Series **AX**

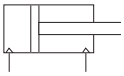
Standard Type/Double Acting : Single Rod

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- NUMEROUS MOUNTING OPTIONS
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD (AIR CUSHION OPTIONAL)
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND

Symbol

Double acting/Single rod



How to Order

AX **L** **40** – **150** **A** **J** – ○ – **W5** ○

1 2 3 4 5 6 7 8 9

1 Air Cylinder
※ Built-in Magnet standard

2 Mounting
B : Basic type
L : Axial foot type
F : Rod side flange type
G : Head side flange type
C : Single clevis type
D : Double clevis type
T : Head side trunnion type
U : Rod side trunnion type
E : Integrated clevis type
BZ: Boss-cut basic type
FZ: Boss-cut flange type
UZ: Boss-cut trunnion type

3 Bore Size(mm)
20 : ϕ20
25 : ϕ25
32 : ϕ32
40 : ϕ40

4 Stroke(mm)
ϕ20 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ25 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ32 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ40 : 25, 50, 75, 100, 125, 150, 200, 250, 300

5 Cushion
Blank : Rubber Cushion
A : Air Cushion
※Compact Type : Only Rubber Cushion

6 Rod Boot Option
Blank : None
J : Nylon Tarpaulin
K : Neoprene Cloth

Max. Ambient Temperature

J	60℃(140°F)
K	※ 110℃(230°F)

※ The Max. Ambient Temperature of Gaiters Only
※ When knuckles are ordered
I : Single knuckle are ordered
Y : Double knuckle attached

7 Special Option
Blank : Standard Type
XC16 : Copper-Free

8 Auto Switch
(Band mounted type)
Blank : None
W5 : Reed Switch(Lead wire of 0.5m)
W5L : Reed Switch(Lead wire of 3m)

9 Number of Auto Switches
Blank : 2 pcs
S : 1 pc
N : N pcs

PART No. of Mounting Bracket

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
※Axial foot	TCM-L020B	TCM-L032B		TCM-L040B
Flange	TCM-F020B	TCM-F032B		TCM-F040B
Single Clevis	TCM-C020B	TCM-C032B		TCM-C040B
Double Clevis	TCM-D020B	TCM-D032B		TCM-D040B
Trunnion(With nut)	TCM-T020B	TCM-T032B		TCM-T040B

※ 2 pcs. Required Per Cylinder

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore Size(mm)			
	ϕ20	ϕ25	ϕ32	ϕ40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

※ Refer to P.598 for information on Rod end form change.

Model

Bore Size (mm)	ϕ20	ϕ25	ϕ32	ϕ40
Type	Air Cylinder			
Cushion	Rubber Cushion, Air Cushion			
Piping Method	1/8 Rc(PT)	1/8 Rc(PT)	1/8 Rc(PT)	1/4 Rc(PT)
Magnet	Buit Magnet standard			
Auto switch (Band Mounting Type)	Reed Auto Switch / W5			
Rod Boot	Non, Nylone Tarpaulin : 60℃(140°F) Neopren Cloth : 110℃(230°F)			

Specifications

Action	Double Acting Single Rod
Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Ambient and Fluid Temperature	-10~+70°C (14~158°F)
Lubrication	None (Non-Lube)
Thread Tolerance	KS 2 Class
Stroke Tolerance	$^{+1.4}_{0}$ mm

Piston Speed (Rubber Cushion)

Bore Size (mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston Speed	50~750 mm/sec			
Allowable Kinetic Energy(kgf-cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Material of Boot

Material of Boot	Max. Ambient Temperature
Nylon Tarpaulin	60℃(140°F)
Neoprene Cloth	110℃(230°F)

Boss-Cut Type

Boss for the head cover bracket is eliminated and the total length of the cylinder is shortened.

Compared to The Total Length of Cylinder

(Compared to The Basic Type)

ϕ20	ϕ25	ϕ32	ϕ40
▼13	▼13	▼13	▼16

Mounting

- Boss-Cut Basic Type(BZ)
- Boss-Cut Flange Type(FZ)
- Boss-Cut Trunnion Type(UZ)

Mounting and Accessovies

Mounting \ Accessories	Standard			Option		
	Mounting Nut	Rod End Nut	Clevis Pin	Single Knuckle Joint	Double Knuckle Joint	Boot
Basic Type	○(1pc.)	○	–	○	○	○
Axial Foot Type	○(2)	○	–	○	○	○
Rod Side Flange Type	○(1)	○	–	○	○	○
Head Side Flange Type	○(1)	○	–	○	○	○
Integrated Clevis Type	–	○	–	○	○	○
Single Clevis Type	–	○	–	○	○	○
Double Clevis Type	–	○	○	○	○	○
Head Side Trunnion Type	○(1)	○	–	○	○	○
Rod Side Trunnion Type	○(1)	○	–	○	○	○
Boss-Cut Basic Type	○(1)	○	–	○	○	○
Boss-Cut Flange Type	○(1)	○	–	○	○	○
Boss-Cut Trunnion Type	○(1)	○	–	○	○	○
Note					With pin	

Weight Table

kgf(lbsf)

Bore Size(mm)		ϕ20	ϕ25	ϕ32	ϕ40
Basic Weight	Basic Type	0.14(0.31)	0.21(0.46)	0.28(0.62)	0.56(1.23)
	Axial Foot Type	0.29(0.64)	0.37(0.82)	0.45(0.97)	0.83(1.83)
	Flange Type	0.20(0.44)	0.31(0.66)	0.37(0.82)	0.68(1.5)
	Integrated Clevis Type	0.12(0.26)	0.19(0.42)	0.27(0.6)	0.52(1.15)
	Single Clevis Type	0.18(0.4)	0.25(0.55)	0.32(0.71)	0.65(1.43)
	Double Clevis Type	0.19(0.42)	0.26(0.6)	0.33(0.73)	0.68(1.52)
	Trunnion Type	0.18(0.4)	0.28(0.62)	0.34(0.75)	0.66(1.46)
	Boss-Cut basic Type	0.13(0.29)	0.19(0.42)	0.26(0.57)	0.53(1.17)
	Boss-Cut flange Type	0.19(0.42)	0.28(0.62)	0.35(0.77)	0.65(1.43)
	Boss-Cut trunnion Type	0.17(0.37)	0.27(0.57)	0.32(0.71)	0.63(1.39)
Additional weight for each 50 of stroke		0.04(0.09)	0.06(0.13)	0.08(0.18)	0.13(0.29)
Mounting bracket	Single Knuckle Joint	0.06(0.13)	0.06(0.13)	0.07(0.13)	0.23(0.51)
	Double Knuckle Joint	0.07(0.15)	0.07(0.15)	0.07(0.15)	0.21(0.44)

Calculation Example: AXL32-100

- Basic weight : 0.44 (Foot type, ϕ32)
- Additional weight : 0.08/50 stroke
- Cylinder stroke: 100 stroke

0.44+0.08×100/50=0.06kgf

Boss - Cut Type

AX ◯ Z (Bore Size) — (Stroke) (Boot)

Specifications

Action	Double Acting Single Rod
Bore Size (mm)	ϕ20, ϕ25, ϕ32, ϕ40
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.18MPa (25psi)
Piston Speed	0.5~300 mm/sec
Cushion	Rubber cushion (standard)
Piping Method	Screwed type
Mounting	Basic Type, Rod Side Flange Type, Head Side Flange Type, Rod Side Trunnion Type.

※ Auto Switch Available.

With Air Cushion

AX (Mounting) (Bore Size) — (Stroke) A (Boot)

With Air Cushion ●

Specifications

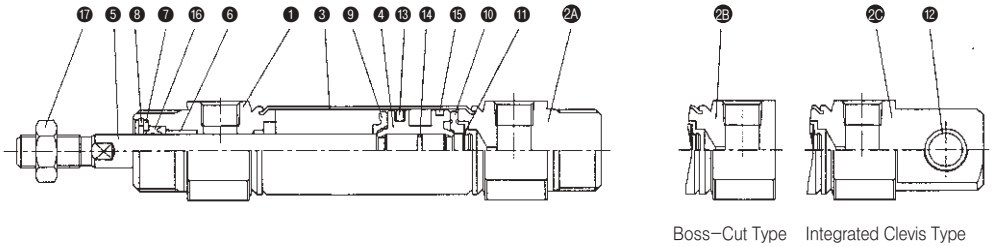
Action	Double Acting Single Rod
Bore Size(mm)	ϕ20, ϕ25, ϕ32, ϕ40
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Cushion	Air Cushion
Piping Method	Screwed Type
Piston Speed	50~1,000 mm/sec
Mounting	Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Single Clevis Type, Double Clevis Type, Head Side Trunnion Type, Rod Side Trunnion Type, Integrated Clevis Type, Boss-Cut Type.

※ Auto Switch Available.

Cushion Mechanism

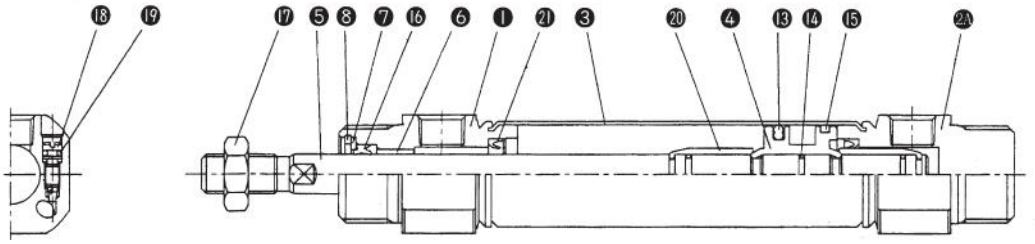
Bore size (mm)	Effective Cushion Length(mm)	Cushion Effective Oriffice(cm^2)	Allowable Kinetic Energy(kgf-cm)
ϕ20	11.0	2.09	5.5
ϕ25	11.0	3.30	8.0
ϕ32	11.0	5.86	13
ϕ40	11.8	9.08	24

Construction/Parts List



Boss-Cut Type Integrated Clevis Type

With Air Cushion



Parts List

No.	Descripion	Material	Note
①	Rod Cover	Aluminum Alloy	White Alumite
2A	Head Cover A	Aluminum Alloy	White Alumite (Standard type)
2B	Head Cover B	Aluminum Alloy	White Alumite (Boss-cut type)
2C	Head Cover C	Aluminum Alloy	White Alumite (Integrated clevis type)
③	Cylinder Tube	Stainless Steel	
④	Piston	Aluminum Alloy	Chromate
⑤	Piston Rod	Carbon Steel	Hard Chrome Plated
⑥	Bush	Lead Bronze Casting	
⑦	Packing Retainer	Rolled Steel	Nickel Plated
⑧	Retaining Pin	Carbon Steel	Nickel Plated
⑨	Damper A	Urethane	
⑩	Damper B	Urethane	
⑪	Stopper Ring	Carbon Steel	

No.	Descripion	Material	Note
⑫	Clevis Bush	Lead Bronze Casting	
⑬	Piston Packing	NBR	
⑭	Piston Gasket	NBR	
⑮	Wearing	Resin	
⑰	Rod Nut	Nickel Plated	
⑱	Cushion Value Gasket	NBR	
⑲	Cushion Ring		
⑳	Cushion Packing	NBR	

Spare Parts/Packing List

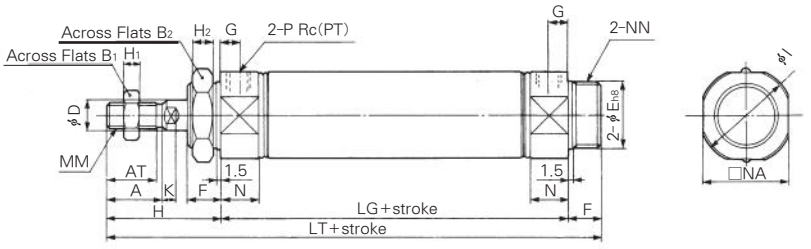
Rubber Cushion / Air Cushion

No.	Decription	Material	Type	Bore Size			
				20	25	32	40
⑯	Rod Packing	NBR	Rubber Cushion	PDU-8LZ	PDU-10LZ	PDU-12LZ	PDU-14LZ
			Air Cushion	PDU-8Z	PDU-10Z	PDU-12Z	PDU-14Z

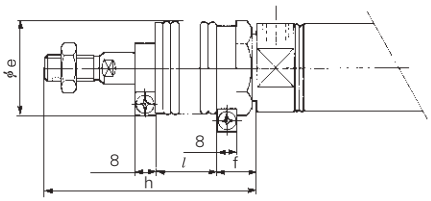
Basic Type (B)

AXB (Bore Size) — (Stroke) ( )

Standard Type

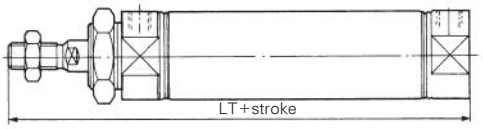


Rod Boot



With Air Cushion

Boss-Cut Type



(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	LG	LT
φ20	~300	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	8	41	5	8	27	5	M8×1.25	15	24	M20×1.5	1/8	62	116
φ25	~300	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	8	45	6	8	33	5.5	M10×1.25	15	30	M26×1.5	1/8	62	120
φ32	~300	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64	122
φ40	~300	24	21	22	41	14	$32^{0}_{-0.039}$	16	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	88	154

With Boot

(Unit : mm)

Bore Size	e	f	h							l						
			1~50	51~100	101~150	151~200	201~300	301~400	401~500	1~50	51~100	101~150	151~200	201~300	301~400	401~500
φ20	30	16	68	81	93	106	131	156	–	12.5	25	37.5	50	75	100	–
φ25	30	16	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125
φ32	30	16	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125
φ40	40	18	77	90	102	115	140	165	190	12.5	25	37.5	50	75	100	125

Boss-Cut Type

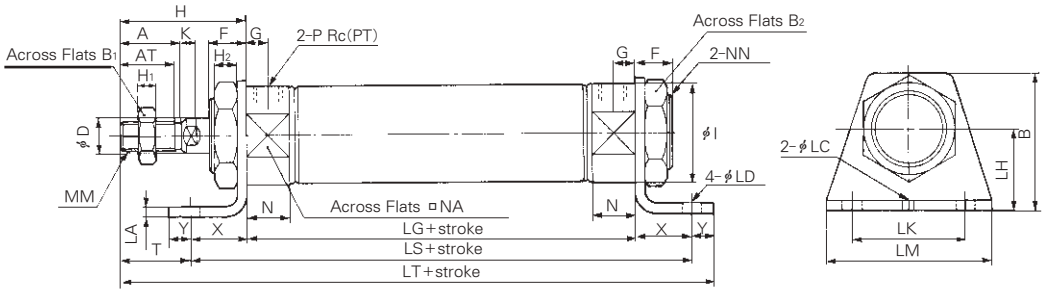
Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

With Air Cushion

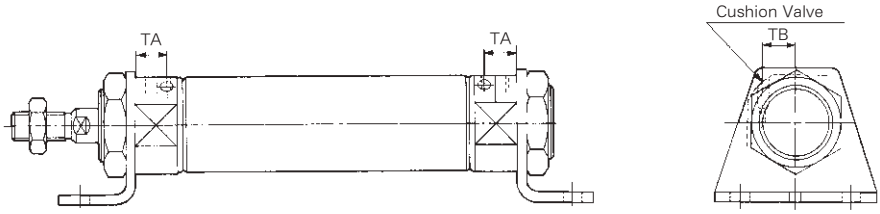
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Axial Foot Type(L)

AXL (Bore Size) — (Stroke) ( )



With Air Cushion



(Unit : mm)

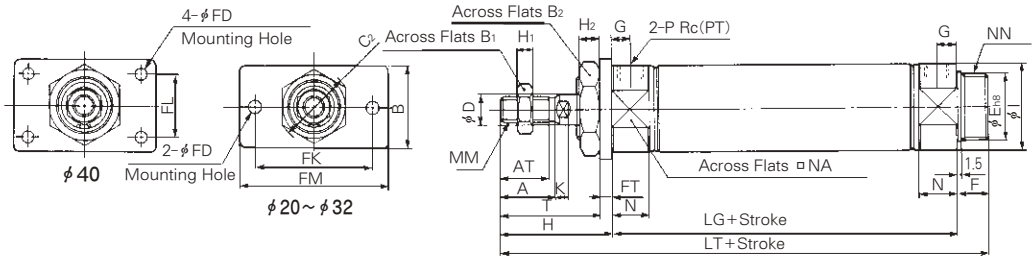
Bore Size	Stroke Range	A	AT	B	B1	B2	D	F	G	H	H1	H2	I	K	LC	LD	LH	LS	LA	LK	LM	MM	N	NA	NN	P	LG	X	Y	T	LT
ϕ20	~400	18	15.5	40	13	26	8	13	8	41	5	8	27	5	4	6.8	25	102	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	62	20	8	21	131
ϕ25	~450	22	19.5	47	17	32	10	13	8	45	6	8	33	5.5	4	6.8	28	102	3.2	40	55	M10×1.25	15	30	M26×1.5	1/8	62	20	8	25	135
ϕ32	~450	22	19.5	47	17	32	12	13	8	45	6	8	37.5	5.5	4	6.8	28	104	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	64	20	8	25	137
ϕ40	~500	24	21	54	22	41	14	16	11	50	8	10	46.5	7	4	7	30	134	3.2	55	75	M14×1.5	21.5	42.5	M32×2	1/4	88	23	10	27	171

With Air Cushion

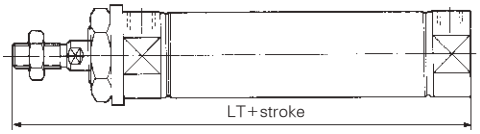
Bore Size	TA	TB
ϕ20	11.5	8.5
ϕ25	11.5	10
ϕ32	11.5	11.5
ϕ40	14.5	15

Rod Side Flange Type (F)

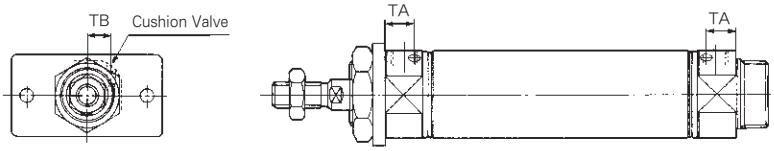
AXF Bore Size — Stroke ○



Boss-Cut Type



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM
φ20	~400	18	15.5	34	13	26	30	8	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	5	M8×1.25
φ25	~450	22	19.5	40	17	32	37	10	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	5.5	M10×1.25
φ32	~450	22	19.5	40	17	32	37	12	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	5.5	M10×1.25
φ40	~500	24	21	52	22	41	47.3	14	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	7	M14×1.5

(Unit : mm)

Bore Size	N	NA	NN	P	LG	T	LT
φ20	15	24	M20×1.5	1/8	62	37	116
φ25	15	30	M26×1.5	1/8	62	41	120
φ32	15	34.5	M26×1.5	1/8	64	41	122
φ40	21.5	42.5	M32×2	1/4	88	45	154

Boss-Cut Type

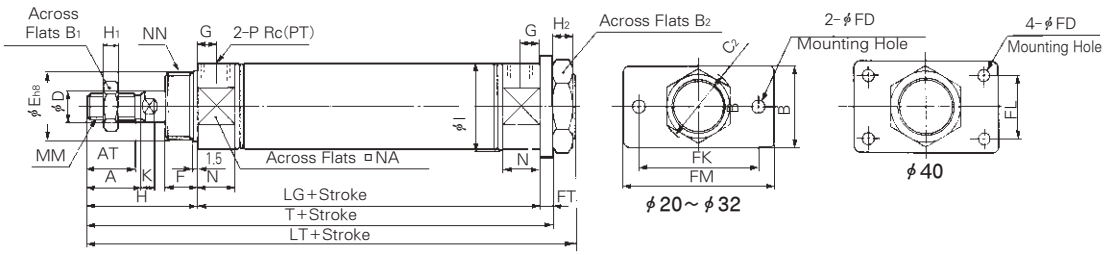
Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

With Air Cushion

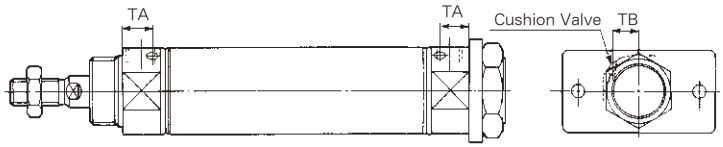
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14	15

Head Side Flange Type (G)

AXG (Bore Size) — (Stroke) ◯



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B	B1	B2	C2	D	E	F	FD	FT	FK	FL	FM	G	H	H1	H2	I
φ20	~300	18	15.5	34	13	26	30	8	20 $^{0}_{-0.033}$	13	7	4	60	—	75	8	41	5	8	27
φ25	~300	22	19.5	40	17	32	37	10	26 $^{0}_{-0.033}$	13	7	4	60	—	75	8	45	6	8	33
φ32	~300	22	19.5	40	17	32	37	12	26 $^{0}_{-0.033}$	13	7	4	60	—	75	8	45	6	8	37.5
φ40	~300	24	21	52	22	41	47.3	14	32 $^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5

