

# Series AM2

## Air Cylinder

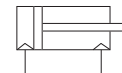
Bore Size(mm) :  $\varnothing$ 40,  $\varnothing$ 50,  $\varnothing$ 63,  $\varnothing$ 80,  $\varnothing$ 100



- Improved energy absorption capacity
- Cylinder with high tech appearance
- Improved cushion capacity
- Compact and lightweight design
- Increase kinetic energy absorption

### Symbol

Double Acting



## How to Order

AM **D** 2 **B** **N** **50** - **150** **N** - **XC16** - **W3** **S**

1
2
3
4
5
6
7
8
9

### 1 Magnet

Blank : None  
D : Built-in Magnet

### 2 Mounting

B : Basic  
L : Foot  
F : Rod Side Flange  
G : Head Side Flange  
C : Single Rear Clevis  
D : Double Rear Clevis  
T : Center Trunnion

### 3 Type

N : Non-lube  
F : Iron tube

### 4 Bore Size

40 : 40mm  
50 : 50mm  
63 : 63mm  
80 : 80mm  
100 : 100mm

### 5 Stroke (mm)

$\varnothing$ 40 : 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350  
 $\varnothing$ 50, 63 : 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600  
 $\varnothing$ 80, 100 : 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700

### 6 Suffix Symbol for Cylinder

Bellows J : Non-lube  
K : Neoprene cloth  
Cushion N : None  
R : Rod end  
H : Head end  
Blank : Both end

### 7 Series

Blank : Standard Type  
XC16 : Copper-Free

### 8 Auto Switches

Blank : None  
W3 : Existing plug point Auto Switch  
W2PL : Intense-Magnetism-Resistant type

### 9 Number of Auto Switches

Blank : 2 pcs  
S : 1 pc  
N : N pcs

## Series AM2

### Parts No. Of Mounting Bracket

Bore size	ø 40	ø 50	ø 63	ø 80	ø 100
※ Foot	TCA2L40	TCA2L50	TCA2L63	TCA2L80	TCA2L100
Flange	TCA2F40	TCA2F50	TCA2F63	TCA2F80	TCA2F100
Single clevis	TCA2C40	TCA2C50	TCA2C63	TCA2C80	TCA2C100
Double clevis	TCA2D40	TCA2D50	TCA2D63	TCA2D80	TCA2D100

※ 2 pcs min for order of only one cylinder.

### Specifications

Type	Non-lube	Air-hydro
Fluid	Air	L.P.Oil
Proof pressure	1.5MPa(213psi)	
Max. operating pressure	1.0MPa(14psi)	
Min. operating pressure	0.05MPa(7psi)	0.1MPa(14psi)
Ambient and fluid temperature	5~60°C(41~140°F)	
Piston speed	50~500mm/s	0.5~300mm/s
Cushion	Air Cushion	Not Available
Stroke tolerance	~250 <sup>st</sup> : <sup>+1.0</sup> / <sub>0</sub> , 251~1,000 <sup>st</sup> : <sup>+1.4</sup> / <sub>0</sub> , 1,001~1,500 <sup>st</sup> : <sup>+1.8</sup> / <sub>0</sub>	
Mounting	Basic, Foot, Front flange, Rear flange, Single clevis, Double clevis, Center trunnion	

### Weight/Aluminum Tube(Iron Tube)

Bore size		ø 40	ø 50	ø 63	ø 80	ø 100
Basic Weight	Basic	0.94 (0.94)	1.29 (1.40)	2.19 (2.04)	3.50 (3.63)	4.58 (5.07)
	Foot	1.13 (1.13)	1.51 (1.62)	2.23 (2.38)	4.17 (4.30)	5.84 (6.06)
	Flange	1.31 (1.30)	1.75 (1.86)	3.64 (2.84)	4.96 (5.08)	6.72 (6.99)
	Single clevis	1.17 (1.17)	1.49 (1.74)	2.83 (2.67)	4.62 (4.74)	6.63 (6.68)
	Double clevis	1.21 (1.21)	1.47 (1.83)	2.78 (2.83)	4.90 (5.03)	7.15 (7.38)
	Trunnion	1.25 (1.35)	1.84 (1.94)	2.80 (3.00)	5.03 (5.32)	7.15 (7.54)
Additional weight per 2" stroke	All mounting bracket (except trunnion iron tube)	0.22 (0.28)	0.28 (0.35)	0.37 (0.43)	0.52 (0.70)	0.65 (0.87)
	Trunnion of iron tube	0.36	0.46	0.65	0.86	1.07
Accessories	Single knuckle	0.23	0.26	0.26	0.60	0.83
	Double knuckle(with pin)	0.37	0.43	0.43	0.87	1.27

※ In parentheses are for Iron tube type.

#### Example

AM2L40-100(Foot, ø 40, 100<sup>st</sup>)

- Basic weight ..... 1.13kgf
  - Additional weight ..... 0.22/50<sup>st</sup>
  - Cylinder stroke ..... 100<sup>st</sup>
- 1.13+0.22×100/50=1.57kgf

ACP

APM

AS

AX

AM2

AM

AL  
ALX

AQ  
ADQ

AQ2  
ADQ2

AJ  
AJM

ABK

ACK1

NSK

AG

NGQ

AGX  
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

NLCS

## Series AM2

### Accessories

Description	Mounting	Basic	Foot	Front flange	Rear flange	Single clevis	Double clevis	Center trunnion
Standard	Rod end nut	○	○	○	○	○	○	○
	Clevis pin	—	—	—	—	—	○	—
Option	Single knuckle joint	○	○	○	○	○	○	○
	Double knuckle joint(with pin)	○	○	○	○	○	○	○
	Gaiter	○	○	○	○	○	○	○

### Parts No. Of Auto Switch Mounting Band

Switch model	Parts No.	Applicable bore size(mm)
<b>W3</b>	TBT-04	∅ 40
	TBT-04	∅ 50
	TBT-06	∅ 63
	TBT-08	∅ 80
	TBT-08	∅ 100

