

Long Life Premium Series - AM2

Tube inner diameter : $\varnothing 40$, $\varnothing 50$, $\varnothing 63$, $\varnothing 80$, $\varnothing 100$

● Premium Series

By applying an optimal combination of special grease and special packaging and a lubrication maintenance device, the lifespan has been improved by more than 5 times compared to existing standard products.

Special GREASE applied

Adoption of special grease capable of responding to high frequencies

Special PACKING applied

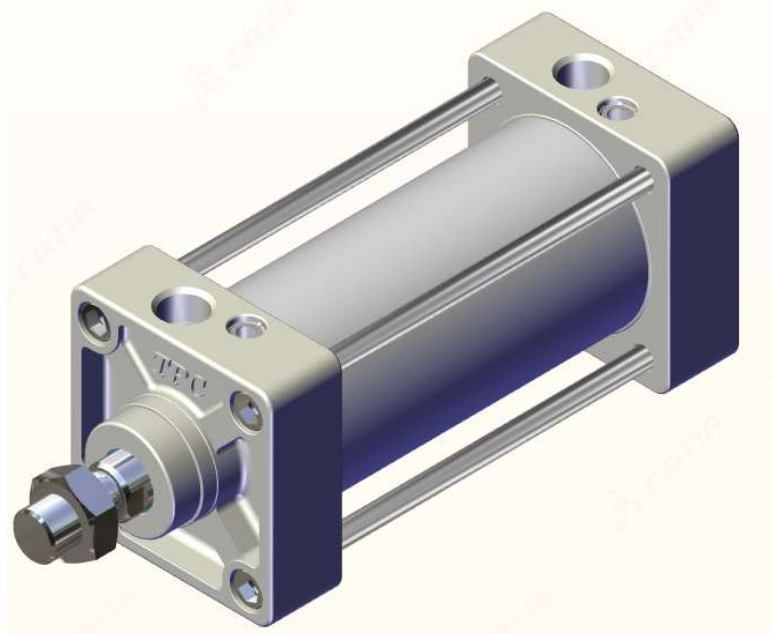
Special packing made of material with excellent wear resistance is adopted.

Lubrication maintenance device applied

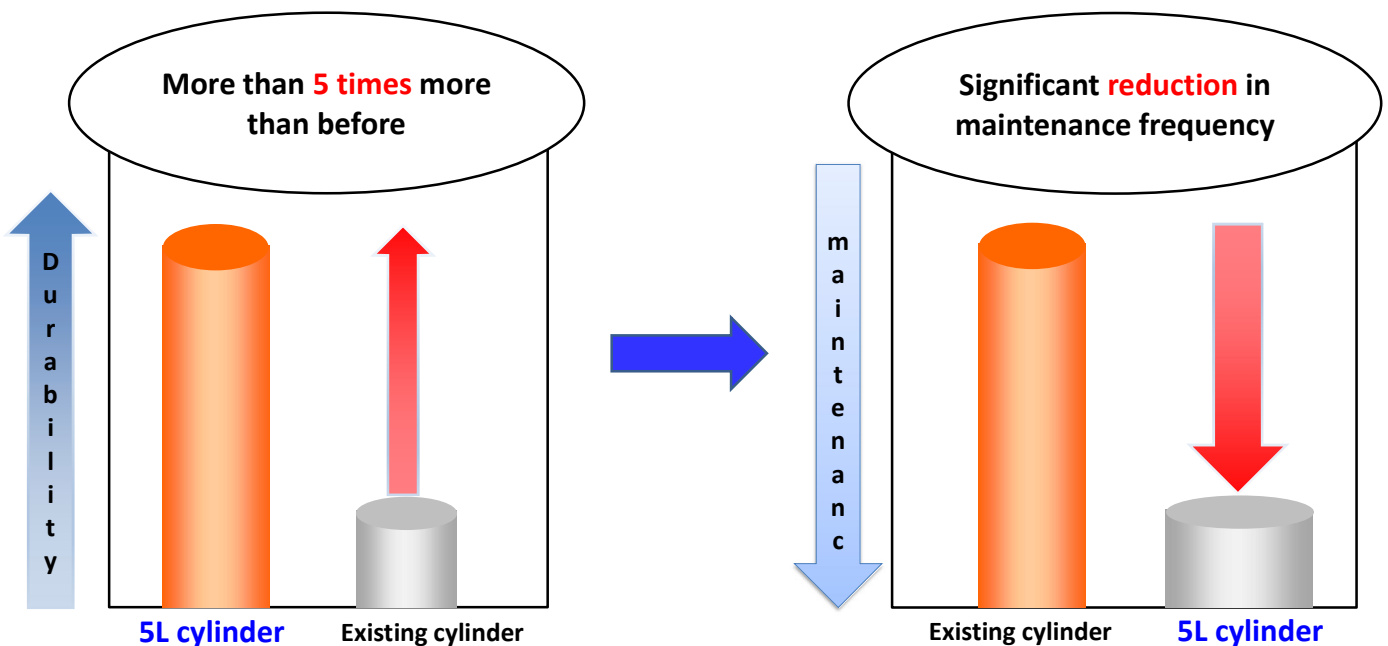
Internal lubrication maintenance function and prevention of intrusion of external dust

Optimized cushioning function

Improved cushioning function through optimal design



- Same external dimensions as existing product (AM2)
- Durability (life span)

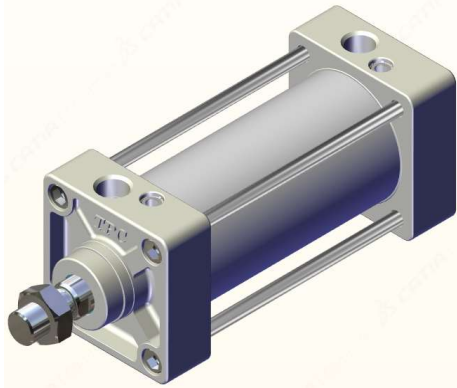


*Since this is a durability test according to our test conditions, 5 times the lifespan is not guaranteed under all conditions.