(Unit : mm)

Bore Size	K	MM	N	NA	NN	P	LG	T	LT
φ20	5	M8×1.25	15	24	M20×1.5	1/8	62	107	116
φ25	5.5	M10×1.25	15	30	M26×1.5	1/8	62	111	120
φ32	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64	113	122
φ40	7	M14×1.5	21.5	42.5	M32×2	1/4	88	143	154

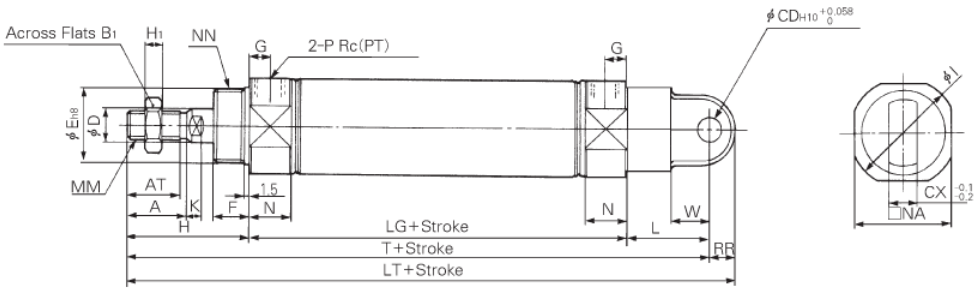
With Air Cushion

Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

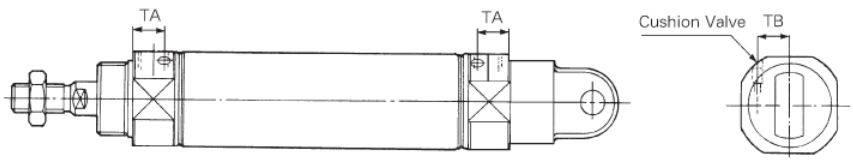
Series AX

Single Clevis Type (C)

AXC (Bore Size) — (Stroke) ◯



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	CD	CX	D	E	F	G	H	H1	I	K	L	MM
φ20	~300	18	15.5	13	9	10	8	20 0 -0.033	13	8	41	5	27	5	30	M8×1.25
φ25	~300	22	19.5	17	9	10	10	26 0 -0.033	13	8	45	6	33	5.5	30	M10×1.25
φ32	~300	22	19.5	17	9	10	12	26 0 -0.033	13	8	45	6	37.5	5.5	30	M10×1.25
φ40	~300	24	21	22	10	15	14	32 0 -0.039	16	11	50	8	46.5	7	39	M14×1.5

(Unit : mm)

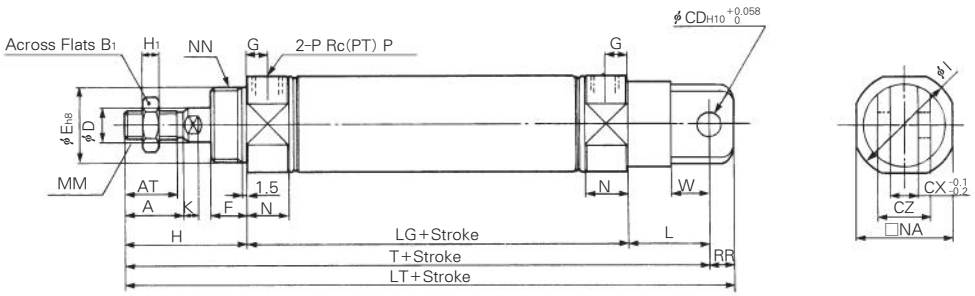
Bore Size	N	NA	NN	P	RR	LG	W	T	LT
φ20	15	24	M20×1.5	1/8	9	62	14	133	142
φ25	15	30	M26×1.5	1/8	9	62	14	137	146
φ32	15	34.5	M26×1.5	1/8	9	64	14	139	148
φ40	21.5	42.5	M32×2	1/4	11	88	18	177	188

With Air Cushion

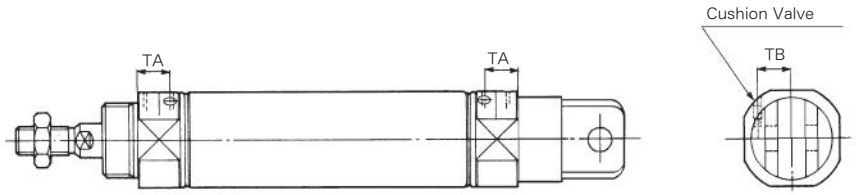
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Double Clevis Type (D)

AXD (Bore Size)—(Stroke)



With Air Cushion



(Unit : mm)

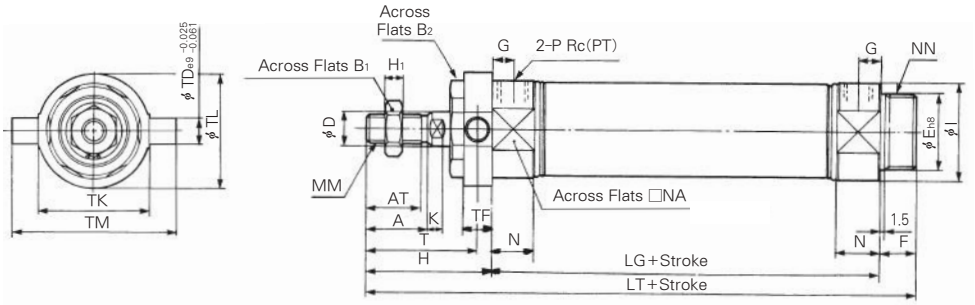
Bore Size	Stroke Range	A	AT	B1	CD	CX	CZ	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	LG	W	T	LT
φ20	~300	18	15.5	13	9	10	19	8	20 0 -0.033	13	8	41	5	27	5	30	M8×1.25	15	24	M20×1.5	1/8	9	62	14	133	142
φ25	~300	22	19.5	17	9	10	19	10	26 0 -0.033	13	8	45	6	33	5.5	30	M10×1.25	15	30	M26×1.5	1/8	9	62	14	137	146
φ32	~300	22	19.5	17	9	10	19	12	26 0 -0.033	13	8	45	6	37.5	5.5	30	M10×1.25	15	34.5	M26×1.5	1/8	9	64	14	139	148
φ40	~300	24	21	22	10	15	30	14	32 0 -0.039	16	11	50	8	46.5	7	39	M14×1.5	21.5	42.5	M32×2	1/4	11	88	18	177	188

With Air Cushion

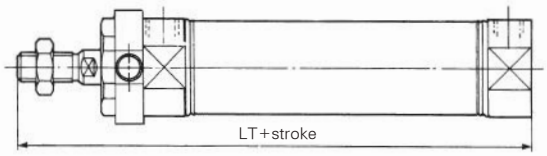
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Rod Side Trunnion Type (U)

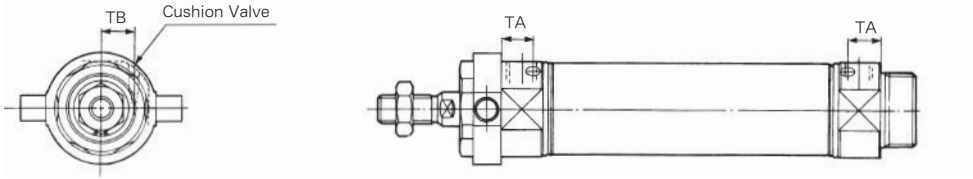
AXU Bore Size — Stroke ○



Boss-Cut Type



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	B2	D	E	F	G	H	H1	I	K	MM	N	NA	NN	P
φ20	~300	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	8	41	5	27	5	M8×1.25	15	24	M20×1.5	1/8
φ25	~300	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	8	45	6	33	5.5	M10×1.25	15	30	M26×1.5	1/8
φ32	~300	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	8	45	6	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8
φ40	~300	24	21	22	41	14	$32^{0}_{-0.039}$	16	11	50	8	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4

(Unit : mm)

Bore Size	LG	TD	TF	TK	TL	TM	T	LT
φ20	62	8	10	32	32	52	36	116
φ25	62	9	10	40	40	60	40	120
φ32	64	9	10	40	40	60	40	122
φ40	88	10	11	53	53	77	44.5	154

Boss-Cut Type

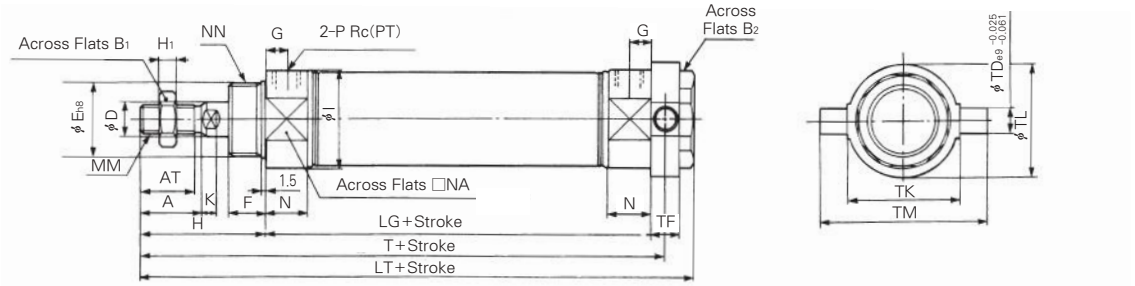
Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

With Air Cushion

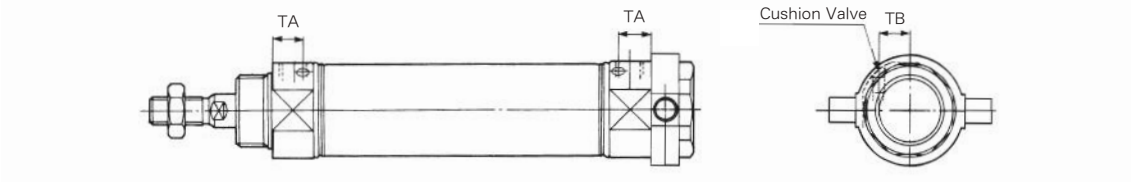
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Head Side Trunnion Type (T)

AXT Bore Size — Stroke ○



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	B2	D	E	F	G	H	H1	I	K	MM	N	NA	NN	P
φ20	~300	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	8	41	5	27	5	M8×1.25	15	24	M20×1.5	1/8
φ25	~300	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	8	45	6	33	5.5	M10×1.25	15	30	M26×1.5	1/8
φ32	~300	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	8	45	6	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8
φ40	~300	24	21	22	41	14	$32^{0}_{-0.039}$	16	11	50	8	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4

(Unit : mm)

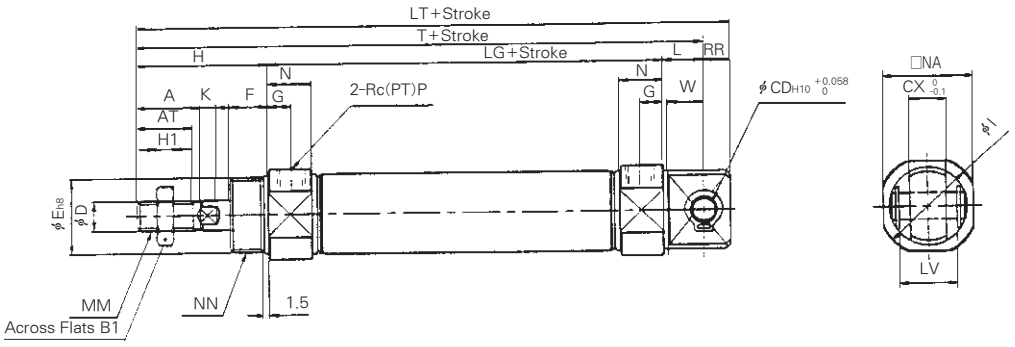
Bore Size	LG	TD	TF	TK	TL	TM	T	LT
φ20	62	8	10	32	32	52	108	118
φ25	62	9	10	40	40	60	112	122
φ32	64	9	10	40	40	60	114	124
φ40	88	10	11	53	53	77	143.5	154

With Air Cushion

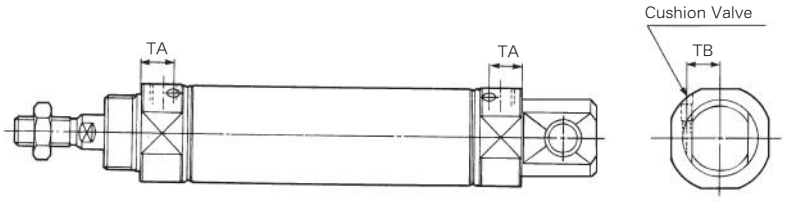
Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Integrated Clevis Type (E)

AXE (Bore Size) — (Stroke) ◯



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	CD	CX	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN
φ20	~300	18	15.5	13	8	12	8	20 0 -0.033	13	8	41	5	27	5	12	M8×1.25	15	24	M20×1.5
φ25	~300	22	19.5	17	8	12	10	26 0 -0.033	13	8	45	6	33	5.5	12	M10×1.25	15	30	M26×1.5
φ32	~300	22	19.5	17	10	20	12	26 0 -0.033	13	8	45	6	37.5	5.5	15	M10×1.25	15	34.5	M26×1.5
φ40	~300	24	21	22	10	20	14	32 0 -0.039	16	11	50	8	46.5	7	15	M14×1.5	21.5	42.5	M32×2

(Unit : mm)

Bore Size	P	RR	LG	W	T	LT	LV
φ20	1/8	9	62	11.5	115	124	18.4
φ25	1/8	9	62	11.5	119	128	18.4
φ32	1/8	12	64	14.5	124	136	28
φ40	1/4	12	88	14.5	153	165	28

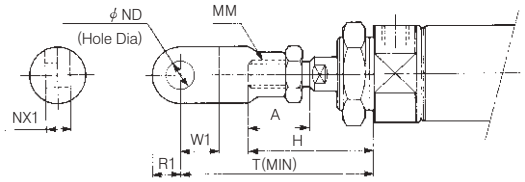
With Air Cushion

Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Accessories/Dimensions

mm

Single Knuckle Joint (mm)

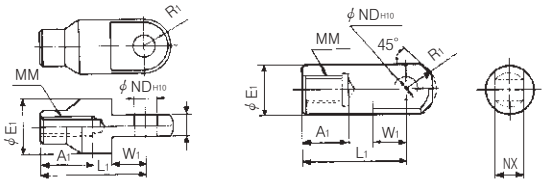


Bore Size	A	H	MM	ϕ ND^{H10}	NX$_1$	W$_1$	R$_1$	T
ϕ 20	18	41	M8×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	14	10	66
ϕ 25	22	45	M10×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	14	10	69
ϕ 32	22	45	M10×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	14	10	69
ϕ 40	24	50	M14×1.5	$12^{+0.070}_{0}$	$16^{-0.1}_{-0.3}$	20	15.5	92

Single Knuckle Joint (mm)

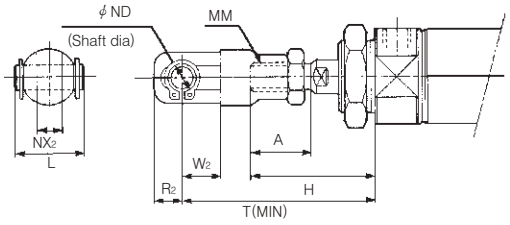
TI-020B, 032B
Material : Rolled Steel

TI-040B
Material : Free Cutting Sulfur Steel



Part No.	Applicable Bore size	A$_1$	E$_1$	L$_1$	MM	ND^{H10}	NX	R$_1$	W$_1$
TI-020B	ϕ 20	16	20	36	M8×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	10	14
TI-032B	ϕ 25	18	20	38	M10×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	10	14
TI-032B	ϕ 32	18	20	38	M10×1.25	$9^{+0.058}_{0}$	$9^{-0.1}_{-0.2}$	10	14
TI-040B	ϕ 40	22	24	55	M14×1.5	$12^{+0.070}_{0}$	$16^{-0.1}_{-0.3}$	15.5	20

Double Knuckle Joint (mm)

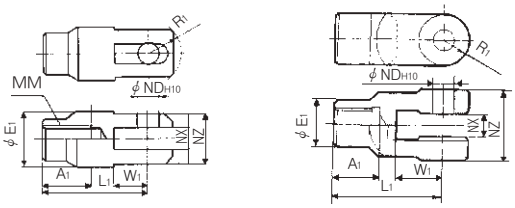


Bore Size	A	H	L	MM	ϕ NDd$_9$	NX$_2$	R$_2$	W$_2$	T
ϕ 20	18	41	25	M8×1.25	$9^{-0.040}_{-0.076}$	$9^{+0.2}_{+0.1}$	10	14	66
ϕ 25 · ϕ 32	22	45	25	M10×1.25	$9^{-0.040}_{-0.076}$	$9^{+0.2}_{+0.1}$	10	14	69
ϕ 40	24	50	49.7	M14×1.5	$12^{-0.050}_{-0.093}$	$16^{+0.3}_{+0.1}$	13	25	92

Double Knuckle Joint (mm)

TY-020B, 032B
Material : Rolled steel

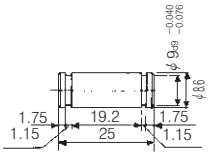
TY-040B
Material : Cast iron



Part No.	Applicable Bore size	A$_1$	E$_1$	L$_1$	MM	ND$_{H10}$	NX	NZ	R$_1$	W$_1$	Applicable pin part NO.
TY-020B	ϕ 20	16	20	36	M8×1.25	$9^{+0.058}_{0}$	$9^{+0.2}_{+0.1}$	18	12	14	TCDP-1
TY-032B	ϕ 25 · ϕ 32	18	20	38	M10×1.25	$9^{+0.058}_{0}$	$9^{+0.2}_{+0.1}$	18	12	14	TCDP-1
TY-040B	ϕ 40	22	24	55	M14×1.5	$12^{+0.070}_{0}$	$16^{+0.3}_{+0.1}$	38	13	25	TCDP-3

Clevis Pin, Knuckle Pin (mm)

Applicable Bore Size : ϕ 20, ϕ 25, ϕ 32
TCDP-1
Material:Carbon Steel

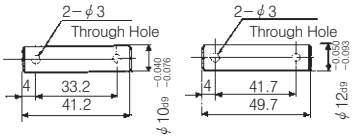


Retaining Pin:C9 Type For Pivot

Clevis Pin, Knuckle Pin (mm)

Applicable Bore Size : ϕ 40
TCDP-2
Material:Carbon Steel

TCDP-3
Material:Carbon Steel

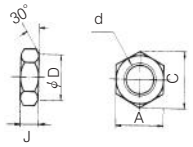


Applicable Split Pin : ϕ 3×18 ℓ

Accessories/Dimensions

Rod End Nut

Material : Carbon Steel

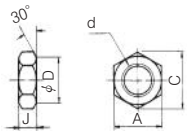


(Unit : mm)

Part No.	Applicable bore size	A	C	D	d	J
TNT-02	φ20	13	15.5	12.5	M8×1.25	5
TNT-03	φ25	17	19.6	16.5	M10×1.25	6
TNT-03	φ32	17	19.6	16.5	M10×1.25	6
TNT-04	φ40	22	25.4	21.0	M14×1.5	8

Mounting Nut

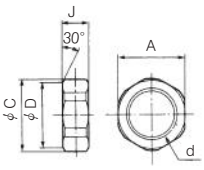
Material : Carbon Steel



Part No.	Applicable bore size	A	C	D	d	J
TSN-020B	φ20	26	30	25.5	M20×1.5	8
TSN-032B	φ25	32	37	31.5	M26×1.25	8
TSN-032B	φ32	32	37	31.5	M26×1.5	8
TSN-040B	φ40	41	47.3	40.5	M32×2.0	10

Trunnion Nut

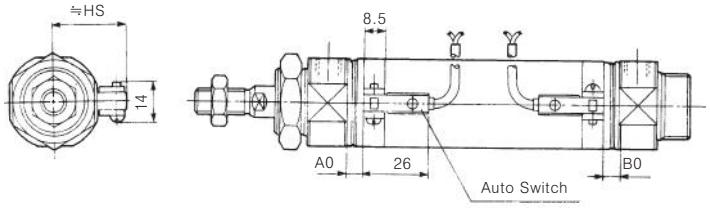
Material : Carbon Steel



Part No.	Applicable bore size	A	C	D	d	J
TN-020B	φ20	26	28	25.5	M20×1.5	10
TN-032B	φ25	32	34	31.5	M26×1.25	10
TN-032B	φ32	32	34	31.5	M26×1.25	10
TN-040B	φ40	41	45	40.5	M32×2	10

Reed Switch Setting Position (Stroke End)

W5



Bore Size

Bore Size	W5		
	A0	B0	HS
φ20	7	6	22.5
φ25	7	6	25
φ32	8	7	28.5
φ40	13	12	32.5

Auto Switch Mounting, Minimum Possible Cylinder Strokes (mm)

Auto Switch Type	No. of Auto Switch				1pc.
	2pcs.		n pcs.		
	Different Surface	Same Surface	Different Orientation	Same Orientation	
W5	15	50	$15+45(\frac{n-2}{2})$ (n=2, 4, 6, 8…)	50+45(n−2)	10

① Adjustable Stroke Cylinder/Extension Adjustable Type

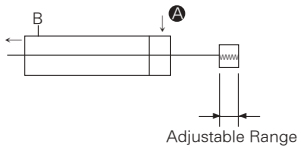
AX | Mounting | Type | Bore Size — Stroke | Additional Symbol | Stroke Adjusting Symbol — XC8

Additional Symbol
Blank-With Boot
J-With Boot(Nylon Tarpaulin)
K-With Boot(Neoprene Cloth)

Stroke Adjusting Symbol
A-Stroke Adjusting Range 0~25mm
B-Stroke Adjusting Range 0~50mm

The Extended Stroke of the cylinder can be adjusted by the stopper in the head side.