### Base Material And Surface Treatment

Description	Material	Note
Cover	Aluminum alloy	Silver paint
Cylinder tube	Aluminum alloy	Hard alumite
	Carbon steel tube	Inside/Hard chrome plated Outside/Platinum silver
Seals area	Non-lube	NBR PDU, NLP, OPA
	Air-hydro	NBR SCB, SKY, SDA
Piston rod	Carbon steel	-
Piston	Aluminum alloy	Chromate

### Rod boot Material

Symbol	Material	Max.ambient temperature
<b>J</b>	Nylon tarpaulin	60℃ (140°F)
<b>K</b>	Neoprene cloth	※110℃ (230°F)

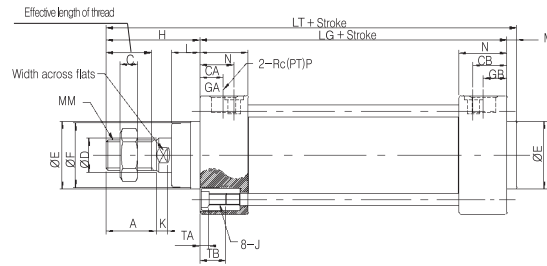
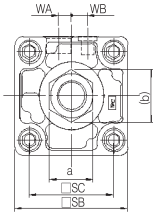
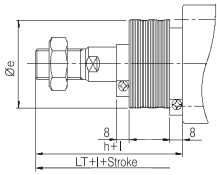
※ Max. ambient temperature for the rod boot itself.

# Series AM2

## Basic Type/(B)

Non-Lube Type(AM2BN), Air-Hydro Type(AM2BH)

With Single Rod Boot



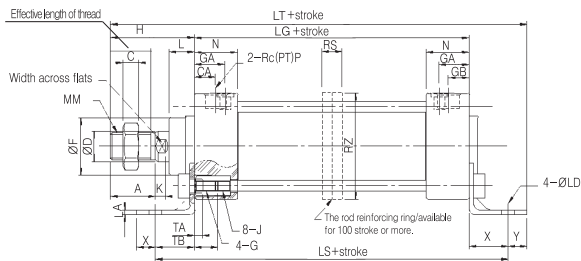
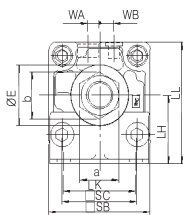
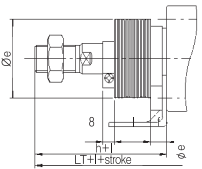
Bore size (mm)	Stroke range (mm)		Effective length of thread	Width across flats	A	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	M	N	P	LG	MM	J	K	L	WA	WB	a	b	c	TA	TB	Without Rod Boot		With Rod Boot		
	Without garter	With garter																												H	LT	Øe	h	I
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	5	26.7	1/4	84	M14×1.5	M6×1.0	6	15	5	10.5	22	25.4	8	4.5	16	51	140	43	59	148
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	6	29.7	3/8	90	M18×1.5	M8×1.25	7	17.7	8	9.9	27	31.2	11	5.5	16	58	154	52	66	162
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	6	30.7	3/8	98	M18×1.5	M8×1.25	7	17.4	9	11.5	27	31.2	11	5.5	16	58	162	52	66	170
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	7	36.7	1/2	116	M22×1.5	M10×1.25	10	22.5	11	13	32	37	13	5.5	17	71	194	65	80	203
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	8	39.7	1/2	126	M26×1.5	M10×1.25	10	19	13	14	41	47.3	16	5.5	17	72	206	65	81	215

\* For non standard Stroke, inquire separately

## Foot Type/(L)

Non-Lube Type(AM2LN), Air-Hydro Type(AM2LH)

With Single Rod Boot



Bore size (mm)	Stroke range (mm)		Effective length of thread	Width across flat	A	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	L	N	P	LG	MM	J	K
	Without Rod Boot	With Rod Boot																			
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	15	26.7	1/4	84	M14×1.5	M6×1.0	6
50	~600	20~600	28	18	31	70	52	21	21	20	40	38	14.5	14.5	17.7	29.7	3/8	90	M18×1.5	M8×1.25	7
63	~600	20~600	28	18	31	85	64	21	21	20	40	38	15	15	17.4	30.7	3/8	98	M18×1.5	M8×1.25	7
80	~750	20~750	33	22	36	102	78	26	26	25	52	50	21	21	22.5	36.7	1/2	116	M22×1.5	M10×1.25	10
100	~750	20~750	37	26	40	116	92	28	28	30	52	50	21	21	19	39.7	1/2	126	M26×1.5	M10×1.25	10

### Long Stroke Type

G	WA	WB	a	b	c	TA	TB	X	Y	ØLD	LH	LS	LA	LK	LL	Without Rod Boot		With Rod Boot				Bore size (mm)	Stroke range (mm)	RS	RZ
																H	LT	Øe	f	h	I				
M6×1.0DP18	5	10.5	22	25.4	8	4.5	16	27	13	9	40	138	3.2	42	70	51	175	43	11.2	59	183	40	501~800	-	-
M8×	8	9.9	27	31.2	11	5.5	16	27	13	9	45	144	3.2	50	80	58	188	52	11.2	66	196	50	601~1200	30	76
1.25DP18	9	11.5	27	31.2	11	5.5	16	34	16	11.5	50	166	3.2	59	93	58	206	52	11.2	66	214	63	601~1200	40	92
M8×	11	13	32	37	13	5.5	17	44	16	13.5	65	204	4.5	76	116	71	247	65	12.5	80	256	80	751~1400	45	112
1.25DP18	13	14	41	47.3	16	5.5	17	43	17	13.5	75	212	6	92	133	72	258	65	14	81	267	100	751~1400	50	136