5L-AM2 SERIES

Premium Series – Medium Pneumatic Cylinder

Tube inner diameter : $\varnothing 40$, $\varnothing 50$, $\varnothing 63$, $\varnothing 80$, $\varnothing 100$



- Prevention of sudden starts due to pressure difference with high-performance cushion packing
- Convenient operation with port location and cushion valve on the same side
- Reduced air leak with special seal application
- Compact design with built-in cushion valve
- Attachment of auto switch for strong magnetic field (W2PL)
- Elegant design and safety with built-in tie-rod
- Reduced deflection of piston rod by increasing processing accuracy and connection length between Bush and Rod
- Attachment of micro auto switch

How to order

5L - **2B** - **A MD2B** **50** - **100 N J - N I -** **A54K** **S**

1 Premium Series

5L	Premium Series
-----------	----------------

2 Secondary battery series

Blank	Basic style
2B	Secondary battery specifications

3 Auto switch

Blank	None
D	With auto switch (built-in Magnet)

4 Mounting type

B	Basic type
C	Single clevis type
L	Foot type
T	Center trunnion type
F	Rod side flange type
D	Double clevis type
G	Head side flange type
TA	Rod side trunnion type
TB	Head side trunnion type

5 Bore size

40	$\varnothing 40$
50	$\varnothing 50$
60	$\varnothing 63$
80	$\varnothing 80$
100	$\varnothing 100$

6 Cylinder Stroke (mm)

40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
60	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
80	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700
100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700

7 Cushion

Blank	With cushion on both ends
R	With rod cushion
H	With head cushion
N	Without cushion

8 Bellows attached

Blank	None
J	Nylon tarpaulin
K	Neoprene cross

9 Rocking support bracket

Blank	None
N	Rocking support bracket

※ Attachment type T, D only

10 Rod end parts

Blank	None
I	Single knuckle joint
Y	Double knuckle joint

※ When ordering I or Y, it is shipped unassembled

11 Auto switch

Blank	None
W3	Reed switch
W2PL	Strong magnetic switch
W8*	Micro reed switch
W9*	Micro solid state switch
W20H	Micro solid state switch (2-color display)

※ W3, W2PL 2B (please inquire separately)

12 Number of switches

Blank	2 pcs
S	1 pc
N	N pcs

※ Specifications and dimensions for the 2B-series are the same as standard products.

Support bracket part number

Tube inner diameter (mm)	40	50	63	80	100
Foot type*	AM2L40	AM2L50	AM2L63	AM2L80	AM2L100
Flange type	AM2F40	AM2F50	AM2F63	AM2F80	AM2F100
Single clevis type	AM2C40	AM2C50	AM2C63	AM2C80	
Double clevis type	AM2D40	AM2D50	AM2D63	AM2D80	AM2D100

* Foot type: 1SET(2EA)

Accessories by type

Mounting type		Basic type	Foot type	Rod side flange type	Head side flange type	Single clevis type	Double clevis type	Center trunnion type
Standard equipment	Rod end nut	O	O	O	O	O	O	O
	Pin for clevis	-	-	-	-	-	O	-
Option	Single knuckle joint	O	O	O	O	O	O	O
	Double knuckle joint (with pin)	O	O	O	O	O	O	O
	Bellows	O	O	O	O	O	O	O

Specifications by standard

Cylinder inner diameter(mm)		40	50	63	80	100
Working fluid		Air				
Operating method		Double action				
Lubrication		Not required (no lubrication)				
Temperature of use (°C)		5 ~ 60°C				
Cushion method		Air cushion				
Piston speed		50~500mm/s				
Operating pressure (MPa)	Guaranteed pressure	1.5(15kgf/cm ²)				
	Min operating pressure	0.05(0.5kgf/cm ²)				
	Max operating pressure	1.0(9.9kgf/cm ²)				
Theoretical output (N) (Air pressure 0.5MPa)	Forward movement	628	982	1559	2513	3927
	Backward movement	528	825	1402	2268	3574
Plumbing connection		RC 1/4	RC 3/8	RC 3/8	RC 1/2	RC 1/2
For checking open/close AUTO SWITCH		A54K, W2PL, W8*, W9*, W20H, W30H				

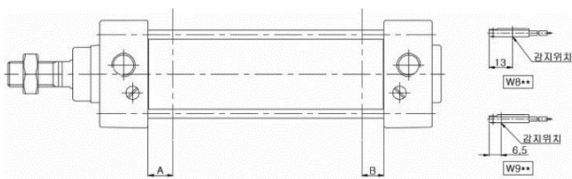
* The metal fittings are compatible with the existing product AM2.

Auto switch mounting bracket part number

Auto switch type	Mounting bracket part number	Cylinder inner diameter
W3	ABT-04	40
	ABT-06	50, 63
	ABT-08	80, 100
W8* W9* W20H W30H	ABT-04-W	40
	ABT-06-W	50
	ABT-06-W	63
	ABT-08-W	80, 100

Auto switch attachment position

(Conditions for using forward and backward full strokes)



(Unit : mm)

Tube inner diameter	Point A location	Point B location
∅40	16	14.5
∅50	16	14.5
∅63	19	17.5
∅80	22.5	20
∅100	24	22.5

Bellows material

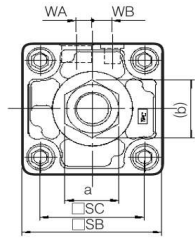
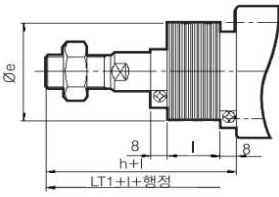
Symbol	Bellows material	Maximum ambient temperature
J	Nylon tarpaulin	60°C
K	Neoprene cross	*110°C

* This is the highest ambient temperature of the bellows itself.