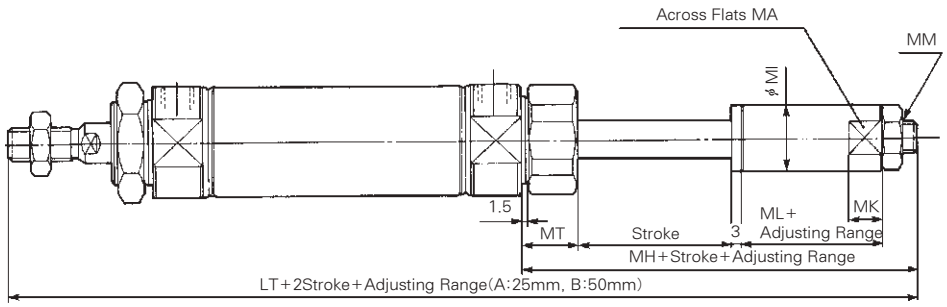
Symbol



Specifications

Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Piston Speed	50~750 mm/sec
Cushion	Rubber Cushion(Standard)
Stroke Adjusting System	Adjusting Stopper
Stroke Adjusting Range	A : 0~25mm, B : 0~50mm
Mounting	Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Rod Side Trunnion Type
Applicable Bore Size(mm)	ϕ20, ϕ25, ϕ32, ϕ40

Construction, Dimensions/Basic Type



(Unit: mm)

Bore Size	MA	MK	MI	MM	MT	MH	ML	LT
ϕ20	12	8	15	M8×1.25	16.5	47	18	150
ϕ25	17	10	20	M8×1.25	17.5	49	18	156
ϕ32	17	10	20	M10×1.25	17.5	49	18	158
ϕ40	22	12	25	M14×1.5	21.5	60	22	198

※ Other dimensions are the same for standard type.

② Adjustable Stroke Cylinder/Retraction Adjustable Type

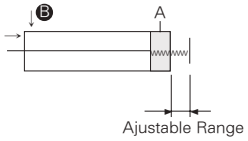
AX — Mounting — Type — Bore Size — Stroke — Additional Symbol — Stroke Adjusting Symbol — XC9

Additional symbol
Blank-Without Boot
J-With Boot(Nylon tarpaulin)
K-With Boot(Neoprene cloth)

Stroke Adjusting Symbol
A-Stroke Adjusting Range 0~25mm
B-Stroke Adjusting Range 0~50mm

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

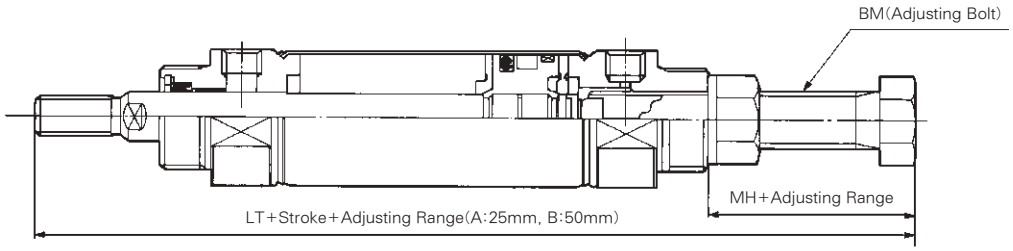
Symbol



Specifications

Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Piston Speed	50~750mm/sec
Cushion	Rubber cushion(Standard)
Stroke Adjusting System	Stopper adjustment
Stroke Adjusting Range	A : 0~25mm, B : 0~50mm
Mounting	Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Rod Side Trunnion Type, Head Side Trunnion Type
Applicable Bore Size(mm)	ϕ20, ϕ25, ϕ32, ϕ40
Stroke Range	~300 mm

Construction, Dimensions/Basic Type



(Unit : mm)

Bore Size	BM	MH	LT
ϕ20	M8×1.25	20	136
ϕ25	M8×1.25	20	140
ϕ32	M8×1.25	20	142
ϕ40	M12×1.75	24	178

※ Other dimensions are the same for standard type.

③ Dual Stroke Cylinder/Double Rod Type

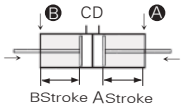
AX Mounting Type Bore Size — Stroke A Additional Symbol + Stroke B Additional Symbol — XC10

Additional symbol
Blank-With Boot
J-With Boot(Nylon tarpaulin)
K-With Boot(Neoprene cloth)

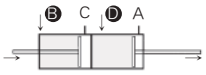
Two cylinders are constructed as one cylinder in a back-to-back configuraton allowing the cylinder stroke to be controlled in three steps.

Symbol

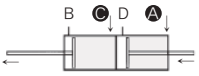
Function



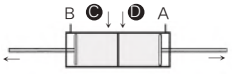
When air pressure is supplied to ports Ⓐ and Ⓑ, both A and B strokes retract.



When air pressure is supplied to ports Ⓑ and Ⓓ, A stroke extends.



When air pressure is supplied to ports Ⓐ and ⓒ, B stroke extends.

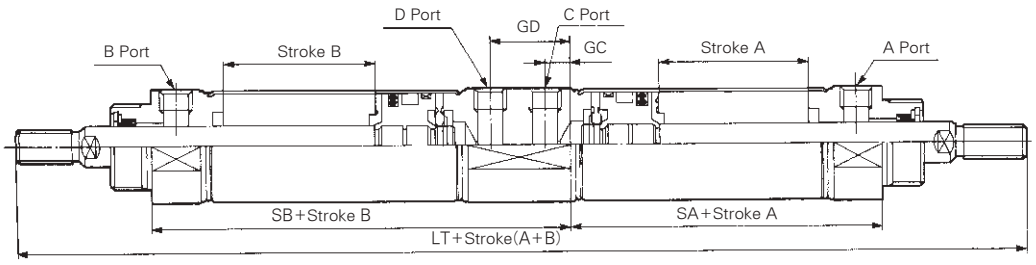


When air pressure is supplied to ports ⓒ and Ⓓ, both strokes A and B out strokes.

Specifications

Type	Non-lube
Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Piston Speed	50~750 mm/sec
Cushion	Rubber cushion(Standard)
Mounting	Basic type, Foot type, Flange type
Applicable Bore Size(mm)	ϕ20, ϕ25, ϕ32, ϕ40
Stroke A, B	~300 mm

Construction, Dimensions/Basic Type



(Unit : mm)

Bore Size	GC	GD	SA	SB	LT
ϕ20	7	24	47	78	207
ϕ25	7	24	47	78	215
ϕ32	7	24	49	80	219
ϕ40	10.5	33.5	66.5	110.5	277

※ Other dimensions are the same for standard type.

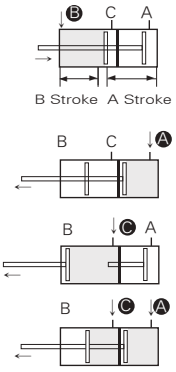
④ Dual Stroke Cylinder/Single Rod Type

AX Mounting Type Bore Size — Stroke A + Stroke B - A Additional Symbol — XC11

Additional Symbol ●
Blank-With Boot
J-With Boot(Nylon tarpaulin)
K-With Boot(Neoprene cloth)

Symbol

Function



When air pressure is supplied to the Ⓑ port, both A and B strokes retract.

When air pressure is supplied to the Ⓐ port, the rod extends by A Stroke.

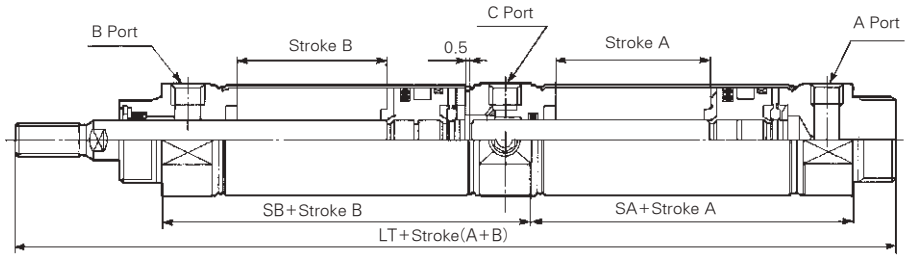
When air pressure is supplied to the ⓒ port, the rod extends.

When air pressure is supplied to both ports Ⓐ and ⓒ double output force is obtainable in the range of the A stroke length.

Specifications

Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Piston Speed	50~750 mm/sec
Cushion	Rubber Cushion (Standard)
Mounting	Basic Type, Foot Type, Rod Side Flange Type Head Side Flange type Single Clevis Type, Double Clevis Type.
Applicable Bore Size(mm)	ϕ20, ϕ25, ϕ32, ϕ40
Stroke	~300 mm

Construction, Dimensions/Basic Type



(Unit : mm)

Bore Size	SA	SB	LT
ϕ20	48	62	164
ϕ25	48	62	168
ϕ32	50	64	172
ϕ40	67.5	88.5	222

※ Other dimensions are the same for standard type.

⑤ Tandem Type Air Cylinder

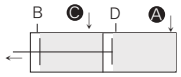
AX (Mounting)(Type)(Bore Size)—(Stroke)—XC12

This is a cylinder produced with two air cylinders in line allowing double the output force.

Symbol

Function

When air pressure is supplied to ports Ⓑ and Ⓓ, the output force is doubled in the retract stroke.

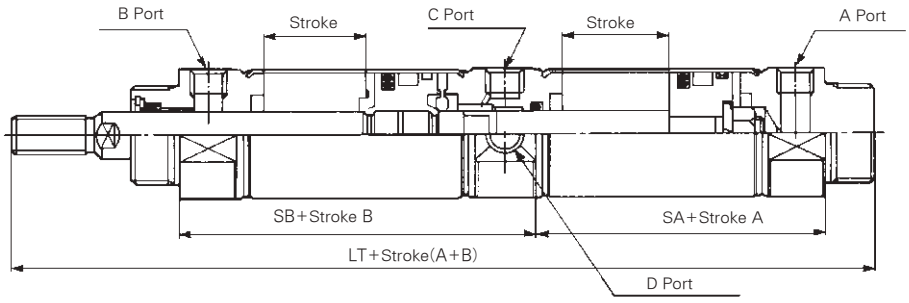


When air pressure is supplied to ports Ⓐ and ⓒ, the output force is doubled in the extend stroke.

Specifications

Type	Air cylinder
Applicable Bore Size	ϕ20, ϕ25, ϕ32, ϕ40
Max. Operating Pressure	1.0 MPa (140psi)
Min. Operating Pressure	0.08 MPa (11psi)
Cushion	Rubber Cushion (Standard)
Action	Double Acting
Mounting	Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Single Clevis Type, Double Clevis Type

Construction Dimension



(Unit : mm)

Bore Size	SA	SB	LT
ϕ20	48	62	164
ϕ25	48	62	168
ϕ32	50	64	172
ϕ40	67.5	88.5	222

※ Other dimensions are the same for standard type.

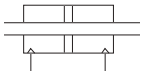
Series AXW

Standard Type/Double Acting : Double Rod

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- NUMEROUS MOUNTING OPTION
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD (AIR CUSHION OPTIONAL)
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND

Symbol — Double Acting/Double Rod



How to Order

AXW | ○ | 40 | 75 | A | J | ○ | W5 | ○

1 2 3 4 5 6 7 8 9

1 Double Rod Type
(Built-in Magnet Standard)

2 Mounting
B : Basic Type
L : Foot Type
F : Flange Type
U : Trunnion Type

3 Bore Size(mm)
20 : ϕ20
25 : ϕ25
32 : ϕ32
40 : ϕ40

4 Stroke(mm)
ϕ20 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ25 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ32 : 25, 50, 75, 100, 125, 150, 200, 250, 300
ϕ40 : 25, 50, 75, 100, 125, 150, 200, 250, 300

5 Cushion
Blank : Rubber Cushion
A : Air Cushion

6 Rod Boot Option
Blank : None
J : Nylon Tarpaulin(Single side)
JJ : Nylon Tarpaulin(Both side)
K : Neoprene Cloth(Single side)
KK : Neoprene Cloth(Both side)

7 Special Option
Blank : Standard type
XC16 : Copper-free

8 Auto Switch
(Band mounted type)
[Grommet]
Blank : None
W5 : W5
W5L : Reed Switch, 3m Lead wire

9 Number of Auto Switches
Blank : 2 pcs
S : 1 pc
N : N pcs

PART No. of Mounting Bracket

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
※Axial foot	TCM-L020B	TCM-L032B		TCM-L040B
Flange	TCM-F020B	TCM-F032B		TCM-F040B
Trunnion(With Nut)	TCM-T020B	TCM-T032B		TCM-T040B

※ 2pcs. Required Per Cylinder

PART No. of Auto Mounting Band

Auto Switch Model	Bore Size(mm)			
	ϕ20	ϕ25	ϕ32	ϕ40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

Model

Bore size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Type	Air Cylinder			
Cushion	Rubber Cushion, Air Cushion			
Piping Method	1/8 Rc(PT)	1/8 Rc(PT)	1/8 Rc(PT)	1/4 Rc(PT)
Magnet	Built-in Magnet Standard			
Auto Switch (Band Mounted Type)	Reed Auto Switch /w5			
Boot	• None • Nylon Tarpanlin(60℃) • Neoprene cloth			

Standard Stroke List

Action	Double Acting Double Rod
Fluid	Air
Proof Pressure	1.5 MPa (213psi)
Max. Operating Pressure	1.0 MPa (140psi)
Min. Operating Pressure	0.05 MPa (7psi)
Ambient and Fluid Temperature	-10~+70℃ (14~158°F)
Lubrication	None (Non-Lube)
Thread Tolerance	KS 2 Class
Storke Tolerance	$^{+1.4}_{0}$ mm

Piston Speed

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston Speed(mm/sec)	50~750			
Allowable Kinetic Energy(kgf/cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounted Type	Grommet	W5

※ A long stroke applies to the foot type and the flange type. For other mountings and case exceeding the Standard stroke limit, the max.

Mounting and Accessories

Accessories / Mounting	Standard		Option		
	Mounting Nut	Rod end Nut	Single Knuckle Joint	Double Knuckle Joint	Rod Boot
Basic Type	○(2pcs)	○(2pcs)	○	○	○
Foot Type	○(2pcs)	○(2pcs)	○	○	○
Flange Type	○(1pc)	○(2pcs)	○	○	○
Trunnion Type	○(1pc)	○(2pcs)	○	○	○
Note				With pin	Single, Both side

Material of Gaiter

Symbol		Material of Boot	Max. Ambient Temperature
Single Side	Both Side		
J	JJ	Nylon tarpaulin	140°F(60°C)
K	KK	Neoprene cloth	※230°F(110°C)

※ The max. ambient temperature of Boot only.

Weight Table

kgf(lbf)

Bore Size(mm)		φ20	φ25	φ32	φ40
Basic Weight	Basic Type	0.16(0.35)	0.25(0.55)	0.33(0.71)	0.65(1.43)
	Foot Type	0.31(0.68)	0.42(0.90)	0.48(1.06)	0.92(1.06)
	Flange Type	0.22(0.49)	0.34(0.75)	0.41(0.90)	0.77(1.70)
	Trunnion Type	0.20(0.44)	0.33(0.71)	0.38(0.84)	0.75(1.65)
Additional weight for each 50 of stroke		0.06(0.43)	0.09(0.20)	0.13(0.27)	0.19(0.42)
Mounting Bracket	Single Knuckle Joint	0.06(0.13)	0.07(0.13)	0.06(0.13)	0.23(0.51)
	Double Knuckle Joint(with pin)	0.07(0.15)	0.07(0.15)	0.07(0.15)	0.21(0.44)

Calculation (Example) **AXWL32-100**

- Basic weight-1.06(Foot type, φ32)
- Additional weight-0.29/50 stroke
- Cylinder stroke -100 stroke
- 1.06+0.29x100/50=1.64lbf

With Air Cushion

AXW (Mounting) (Bore Size) (Piping Method) — (Stroke) A (Boot)

A: With Air Cushion

With covers on both sides equipped with the cushion function, the cylinder absorbs the impact during high-speed operation without vibrating the section around it, and the cylinder provides longer life.

Specifications

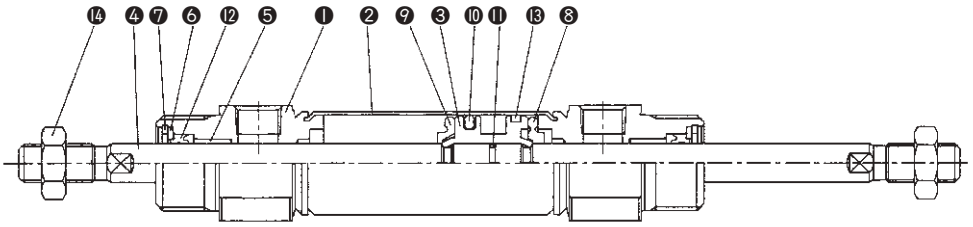
Action	Double acting double rod
Bore Size	φ20, φ25, φ32, φ40
Max. Operating Pressure	1.0MPa(140Psi)
Min. Operating Pressure	0.05MPa(7.1Psi)
Cushion	Air Cushion
Piping Method	Screwed Type
Piston Speed	50~1,000mm/sec
Mounting	Basic Type, Foot Type, Flange Type, Trunnion Type

※Auto switch Available

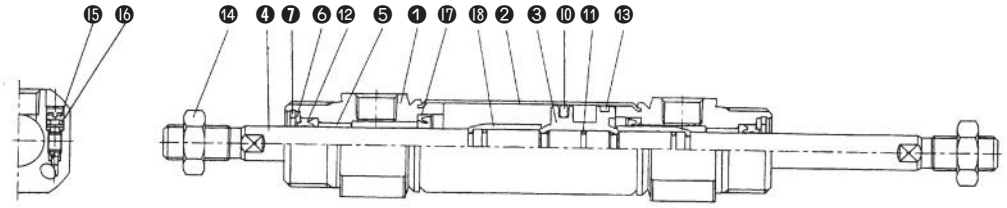
Cushion Mechanism

Bore Size (mm)	Effective Cushion Length mm(inch)	Cushion Effective oriffice $cm^2(in^2)$	Allowable Kinetic Energy kgf-cm(lbs-in)
φ20	11.0(0.433)	2.09(0.324)	5.5(4.774)
φ25	11.0(0.433)	3.30(0.512)	8.0(6.944)
φ32	11.0(0.433)	5.86(0.908)	13(11.287)
φ40	11.8(0.465)	9.08(1.407)	24(20.832)

Construction/Parts List



With Air Cushion



Parts List

No.	Description	Material	Note
❶	Rod Cover	Aluminum Alloy	White Alumite
❷	Cylinder Tube	Stainless Steel	
❸	Piston	Aluminum Alloy	Chromate
❹	Piston Rod	Carbon Steel	Hard Chrome Plated
❺	Bush	Sintered Metal	
❻	Packing Retainer	Rolled Steel	Nickel Plated
❼	Stopper Ring	Carbon Steel	Nickel Plated
❽	Damper A	Urethane	
❾	Damper B	Urethane	
❿	Piston Packing	NBR	
⓫	Piston Gasket	NBR	
⓭	Wear Ring	-	

No.	Descripion	Material	Note
⓮	Rod End Nut	-	Nickel Plated
⓯	Cushion Valve	-	Nickel Plated
⓰	Cushion Valve Gasket	NBR	
⓱	Cushion Packing	NBR	
⓲	Cushion Ring	-	