\* For non standard stroke, inquire separately

ACP

APM

AS

AX

AM2

AM

AL

ALX

AQ

ADQ

AQ2

ADQ2

AJ

AJM

ABK

ACK1

NSK

AG

NGQ

AGX

GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

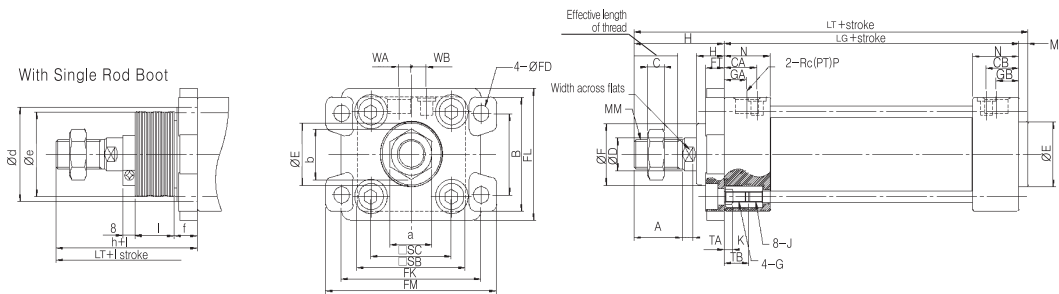
NLCD

NLCS

# Series AM2

## Front Flange/(F)

Non-Lube Type(AM2FN), Air-Hydro Type(AM2FH)

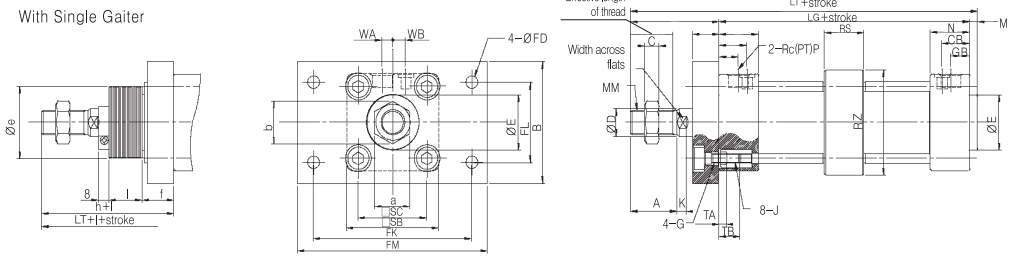


Bore size (mm)	Stroke range(mm)		Effective length of thread	Width across flats	A	B	□SB	□SC	CA	CB	ØD	ØE	ØF	GA	GB	LG	MM	G	J	K	L
	Without Rod Boot	With Rod Boot																			
40	~800	20~800	25	14	28	71	60	44	18	18	16	32	30	13	13	84	M14×1.5	M6×1.0 DP 18	M6×1.0	6	15
50	~1000	20~1000	28	18	31	81	70	52	21	21	20	40	38	14.5	14.5	90	M18×1.5	M8×1.25 DP 18	M8×1.25	7	17.7
63	~1000	20~1000	28	18	31	101	85	64	21	21	20	40	38	15	15	98	M18×1.5	M8×1.25 DP 22	M8×1.25	7	17.4
80	~1000	20~1000	33	22	36	119	102	78	26	26	25	52	50	21	21	116	M22×1.5	M10×1.25 DP 24	M10×1.25	10	22.5
100	~1000	20~1000	37	26	40	133	116	92	28	28	30	52	50	21	21	126	M26×1.5	M10×1.25 DP 24	M10×1.25	10	19

M	N	P	WA	WB	a	b	c	TA	TB	FV	ØFD	FT	FK	FL	FM	Without Rod Boot		With Rod Boot					
																H	LT	*Ød	Øe	f	h	l	LT
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	1/4 Stroke	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	

★ Hole diameter of Rod Boot to mount Air-cylinder should be larger than the outside diameter of gaiter mounting bracket Ød.

### Long Stroke (1,000 Stroke or more)



\* It's for steel Flange.

Bore size (mm)	Stroke range (mm)	Effective length of thread	Width across flats	A	B	□SB	□SC	CA	CB	ØD	ØE	GA	GB	P	LG	MM	G	J	K	M	N
				50	1001~1200	28	18	35	88	70	52	21	21	20	40	14.5	14.5	3/8	90	M18×1.5	M8×1.25 DP 26
63	1001~1200	28	18	35	105	85	64	21	21	20	40	15	15	3/8	98	M18×1.5	M8×1.25 DP 27	M8×1.25	7	6	30.7
80	1001~1400	33	22	40	124	102	78	26	26	25	52	21	21	1/2	116	M22×1.5	M10×1.25 DP 32	M10×1.25	11	7	36.7
100	1001~1500	37	26	40	140	116	92	28	28	30	52	21	21	1/2	126	M26×1.5	M10×1.25 DP 32	M10×1.25	11	8	39.7

WA	WB	a	b	c	TA	TB	ØFD	FT	FK	FL	FM	RS	RZ	Without Rod Boot		With Rod Boot						
														H	LT	*Ød	f	h	l	LT		
8	9.9	27	31.2	11	5.5	17	9	20	120	58	144	30	76	67	163	52	24	75				171
9	11.5	27	31.2	11	5.5	17	11.5	23	140	64	170	40	92	71	175	52	27	79	1/4			183
11	13	32	37	13	5.5	18	13.5	28	164	84	198	45	112	87	210	65	32.5	96	Stroke			219
13	14	41	47.3	16	5.5	18	13.5	29	180	100	220	50	136	89	223	65	33.5	98				232

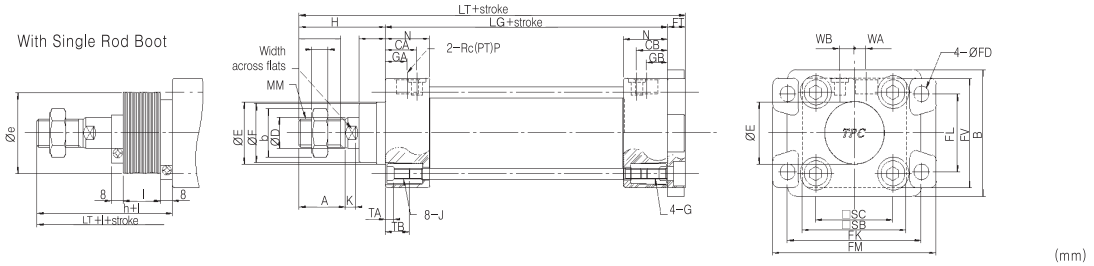
★ Hole diameter of Rod Boot to mount Air-cylinder should be larger than the outside diameter of gaiter mounting bracket Øe.