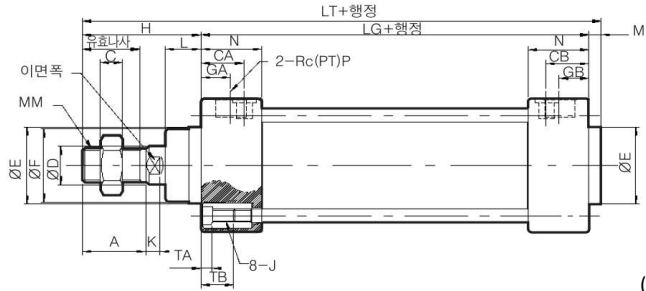
5L-AM2 SERIES

Basic (B)

side bellows attached



note) For stroke orders exceeding standard length, please inquire separately.



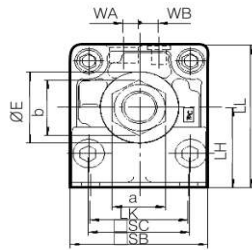
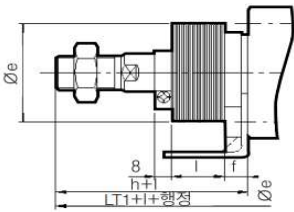
(unit: mm)

Bore size (mm)	Stroke length		Effective screw length	width	A	□SB	□SC	CA	CB	ØD	ØE	ØF	GA	GB	M	N	P	LG	MM	J	K	L	WA	WB	a	b	C
	without bellows	with bellows																									
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	5	26.7	1/4	84	M14X1.5	M6X1.0	6	15	5	10.5	22	25.4	8
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	6	29.7	3/8	90	M18X1.25	M8X1.25	7	17.7	8	9.9	27	31.2	11
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	6	30.7	3/8	98	M18X1.25	M8X1.25	7	17.4	9	11.5	27	31.2	11
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	7	36.7	1/2	116	M22X1.5	M10X1.5	10	22.5	11	13	32	37	13
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	8	39.7	1/2	126	M26X1.5	M10X1.5	10	19	13	14	41	47.3	16

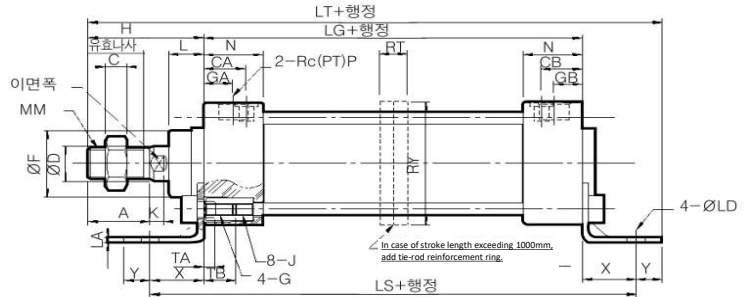
TA	TB	With bellows		without bellows			
		H	LT	Øe	h	i	LT1
4.5	16	51	140	43	59		148
5.5	16	58	154	43	66		162
5.5	16	58	162	43	66	1/4stroke	170
5.5	17	71	194	43	80		203
5.5	17	72	206	43	81		215

Foot type (L)

side bellows attached



note) For stroke orders exceeding standard length, please inquire separately.



(unit: mm)

Bore size (mm)	Stroke length		Effective screw length	width	A	□SB	□SC	CA	CB	ØD	ØE	ØF	GA	GB	N	P	LG	MM	J	K	G	WA	WB	a	b	C
	without bellows	with bellows																								
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	26.7	1/4	84	M14X1.5	M6X1.0	6	M6X1.0X18L	5	10.5	22	25.4	8
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	29.7	3/8	90	M18X1.25	M8X1.25	7	M8X1.25X18L	8	9.9	27	31.2	11
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	30.7	3/8	98	M18X1.25	M8X1.25	7	M8X1.25X18L	9	11.5	27	31.2	11
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	36.7	1/2	116	M22X1.5	M10X1.5	10	M10X1.5X20L	11	13	32	37	13
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	39.7	1/2	126	M26X1.5	M10X1.5	10	M10X1.5X20L	13	14	41	47.3	16

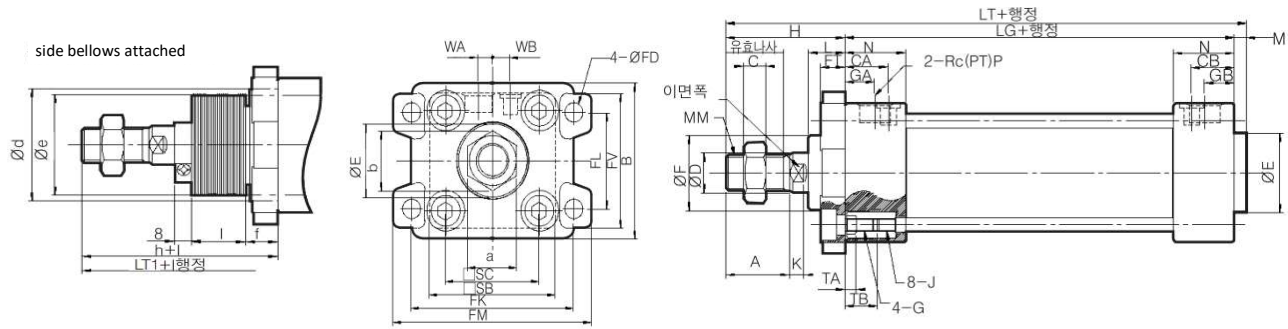
For long stroke options

TA	TB	X	Y	ØD	LH	LS	LA	LK	LL	without bellows		with bellows					LT1
										H	LT	Øe	f	h	i		
4.5	16	27	13	9	40	138	3.2	42	70	51	175	43	11.2	59			183
5.5	16	27	13	9	45	144	3.2	50	80	58	188	52	11.2	66			196
5.5	16	34	16	11.5	50	166	3.2	59	92.5	58	206	52	11.2	66			214
5.5	17	44	16	13.5	65	204	4.5	76	116	71	247	65	12.5	80			256
5.5	17	43	17	13.5	75	212	6	92	133	72	258	65	14	81			267