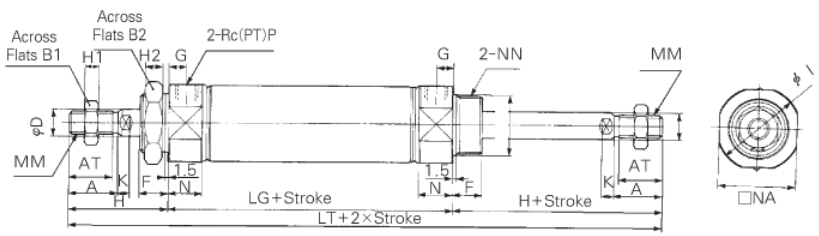
Spare Parts/Packing List

Rubber Cushion / Air Cushion

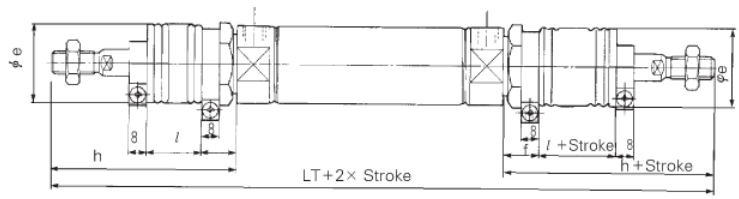
No.	Decription	Material	Type	Bore Size			
				20	25	32	40
⓬	Rod Packing	NBR	Rubber Cushion	PDU-8LZ	PDU-10LZ	PDU-12LZ	PDU-14LZ
			Air Cushion	PDU-8Z	PDU-10Z	PDU-12Z	PDU-14Z

Basic Type(B)

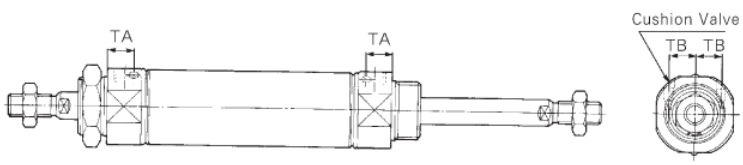
AXWB Bore Size — Stoke



With Rod Boot(Both side)



With Air Cushion



※ 301mm Stroke or more : Long Stroke

(Unit : mm)

Bore Size	Stroke Range	A	AT	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	LG	LT
φ20	~300	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	8	41	5	8	27	5	M8×1.25	15	24	M20×1.5	1/8	62	144
φ25	~300	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	8	45	6	8	33	5.5	M10x1.25	15	30	M26×1.5	1/8	62	152
φ32	~300	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64	154
φ40	~300	24	21	22	41	14	$32^{0}_{-0.039}$	16	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	88	188

With Gaiter

Bore Size	e	f	h							l							LT						
			1~50	51~100	101~150	151~200	201~300	301~400	401~500	1~50	51~100	101~150	151~200	201~300	301~400	401~500	1~50	51~100	101~150	151~200	201~300	301~400	401~500
φ20	30	16	68	81	93	106	131	156	–	12.5	25	37.5	50	75	100	–	198	224	248	274	324	374	–
φ25	30	16	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125	206	232	256	282	332	382	432
φ32	30	16	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125	208	234	258	284	334	384	434
φ40	40	18	77	90	102	115	140	165	190	12.5	25	37.5	50	75	100	125	242	268	292	318	368	418	468

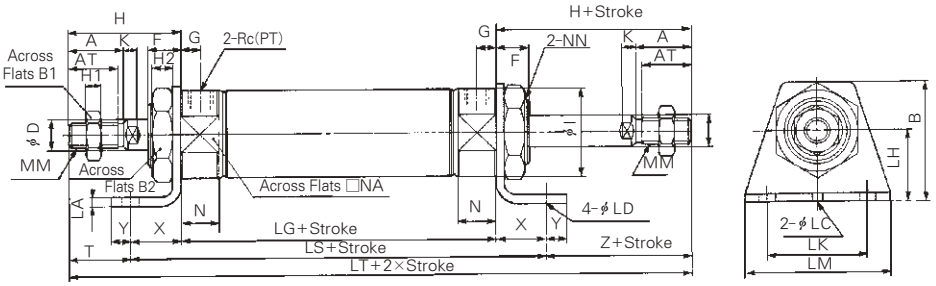
With Air Cushion

Bore size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

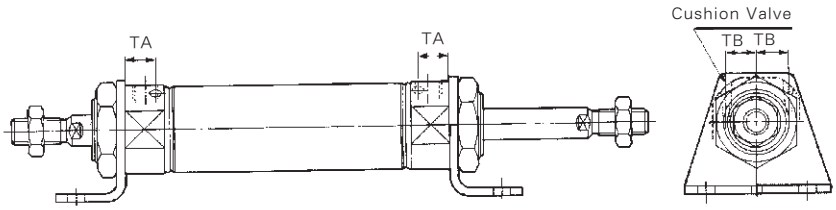
Axial Foot Type(L)

AXWL (Bore Size) — (Stroke) ( )

Standard



With Air Cushion



(Unit : mm)

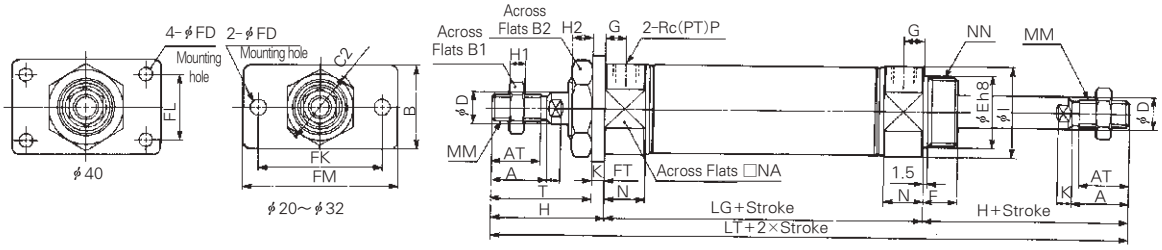
Bore Size	Stroke Range	A	AT	B	B1	B2	D	F	G	H	H1	H2	I	K	LC	LD	LH	LS	LA	LK	LM	MM	N	NA	NN	P	LG	X	Y	T	LT
φ20	~400	18	15.5	40	13	26	8	13	8	41	5	8	27	5	4	6.8	25	102	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	62	20	8	21	144
φ25	~450	22	19.5	47	17	32	10	13	8	45	6	8	33	5.5	4	6.8	28	102	3.2	40	55	M10×1.25	15	30	M26×1.5	1/8	62	20	8	25	152
φ32	~450	22	19.5	47	17	32	12	13	8	45	6	8	37.5	5.5	4	6.8	28	104	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	64	20	8	25	154
φ40	~500	24	21	54	22	41	14	16	11	50	8	10	46.5	7	4	7	30	134	3.2	55	75	M14×1.5	21.5	42.5	M32×2	1/4	88	23	10	27	188

With Air Cushion

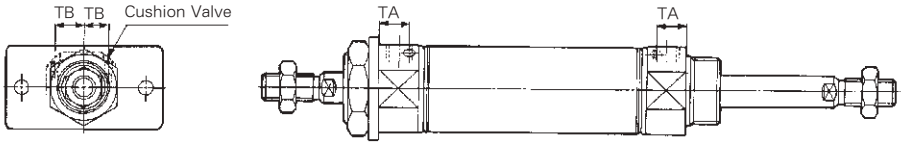
Bore size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Flange Type(F)

AXWF (Bore Size) — (Stroke)



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM
φ20	~300	18	15.5	34	13	26	30	8	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	5	M8×1.25
φ25	~300	22	19.5	40	17	32	37	10	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	5.5	M10×1.25
φ32	~300	22	19.5	40	17	32	37	12	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	5.5	M10×1.25
φ40	~300	24	21	52	22	41	47.3	14	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	7	M14×1.5

(Unit : mm)

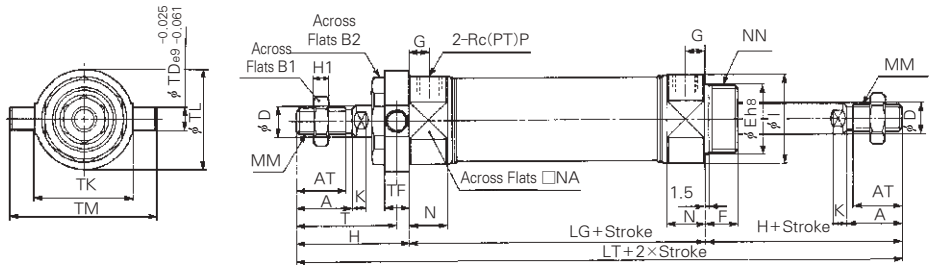
Bore Size	N	NA	NN	P	LG	T	LT
φ20	15	24	M20×1.5	1/8	62	37	144
φ25	15	30	M26×1.5	1/8	62	41	152
φ32	15	34.5	M26×1.5	1/8	64	41	154
φ40	21.5	42.5	M32×2	1/4	88	45	188

With Air Cushion

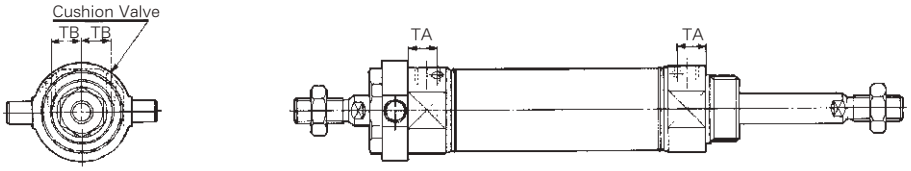
Bore size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Trunnion Type(U)

AXWU Bore Size — Stroke



With Air Cushion



(Unit : mm)

Bore Size	Stroke Range	A	AT	B_1	B_2	D	E	F	G	H	H_1	I	K	MM	N	NA	NN	P	LG
φ20	~300	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	8	41	5	27	5	M8×1.25	15	24	M20×1.5	1/8	62
φ25	~300	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	8	45	6	33	5.5	M10×1.25	15	30	M26×1.5	1/8	62
φ32	~300	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	8	45	6	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64
φ40	~300	24	21	22	41	14	$32^{0}_{-0.039}$	16	11	50	8	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	88

(Unit : mm)

Bore Size	TD	TF	TK	TL	TM	T	LT
φ20	8	10	32	32	52	36	144
φ25	9	10	40	40	60	40	152
φ32	9	10	40	40	60	40	154
φ40	10	11	53	53	77	44.5	188

With Air Cushion

Bore Size	TA	TB
φ20	11.5	8.5
φ25	11.5	10
φ32	11.5	11.5
φ40	14.5	15

Series **AXS**

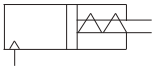
Standard Type/Single Acting:Spring Return, Spring Extended

Bore Size(mm) : Ø20, Ø25, Ø30, Ø40

- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- NUMEROUS MOUNTING OPTION
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND

Symbol

Single acting spring return



Single acting spring Extended

How to Order

AXS **L** **32** — **40** **S** — ○ — **W5** □

1 2 3 4 5 6 7 8

1 Type:Single Acting
※ (Built-in Magnet Standard)

2 Mounting
- **B** : Basic Type
- **L** : Axial Foot Type
- **F** : Rod Side Flange Type
- **G** : Head Side Flange Type
- **C** : Single Clevis Type
- **D** : Double Clevis Type
- **T** : Head Side Trunnion Type
- **U** : Rod Side Trunnion Type
- **E** : Integrated Clevis Type
- **BZ** : Boss-Cut Basic Type
- **FZ** : Boss-Cut Flange Type
- **UZ** : Boss-Cut Trunnion Type

3 Bore Size(mm)
- **20** : ϕ20
- **25** : ϕ25
- **32** : ϕ32
- **40** : ϕ40

4 Stroke
- **ϕ20** : 25, 50, 75, 100, 125, 150
- **ϕ25** : 25, 50, 75, 100, 125, 150
- **ϕ32** : 25, 50, 75, 100, 125, 150, 200
- **ϕ40** : 25, 50, 75, 100, 125, 150, 200, 250

5 Action
- **S** : Single Acting Spring Return
- **T** : Single Acting Spring Extended

6 Special Option
- **Blank** : Standard type
- **XC16** : Copper-free

7 Auto Switch
- **Blank** : None
- **W5** : Reed Switch, 0.5m Lead Wire
- **W5L** : Reed Switch, 3m Lead wire

8 Number of Auto Switches
- **Blank** : 2 pcs
- **S** : 1 pc
- **N** : N pcs

PART No. of Mounting Bracket

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
※Axial foot	TCM-L020B	TCM-L032B		TCM-L040B
Flange	TCM-F020B	TCM-F032B		TCM-F040B
Single Clevis	TCM-C020B	TCM-C032B		TCM-C040B
Double Clevis	TCM-D020B	TCM-D032B		TCM-D040B
Trunnion(With Nut)	TCM-T020B	TCM-T032B		TCM-T040B

※ 2pcs. Required Per Cylinder

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore Size(mm)			
	ϕ20	ϕ25	ϕ32	ϕ40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

Model

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Type	Air Cylinder			
Cushion	Rubber Cushion			
Piping Method	Rc(PT)1/8	Rc(PT)1/8	Rc(PT)1/8	Rc(PT)1/4
Magnet	Built-in Magnet Standard			
Auto Switch(Band Mounted Type)	Reed Auto Switch/W5			

Specifications

Action	Spring Return	Spring Extended
Fluid	Air	
Proof Pressure	1.5MPa (213psi)	
Max. Operating Pressure	1.0MPa	
Min. Operating Pressure	0.18 MPa(25psi)	0.23 MPa(32psi)
Ambient and Fluid Temperature	-10~+70°C (14~158°F)	
Lubrication	Non-lube	
Thread Tolerance	KS 2 class	
Stroke Tolerance	$^{+1.4}_{0}$ mm	

Piston Speed

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston speed(mm/sec)	50~750			
Allowable kinetic energy(kgf-cm)	2.7	4	6.5	12

Auto Switch Specification

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Boss-Cut Type

Boss for the head cover bracket is eliminated and the total length of the cylinder is shortened.

Compared to the Total Length of Cylinder

(Compared to the Basic Type)

ϕ20	ϕ25	ϕ32	ϕ40
▼13	▼13	▼13	▼16

Mounting

- Boss-Cut Basic Type(BZ)
- Boss-Cut Flange Type(FZ)
- Boss-Cut Trunnion Type(UZ)

Mounting and Accessories

Mounting \ Accessories	Standard			Option	
	Mounting Nut	Rod end Nut	Clevis Pin	Single Knuckle Joint	Double Knuckle Joint
Basic Type	○1pc.	○	–	○	○
Axial Foot Type	○2pcs.	○	–	○	○
Rod Side Flange Type	○1pc.	○	–	○	○
Head Side Flange Type	○1pc.	○	–	○	○
Integrated Clevis Type	–	○	–	○	○
Single Clevis Type	–	○	–	○	○
Double Clevis Type	–	○	○	○	○
Head Side Trunnion Type	○1pc.	○	–	○	○
Rod Side Trunnion Type	○1pc.	○	–	○	○
Boss-Cut Basic Type	○1pc.	○	–	○	○
Boss-Cut Flange Type	○1pc.	○	–	○	○
Boss-Cut Trunnion Type	○1pc.	○	–	○	○
Note					With Pin

Weight Table

Spring Return

kgf(lbf)

	Bore Size (mm)	ϕ20	ϕ25	ϕ32	ϕ40
Basic weight	25 stroke	0.20(0.44)	0.31(0.66)	0.42(0.93)	0.77(1.70)
	50 stroke	0.22(0.49)	0.33(0.73)	0.46(1.01)	0.84(1.85)
	75 stroke	0.27(0.60)	0.42(0.93)	0.58(1.28)	1.03(2.27)
	100 stroke	0.29(0.64)	0.45(0.99)	0.63(1.39)	1.09(2.40)
	125 stroke	0.35(0.77)	0.55(1.19)	0.76(1.08)	1.29(2.84)
	150 stroke	0.37(0.81)	0.57(1.26)	0.81(1.76)	1.36(3.0)
	200 stroke	–	–	0.97(2.14)	1.61(3.55)
	250 stroke	–	–	–	1.87(4.12)
Mounting Bracket Weight	Foot Type	0.15(0.33)	0.16(0.35)	0.16(0.35)	0.27(0.60)
	Flange Type	0.06(0.13)	0.09(0.20)	0.09(0.20)	0.12(0.26)
	Single Clevis Type	0.05(0.09)	0.05(0.09)	0.05(0.09)	0.09(0.20)
	Double Clevis Type	0.05(0.11)	0.06(0.13)	0.06(0.13)	0.13(0.28)
	Trunnion Type	0.04(0.09)	0.07(0.15)	0.07(0.15)	0.10(0.22)
	Integrated Clevis Type	-0.02(-0.04)	-0.02(-0.04)	-0.01(-0.02)	-0.04(-0.09)
	Boss-Cut Basic Type	-0.01(-0.02)	-0.02(-0.04)	-0.02(-0.04)	-0.03(0.07)
	Boss-Cut Flange Type	0.05(0.11)	0.08(0.15)	0.08(0.15)	0.09(0.20)
	Boss-Cut Trunnion Type	0.03(0.07)	0.05(0.11)	0.05(0.11)	0.07(0.15)
Acces-sories	Single Knuckle Joint	0.06(0.13)	0.06(0.13)	0.06(0.13)	0.23(0.51)
	Double Knuckle Joint(with pin)	0.08(0.15)	0.08(0.15)	0.08(0.15)	0.20(0.44)

Spring Extended

kgf(lbf)

	Bore Size(mm) ϕ20	ϕ25	ϕ32	ϕ40	
Basic weight	25 stroke	0.19(0.42)	0.29(0.64)	0.40(0.88)	0.74(1.63)
	50 stroke	0.21(0.46)	0.32(0.71)	0.44(0.97)	0.81(1.76)
	75 stroke	0.26(0.55)	0.39(0.86)	0.54(1.19)	0.97(2.14)
	100 stroke	0.27(0.60)	0.42(0.93)	0.58(1.28)	1.03(2.27)
	125 stroke	0.32(0.71)	0.49(1.08)	0.70(1.52)	1.20(2.65)
	150 stroke	0.34(0.75)	0.52(1.15)	0.73(1.61)	1.27(2.80)
	200 stroke	–	–	0.88(1.94)	1.49(3.28)
	250 stroke	–	–	–	1.72(3.79)
Mounting Bracket Weight	Foot Type	0.15(0.33)	0.16(0.35)	0.16(0.35)	0.27(0.60)
	Flange Type	0.06(0.13)	0.1(0.20)	0.1(0.20)	0.12(0.26)
	Single Clevis Type	0.04(0.09)	0.04(0.09)	0.04(0.09)	0.09(0.20)
	Double Clevis Type	0.05(0.09)	0.07(0.13)	0.07(0.13)	0.13(0.29)
	Trunnion Type	0.04(0.09)	0.07(0.15)	0.07(0.15)	0.10(0.22)
	Integrated Clevis Type	-0.02(-0.04)	-0.03(-0.04)	-0.01(-0.02)	-0.04(-0.09)
	Boss-Cut Basic Type	-0.01(-0.02)	-0.03(-0.04)	-0.02(-0.04)	-0.03(-0.07)
	Boss-Cut Flange Type	0.05(0.11)	0.08(0.15)	0.08(0.15)	0.09(0.20)
	Boss-Cut Trunnion Type	0.03(0.07)	0.05(0.11)	0.05(0.11)	0.07(0.15)
Acces-sories	Single Knuckle Joint	0.07(0.13)	0.07(0.13)	0.07(0.13)	0.23(0.51)
	Double Knuckle Joint(with pin)	0.07(0.15)	0.07(0.15)	0.07(0.15)	0.20(0.44)

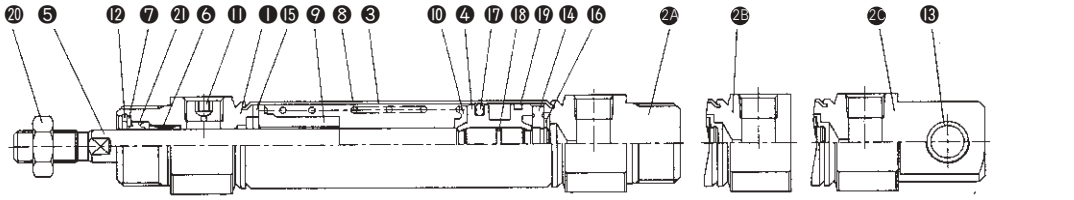
Calculation Example : AXL32-100S

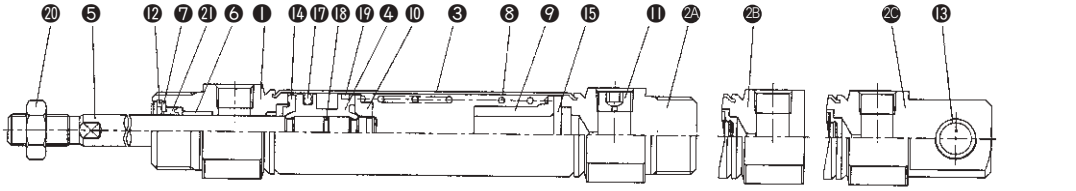
Basic weight ···1.39lbf(Foot type ϕ32)