# Series AM2

## Rear Flange/(G)

Non-Lube Type(AM2GN), Air-Hydro Type(AM2GH)

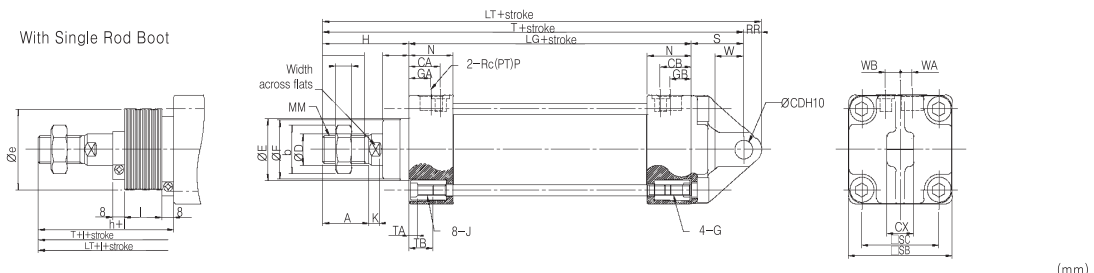


Bore size (mm)	Stroke range		Effective length of thread	Width across flats	Dimensions (mm)										G		J		K		L	
	Without Rod Boot	With Rod Boot			A	B	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	LG	MM	G	J	K	L	
40	~500	20~500	25	14	28	71	60	44	18	18	16	32	30	13	13	84	M14×1.5	M6×1.0 DP 18	M6×1.0	6	15	
50	~600	20~600	28	18	31	81	70	52	21	21	20	40	38	14.5	14.5	90	M18×1.5	M8×1.25 DP 18	M8×1.25	7	17.7	
63	~600	20~600	28	18	31	101	85	64	21	21	20	40	38	15	15	98	M18×1.5	M8×1.25 DP 22	M8×1.25	7	17.4	
80	~750	20~750	33	22	36	119	102	78	26	26	25	52	50	21	21	116	M22×1.5	M10×1.25 DP 24	M10×1.25	10	22.5	
100	~750	20~750	37	26	40	133	116	92	28	28	30	52	50	21	21	126	M26×1.5	M10×1.25 DP 24	M10×1.25	10	19	

N	P	WA	WB	b	c	TA	TB	FV	ØFD	FT	FK	FL	FM	Without Rod Boot		With Rod Boot		
														H	LT	Øe	h	I
26.7	1/4	5	10.5	25.4	8	4.5	16	60	9	12	80	42	100	51	147	43	59	155
29.7	3/8	8	9.9	31.2	11	5.5	16	70	9	12	90	50	110	58	160	52	66	168
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
36.7	1/2	11	13	37	13	5.5	17	102	13.5	18	130	76	160	71	205	65	80	214
39.7	1/2	13	14	47.3	16	5.5	17	116	13.5	18	150	92	180	72	216	65	81	225

## Single Clevis/(C)

Non-Lube Type(AM2CN), Air-Hydro Type(AM2CH)



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

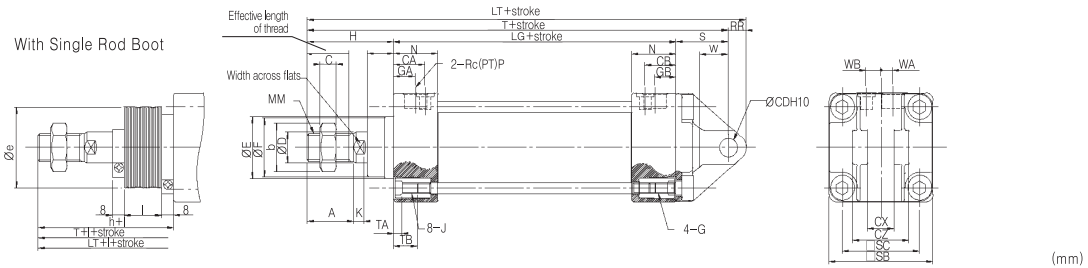
L	N	P	S	WA	WB	b	c	TA	TB	RR	W	ØCD H10	CX	Without Rod Boot		With Rod Boot				
														H	T	LT	Øe	h	I	T
15	26.7	1/4	30	5	10.5	25.4	8	4.5	16	10	16	10 <sup>+0.058/0</sup>	15 <sup>-0.1/-0.3</sup>	51	165	175	43	59	173	183
17.7	29.7	3/8	35	8	9.9	31.2	11	5.5	16	12	19	12 <sup>+0.070/0</sup>	18 <sup>-0.1/-0.3</sup>	58	183	195	52	66	191	203
17.4	30.7	3/8	40	9	11.5	31.2	11	5.5	16	16	23	16 <sup>+0.070/0</sup>	25 <sup>-0.1/-0.3</sup>	58	196	212	52	66	204	220
22.5	36.7	1/2	48	11	13	37	13	5.5	17	20	28	20 <sup>+0.084/0</sup>	31.5 <sup>-0.1/-0.3</sup>	71	235	255	65	80	244	264
19	39.7	1/2	58	13	14	47.3	16	5.5	17	25	36	25 <sup>+0.084/0</sup>	35.5 <sup>-0.1/-0.3</sup>	72	256	281	65	81	265	290

- ACP
- APM
- AS
- AX
- AM2**
- AM
- AL
- ALX
- AQ
- ADQ
- AQ2
- ADQ2
- AJ
- AJM
- ABK
- ACK1
- NSK
- AG
- NGQ
- AGX
- GX
- NP
- ADR
- AMR
- NDM
- ARD
- NST
- AST
- ASTH
- NLCD
- NLCS