Bore size (mm)	stroke length (mm)	RT	RY
40	501~800	-	-
50	601~1200	30	76
63	601~1200	40	92
80	751~1400	45	112
100	751~1400	50	136

5L-AM2 SERIES

Rod side flange type (F)



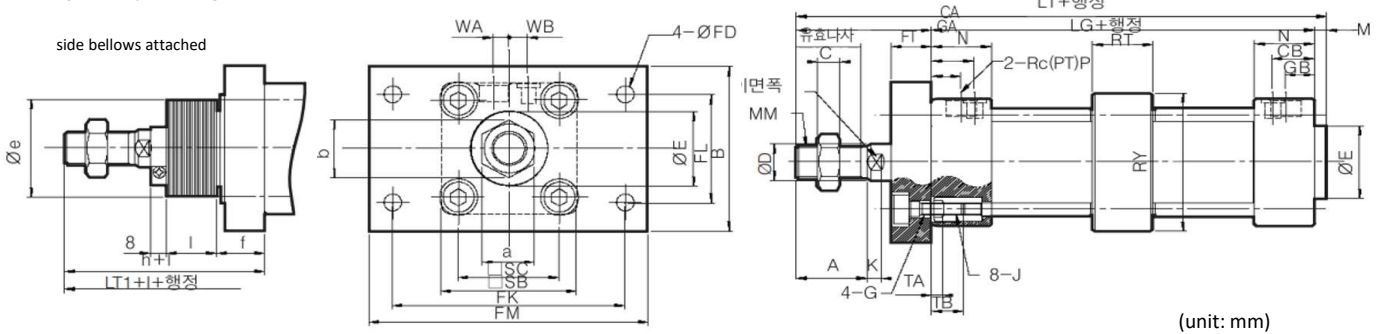
(unit: mm)

Bore size (mm)	Stroke length		Effective screw length	width	A	B	□SB	□SC	CA	CB	∅D	∅E	∅F	GA	GB	LG	MM	G	J	K	L
	without bellows	with bellows																			
40	~800	20~800	25	14	28	71	60	44	18	18	16	32	30	13	13	84	M14X1.5	M6X1.0X18L	M6X1.0	6	15
50	~1000	20~1000	28	18	31	81	70	52	21	21	20	40	38	14.5	14.5	90	M18X1.5	M8X1.25X18L	M8X1.25	7	17.7
63	~1000	20~1000	28	18	31	101	85	64	21	21	20	40	38	15	15	98	M18X1.5	M8X1.25X18L	M8X1.25	7	17.4
80	~1000	20~1000	33	22	36	119	102	78	26	26	25	52	50	21	21	116	M22X1.5	M10X1.5X20L	M10X1.5	10	22.5
100	~1000	20~1000	37	26	40	133	116	92	28	28	30	52	50	21	21	126	M26X1.5	M10X1.5X20L	M10X1.5	10	19

M	N	P	WA	WB	a	b	C	TA	TB	FV	∅FD	FT	FK	FL	FM	without bellows		with bellows					
																H	LT	*∅d	∅e	f	h	I	LT1
5	26.7	1/4	5	10.5	22	25.4	8	4.5	16	60	9	12	80	42	100	51	140	52	43	15	59	1/4stroke	148
6	29.7	3/8	8	9.9	27	31.2	11	5.5	16	70	9	12	90	50	110	58	154	58	52	15	66		162
6	30.7	3/8	9	11.5	27	31.2	11	5.5	16	86	11.5	15	105	59	130	58	162	58	52	17.5	66		170
7	36.7	1/2	11	13	32	37	13	5.5	17	102	13.5	18	130	76	160	71	194	80	65	21.5	80		203
8	39.7	1/2	13	14	41	47.3	16	5.5	17	116	13.5	18	150	92	180	72	206	80	65	21.5	81		215

note*) When machining the hole through, which the bellows passes, in order to attach the air cylinder, ensure that the hole is larger than the outer diameter (∅d) of the bellows attachment bracket.

For long stroke options (longer than 1000mm)



(unit: mm)

Bore size (mm)	Stroke length		Effective screw length	width	A	B	□SB	□SC	CA	CB	∅D	∅E	GA	GB	P	LG	MM	G	J	K	M	N
	without bellows	with bellows																				
50	1001~1200		32	18	35	88	70	52	21	21	20	40	14.5	14.5	3/8	90	M18X1.5	M8X1.25X26L	M8X1.25	7	6	29.7
63	1001~1200		32	18	35	105	85	64	21	21	20	40	15	15	3/8	98	M18X1.5	M8X1.25X27L	M8X1.25	7	6	30.7
80	1001~1400		37	22	40	124	102	78	26	26	25	52	21	21	1/2	116	M22X1.5	M10X1.5X20L	M10X1.5	11	7	36.7
100	1001~1500		37	26	40	140	116	92	28	28	30	52	21	21	1/2	126	M26X1.5	M10X1.5X20L	M10X1.5	11	8	39.7