Cylinder stroke ···100 stroke

1.39+0.35=1.74lbf

Construction/Parts List





Part List

No.	Description	Material	Remarks
❶	Rod Cover	Aluminum Alloy	White Alumite
2A	Head Cover-A	Aluminum Alloy	White Alumite
2B	Head Cover-B	Aluminum Alloy	White Alumite
2C	Head Cover-C	Aluminum Alloy	White Alumite
❸	Cylinder Tube	Stainless Steel	-
❹	Piston	Aluminum Alloy	Chromate
❺	Piston Rod	Carbon Steel	Hard Chrome Plated
❻	Guide Bush	Sintered Metal	
❼	Retaining Ring	Rolled steel	Nickel Plated
❽	Spring	Steel Wire	Zinc chromate
❾	Spring Guide	Aluminum Alloy	Chromate
❿	Spring Supporter	Aluminum Alloy	〃
⓫	Plug	Alloy Steel	Black Chromate
⓬	Stopper Ring	Carbon Tool Steel	Nickel Plated
⓭	Bushing	Sintered Metal	

No.	Description	Material	Remarks
⓮	Damper A	Urethane	
⓯	Damper B	Urethane	
⓰	Retaining Ring	Carbon Tool Steel	
⓱	Piston Packing	NBR	
⓲	Piston Gasket	NBR	
⓳	Wear Ring	Resin	
⓴	Rod End Nut	Carbon Steel	Nickel Plated

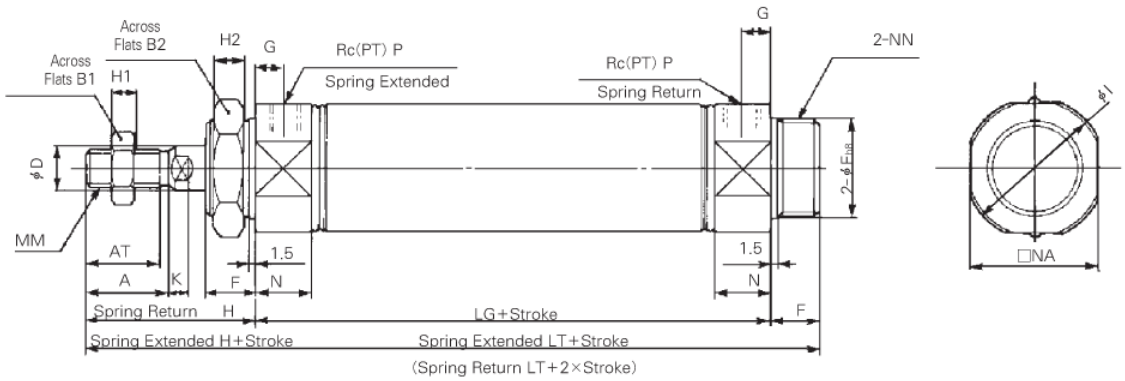
Packing List

Rubber Cushion / Air Cushion

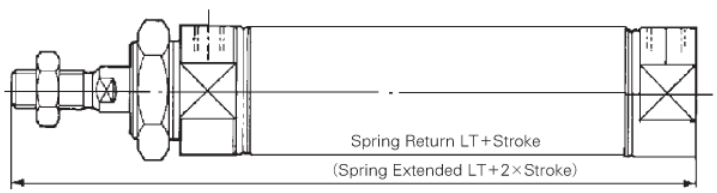
No.	Decription	Material	Type	Bore Size			
				20	25	32	40
㉑	Rod Packing	NBR	Rubber Cushion	PDU-8LZ	PDU-10LZ	PDU-12LZ	PDU-14LZ
			Air Cushion	PDU-8Z	PDU-10Z	PDU-12Z	PDU-14Z

Basic(B)

AXB Bore Size — Stroke S T



Boss-Cut Type



※ This Drawing is Spring Extended.

(Unit : mm)

Bore Size	A	AT	B_1	B_2	D	E	F	G	H	H_1	H_2	I	K	MM	N	NA	NN	P
φ20	18	15.5	13	26	$8^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	8	27	5	M8×1.25	15	24	M20×1.5	1/8
φ25	22	19.5	17	32	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	8	33	5.5	M10x1.25	15	30	M26×1.5	1/8
φ32	22	19.5	17	32	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8
φ40	24	21	22	41	$14^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4

Stroke Dimension Adder

(Unit : mm)

Bore Size \ Stroke / Symbol	1~50		51~100		101~150		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
φ20	87	141	112	166	137	191	–	–	–	–
φ25	87	145	112	170	137	195	–	–	–	–
φ32	89	147	114	172	139	197	164	222	–	–
φ40	113	179	138	204	163	229	188	254	213	279

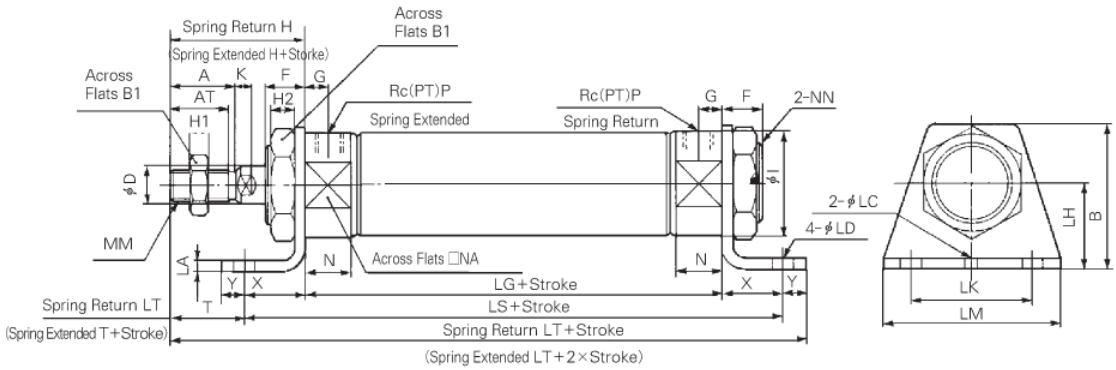
Boss-Cut Type

(Unit : mm)

Bore Size \ Stroke / Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
φ20	128	153	178	–	–
φ25	132	157	182	–	–
φ32	134	159	184	209	–
φ40	163	188	213	238	263

Axial Foot Type (L)

AXL Bore Size — Stroke S T



※ This Drawing is Spring Extended

(Unit : mm)

Bore Size	A	AT	B	B1	B2	D	F	G	H	H1	H2	I	K	LC	LD	LH	LA	LK	LM	MM	N	NA	NN	P	X	Y	T
φ20	18	15.5	40	13	26	8	13	8	41	5	8	27	5	4	6.8	25	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	20	8	21
φ25	22	19.5	47	17	32	10	13	8	45	6	8	33	5.5	4	6.8	28	3.2	40	55	M10×1.25	15	30	M26×1.5	1/8	20	8	25
φ32	22	19.5	47	17	32	12	13	8	45	6	8	37.5	5.5	4	6.8	28	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	20	8	25
φ40	24	21	54	22	41	14	16	11	50	8	10	46.5	7	4	7	30	3.2	55	75	M14×1.25	21.5	42.5	M32×2	1/4	23	10	27

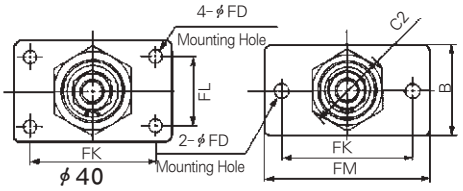
Stroke Dimension Adder

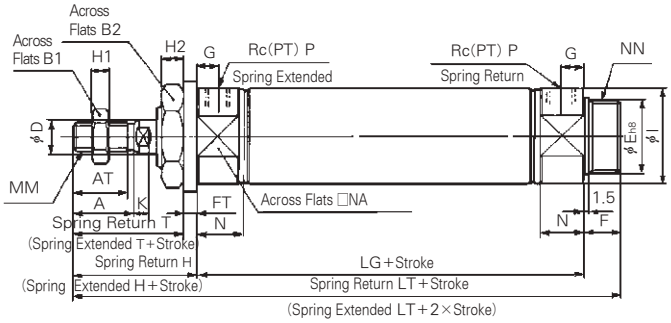
(Unit : mm)

Bore size \ Stroke Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	LS	LT	LG	LS	LT	LG	LS	LT	LG	LS	LT	LG	LS	LT
φ20	87	127	156	112	152	181	137	177	206	–	–	–	–	–	–
φ25	87	127	160	112	152	185	137	177	210	–	–	–	–	–	–
φ32	89	129	162	114	154	187	139	179	212	164	204	237	–	–	–
φ40	113	159	196	138	184	221	163	209	246	188	234	271	213	259	296

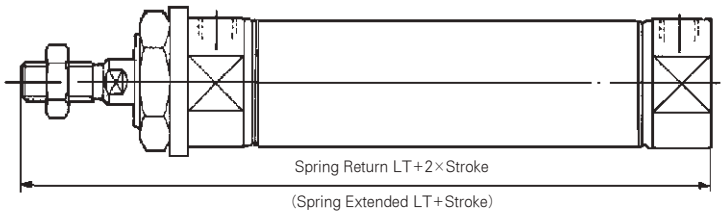
Rod Side Flange Type(F)

AXF (Bore Size) — (Stroke) S T





Boss-Cut Type



※ This drawing is spring extended (Unit : mm)

Bore Size	A	AT	B	B1	B2	C2	D	E	F	FD	FT	FK	FL	FM	G	H	H1	H2	I	K	MM	N	NA	NN	P	T
φ20	18	15.5	34	13	26	30	8	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	5	M8×1.25	15	24	M20×1.5	1/8	37
φ25	22	19.5	40	17	32	37	10	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	5.5	M10×1.25	15	30	M26×1.5	1/8	41
φ32	22	19.5	40	17	32	37	12	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	41
φ40	24	21	52	22	41	47.3	14	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	45

Stroke Dimension Adder

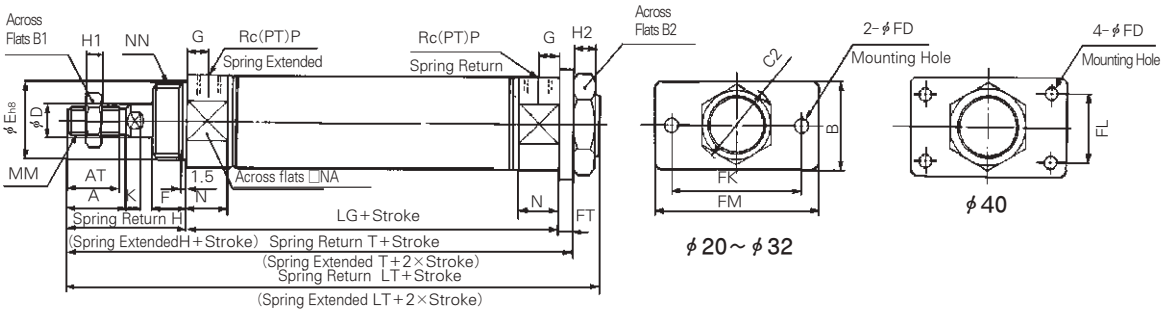
Bore size \ Stroke Symbol	1~50		51~100		101~150		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
φ20	87	141	112	166	137	191	–	–	–	–
φ25	87	145	112	170	137	195	–		–	–
φ32	89	147	114	172	139	197	164	222	–	–
φ40	113	179	138	204	163	229	188	254	213	279

Boss-Cut Type

Bore size \ Stroke Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
φ20	128	153	178	–	–
φ25	132	157	182	–	–
φ32	134	159	184	209	–
φ40	163	188	213	238	263

Head Side Flange Type(G)

AXG (Bore Size)—(Stroke) S T



※This Drawing is Spring Extended. (Unit : mm)

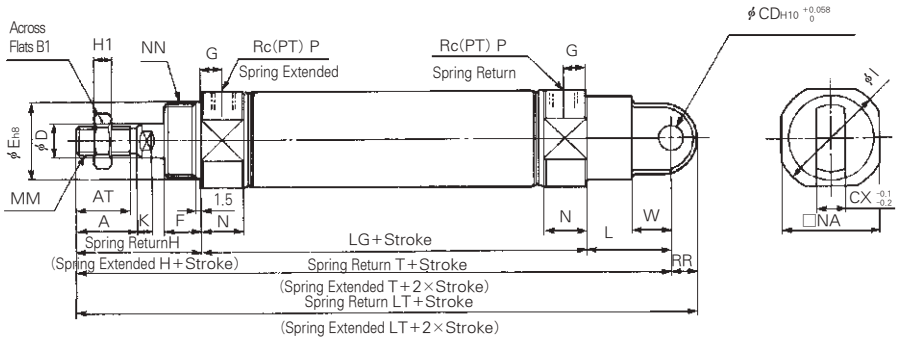
Bore Size	A	AT	B	B_1	B_2	C	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM	N	NA	NN	P
φ20	18	15.5	34	13	26	30	8	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	5	M8×1.25	15	24	M20×1.5	1/8
φ25	22	19.5	40	17	32	37	10	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	5.5	M10×1.25	15	30	M26×1.5	1/8
φ32	22	19.5	40	17	32	37	12	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8
φ40	24	21	52	22	41	47.3	14	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M30×2	1/4

Stroke Dimension Adder (Unit : mm)

Bore size \ Stroke / Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	132	141	112	157	166	137	182	191	–	–	–	–	–	–
φ25	87	136	145	112	161	170	137	186	195	–	–	–	–	–	–
φ32	89	138	147	114	163	172	139	188	197	164	213	222	–	–	–
φ40	113	168	179	138	193	204	163	218	229	188	243	254	213	268	279

Single Clevis Type(C)

AXC (Bore Size) — (Stroke) S / T



※ This Drawing is Spring Extended (Unit : mm)

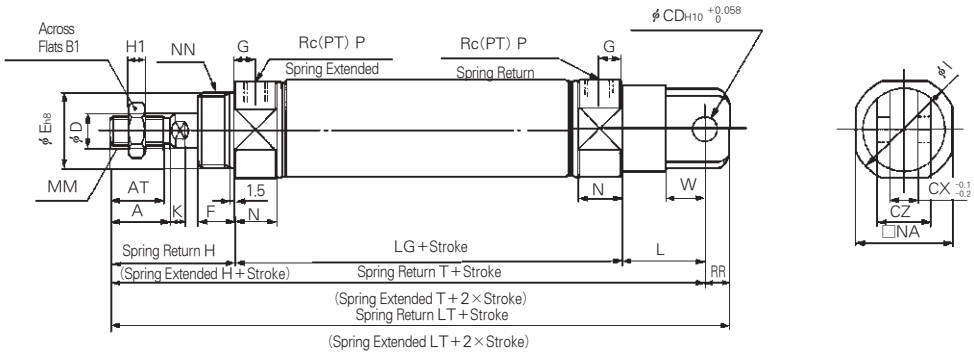
Bore Size	A	AT	B_1	CD	CX	D	E	F	G	H	H_1	I	K	L	MM	N	NA	NN	P	RR	W
φ20	18	15.5	13	9	10	8	$20^{0}_{-0.033}$	13	8	41	5	27	5	30	M8×1.25	15	24	M20×1.5	1/8	9	14
φ25	22	19.5	17	9	10	10	$26^{0}_{-0.033}$	13	8	45	6	33	5.5	30	M10×1.25	15	30	M26×1.5	1/8	9	14
φ32	22	19.5	17	9	10	12	$26^{0}_{-0.033}$	13	8	45	6	37.5	5.5	30	M10×1.25	15	34.5	M26×1.5	1/8	9	14
φ40	24	21	22	10	15	14	$32^{0}_{-0.039}$	16	11	50	8	46.5	7	39	M14×1.5	21.5	42.5	M32×2	1/4	11	18

Stroke Dimension Adder

Bore size \ Stroke / Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	158	167	112	183	192	137	208	217	–	–	–	–	–	–
φ25	87	162	171	112	187	196	137	212	221	–	–	–	–	–	–
φ32	89	164	173	114	189	198	139	214	223	164	239	248	–	–	–
φ40	113	202	213	138	227	238	163	252	263	188	277	288	213	302	313

Double Clevis Type(D)

AXD (Bore Size)—(Stroke) S T



※ This drawing is spring extended

(Unit : mm)

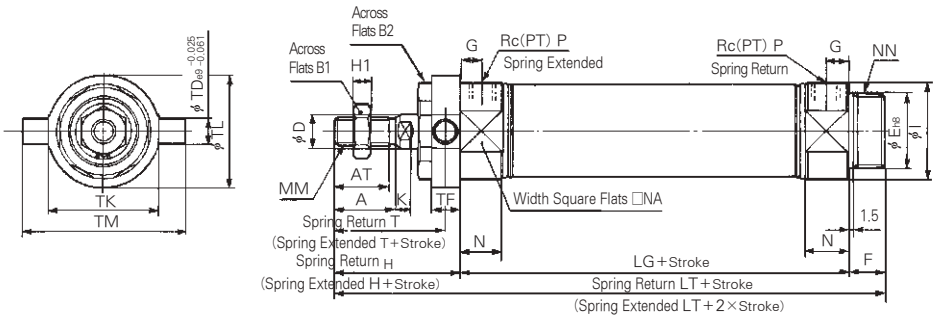
Bore Size	A	AT	B1	CD	CX	CZ	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	W
φ20	18	15.5	13	9	10	19	8	20 0 -0.033	13	8	41	5	27	5	30	M8×1.25	15	24	M20×1.5	1/8	9	14
φ25	22	19.5	17	9	10	19	10	26 0 -0.033	13	8	45	6	33	5.5	30	M10×1.25	15	30	M26×1.5	1/8	9	14
φ32	22	19.5	17	9	10	19	12	26 0 -0.033	13	8	45	6	37.5	5.5	30	M10×1.25	15	34.5	M25×1.5	1/8	9	14
φ40	24	21	22	10	15	30	14	32 0 -0.039	16	11	50	8	46.5	7	39	M14×1.5	21.5	42.5	M32×2	1/4	11	18

Stroke Dimension Adder

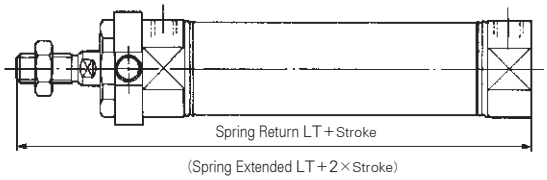
Bore size \ Stroke Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	158	167	112	183	192	137	208	217	–	–	–	–	–	–
φ25	87	162	171	112	187	196	137	212	221	–	–	–	–	–	–
φ32	89	164	173	114	189	198	139	214	223	164	239	248	–	–	–
φ40	113	202	213	138	227	238	163	252	263	188	277	288	213	302	313

Rod Side Trunnion Type(U)

AXU (Bore Size) — (Stroke) S T



Boss-Cut Type



※ This drawing is spring extended (Unit : mm)

Bore size	A	AT	B_1	B_2	D	E	F	G	H	H_1	I	K	MM	N	NA	NN	P	TD	TF	TK	TL	TM	T
ϕ20	18	15.5	13	26	8	20 $^{0}_{-0.033}$	13	8	41	5	27	5	M8×1.25	15	24	M20×1.5	1/8	8	10	32	32	52	36
ϕ25	22	19.5	17	32	10	26 $^{0}_{-0.033}$	13	8	45	6	33	5.5	M10×1.25	15	30	M26×1.5	1/8	9	10	40	40	60	40
ϕ32	22	19.5	17	32	12	26 $^{0}_{-0.033}$	13	8	45	6	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	9	10	40	40	60	40
ϕ40	24	21	22	41	14	32 $^{0}_{-0.039}$	16	11	50	8	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	10	11	53	53	77	44.5

Stroke Dimension Adder

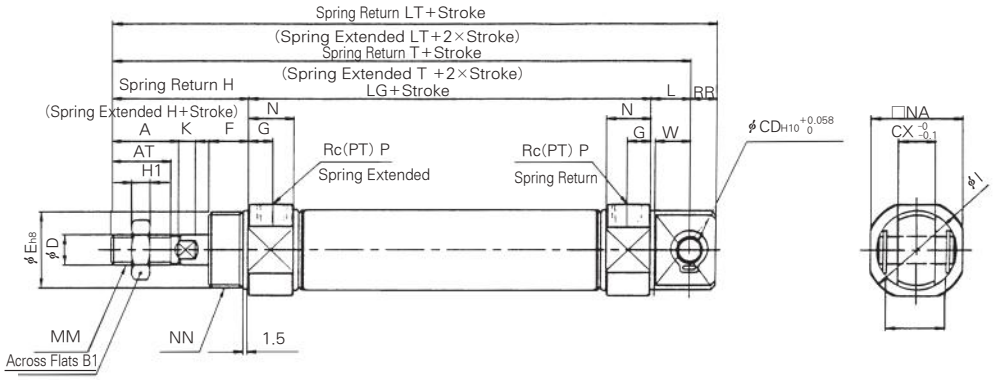
Bore size \ Stroke / Symbol	1~50		51~100		101~200		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
ϕ20	87	141	112	166	137	191	–	–	–	–
ϕ25	87	145	112	170	137	195	–		–	–
ϕ32	89	147	114	172	139	197	164	222	–	–
ϕ40	113	179	138	204	163	229	188	254	213	279

Boss-Cut Type

Bore size \ Stroke / Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
ϕ20	128	153	178	–	–
ϕ25	132	157	182	–	–
ϕ32	134	159	184	209	–
ϕ40	163	188	213	238	263

Integrated Clevis Type(E)

AXE (Bore Size) — (Stroke) ST



※ This drawing is spring extended.