# Series AM2

## Double Clevis Type/(D)

Non-Lube Type(AM2DN), Air-Hydro Type(AM2DH)

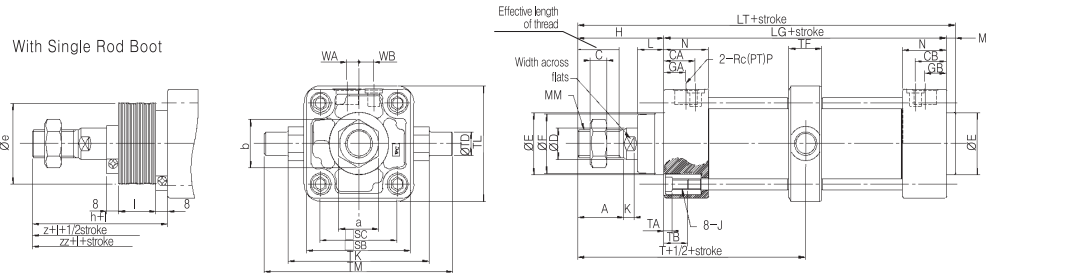


Bore size (mm)	Stroke range(mm)		Effective length of thread	Width across flats	A	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	LG	MM	G	J	K
	Without Rod Boot	With Rod Boot			ØD	ØE	ØF	GA	GB	LG	MM	G	J	K					
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	84	M14×1.5	M6×1.0 DP 18	M6×1.0	6
50	~600	20~600	28	18	31	70	52	21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

L	N	P	S	WA	WB	b	c	TA	TB	RR	W	ØCDH10	CX	CZ	Without Rod Boot			With Rod Boot				
															H	T	LT	Øe	h	l	T	LT
15	26.7	1/4	30	5	10.5	25.4	8	4.5	16	10	16	10 <sup>+0.058/0</sup>	15 <sup>+0.3/+0.1</sup>	29.5	51	165	175	43	59	1/4 Stroke	173	183
17.7	29.7	3/8	35	8	9.9	31.2	11	5.5	16	12	19	12 <sup>+0.070/0</sup>	18 <sup>+0.3/+0.1</sup>	38	58	183	195	52	66		191	203
17.4	30.7	3/8	40	9	11.5	31.2	11	5.5	16	16	23	16 <sup>+0.070/0</sup>	25 <sup>+0.3/+0.1</sup>	49	58	196	212	52	66		204	220
22.5	36.7	1/2	48	11	13	37	13	5.5	17	20	28	20 <sup>+0.084/0</sup>	31.5 <sup>+0.3/+0.1</sup>	61	71	235	255	65	80		244	264
19	39.7	1/2	58	13	14	47.3	16	5.5	17	25	36	25 <sup>+0.094/0</sup>	35.5 <sup>+0.3/+0.1</sup>	64	72	256	281	65	81	265	290	

## Center Trunnion Type/(T)

Non-lube Type(AM2TN), Air-hydro type(AM2TH)

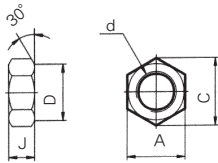


Bore size (mm)	Stroke range(mm)		Effective length of thread	Width across flats	A	SB	SC	CA	CB	ØD	ØE	ØF	GA	GB	L	M	N	LG	MM	G	K
	Without Rod Boot	With Rod Boot			ØD	ØE	ØF	GA	GB	L	M	N	LG	MM	G	K					
40	~500	20~500	25	14	28	60	44	18	18	16	32	30	13	13	15	5	26.7	84	M14×1.5	M6×1.0	6
50	~600	20~600	28	18	31	70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

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

# Series AM2

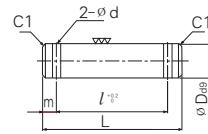
## Rod End Nut(Standard accessories) (mm)



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

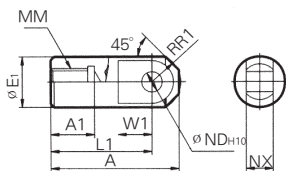
## Knuckle Joint Pin/Clevis Pin (mm)



Material : Carbon steel

Part No	Bore Size		φ Dd9	L	l	m	φ d	Applicable split pin
	CLEVIS	KNUCKLE						
TCDP-2	φ40	—	10 <sup>-0.040/-0.076</sup>	45.2	37.2	4	φ3	φ3×18l
TCDP-3	φ50	φ40 · φ40	12 <sup>-0.050/-0.093</sup>	54.3	46.3	4	φ3	φ3×18l
TCDP-4	φ63	—	16 <sup>-0.050/-0.093</sup>	70	60	5	φ4	φ4×24l
TCDP-5	—	φ80	18 <sup>-0.040/-0.076</sup>	76	66	5	φ4	φ4×25l
TCDP-6	φ80	φ100	20 <sup>-0.065/-0.117</sup>	82	72	5	φ4	φ4×36l
TCDP-7	φ100	—	25 <sup>-0.065/-0.117</sup>	87.5	77.5	5	φ4	φ4×36l

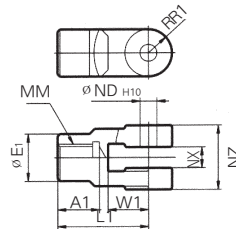
## I Type Single Knuckle Joint (mm)