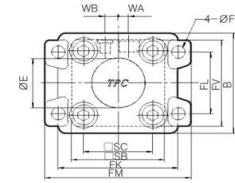
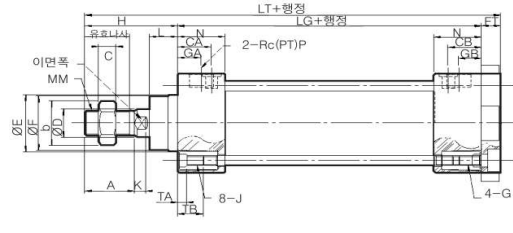
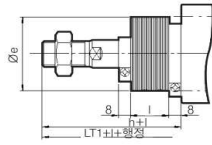
WA	WB	a	b	C	TA	TB	∅FD	FT	FK	FL	FM	RT	RY	without bellows		with bellows					
														H	LT	∅e*	f	h	I	LT1	
8	9.9	27	31.2	11	5.5	16	9	20	120	58	144	30	76	67	163	52	24	75	1/4stroke	171	
9	11.5	27	31.2	11	5.5	16	11.5	23	140	64	170	40	92	71	175	52	27	79		183	
11	13	32	37	13	5.5	17	13.5	28	164	84	198	45	112	87	210	65	32.5	96		219	
13	14	41	47.3	16	5.5	17	13.5	29	180	100	220	50	136	89	223	65	33.5	98		232	

note*) When machining the hole through, which the bellows passes, in order to attach the air cylinder, ensure that the hole is larger than the outer diameter (∅e) of the bellows attachment bracket.

5L-AM2 SERIES

Head side flange type (F)

side bellows attached



(unit: mm)

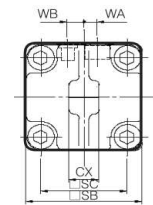
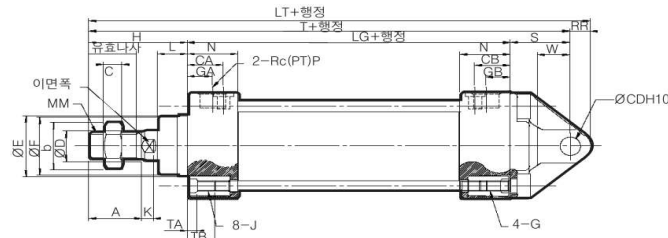
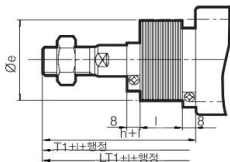
Bore size (mm)	Stroke length		Effective screw length	width	A	B	□SB	□SC	CA	CB	∅D	∅E	∅F	GA	GB	LG	MM	G	J	K
	without bellows	with bellows																		
40	~500	20~500	25	14	28	71	60	44	18	18	16	32	30	13	13	84	M14X1.5	M6X1.0X18L	M6X1.0	6
50	~600	20~600	28	18	31	81	70	52	21	21	20	40	38	14.5	14.5	90	M18X1.5	M8X1.25X18L	M8X1.25	7
63	~600	20~600	28	18	31	101	85	64	21	21	20	40	38	15	15	98	M18X1.5	M8X1.25X18L	M8X1.25	7
80	~750	20~750	33	22	36	119	102	78	26	26	25	52	50	21	21	116	M22X1.5	M10X1.5X20L	M10X1.5	10
100	~750	20~750	37	26	40	133	116	92	28	28	30	52	50	21	21	126	M26X1.5	M10X1.5X20L	M10X1.5	10

L	N	P	WA	WB	b	c	TA	TB	FV	∅FD	FT	FK	FL	FM	without bellows		with bellows			
															H	LT	∅e	h	I	LT1
15	26.7	1/4	5	10.5	25.4	8	4.5	16	60	9	12	80	42	100	51	147	43	59	1/4stroke	155
17.7	29.7	3/8	8	9.9	31.2	11	5.5	16	70	9	12	90	50	110	58	160	52	66		168
17.4	30.7	3/8	9	11.5	31.2	11	5.5	16	86	11.5	15	105	59	130	58	171	52	66		179
22.5	36.7	1/2	11	13	37	13	5.5	17	102	13.5	18	130	76	160	71	205	65	80		214
19	39.7	1/2	13	14	47.3	16	5.5	17	116	13.5	18	150	92	180	72	216	65	81		225

note*) When machining the hole through, which the bellows passes, in order to attach the air cylinder, ensure that the hole is larger than the outer diameter (∅d) of the bellows attachment bracket.

Single clevis type (C)

side bellows attached



(unit: mm)

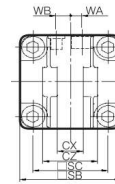
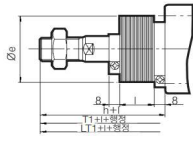
Bore size (mm)	Stroke length		Effective screw length	width	A	□SB	□SC	CA	CB	∅D	∅E	∅F	GA	GB	LG	MM	G	J	K	L	N
	without bellows	with bellows																			
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	84	M14X1.5	M6X1.0X18L	M6X1.0	6	15	26.7
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	90	M18X1.5	M8X1.25X18L	M8X1.25	7	17.7	29.7
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	98	M18X1.5	M8X1.25X18L	M8X1.25	7	17.4	30.7
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	116	M22X1.5	M10X1.5X20L	M10X1.5	10	22.5	36.7
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	126	M26X1.5	M10X1.5X20L	M10X1.5	10	19	39.7

P	S	WA	WB	b	c	TA	TB	RR	W	∅CD H10	CX	without bellows			with bellows					
												H	T	LT	∅e	h	I	T1	LT1	
1/4	30	5	10.5	25.4	8	4.5	16	10	16	10	15	-0.1	51	165	175	43	59	1/4stroke	173	183
												0	58	183	195	52	66		191	203
3/8	35	8	9.9	31.2	11	5.5	16	12	19	12	18	-0.1	58	196	212	52	66		204	220
												0	71	235	255	65	80		244	264
3/8	40	9	11.5	31.2	11	5.5	16	16	23	16	25	-0.1	72	256	281	65	81		265	290
												0								
1/2	48	11	13	37	13	5.5	17	20	28	20	31.5	-0.1								
												0								
1/2	58	13	14	47.3	16	5.5	17	25	36	25	35.5	-0.1								
												0								

5L-AM2 SERIES

Double clevis type (D)