(Unit : mm)

Bore Size	A	AT	B_1	CD	CX	D	E	F	G	H	H_1	I	K	L	LV	MM	N	NA	NN	P	RR	W
φ20	18	15.5	13	8	12	8	20 $^{0}_{-0.033}$	13	8	41	5	27	5	12	18.4	M8×1.25	15	24	M20×1.5	1/8	9	11.5
φ25	22	19.5	17	8	12	10	26 $^{0}_{-0.033}$	13	8	45	6	33	5.5	12	18.4	M10×1.25	15	30	M26×1.5	1/8	9	11.5
φ32	22	19.5	17	10	20	12	26 $^{0}_{-0.033}$	13	8	45	6	37.5	5.5	15	28	M10×1.25	15	34.5	M26×1.5	1/8	12	14.5
φ40	24	21	22	10	20	14	32 $^{0}_{-0.039}$	16	11	50	8	46.5	7	15	28	M14×1.5	21.5	42.5	M32×2	1/4	12	14.5

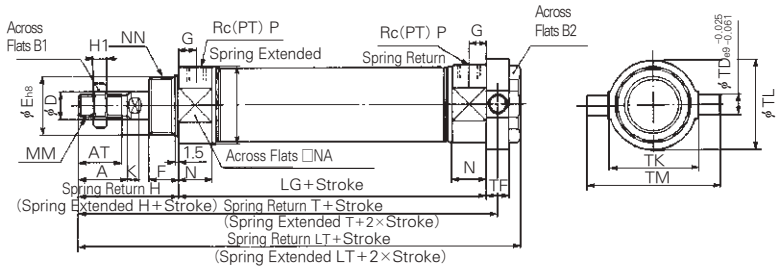
Stroke Dimension Adder

(Unit : mm)

Stroke / Symbol / Bore size	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	140	149	112	165	174	137	190	199	–	–	–	–	–	–
φ25	87	144	153	112	169	178	137	194	203	–	–	–	–	–	–
φ32	89	149	161	114	174	186	139	199	211	164	224	236	–	–	–
φ40	113	178	190	138	203	215	163	228	240	188	253	265	213	278	290

Head Side Trunnion Type(T)

AXT (Bore Size) — (Stroke) ST



(Unit : mm)

※ This drawing is spring extended

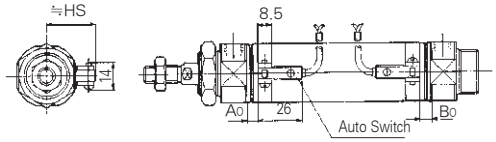
Bore Size	A	AT	B1	B2	D	E_{h8}	F	G	H	H_1	I	K	MM	N	NA	NN	P	TD	TF	TK	TL	TM
φ20	18	15.5	13	26	8	$20^{\ 0}_{-0.033}$	13	8	41	5	27	5	M8×1.25	15	24	M20×1.5	1/8	8	10	32	32	52
φ25	22	19.5	17	32	10	$26^{\ 0}_{-0.033}$	13	8	45	6	33	5.5	M10×1.25	15	30	M26×1.5	1/8	9	10	40	40	60
φ32	22	19.5	17	32	12	$26^{\ 0}_{-0.033}$	13	8	45	6	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	9	10	40	40	60
φ40	24	21	22	41	14	$32^{\ 0}_{-0.039}$	16	11	50	8	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	10	11	53	53	77

Bore size \ Stroke / Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	133	143	112	158	168	137	183	193	–	–	–	–	–	–
φ25	87	137	147	112	162	172	137	187	197	–	–	–	–	–	–
φ32	89	139	149	114	164	174	139	189	199	164	214	224	–	–	–
φ40	113	168.5	179	138	193.5	204	163	218.5	229	188	243.5	254	213	268.5	279

Reed Switch Setting Position (Stroke End)

W5

(Unit : mm)



Auto Switch Mounting, Minimum Possible Cylinder Stroke

Auto Switch Type	No. of auto switch				1pc
	2pcs.		npcs.		
	Different Surface	Same Surface	Different Surface	Same Surface	
W5	15	50	$15+45(\frac{n-2}{2})$ (n=2,4,6,8 ···)	50+45(n-2)	10

Auto Switch Setting Position(Stroke End)

(Unit : mm)

Auto Switch Type	Bore Size	Spring Return						Spring Extended						HS
		AO					BO	AO	BO					
		~50ST	51~100ST	101~150ST	151~200ST	201~250ST			~50ST	51~100ST	101~150ST	151~200ST	201~250ST	
W5	φ20	32	57	82	107	132	6	7	31	56	81	106	131	22.5
	φ25	32	57	82	107	132	6	7	31	56	81	106	131	25
	φ32	33	58	83	108	133	7	8	32	57	82	107	132	28.5
	φ40	38	63	88	113	138	12	13	37	62	87	112	137	32.5

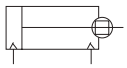
Series AXK

Non-Rotating Piston Rod Type/Double Acting:Single Rod

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

- NUMEROUS MOUNTING OPTIONS
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND
- CUSTOM DESIGNED PISTON ROD FOR NON-ROTATION

Double Acting/Single Rod



How to Order

AXK | L | 40 | 150 | J | ○ | W5 | ○

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

1 Non-Rotating Piston Rod Type
※ Built-in Magnet Standard

2 Mounting
- B : Basic Type
- L : Axial Foot Type
- F : Rod Side Flange Type
- G : Head Side Flange Type
- C : Single Clevis Type
- D : Double Clevis Type
- T : Head Side Trunnion Type
- U : Rod Side Trunnion Type
- E : Integrated Clevis Type
- BZ : Boss-Cut Basic Type
- FZ : Boss-Cut Flange Type
- UZ : Boss-Cut Trunnion Type

3 Bore size(mm)
- 20 : φ20
- 25 : φ25
- 32 : φ32
- 40 : φ40

4 Stroke (mm)
- φ20 : 25, 50, 75, 100, 125, 150, 200, 250, 300
- φ25 : 25, 50, 75, 100, 125, 150, 200, 250, 300
- φ32 : 25, 50, 75, 100, 125, 150, 200, 250, 300
- φ40 : 25, 50, 75, 100, 125, 150, 200, 250, 300

5 Rod Boot Option
- Blank : None
- J : Nylon Tarpaulin
- K : Neoprene Cloth

6 Special Option
- Blank : Standard type
- XC16 : Copper-free

7 Auto Switch
(Band mounted type)
(Grommet)
- Blank : None
- W5 : Reed Switch, 0.5m Lead Wire
- W5L : Reed Switch, 3m Lead Wire

8 Number of Auto Switches
- Blank : 2 pcs
- S : 1 pc
- N : N pcs

PART No. of Mounting Bracket

Bore size(mm)	φ20	φ25	φ32	φ40
※Axial foot	TCM-L020B	TCM-L032B		TCM-L040B
Flange	TCM-F020B	TCM-F032B		TCM-F040B
Single clevis	TCM-C020B	TCM-C032B		TCM-C040B
Double clevis	TCM-D020B	TCM-D032B		TCM-D040B
Trunnion(With nut)	TCM-T020B	TCM-T032B		TCM-T040B

※ 2 pcs. Required Per Cylinder

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore size(mm) φ20	φ25	φ32	φ40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

Model

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Action	Double Acting Single Rod			
Cushion	Rubber Cushion (Standard)			
Piping Method	Rc(PT) 1/8	Rc(PT) 1/8	Rc(PT) 1/8	Rc(PT) 1/4

Specifications

Action		Double Acting Single Rod
Fluid		Air
Proof pressure		1.5 MPa (213psi)
Max. Operating Pressure		1.0 MPa (140psi)
Min. Operating Pressure		0.05 MPa (7psi)
Ambient and Fluid Temperature		-10℃~+70℃ (14~ 158°F)
Lubrication		None (Non-Lube)
Stroke Tolerance		$^{+1.4}_{0}$mm
Mounting		Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Single Clevis Type, Head Side Trunnion Type, Rod Side Trunnion Type, Integrated Clevis, Type Boss-Cut Type
Non-Rotating Accuracy	ϕ20, ϕ25	±0.8°
	ϕ32, ϕ40	±0.5°

Piston Speed

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston Speed(mm/sec)	50 ~ 500			
Allowable Kinetic Energy(kgf/cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Material of Boot

Symbol	Material of Boot	Max. Ambient Temperature
J	Nylon Tarpaulin	60℃ (140°F)
K	Neoprene Cloth	※110℃ (230°F)

※ The max. ambient temperature of gaiters only.

Boss-Cut Type

Boss for the head cover bracket is eliminated and the total length of the cylinder is shortened.

Compared to the total length of cylinder (mm)

ϕ20	ϕ25	ϕ32	ϕ40
▼13	▼13	▼13	▼16

Mounting : ●Boss-Cut Basic Type(BZ) ●Boss-Cut Flange Type(FZ) ●Boss-Cut Trunnion Type(UZ)

Mounting and Accessories

Mounting \ Accessories	Standard			Option		
	Mounting Nut	Rod End Nut	Clevis Pin	Knuckle Joint	Double Knuckle Joint	Boot
Basic Type	○(1pc.)	○	–	○	○	○
Axial Foot Type	○(2)	○	–	○	○	○
Rod Side Flange Type	○(1)	○	–	○	○	○
Head Side Flange Type	○(1)	○	–	○	○	○
Intergrated Clevis Type	–	○	–	○	○	○
Single Clevis Type	–	○	–	○	○	○
Double Clevis Type	–	○	○	○	○	○
Head Side Trunnion Type	○(1)	○	–	○	○	○
Rod Side Trunnion Type	○(1)	○	–	○	○	○
Boss-Cut Basic Type	○(1)	○	–	○	○	○
Boss-Cut Flange Type	○(1)	○	–	○	○	○
Boss-Cut Trunnion Type	○(1)	○	–	○	○	○
Note					With pin	

Weight Table

kgf(lbf)

Bore Size(mm)		ϕ20	ϕ25	ϕ32	ϕ40
Basic weight	Basic Type	0.14(0.31)	0.21(0.46)	0.28(0.62)	0.58(1.26)
Mornting Bracket Weight	Axial Foot Type	0.29(0.64)	0.38(0.82)	0.44(0.97)	0.84(1.85)
	Flange Type	0.20(0.44)	0.30(0.66)	0.37(0.82)	0.69(1.52)
	Integrated Clevis Type	0.12(0.26)	0.19(0.42)	0.27(0.60)	0.53(1.17)
	Single Clevis Type	0.18(0.40)	0.26(0.55)	0.32(0.71)	0.66(1.46)
	Double Clevis Type	0.19(0.42)	0.27(0.60)	0.33(0.73)	0.70(1.54)
	Trunnion Type	0.18(0.40)	0.28(0.62)	0.34(0.75)	0.67(1.48)
	Boss-Cut Basic Type	0.13(0.29)	0.19(0.42)	0.26(0.57)	0.54(1.19)
	Boss-Cut Flange Type	0.19(0.42)	0.29(0.62)	0.35(0.77)	0.66(1.46)
	Boss-Cut Trunnion Type	0.17(0.37)	0.26(0.57)	0.32(0.71)	0.64(1.41)
Additional weight for each 50 mm of stroke		0.04(0.09)	0.08(0.15)	0.09(0.20)	0.14(0.31)
Accessories Weight	Single Knuckle joint	0.06(0.13)	0.06(0.13)	0.06(0.13)	0.23(0.51)
	Double Knuckle Joint (with pin)	0.08(0.15)	0.08(0.15)	0.08(0.15)	0.20(0.44)

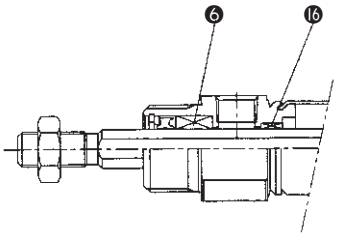
Calculation Example

AXKL 32-100

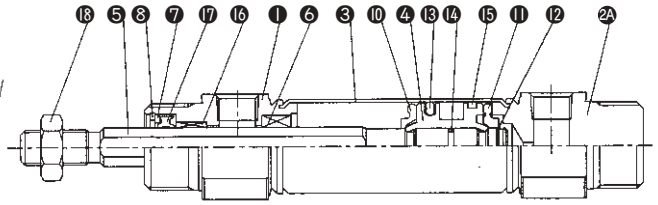
- Basic weight : 0.44(Foot type ϕ32)
- Additional weight : 0.09/50 stroke
- Cylinder stroke : 100 stroke

0.44+0.09×100/50=0.62kgf

Construction / Parts List

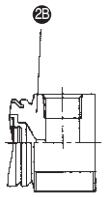


φ20

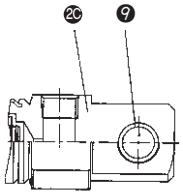


φ25~φ40

Boss-Cut Type



Integrated Clevis Type



Parts

No	Description	Material	Remarks
❶	Rod Cover	Alluminum Alloy	White Alumite
2A	Head Cover-A	〃	〃
2B	Head Cover-B	〃	〃
2C	Head Cover-C	〃	〃
❸	Cylinder Tube	stainless steel	-
❹	Piston	Alluminum Alloy	Chromate
❺	Pistan Rod	Stainless steel	
❻	Guide Bush	Sintered Metal	
❼	Retaining Ring	Rolled steel	Nickel Plated
❽	Stopper Ring	Carbon Tool steel	〃
❾	Guide Bush	Sintered Metal	
❿	DAMPER A	Urethane	
⓫	DAMPER B	〃	

No	Description	Material	Remarks
⓬	Stopper Ring	Carbon Tool steel	
⓭	Piston Packing	NBR	
⓮	Piston Gasket	NBR	
⓯	Wear Ring	Resin	
⓰	Bush	Brass	
⓲	Rod End Nut		Nickel Plated

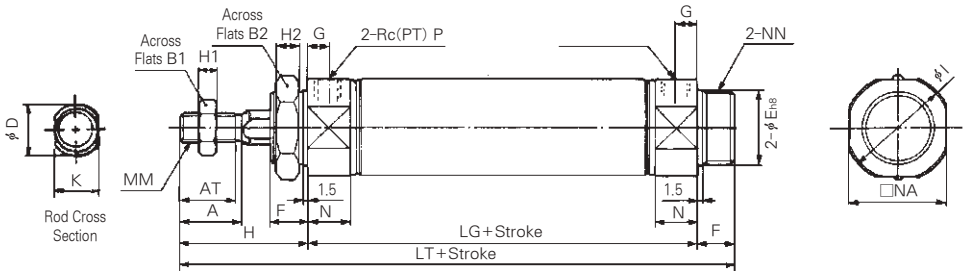
Packing List

No	Description	Material	Bore Size (mm)			
			20	25	32	40
⓱	Rod Packing	NBR	SORA-10	SORA-10	SORA-12	SORA-16

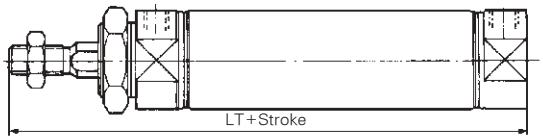
Basic Type(B)

AXKB (Bore Size) — (Stroke) ○

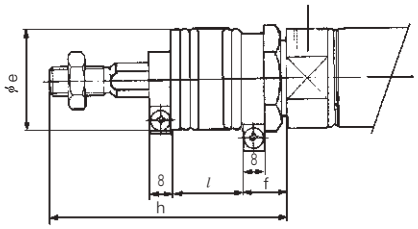
Standard Type



Boss-cut type



With Rod Boot



(mm)

Bore Size	A	AT	B_1	B_2	D	E	F	G	H	H_1	H_2	I	K	MM	N	NA	NN	P	LG	LT
φ20	18	15.5	13	26	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	8	27	$8^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8	62	116
φ25	22	19.5	17	32	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	8	33	$8^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8	62	120
φ32	22	19.5	17	32	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8	64	122
φ40	24	21	22	41	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	10	46.5	$14^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M32×2	1/4	88	154

With Rod Boot

(mm)

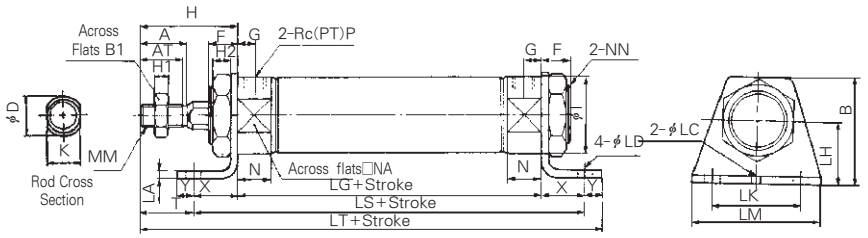
Bore Size	e	f	h					l				
			1~50st	51~100st	101~150st	151~200st	201~300st	1~50st	51~100st	101~150st	151~200st	201~300st
φ20	30	16	68	81	93	106	131	12.5	25	37.5	50	75
φ25	30	16	72	85	97	110	135	12.5	25	37.5	50	75
φ32	30	16	72	85	97	110	135	12.5	25	37.5	50	75
φ40	40	18	77	90	102	115	140	12.5	25	37.5	50	75

Boss-Cut Type

Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

Axial Foot Type(L)

AXKL Bore Size — Stroke

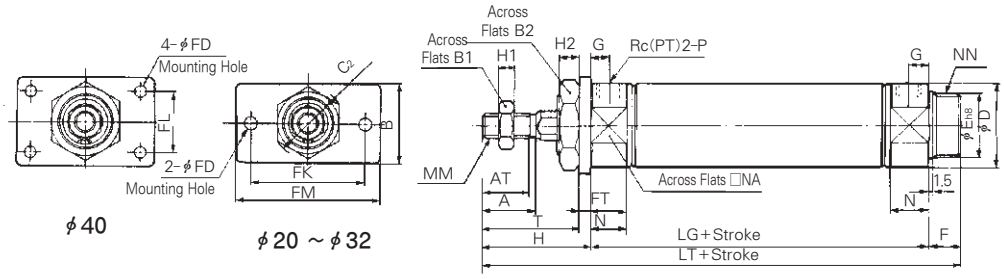


(mm)

Bore Size	A	AT	B	B_1	B_2	D	F	G	H	H_1	H_2	I	K	LC	LD	LH	LS	LA	LK	LM	MM	N	NA	NN	P	LG	X	Y	T	LT
φ20	18	15.5	40	13	26	$10^{-0.01}_{-0.05}$	13	8	41	5	8	27	$8^{-0.01}_{-0.05}$	4	6.8	25	102	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	62	20	8	21	131
φ25	22	19.5	47	17	32	$10^{-0.01}_{-0.05}$	13	8	45	6	8	33	$8^{-0.01}_{-0.05}$	4	6.8	28	102	3.2	40	55	M8×1.25	15	30	M26×1.5	1/8	62	20	8	25	135
φ32	22	19.5	47	17	32	$12^{-0.01}_{-0.05}$	13	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	4	6.8	28	104	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	64	20	8	25	137
φ40	24	21	54	22	41	$16^{-0.01}_{-0.05}$	16	11	50	8	10	46.5	$14^{-0.01}_{-0.05}$	4	7	30	134	3.2	55	75	M14×1.5	21.5	42.5	M32×2	1/4	88	23	10	27	171

Rod Side Flange Type(F)

AXKF Bore Size — Stroke



(mm)

Bore Size	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM
φ20	18	15.5	34	13	26	30	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	$8^{-0.01}_{-0.05}$	M8×1.25
φ25	22	19.5	40	17	32	37	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	$8^{-0.01}_{-0.05}$	M8×1.25
φ32	22	19.5	40	17	32	37	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	M10×1.25
φ40	24	21	52	22	41	47.3	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	$14^{-0.01}_{-0.05}$	M14×1.5