Material : Free cutting sulfur steel

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

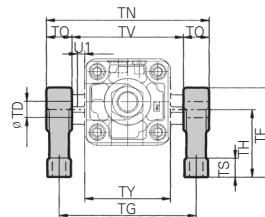
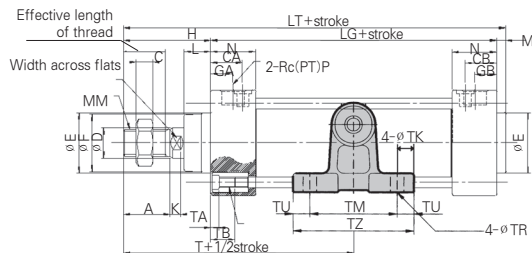
## Y Type Double Knuckle Joint (mm)



material : Cast iron

Part No.	Applicable bore	A1	φEI	L1	MM	R1	W1	φNDH10	NX	NZ
TY-04A	φ40	22	24	55	M14×1.5	13	25	12 <sup>+0.070/0</sup>	16 <sup>+0.3/+0.1</sup>	38
TY-05A	φ50 · φ63	27	28	60	M18×1.5	15	27	12 <sup>+0.070/0</sup>	16 <sup>+0.3/+0.1</sup>	38
TY-08A	φ80	37	36	71	M22×1.5	19	28	18 <sup>+0.070/0</sup>	28 <sup>+0.3/+0.1</sup>	55
TY-10A	φ100	37	40	83	M26×1.5	21	38	20 <sup>+0.084/0</sup>	30 <sup>+0.3/+0.1</sup>	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 <sup>+0.070/0</sup>
	φ50	80	60	10	112	95	129	17	9	17	12	45	60	74	10	103	15 <sup>+0.070/0</sup>
TCA1-S06	φ63	100	70	15	130	110	150	20	11	22	14	55	73	90	10	107	18 <sup>+0.070/0</sup>
TCA1-S08	φ80	120	90	15	166	140	192	26	13.5	24	17	75	100	110	12	129	25 <sup>+0.084/0</sup>
	φ100	120	90	15	188	162	214	26	13.5	24	17	75	100	130	12	135	25 <sup>+0.084/0</sup>

ACP

APM

AS

AX

**AM2**

AM

AL  
ALX

AQ  
ADQ

AQ2  
ADQ2

AJ  
AJM

ABK

ACK1

NSK

AG

NGQ

AGX  
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

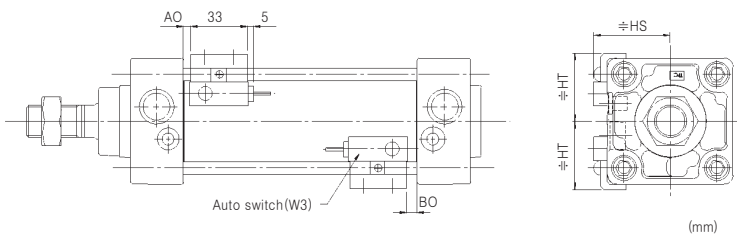
NLCD

NLCS



# Series AM2

## 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

n: Number of 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
	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, ...

## Possible to order

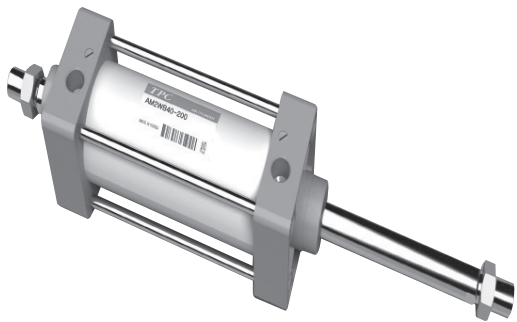
	1	2	3	4	5	6	7	8	9	10	11
Type	Non-Lube	Low pressure hydro	Steel Tube	Non-Rotating	Double Rod	Adjustable Stroke/ Extension Adjustable type	Adjustable Stroke/ Retraction Adjustable type	Dual/ Single Rod	Dual/ Double Rod	Powerful Scraper	Powerful Rod
Symbol	N	H	F	K	W	XC8	XC9	XC11	XC10	XC4	XB5
AM2	◆	-	◆	-	◆	◆	◆	-	◆	-	-

	12	13	14	15	16	17	18	19
End Lock	Tandum	High Temperature	Rod Stainless	Coil Scraper	Front Flange	Intense-Magnetism-Resistance type	Copper-free	
	X105	XC12	XB6	XC6	X104	H	P	XC16
	◆	-	◆	◆	-	◆	-	◆

◆ : Possible to produce

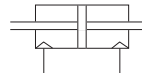
# Series AM2W

## Double Rod Type



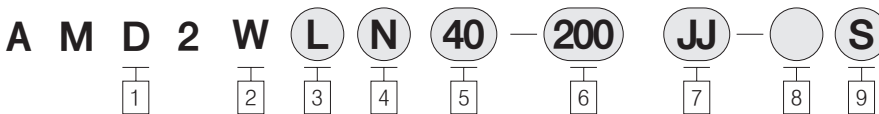
- Double rod type cylinder.
- Long life, High speed operation possible
- Can operate without lubrication
- Auto switch capable (Tie rod Type)

Symbol



ACP
APM
AS
AX
AM2
AM
AL ALX
AQ ADQ
AQ2 ADQ2
AJ AJM
ABK
ACK1
NSK
AG
NGQ
AGX GX
NP
ADR
AMR
NDM
ARD
NST
AST
ASTH
NLCD
NLCS

### How to order



**1 Magnet**

Blank : None  
D : Built-in Magnet

**2 Double rod Type Cylinder**

**3 Mounting**

B : Basic  
L : Foot  
F : Rod side Flange  
G : Head side Flange  
C : single Rear Clevis  
D : Double Rear Clevis  
T : Center Trunnion

\* Other how to order same as that of series AM2  
How to order (Refer to page 172)

**4 Type**

H : Air hydro  
N : Non-lube(Standard)

**5 Bore Size**

40 : 40mm  
50 : 50mm  
63 : 63mm  
80 : 80mm  
100 : 100mm

**6 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  
63 : 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500  
80 : 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500  
100 : 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500

**7 Suffix Symbol for Cylinder**

Blank : None  
J : Nylon tarpaulin (single Side)  
JJ : Nylon tarpaulin (Both Side)  
K : Neoprene cloth (single Side)  
KK : Neoprene cloth (Both Side)

**8 Auto Switches**

Blank : None  
W3 : Existing plug point Aout Switch  
W2PL : Intense-Magnetism-Pesiatout