편축 벨로우즈 부착

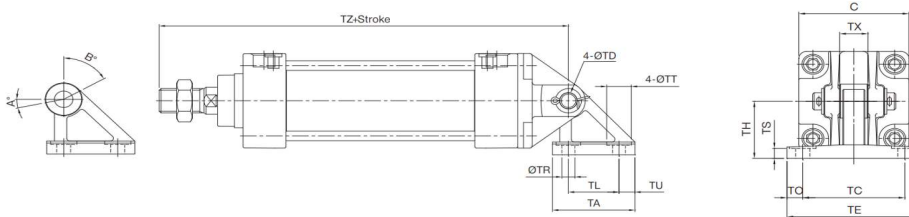


(unit: mm)

Bore size (mm)	Stroke length		Effective screw length	width	A	SB	SC	CA	CB	D	E	F	GA	GB	LG	MM	G	J	K	L
	without bellows	with bellows																		
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	84	M14X1.5	M6X1.0X18L	M6X1.0	6	15
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	90	M18X1.5	M8X1.25X18L	M8X1.25	7	17.7
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	98	M18X1.5	M8X1.25X18L	M8X1.25	7	17.4
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	116	M22X1.5	M10X1.5X20L	M10X1.5	10	22.5
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	126	M26X1.5	M10X1.5X20L	M10X1.5	10	19

N	P	S	WA	WB	b	C	TA	TB	RR	W	D H10	CX	CZ	without bellows			with bellows						
														H	T	LT	e	h	i	T1	LT1		
26.7	1/4	30	5	10.5	25.4	8	4.5	16	10	16	10	+0.058 0	15	-0.1 -0.3	29.5	51	165	175	43	59		173	183
29.7	3/8	35	8	9.9	31.2	11	5.5	16	12	19	12	+0.070 0	18	-0.1 -0.3	38	58	183	195	52	66		191	203
30.7	3/8	40	9	11.5	31.2	11	5.5	16	16	23	16	+0.070 0	25	-0.1 -0.3	49	58	196	212	52	66	1/4 stroke	204	220
36.7	1/2	48	11	13	37	13	5.5	17	20	28	20	+0.084 0	31.5	-0.1 -0.3	61	71	235	255	65	80		244	264
39.7	1/2	58	13	14	47.3	16	5.5	17	25	36	25	+0.084 0	35.5	-0.1 -0.3	64	72	256	281	65	81		265	290

Double clevis(D) diagram



Bore size(mm)	C	TA	TL	TU	TC	TE	TO	TR	TX	TT	TS	TH	TZ	TD H10	
40	60	57	35	11	65	85	10	9	15	17	7	40	165	10	+0.058 0
50	70	57	35	11	65	85	10	9	18	17	7	40	183	12	+0.070 0
63	85	67	40	13.5	80	105	12.5	11	25	22	9	50	196	16	+0.070 0
80	102	93	60	16.5	100	130	15	13.5	31.5	24	11	65	235	20	+0.084 0
100	116	93	60	16.5	100	130	15	13.5	35.5	24	11	65	256	25	+0.084 0

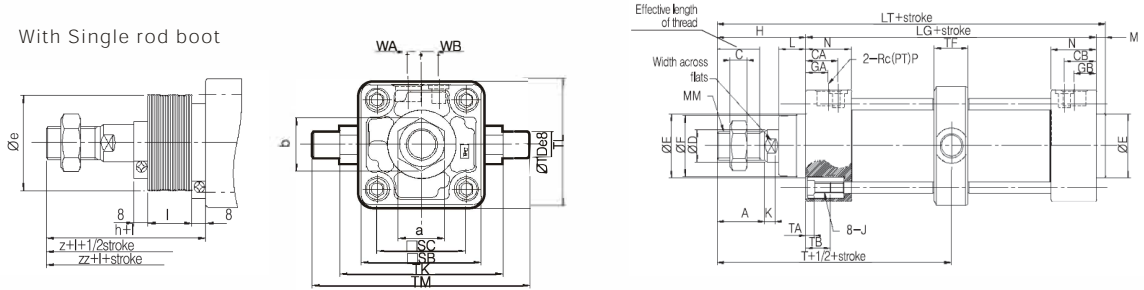
Swing angle

Bore size(mm)	A°	B°	A°+B°+90°
40 ~ 100	12°	60°	162°

5L-AM2 SERIES

Center Trunnion Type/(T)

With Single rod boot



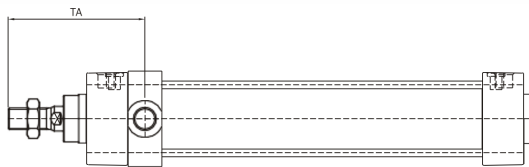
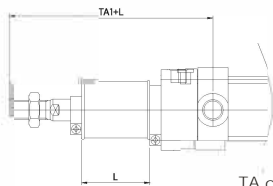
Bore size (mm)	Stroke range(mm)		Effective length of thread	Width across flats																	
	Without Rod boot	With Rod boot			A	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	L	M	N	LG	MM	K	J
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	15	5	26.7	84	M14×1.5	6	M6×1.0
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	17.7	6	29.7	90	M18×1.5	7	M8×1.25
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	17.4	6	30.7	98	M18×1.5	7	M8×1.25
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	22.5	7	36.7	116	M22×1.5	10	M10×1.5
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	19	8	39.7	126	M26×1.5	10	M10×1.5