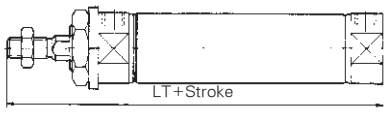
(mm)

Bore Size	N	NA	NN	P	LG	T	LT
φ20	15	24	M20×1.5	1/8	62	37	116
φ25	15	30	M26×1.5	1/8	62	41	120
φ32	15	34.5	M26×1.5	1/8	64	41	122
φ40	21.5	42.5	M32×2	1/4	88	45	154

Boss-Cut Type

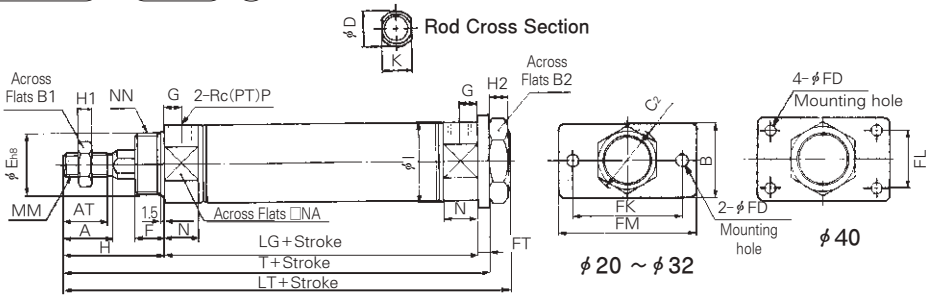
Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

Boss-cut type



Head Side Flange Type(G)

AXKG Bore Size — Stroke



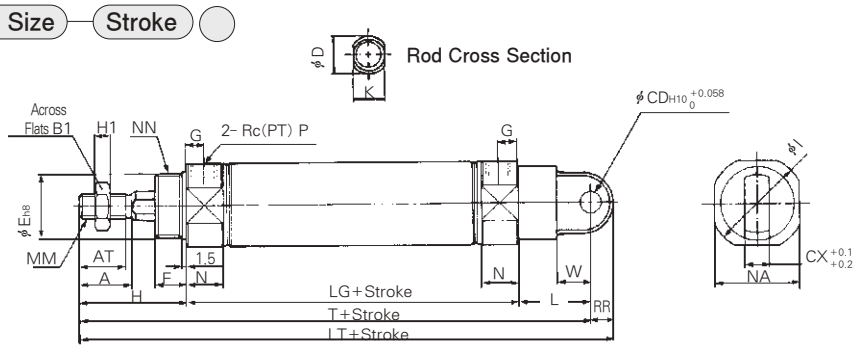
(mm)

Bore Size	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM
φ20	18	15.5	34	13	26	30	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	$8^{-0.01}_{-0.05}$	M8×1.25
φ25	22	19.5	40	17	32	37	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	$8^{-0.01}_{-0.05}$	M8×1.25
φ32	22	19.5	40	17	32	37	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	M10×1.25
φ40	24	21	52	22	41	47.3	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	7	5	66	36	82	10	50	8	10	46.5	$14^{-0.01}_{-0.05}$	M14×1.5

Bore Size	N	NA	NN	P	LG	T	LT
φ20	15	24	M20×1.5	1/8	62	107	116
φ25	15	30	M26×1.5	1/8	62	111	120
φ32	15	34.5	M26×1.5	1/8	64	113	122
φ40	21.5	42.5	M32×2	1/4	88	143	154

Single Clevis Type (C)

AXKC Bore Size — Stroke



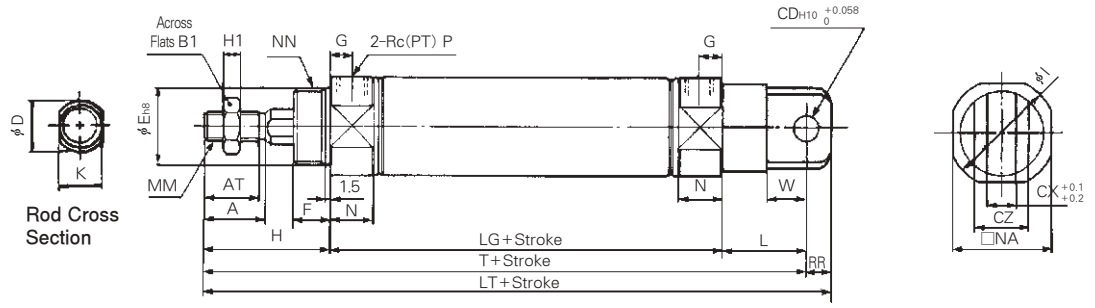
(mm)

Bore Size	A	AT	B_1	CD	CX	D	E	F	G	H	H_1	I	K	L	MM	N	NA	NN	P	RR
φ20	18	15.5	13	9	10	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	27	$8^{-0.01}_{-0.05}$	30	M8×1.25	15	24	M20×1.5	1/8	9
φ25	22	19.5	17	9	10	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	33	$8^{-0.01}_{-0.05}$	30	M8×1.25	15	30	M26×1.5	1/8	9
φ32	22	19.5	17	9	10	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	37.5	$10^{-0.01}_{-0.05}$	30	M10×1.25	15	34.5	M26×1.5	1/8	9
φ40	24	21	22	10	15	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	46.5	$14^{-0.01}_{-0.05}$	39	M14×1.5	21.5	42.5	M32×2	1/4	11

Bore Size	LG	W	T	LT
φ20	62	14	133	142
φ25	62	14	137	146
φ32	64	14	139	148
φ40	88	18	177	188

Double Clevis Type(D)

AXKD (Bore Size) — (Stroke) ○

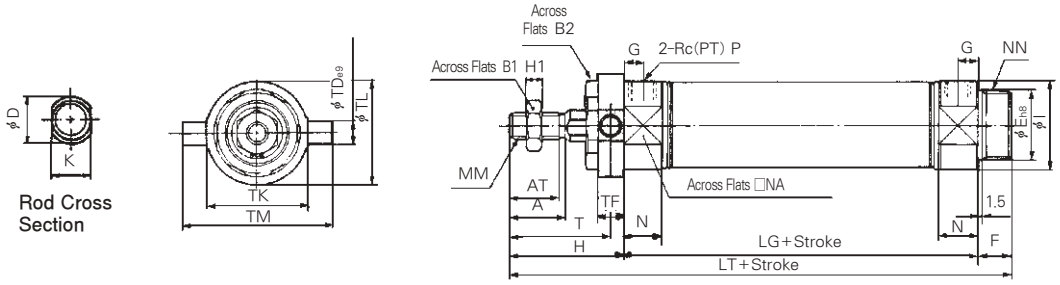


(mm)

Bore Size	A	AT	B1	CD	CX	CZ	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	LG	W	T	LT
φ20	18	15.5	13	9	10	19	10 -0.01 -0.05	20 0 -0.033	13	8	41	5	27	8 -0.01 -0.05	30	M8×1.25	15	24	M20×1.5	1/8	9	62	14	133	142
φ25	22	19.5	17	9	10	19	10 -0.01 -0.05	26 0 -0.033	13	8	45	6	33	8 -0.01 -0.05	30	M8×1.25	15	30	M26×1.5	1/8	9	62	14	137	146
φ32	22	19.5	17	9	10	19	12 -0.01 -0.05	26 0 -0.033	13	8	45	6	37.5	10 -0.01 -0.05	30	M10×1.25	15	34.5	M26×1.5	1/8	9	64	14	139	148
φ40	24	21	22	10	15	30	16 -0.01 -0.05	32 0 -0.039	16	11	50	8	46.5	14 -0.01 -0.05	39	M14×1.5	21.5	42.5	M32×2	1/4	11	88	18	177	188

Rod Side Trunnion Type(U)

AXKU (Bore Size) — (Stroke) ○



(mm)

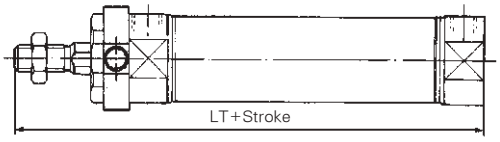
Bore Size	A	AT	B1	B2	D	E	F	G	H	H1	I	K	MM	N	NA	NN	P	LG	TD	TF
φ20	18	15.5	13	26	10 -0.01 -0.05	20 0 -0.033	13	8	41	5	27	8 -0.01 -0.05	M8×1.25	15	24	M20×1.5	1/8	62	8	10
φ25	22	19.5	17	32	10 -0.01 -0.05	26 0 -0.033	13	8	45	6	33	8 -0.01 -0.05	M8×1.25	15	30	M26×1.5	1/8	62	9	10
φ32	22	19.5	17	32	12 -0.01 -0.05	26 0 -0.033	13	8	45	6	37.5	10 -0.01 -0.05	M10×1.25	15	34.5	M26×1.5	1/8	64	9	10
φ40	24	21	22	41	16 -0.01 -0.05	32 0 -0.039	16	11	50	8	46.5	14 -0.01 -0.05	M14×1.5	21.5	42.5	M32×2	1/4	88	10	11

Bore Size	TK	TL	TM	T	LT
φ20	32	32	52	36	116
φ25	40	40	60	40	120
φ32	40	40	60	40	122
φ40	53	53	77	44.5	154

Boss-Cut Type

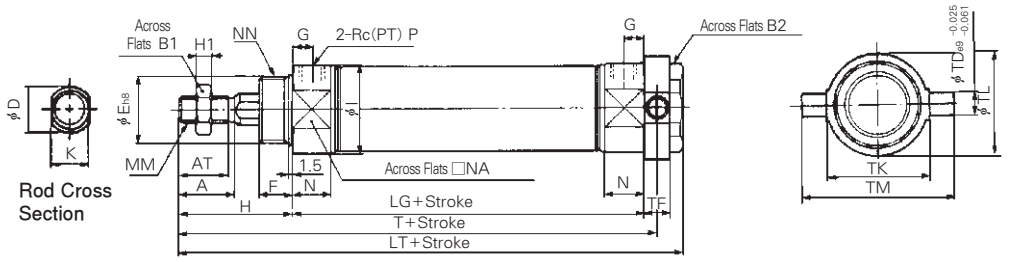
Bore Size	LT
φ20	103
φ25	107
φ32	109
φ40	138

Boss-Cut Type



Head Side Trunnion Type(T)

AXKT Bore size — Stroke



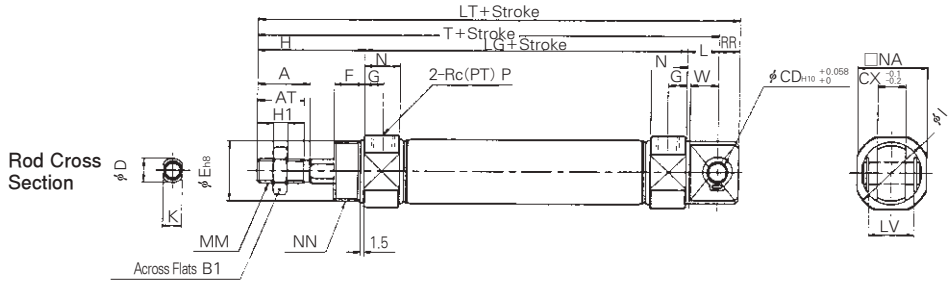
(mm)

Bore Size	A	AT	B_1	B_2	D	E	F	G	H	H_1	I	K	MM	N	NA	NN	P	LG	TD	TF
ϕ20	18	15.5	13	26	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	27	$8^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8	62	8	10
ϕ25	22	19.5	17	32	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	33	$8^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8	62	9	10
ϕ32	22	19.5	17	32	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	37.5	$10^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8	64	9	10
ϕ40	24	21	22	41	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	46.5	$14^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M32×2	1/4	88	10	11

Bore Size	TK	TL	TM	T	LT
ϕ20	32	32	52	108	118
ϕ25	40	40	60	112	122
ϕ32	40	40	60	114	124
ϕ40	53	53	77	143.5	154

Integrated Clevis Type(E)

AXKE Bore Size — Stroke



(mm)

Bore Size	A	AT	B_1	CD	CX	D	E	F	G	H	H_1	I	K	L	MM	N	NA	NN	P	RR
ϕ20	18	15.5	13	8	12	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	27	$8^{-0.01}_{-0.05}$	12	M8×1.25	15	24	M20×1.5	1/8	9
ϕ25	22	19.5	17	8	12	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	33	$8^{-0.01}_{-0.05}$	12	M8×1.25	15	30	M26×1.5	1/8	9
ϕ32	22	19.5	17	10	20	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	37.5	$10^{-0.01}_{-0.05}$	15	M10×1.25	15	34.5	M26×1.5	1/8	12
ϕ40	24	21	22	10	20	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	46.5	$14^{-0.01}_{-0.05}$	15	M14×1.5	21.5	42.5	M32×2	1/4	12

Bore Size	LG	W	T	LT	LV
ϕ20	62	11.5	115	124	18.4
ϕ25	62	11.5	119	128	18.4
ϕ32	64	14.5	124	136	28
ϕ40	88	14.5	153	165	28

Series AXKS(T)

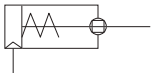
Non-Rotating Piston Rod Type/Single Acting:Spring Return, Spring Extended

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

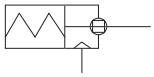
- NUMEROUS MOUNTING OPTIONS
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND
- CUSTOM DESIGNED PISTON ROD FOR NON-ROTATION AND LONG ROD SEAL LIFE

Symbol

Single Acting Spring Return



Single Acting Spring Extended



How to Order

AXK L 32 50 S W5

1 2 3 4 5 6 7 8

1 Non-Rotating Piston Rod Type
※ Built-in Magnet Standard

2 Mounting
- B : Basic Type
- L : Axial Foot Type
- F : Rod Side Flange Type
- G : Head Side Flange Type
- C : Single Clevis Type
- D : Double Clevis Type
- T : Head Side Trunnion Type
- U : Rod Side Trunnion Type
- E : Integrated Clevis Type
- BZ : Boss-Cut Basic Type
- FZ : Boss-Cut Flange Type
- UZ : Boss-Cut Trunnion Type

3 Bore Size(mm)
- 20: ϕ20
- 25: ϕ25
- 32: ϕ32
- 40: ϕ40

4 Stroke/mm
- ϕ20 : 25, 50, 75, 100, 125, 150
- ϕ25 : 25, 50, 75, 100, 125, 150
- 32 : 25, 50, 75, 100, 125, 150, 200
- 40 : 25, 50, 75, 100, 125, 150, 200, 250

5 Action
- S : Single Acting Spring Return
- T : Single Acting Spring Extend

6 Special Option
- Blank : Standard Type
- XC16 : Copper-Free

7 Auto Switch
(Band mounted type)
(Grommet)
- Blank : None
- W5 : Reed Switch, 0.5m Lead Wire
- W5L : Reed Switch, 3m Lead Wire

8 Number of Auto Switches
- Blank : 2 pcs
- S : 1 pc
- N : N pcs

PART No. of Mounting Bracket

Bore Size(mm)	20	25, 32	40
※Axial foot	TCM-L020B	TCM-L032B	TCM-L040B
Flange	TCM-F020B	TCM-F032B	TCM-F040B
Single Clevis	TCM-C020B	TCM-C032B	TCM-C040B
Double Clevis	TCM-D020B	TCM-D032B	TCM-D040B
Trunnion (With nut)	TCM-T020B	TCM-T032B	TCM-T040B

2pcs. Required per one cylinder.

PART No. of Auto swich Mounting Band

Auto Switch	Bore Size(mm)			
Model	20	25	32	40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

Model

Bore Size(mm)		φ20	φ25	φ32	φ40
Type		Air Cylinder			
Cushion		Rubber Cushion (Standard)			
Piping Method	Screwed Type	Rc(PT)1/8	Rc(PT)1/8	Rc(PT)1/8	Rc(PT)1/4
Auto Switch (Band Mounted Type)		Reed Auto Switch /W5			

Specifications

Action		Spring Return	Spring Extended
Fluid		Air	
Proof Pressure		1.5 MPa (213psi)	
Max. Operating Pressure		1.0 MPa (140psi)	
Min. Operating Pressure		0.18Mpa (25psi)	0.23Mpa (32psi)
Ambient and Fluid Temperature		-10~+70℃ (14~158℉)	
Lubrication		None (Non-Lube)	
Thread Tolerance		KS 2 Class	
Stroke Tolerance		$^{+1.4}_{0}$ mm	
Mounting		Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Single Clevis Type, Double Clevis Type, Rod Side Trunnion Type, Head Side Trunnion Type, Integrated Clevis Type, Boss-Cut Type.	
Non-Rotating Accuracy	φ20, φ25	±0.8°	
	φ32, φ40	±0.5°	

Piston Speed

Bore Size (mm)	φ20	φ25	φ32	φ40
Piston Speed (mm/sec)	50~500			
Allowable Kinetic Energy (kgf-cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Boss-Cut Type

Boss for the head cover bracket is eliminated and the total length of the cylinder is shortened.

Compared to the Total Length of Cylinder

(Compared to the basic type) (mm)

ϕ20	ϕ25	ϕ32	ϕ40
▼13	▼13	▼13	▼16

Mounting
- Boss-Cut Basic Type(BZ)
- Boss-Cut Flange Type(FZ)
- Boss-Cut Trunnion Type(UZ)

※ Spring return/( ):spring exlended

Mounting and Accessories

Accessories / Mounting	Standard			Option	
	Mounting Nut	Rod End Nut	Clevis Pin	Single Knuckle Joint	Double Knuckle Joint
Basic Type	○(1pc.)	○	-	○	○
Axial Foot Type	○(2)	○	-	○	○
Rod Side Flange Type	○(1)	○	-	○	○
Head Side Flange Type	○(1)	○	-	○	○
Integrated Clevis Type	-	○	-	○	○
Single Clevis Type	-	○	-	○	○
Double Clevis Type	-	○	○	○	○
Head Side Trunnion Type	○(1)	○	-	○	○
Rod Side Trunnion Type	○(1)	○	-	○	○
Boss-Cut Basic Type	○(1)	○	-	○	○
Boss-Cut Flange Type	○(1)	○	-	○	○
Boss-Cut Trunnion Type	○(1)	○	-	○	○
Note					With pin

Single Acting Spring Return(Spring Extended)

kgf

Bore Size(mm)		ϕ20	ϕ25	ϕ32	ϕ40
Basic Weight	25 Stroke	0.21(0.20)	0.31(0.30)	0.43(0.41)	0.78(0.75)
	50 Stroke	0.23(0.21)	0.34(0.33)	0.48(0.45)	0.86(0.83)
	75 Stroke	0.29(0.25)	0.43(0.41)	0.61(0.56)	1.08(0.99)
	100 Stroke	0.31(0.27)	0.47(0.44)	0.66(0.60)	1.14(1.06)
	125 Stroke	0.38(0.33)	0.56(0.52)	0.81(0.73)	1.34(1.23)
	150 Stroke	0.39(0.34)	0.59(0.55)	0.85(0.76)	1.39(1.31)
	175 Stroke	-(-)	-(-)	1.04(0.93)	1.71(1.54)
	200 Stroke	-(-)	-(-)	-(-)	2.00(1.78)
Mounting Bracket Weight	Foot type	0.15(0.15)	0.16(0.16)	0.16(0.16)	0.27(0.28)
	Flange type	0.06(0.06)	0.09(0.09)	0.09(0.09)	0.12(0.12)
	Single clevis type	0.04(0.04)	0.04(0.04)	0.04(0.04)	0.09(0.09)
	Double Knuckle Joint(with PIN) type	0.05(0.05)	0.06(0.06)	0.06(0.06)	0.13(0.13)
	Double clevis type	0.04(0.05)	0.07(0.07)	0.07(0.07)	0.10(0.11)
	Trunnion type	-0.02(-0.02)	-0.02(-0.02)	-0.01(-0.01)	-0.04(-0.04)
	Intergrated clevis type	-0.01(-0.01)	-0.02(-0.02)	-0.02(-0.02)	-0.03(-0.03)
	Boss-cut basic type	0.05(0.05)	0.07(0.07)	0.07(0.07)	0.09(0.09)
	Boss-cut flange type	0.03(0.03)	0.05(0.05)	0.05(0.05)	0.07(0.07)
Accessories	Boss-cut trunnion type	0.06(0.06)	0.06(0.06)	0.06(0.06)	0.23(0.23)
	Single knuckle joint type	0.07(0.07)	0.07(0.07)	0.07(0.07)	0.20(0.21)

Calculation
Example:AXKL32-100S(Bore size ϕ32, Foot type, 100st)
Basic weight…0.66+(Mounting bracket weight)0.16=0.82kgf

Precautions

Be sure to read before handling. Refer to P A-2 for safety instructions and common precautions.

Handling

- Avoid using the air cylinder in such a way that rotaional torque would be applied to the piston rod.
  If rotational torque is applied, the non-rotation guide will become deformed, thus affecting the non-roating accuracy.
  Refer to table bellow for the approximate values of the allowable range of rotational forque.