**9 Number of Auto Switches**

Blank : 2 pcs  
S : 1 pc  
N : N pcs

# Series AM2W

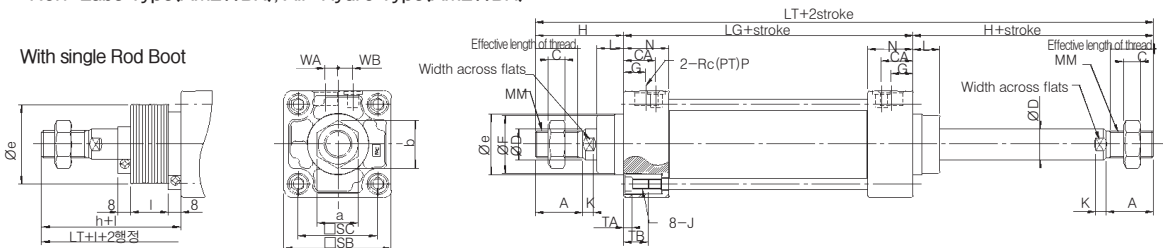
## Specifications

Type	Non-lube	Air-hydro
Fluid	Air	L.P. oil
Proof Pressure	1.5MPa(213psi)	
Max. Operating pressure	1.0MPa(140psi)	
Min. Operating pressure	0.8MPa(113psi)	0.16MPa(22psi)
Piston speed	50~500mm/s	0.5~300mm/s
Ambient and fluid temperature	5~60°C(41~140°F)	
Cushion	Air Cushion	Not Available
Thread tolerance	KS class 2	
Stroke tolerance	~250 <sup>st</sup> : $^{+1.0}_0$ , 251~750 <sup>st</sup> : $^{+1.4}_0$	
Mounting	Basic, Foot, Front flange, Center trunnion	

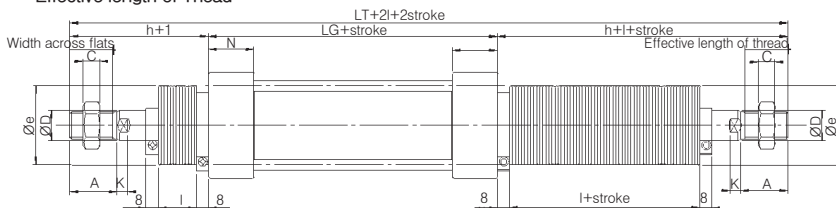
## Basic Type/(B)

Non-Lube Type(AM2WBN), Air-Hydro Type(AM2WBH)

With single Rod Boot



With Double Rod Boot  
Effective length of Thread



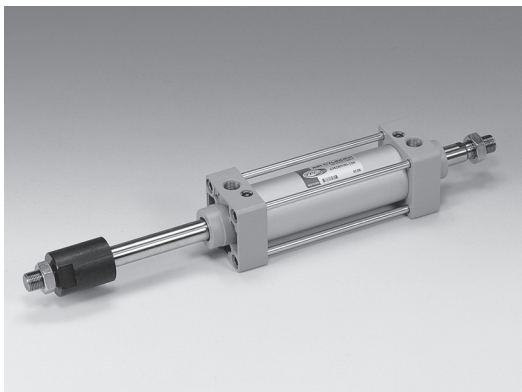
\* Dimensions by mounting Types are the same as for AM2 standard Type. (unit : mm)

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

K	WA	WB	WB	b	c	P	TA	TB	Without Rod Boot								With Single(Double) Rod Boot	
									H	LT	Øe	h	I	LT	(LT)	stroke	(stroke)	
6	5	10.5	22	25.4	8	1/4	4.5	16	51	186	43	59	1/4 stroke	194	202			
7	8	9.9	27	31.2	11	3/8	5.5	16	58	206	52	66		214	222			
7	9	11.5	27	31.2	11	3/8	5.5	16	58	214	52	66		222	230			
10	11	13	32	37	13	1/2	5.5	17	71	258	65	80		267	276			
10	13	14	41	47.3	16	1/2	5.5	17	72	270	65	81		279	288			

# Series AM2W

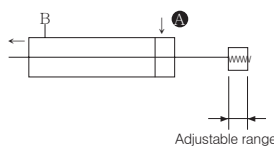
## Adjustable Stroke Cylinder / Extension Adjustable Type



The Stroke at extend of the cylinder can be adjusted by the stopper in the head side from full stroke(0~25mm) or (0~50mm).

※If you want lubrication types, inquire with us.

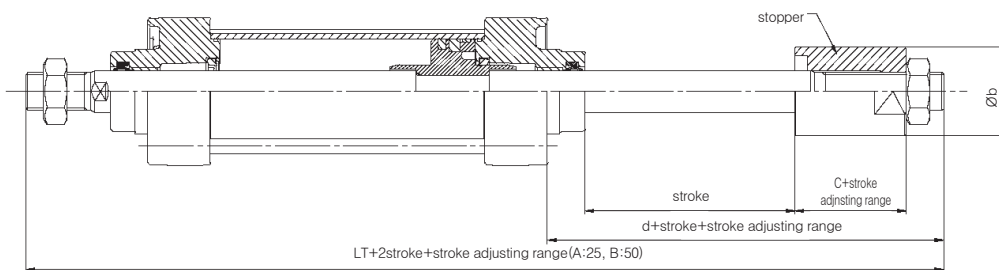
### Symbol



AM2 **Mounting** **Type** **Bore Size** — **Stroke** **Additional symbol** **Stroke adjusting symbol** XC8

- Stroke adjusting symbol
- A — Stroke adjusting range 0~25mm
- B — Stroke adjusting range 0~50mm

### Construction, Dimensions



※ other dimensions are the same for AM2 standard Type (unit : mm)

Bore size(mm)	Øb	c	d	LT
40	Ø32	22	51	186
50	Ø42	28	63.5	211.5
63		28	63.5	219.5
80	Ø55	35	78.5	265.5
100		35	75	273

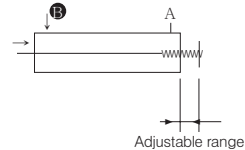
- ACP
- APM
- AS
- AX
- AM2**
- AM
- AL
- ALX
- AQ
- ADQ
- AQ2
- ADQ2
- AJ
- AJM
- ABK
- ACK1
- NSK
- AG
- NGQ
- AGX
- GX
- NP
- ADR
- AMR
- NDM
- ARD
- NST
- AST
- ASTH
- NLCD
- NLCS