※ 080, 100 J's dimension M10 X 1.25 - changed to M10X 1.5

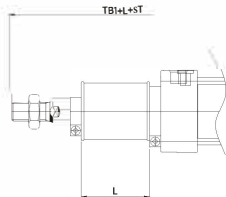
P	WA	WB	a	b	C	TA	TB	ØTD e8	TT	TK	TL	TM	Without Rod boot				With Rod boot				
													H	T	LT	Øe	h	I	T1	LT1	
1/4	5	10.5	22	25.4	8	4.5	16	15	$^{+0.032}_{-0.059}$	22	85	62	117	51	93	140	43	59		101	148
3/8	8	9.9	27	31.2	11	5.5	16	15	$^{+0.032}_{-0.059}$	22	95	74	127	58	103	154	52	66	1/4	111	162
3/8	9	11.5	27	31.2	11	5.5	16	18	$^{+0.032}_{-0.059}$	28	110	90	148	58	107	162	52	66	ST	115	170
1/2	11	13	32	37	13	5.5	17	25	$^{+0.040}_{-0.073}$	34	140	110	192	71	129	194	65	80		138	203
1/2	13	14	41	47.3	16	5.5	17	25	$^{+0.040}_{-0.073}$	40	162	130	214	72	135	206	65	81		144	215

Tronion close-contact type (TA/TB)

TA option (trunnion rod side close contact)



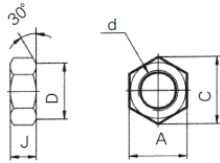
TA option (close contact with trunnion head)



Bore size	TA	TB	TA1	TB1	L
40	89	97	97	105	1/4 ST
50	99	107	97	115	
63	103	111	107	119	
80	125	133	111	142	
100	132	138	134	147	

5L-AM2 SERIES

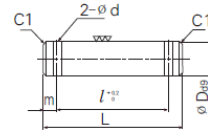
Rod End Nut(Standard accessories) (mm)



Material : Rolled steel

Part No.	Applicable bore	d	J	A	C	D
TNT-04	φ40	M14×1.5	8	22	25.4	21
TNT-05	φ50 · φ60	M18×1.5	11	27	31.2	26
TNT-08	φ80	M22×1.5	13	32	37.0	31
TNT-10	φ100	M26×1.5	16	41	47.3	39

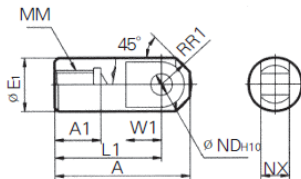
Knuckle Joint Pin/Clevis Pin (mm)



Material : Carbon steel

Part No	Bore Size		φDd9	L	l	m	φd	Applicable split pin
	CLEVIS	KNUCKLE						
TCDP-2	φ40	—	10 ^{-0.040/-0.076}	45.2	37.2	4	φ3	φ3×18l
TCDP-3	φ50	φ40 · φ60	12 ^{-0.050/-0.093}	54.3	46.3	4	φ3	φ3×18l
TCDP-4	φ63	—	16 ^{-0.050/-0.093}	70	60	5	φ4	φ4×24l
TCDP-5	—	φ80	18 ^{-0.040/-0.076}	76	66	5	φ4	φ4×25l
TCDP-6	φ80	φ100	20 ^{-0.065/-0.117}	82	72	5	φ4	φ4×36l
TCDP-7	φ100	—	25 ^{-0.065/-0.117}	87.5	77.5	5	φ4	φ4×36l

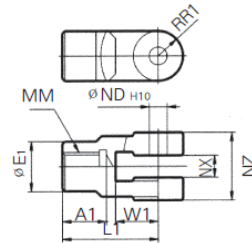
I Type Single Knuckle Joint (mm)



Material : Free cutting sulfur steel

Part No.	Applicable bore	A	A1	φE1	L1	MM	R1	W1	φNDH10	NX
TI-04	φ40	69	22	24	55	M14×1.5	15.5	20	12 ^{+0.070/0}	16 ^{-0.1/-0.3}
TI-05	φ50 · φ63	74	27	28	60	M18×1.5	15.5	20	12 ^{+0.070/0}	16 ^{-0.1/-0.3}
TI-08	φ80	91	37	36	71	M22×1.5	22.5	26	18 ^{+0.070/0}	28 ^{-0.1/-0.3}
TI-10	φ100	105	37	40	83	M26×1.5	24.5	28	20 ^{+0.084/0}	30 ^{-0.1/-0.3}

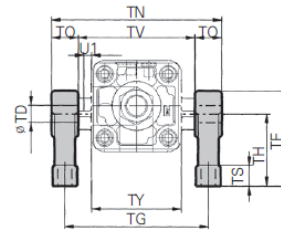
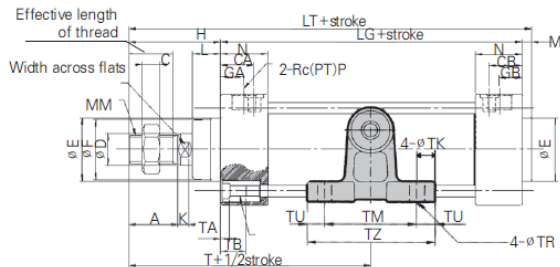
Y Type Double Knuckle Joint (mm)



material : Cast iron

Part No.	Applicable bore	A1	φE1	L1	MM	R1	W1	φNDH10	NX	NZ
TY-04A	φ40	22	24	55	M14×1.5	13	25	12 ^{+0.070/0}	16 ^{+0.3/+0.1}	38
TY-05A	φ50 · φ63	27	28	60	M18×1.5	15	27	12 ^{+0.070/0}	16 ^{+0.3/+0.1}	38
TY-08A	φ80	37	36	71	M22×1.5	19	28	18 ^{+0.070/0}	28 ^{+0.3/+0.1}	55
TY-10A	φ100	37	40	83	M26×1.5	21	38	20 ^{+0.084/0}	30 ^{+0.3/+0.1}	61

Trunnion Bracket

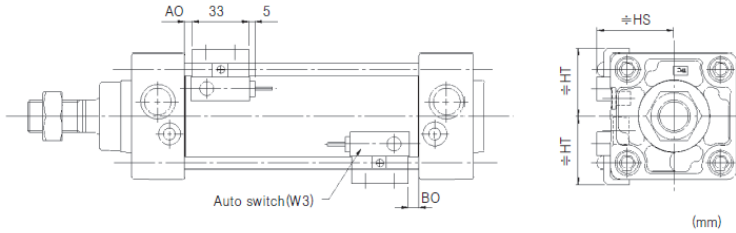


(mm)

