1.5	204
80	15	10	61	19	M24 x 1.5	247
100	15	10	61.5	19	M24 x 1.5	247.5

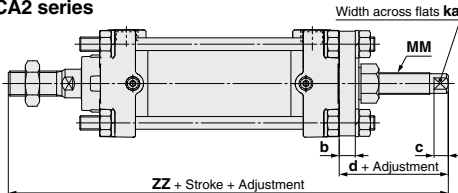
MB1 series



CA2

Bore size (mm)	b	c	d	ka	MM	ZZ
40	9	8	36	8	M12 x 1.25	171
50	11	8	42	13	M16 x 1.5	190
63	11	8	44	17	M20 x 1.5	200
80	15	10	54	19	M24 x 1.5	241
100	15	10	55.5	19	M24 x 1.5	253.5

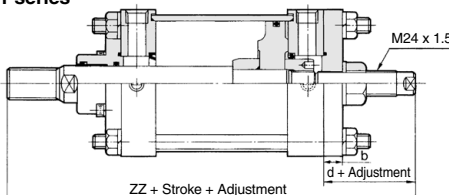
CA2 series



CA2K, CBA2 (With lock on rod side only)

Bore size (mm)	b	c	d	ka	MM	ZZ
40	9	8	44	11	M16 x 1.5	179
50	11	8	42	11	M16 x 1.5	190
63	11	8	48	14	M20 x 1.5	204
80	15	10	55	19	M24 x 1.5	242
100	15	10	57	19	M24 x 1.5	255

CS1 series



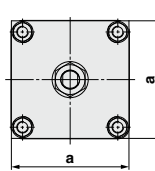
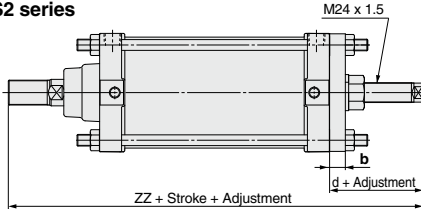
Bore size (mm)	b	d	ZZ
125	19	66	274
140	19	66	274
160	22	62	288

Made to Order Common Specifications: Adjustable Stroke Cylinder/Adjustable Retraction Type

Symbol
-XC9

Dimensions (Dimensions other than below are the same as standard type.)

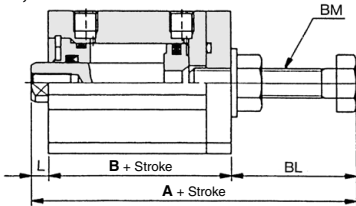
CS2 series



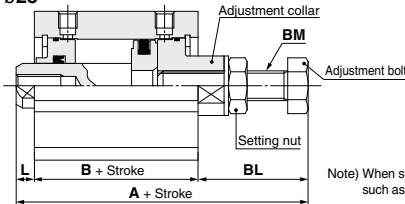
Bore size (mm)	a	b	d	ZZ
125	142	19	63	271
140	155	19	63	271
160	174	19	59	285

QCS series

ø12, ø16



ø20, ø25



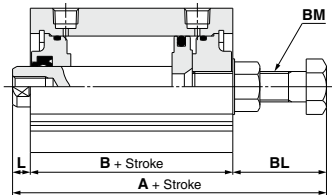
Bore size (mm)	A	B	L	BL	BM	Manufacturable stroke
12	50.5 (54.5)	22 (27)	3.5	25 (29)	M5 x 0.8	5 to 30
16	51 (56)	22 (27)	3.5	25.5	M6 x 1	
20	61 (71)	26 (36)	4.5	30.5	M8 x 1.25	5 to 50
25	63.5 (73.5)	29 (39)	5	29.5	M8 x 1.25	

Note 1) (): Denotes the dimensions with auto switch.

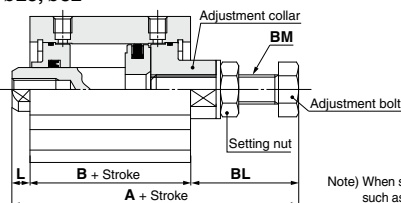
Note 2) Applicable stroke available in 5 mm increments.

Note) When securing the adjustment bolt, clamp the width across flats of the adjustment collar with a tool, such as a spanner and tighten the setting nut with a tool, such as other spanner to secure the bolt firmly.