# Series AM2W

## Adjustable Stroke Cylinder / Retraction Adjustable Type

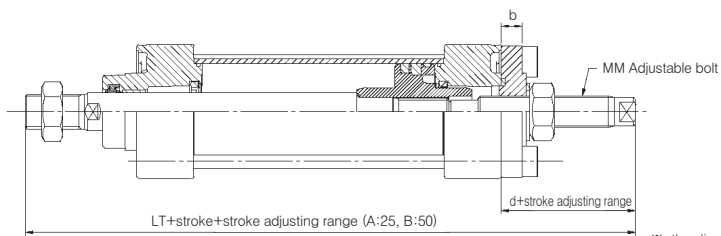
AM2 (Mounting) (Type) (Bore Size) — (Stroke) (Additional Symbol) (Stroke adjusting symbol) — XC9 Symbol

● Stroke adjusting Symbol  
 A - Stroke adjusting range 0~25mm  
 B - Stroke adjusting range 0~50mm



The Stroke at retraction of the cylinder can be adjusted from (0~25mm) or (0~50mm) by the adjusting bolt.

## Construction / Dimensions



※ other dimensions are the same for AM2 standard Type (unit : mm)

Bore size(mm)	MM	b	d	LT
40	M16×1.5	9	43	178
50	M16×1.5	11	45	193
63	M20×1.5	11	49.5	205.5
80	M24×1.5	15	58	245
100	M24×1.5	15	58	256

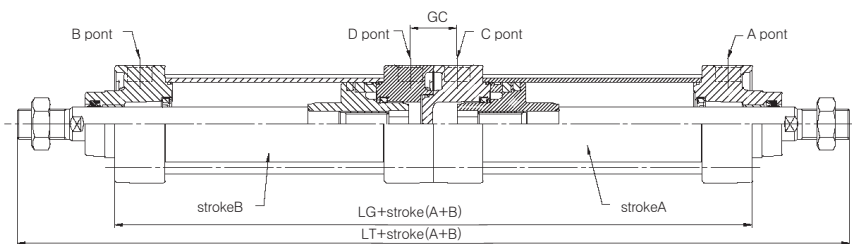
## Dual Stroke cylinder / Double Rod Type

AM2 (Mounting) (Type) (Bore size) — (Stroke A) (Additional symbol) + (Stroke B) (Adjusting symbol) — XC10

Two cylinders are constructed as one cylinder in a back-to-back configuration allowing the cylinder stroke to be controlled in three steps.

※If you want lubrication types, inquire with us.

## Construction / Dimensions



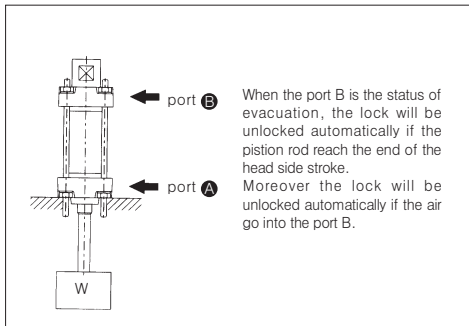
※ other dimensions are the same for AM2 standard Type (unit : mm)

Bore Size(mm)	GC	LG	LT
40	25	167	269
50	28	179	295
63	29	195	311
80	41	231	373
100	41	251	395

# Series AM2W

## END LOCK Cylinder

AM2 (Mounting) (Type) (Bore Size) - (Stroke) (Suffix) — X105

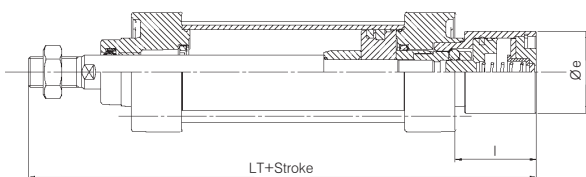


### Specification

Type	Non-lubrication
Bore Size	Ø40, Ø50, Ø63, Ø80, Ø100
Cushion	Air Cushion
Operating type	Double Acting
Retaining force	Ø40:20kgf, Ø50~Ø100:150kgf
LOCK Start Pressure	0.05MP (7Psi)
LOCK Release Pressure	0.2MP (28Psi)
Mounting	Basic type, Axial foot type, Rod side flange type, Center trunnion

※If you want lubrication types, inquire with us.

### Construction / Dimensions



(unit : mm)

Bore Size(mm)	Øe	l	LT
40	34	31	166
50	48	47.5	197.6
63	48	47.5	204.8
80	50	47	234
100	50	49	247

## High Temperature Cylinder

AM2 (Mounting) (Type) (Bore Size) - (Stroke) (Suffix) — XB6

Use at high temperature up to 150°C

### Specifications

Type	Non-Lubrication
Bore size	Ø40, Ø50, Ø63, Ø80, Ø100
Ambient and Fluid Temperature	-20~+150°C
Material of seal	FPM(Fluorine Rubber)

※ Non-auto switch

## Stainless Steel Rod

AM2 (Mounting) (Type) (Bore Size) - (Stroke) (Suffix) — XC6

Suffix ●  
 Blank - Mounting Both side Cushion  
 R - Mounting Rod side cushion  
 H - Mounting Head side cushion  
 N - Non-Cushion

It is used in case there is the risk of rust or corrosion, such as when the end of the piston rod becomes immersed in water as it moves forward.

### Specification

Type	Non-lube, Air-hydro
Bore size	Ø40, Ø50, Ø63, Ø80, Ø100
Piston rod material	Stainless steel (SUS304)

- ACP
- APM
- AS
- AX
- AM2**
- AM
- AL
- ALX
- AQ
- ADQ
- AQ2
- ADQ2
- AJ
- AJM
- ABK
- ACK1
- NSK
- AG
- NGQ
- AGX
- GX
- NP
- ADR
- AMR
- NDM
- ARD
- NST
- AST
- ASTH
- NLCD
- NLCS