Part No.	Applicable bore	TZ	TM	TU	TG	TV	TN	TO	φTR	φTK	TS	TH	TF	TY	U1	T	φTD-H10
TCA1-S04	φ40	80	60	10	102	85	119	17	9	17	12	45	60	62	10	93	15 ^{+0.070/0}
	φ50	80	60	10	112	95	129	17	9	17	12	45	60	74	10	103	15 ^{+0.070/0}
TCA1-S06	φ63	100	70	15	130	110	150	20	11	22	14	55	73	90	10	107	18 ^{+0.070/0}
TCA1-S08	φ80	120	90	15	166	140	192	26	13.5	24	17	75	100	110	12	129	25 ^{+0.084/0}
	φ100	120	90	15	188	162	214	26	13.5	24	17	75	100	130	12	135	25 ^{+0.084/0}

5L-AM2 SERIES

With Auto Switch



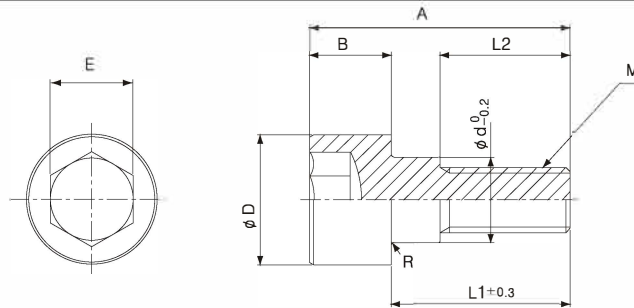
Part No. of Auto switch	Mounting position of Auto switch	Position				
		Ø40	Ø50	Ø63	Ø80	Ø100
W3	AO	0(0)	0(0)	0(2.5)	2(6)	4(7.5)
	BO	1(0)	1(0)	5(1.5)	8(4)	10(6.5)
	HS	37	41	46	53	61
	HT	31	35	42	50	57

* () is for long stroke, Non-Lube and Low Pressure Hydro.
Mounting possible for Foot & Front Flange.

Minimum Stroke of Attaching Auto Switch

Part No. of Auto switch	Number of Auto switch	Mounting Bracket for Auto switch	Center Trunnion Type			
			Ø40, Ø50	Ø63	Ø80	Ø100
W3	2 pcs(same, across flats)	15	90	100	110	120
	1 pcs	15+55	90+100	100+55	110+55	120+55
	n pcs(same flats)	$\left(\frac{n-2}{2} \right)$ n=1, 2, 3, 4, ...	$\left(\frac{n-4}{2} \right)$ n=4, 8, 12, 16, ...	$\left(\frac{n-4}{2} \right)$ n=4, 8, 12, 16, ...	$\left(\frac{n-4}{2} \right)$ n=4, 8, 12, 16, ...	$\left(\frac{n-4}{2} \right)$ n=4, 8, 12, 16, ...

AM2 Mounting bolt Dimension



Part number	Bore size (mm)	A	B	D	d	E	G(Min.)	L1	L2	M	Note
AM2040-048-001	Ø40	24	6	13	8.5	6	3	18	14	M6×1.0	B, L, C, D, T, F, G FIX
AM2040-048-002	Ø40	30	8	13	8.5	6	3	24	20	M6×1.0	ADJUST 판 FIX-XC9
AM2063-048-001	Ø63	26	8	16	10.5	8	4.5	18	14	M8×1.25	B, L, C, D, T, F, G FIX
AM2063-048-003	Ø63	35	8	16	10.5	8	4.5	27	23	M8×1.25	ADJUST 판 FIX-XC9 LONG ST. FLANGE FIX
AM2080-048-001	Ø80, Ø100	30	10	18	12.5	10	5.5	20	15	M10×1.5	B, L, C, D, T, F, G FIX
AM2080-048-003	Ø80, Ø100	42	10	18	12.5	10	5.5	32	27	M10×1.5	ADJUST 판 FIX-XC9 LONG ST. FLANGE FIX

Caution

Be sure to read before use

Adjustment

⚠ Warning

- Please avoid opening the cushion valve beyond the stopper. Installing the stop ring (040~100) prevents the cushion valve from disengaging, but refrain from opening the cushion valve beyond that.
- Always cushion at the end of the cylinder stroke.
- If the cushion valve is fully open during use, internal piston assembly or external tie rod may be damaged.
- When replacing support equipment, use the hex wrench below.

- 5L-AM2 is compatible with standard product AM2/TCA2 for attachment.

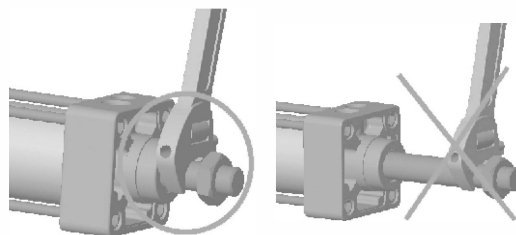
Bore size (mm)		Used bolt	Hexagon across width	Torque(N · m)
40	—	AM2040-048-001	6	5.1
50	—	M8×1.25×18L	8	11
63	—	AM2063-048-001	8	11
	Flange	AM2063-048-002		
80, 100	—	AM2080-048-001	10	25
	Flange	AM2080-048-002		

Mounting & Piping

⚠ Warning

● Mounting of rod end work

When fastening a bolt or nut to the thread end of the piston rod, place a spanner on the protruding part of the rod parallel portion with the piston rod fully inserted into the final position.



Life time

- The lifespan comparison between the premium series cylinder and the conventional cylinder is based on our test conditions. As the lifespan of the cylinder can vary depending on usage conditions, environment, etc., it is not guaranteed that the lifespan will be more than five times that of the conventional cylinder under all conditions.