CQ2 series



ø20, ø25, ø32



Bore size (mm)	A	B	L	BL	BM	Manufacturable stroke
12	52 (59.2)	25.2 (32.4)	3.5	23.3	M5 x 0.8	5 to 30
16	53 (63)	26 (36)	3.5	23.5	M6 x 1	
20	61 (73)	26 (36)	4.5	30.5	M8 x 1.25	5 to 50
25	63.5 (73.5)	29 (39)	5	29.5	M8 x 1.25	
32	65.5 (75.5)	30.5 (40.5)	7	28	M8 x 1.25	5 to 50
40	84 (94)	40 (50)	7	37	M12 x 1.5	75, 100
50	84.5 (94.5)	40.5 (50.5)	8	36	M12 x 1.5	
63	88.5 (98.5)	42 (52)	8	38.5	M16 x 1.5	10 to 50
80	109.5 (119.5)	51 (61)	10	48.5	M20 x 1.5	75, 100
100	125 (135)	60.5 (70.5)	12	52.5	M24 x 1.5	

Note 1) (): Denotes the dimensions with auto switch.

Note 2) Applicable stroke available in 5 mm increments.

Note) When securing the adjustment bolt, clamp the width across flats of the adjustment collar with a tool, such as a spanner and tighten the setting nut with a tool, such as other spanner to secure the bolt firmly.

Made to Order Common Specifications: -XC9: Adjustable Stroke Cylinder/Adjustable Retraction Type

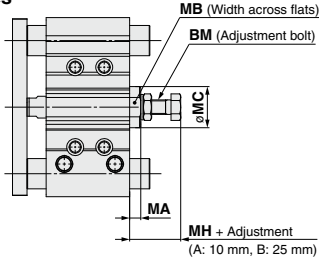


21 Adjustable Stroke Cylinder/Adjustable Retraction Type

Symbol
-XC9

Dimensions (Dimensions other than below are the same as standard type.)

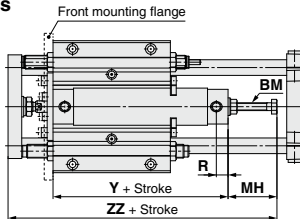
MGP series



Common Dimensions: MGPM, MGPL, MGPA (mm)

Bore size (mm)	BM	MA	MB	MC	MH
12	M5 x 0.8	5	8	12.5	17
16	M6 x 1	5	10	14	19
20	M8 x 1.25	6.5	13	16	25
25	M8 x 1.25	6.5	13	16	24
32	M8 x 1.25	6.5	19	21	25
40	M12 x 1.5	9	27	30	32.5
50	M12 x 1.5	9	30	34	32.5
63	M16 x 1.5	10	36	40	37
80	M20 x 1.5	15	41	46	48.5
100	M24 x 1.5	18	46	52	55.5

MGG series ø20 to ø50

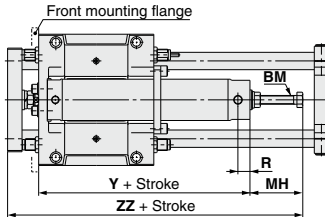


MGG Series (mm)

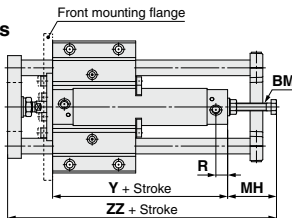
Bore size (mm)	R	Y	BM	Adjustment 0 to 25 mm		Adjustment 0 to 50 mm	
				MH	ZZ	MH	ZZ
20	12	77	M6 x 1	48	164	73	189
25	12	77	M6 x 1	48	171	73	196
32	12	79	M8 x 1.25	50	175	75	200
40	13	87	M12 x 1.75	65	208	90	233
50	14	102	M12 x 1.75	58	227	83	252
63	14	117	M16 x 2	65	236	90	261

* The piston speed for the retraction side is 50 to 500 mm/s.

ø63



MGC series ø20 to ø50



MGC Series (mm)

Bore size (mm)	R	Y	BM	Adjustment 0 to 25 mm		Adjustment 0 to 50 mm	
				MH	ZZ	MH	ZZ
20	12	77	M6 x 1	46	162	71	187
25	12	77	M6 x 1	46	169	71	194
32	12	79	M8 x 1.25	50	175	75	200
40	13	87	M12 x 1.75	64	207	89	232
50	14	102	M12 x 1.75	62	231	87	256

* The piston speed for the retraction side is 50 to 500 mm/s.