Allowable rotational torque	ϕ20	ϕ25	ϕ32	ϕ40
kg · f · cm	2.0	2.5	2.5	4.5

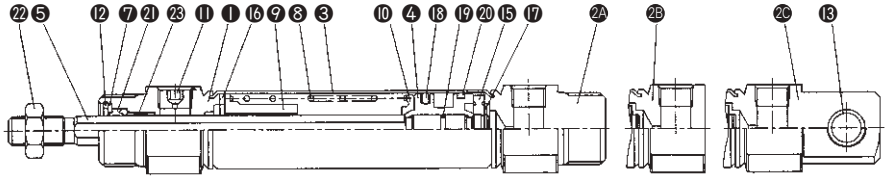
- The cyilnder has been lubricated for life at the factory and can be used without any further lubrication.
- Howerer, in the event that it will be lubricated, use class 1 turbine oil (with no additives) ISO VG32.

Mounting/Piping

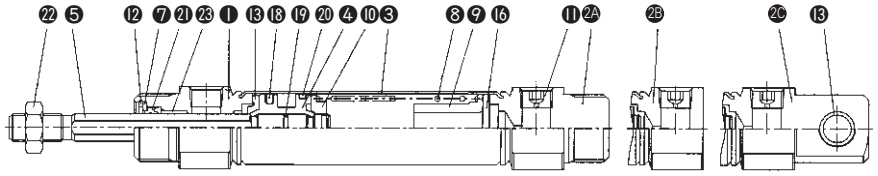
- To screw a bracket or a nut onto the threaded portion at the tip of the piston rod, make sure to retract the pistion rod entirely, and place a wrench over the flat portion of the rod that protrades. To tighten, take precautions to prevent the tightening torque from being applied to the non-roating guide.
- Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove cutting chips, cutting oil and other debris from inside the pipe.

Construction / Parts List

Spring Return Type



Spring Extended Type



Parts List

No.	Description	Material	Remarks
❶	Rod Cover	Alluminum Alloy	White Alumite
2A	Head Cover-A	Alluminum Alloy	White Alumite
2B	Head Cover-B	Alluminum Alloy	White Alumite
2C	Head Cover-C	Alluminum Alloy	White Alumite
❸	Cylinder Tube	Stainless Steel	
❹	Piston	Alluminum Alloy	Chromate
❺	Piston Rod	Stainless Steel	
❻	Guide Bush	Lead Bronze Casting	
❼	Retaining Ring	Rolled Steel	Nickel Plated
❽	Spring return	Steel Wire	Zinc Chromate
❾	Spring Guide	Alluminum Alloy	Chromate
❿	Spring maintenance	Alluminum Alloy	Chromate
⓫	Fixed orifice mounted plug	Alloy Steel	Black Zinc Chromate
⓬	Stopper ring	Carbon Tool Steel	Nickel Plated
⓭	Bush for clevis	Lead Bronze Casting	

No.	Description	Material	Remarks
⓯	DAMPER A	Urethome	
⓰	DAMPER B	Urethome	
⓱	Stopper ring	Carbon Tool steel	
⓲	Piston Paeking	NBR	
⓳	Piston Gasket	NBR	
⓴	Wear ring	Resin	
㉒	Rod End Nut	Carbon steel	Nickel Plated
㉓	Bush		

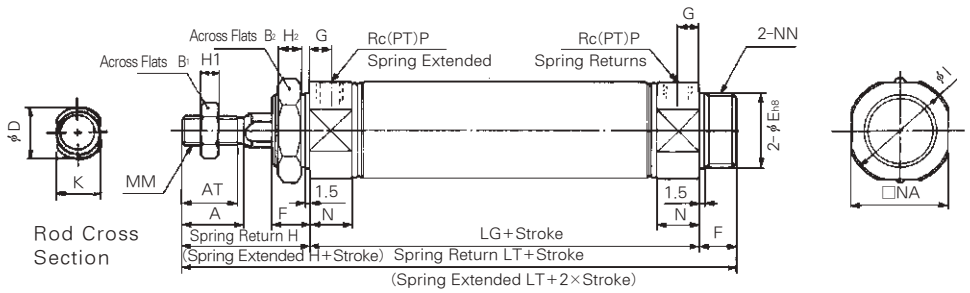
SPARE Parts

No.	Description	Material	Bore Size(mm)			
			20	25	32	40
㉑	Rod Packing	NBR	SORA-10	SORA-10	SORA-12	SORA-16

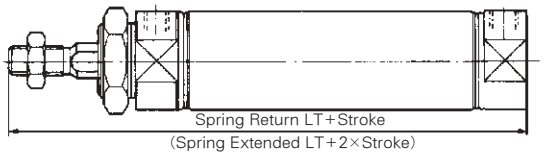
Basic Type (B)

AXKB (Bore Size)–(Stroke) S / T

Basic Type



Boss-Cut Type



※ This drawing is spring extended

(mm)

Bore Size	A	AT	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P
φ20	18	15.5	13	26	10 $^{-0.01}_{-0.05}$	20 $^{0}_{-0.033}$	13	8	41	5	8	27	8 $^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8
φ25	18	15.5	17	32	10 $^{-0.01}_{-0.05}$	26 $^{0}_{-0.033}$	13	8	45	6	8	33	8 $^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8
φ32	22	19.5	17	32	12 $^{-0.01}_{-0.05}$	26 $^{0}_{-0.033}$	13	8	45	6	8	37.5	10 $^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8
φ40	24	21	22	41	16 $^{-0.01}_{-0.05}$	32 $^{0}_{-0.039}$	16	11	50	8	10	46.5	14 $^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M32×2	1/4

Stroke Dimension Adder

(mm)

Bore Size \ Stroke Symbol	1~50		51~100		101~150		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
φ20	87	141	112	166	137	191	–	–	–	–
φ25	87	145	112	170	137	195	–		–	–
φ32	89	147	114	172	139	197	164	222	–	–
φ40	113	179	138	204	163	229	188	254	213	279

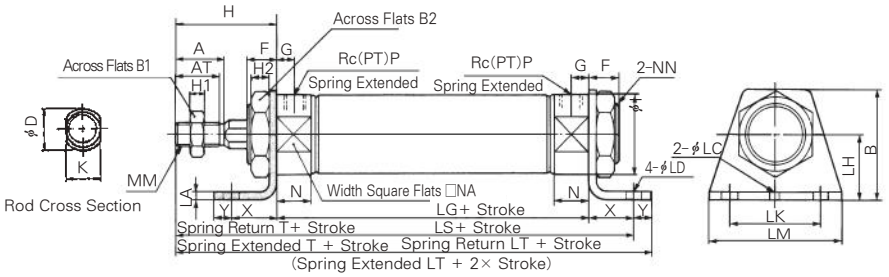
Boss-Cut Type

(mm)

Bore Size \ Stroke Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
φ20	128	153	178	–	–
φ25	132	157	182	–	–
φ32	134	159	184	209	–
φ40	163	188	213	238	263

Foot Type(L)

AXKL (Bore Size)–(Stroke) S/T



※ This drawing is spring extended (mm)

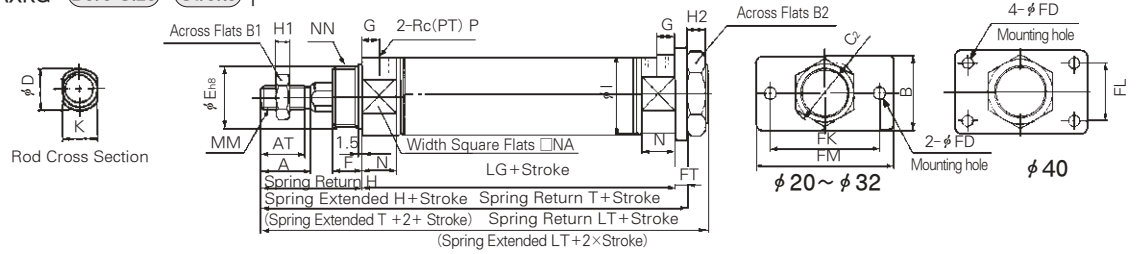
Bore Size	A	AT	B	B_1	B_2	D	F	G	H	H_1	H_2	I	K	LC	LD	LH	LA	LK	LM	MM	N	NA	NN	P	X	Y	T
φ20	18	15.5	40	13	26	$10^{-0.01}_{-0.05}$	13	8	41	5	8	27	$8^{-0.01}_{-0.05}$	4	6.8	25	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	20	8	21
φ25	22	19.5	47	17	32	$10^{-0.01}_{-0.05}$	13	8	45	6	8	33	$8^{-0.01}_{-0.05}$	4	6.8	28	3.2	40	55	M8×1.25	15	30	M26×1.5	1/8	20	8	25
φ32	22	19.5	47	17	32	$12^{-0.01}_{-0.05}$	13	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	4	6.8	28	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	20	8	25
φ40	24	21	54	22	41	$16^{-0.01}_{-0.05}$	16	11	50	8	10	46.5	$14^{-0.01}_{-0.05}$	4	7	30	3.2	55	75	M14×1.5	21.5	42.5	M32×2	1/4	23	10	27

Stroke Dimension Adder

Stroke / Symbol / Bore Size	1~50			51~100			101~150			151~200			201~250		
	LG	LS	LT	LG	LS	LT	LG	LS	LT	LG	LS	LT	LG	LS	LT
φ20	87	127	156	112	152	181	137	177	206	–	–	–	–	–	–
φ25	87	127	160	112	152	185	137	177	210	–	–	–	–	–	–
φ32	89	129	162	114	154	187	139	179	212	164	204	237	–	–	–
φ40	113	159	196	138	184	221	163	209	246	188	234	271	213	259	296

Head Side Flange Type(G)

AXKG (Bore Size)–(Stroke) S/T



※ This drawing is spring extended (mm)

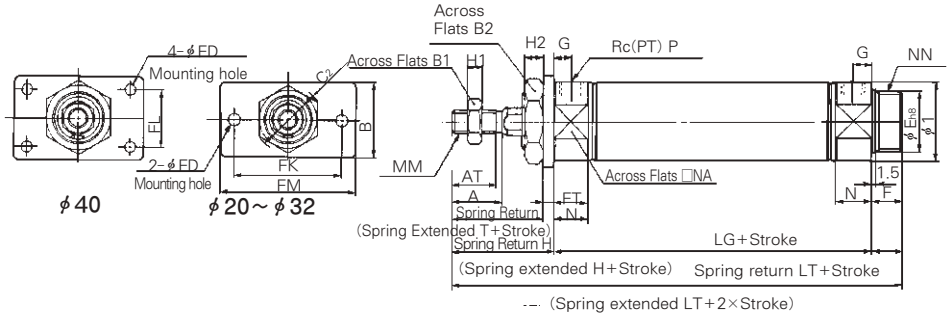
Bore Size	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM	N	NA	NN	P	T
φ20	18	15.5	34	13	26	30	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	$8^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8	37
φ25	22	19.5	40	17	32	37	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	$8^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8	41
φ32	22	19.5	40	17	32	37	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8	41
φ40	24	21	52	22	41	47.3	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	11	46.5	$14^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M30×2	1/4	45

Stroke Dimension Adder (Unit : mm)

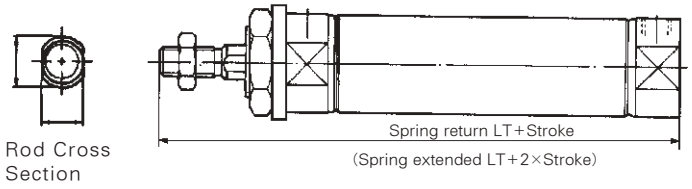
Stroke / Symbol / Bore Size	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	132	141	112	157	166	137	182	191	–	–	–	–	–	–
φ25	87	136	145	112	161	170	137	186	195	–	–	–	–	–	–
φ32	89	138	147	114	163	172	139	188	197	164	213	222	–	–	–
φ40	113	168	179	138	193	204	163	218	229	188	243	254	213	268	279

Rod Side Flange Type(F)

AXKF (Bore Size)–(Stroke) S/T



Boss-Cut type



※ This drawing is spring extended

(mm)

Bore Size	A	AT	B	B_1	B_2	C_2	D	E	F	FD	FT	FK	FL	FM	G	H	H_1	H_2	I	K	MM	N	NA	NN	P	T
φ20	18	15.5	34	13	26	30	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	7	4	60	–	75	8	41	5	8	27	$8^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8	37
φ25	22	19.5	40	17	32	37	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	33	$8^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8	41
φ32	22	19.5	40	17	32	37	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	7	4	60	–	75	8	45	6	8	37.5	$10^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8	41
φ40	24	21	52	22	41	47.3	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	7	5	66	36	82	11	50	8	10	46.5	$14^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M32×2	1/4	45

Stroke Dimension Adder

(mm)

Bore Size \ Stroke / Symbol	1~50		51~100		101~150		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
φ20	87	141	112	166	137	191	–	–	–	–
φ25	87	145	112	170	137	195	–		–	–
φ32	89	147	114	172	139	197	164	222	–	–
φ40	113	179	138	204	163	229	188	254	213	279

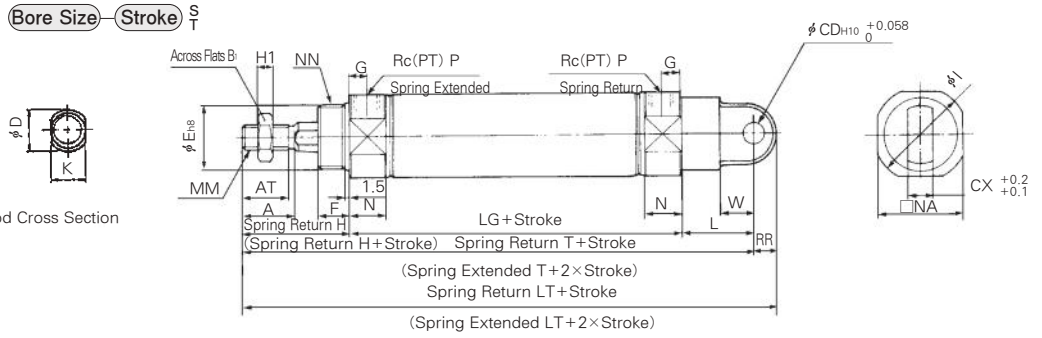
Boss-Cut Type/Distinction of Stroke

(mm)

Bore Size \ Stroke / Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
φ20	128	153	178	–	–
φ25	132	157	182	–	–
φ32	134	159	184	209	–
φ40	163	188	213	238	263

Single Clevis Type (C)

AXKG (Bore Size)–(Stroke) S T



Rod Cross Section

※ This drawing is spring extended

(mm)

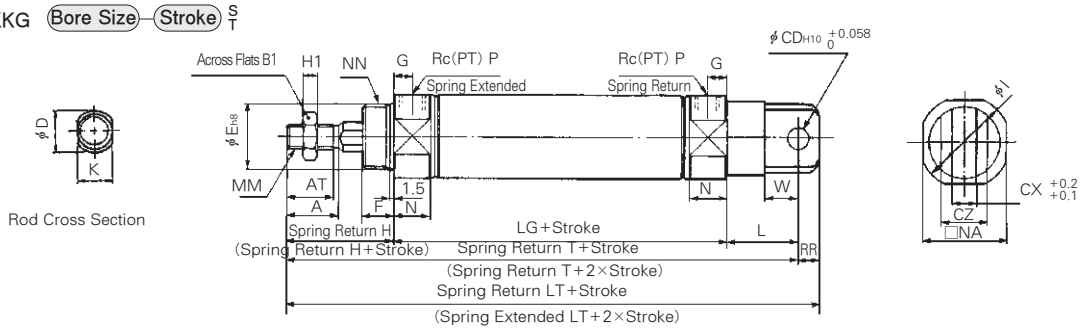
Bore Size	A	AT	B1	CD	CX	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	W
φ20	18	15.5	13	9	10	10 -0.01 -0.05	20 0 -0.033	13	8	41	5	27	8 -0.01 -0.05	30	M8×1.25	15	24	M20×1.5	1/8	9	14
φ25	22	19.5	17	9	10	10 -0.01 -0.05	26 0 -0.033	13	8	45	6	33	8 -0.01 -0.05	30	M8×1.25	15	30	M26×1.5	1/8	9	14
φ32	22	19.5	17	9	10	12 -0.01 -0.05	26 0 -0.033	13	8	45	6	37.5	10 -0.01 -0.05	30	M10×1.25	15	34.5	M26×1.5	1/8	9	14
φ40	24	21	22	10	15	16 -0.01 -0.05	32 0 -0.039	16	11	50	8	46.5	14 -0.01 -0.05	39	M14×1.5	21.5	42.5	M32×2	1/4	11	18

Stroke Dimension Adder

Bore Size \ Stroke Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	158	167	112	183	192	137	208	217	–	–	–	–	–	–
φ25	87	162	171	112	187	196	137	212	221	–	–	–	–	–	–
φ32	89	164	173	114	189	198	139	214	223	164	239	248	–	–	–
φ40	113	202	213	138	227	238	163	252	263	188	277	288	213	302	313

Double Clevis Type (D)

AXKG (Bore Size)–(Stroke) S T



Rod Cross Section

※ This drawing is spring extended

(mm)

Bore Size	A	AT	B1	CD	CX	CZ	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	W
φ20	18	15.5	13	9	10	19	10 -0.01 -0.05	20 0 -0.033	13	8	41	5	27	8 -0.01 -0.05	30	M8×1.25	15	24	M20×1.5	1/8	9	14
φ25	22	19.5	17	9	10	19	10 -0.01 -0.05	26 0 -0.033	13	8	45	6	33	8 -0.01 -0.05	30	M8×1.25	15	30	M26×1.5	1/8	9	14
φ32	22	19.5	17	9	10	19	12 -0.01 -0.05	26 0 -0.033	13	8	45	6	37.5	10 -0.01 -0.05	30	M10×1.25	15	34.5	M26×1.5	1/8	9	14
φ40	24	21	22	10	15	30	16 -0.01 -0.05	32 0 -0.039	16	11	50	8	46.5	14 -0.01 -0.05	39	M14×1.5	21.5	42.5	M32×2	1/4	11	18

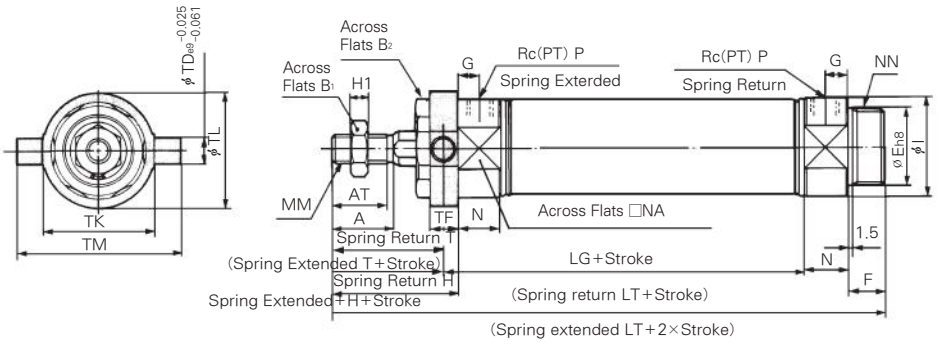
Stroke Dimension Adder

(Unit : mm)

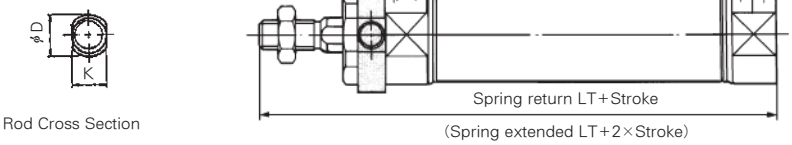
Bore Size \ Stroke Symbol	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
φ20	87	158	167	112	183	192	137	208	217	–	–	–	–	–	–
φ25	87	162	171	112	187	196	137	212	221	–	–	–	–	–	–
φ32	89	164	173	114	189	198	139	214	223	164	239	248	–	–	–
φ40	113	202	213	138	227	238	163	252	263	188	277	288	213	302	313

Rod Side Trunnion Type(U)

AXKU (Bore Size) — (Stroke) S T



Boss-cut type



※ This drawing is spring extended

(mm)

Bore Size	A	AT	B1	B2	D	E	F	G	H	H1	I	K	MM	N	NA	NN	P	TD	TF	TK	TL	TM	T
ϕ20	18	15.5	13	26	10 -0.01 -0.05	20 0 -0.033	13	8	41	5	27	8 -0.01 -0.05	M8×1.25	15	24	M20×1.5	1/8	8	10	32	32	52	36
ϕ25	22	19.5	17	32	10 -0.01 -0.05	26 0 -0.033	13	8	45	6	33	8 -0.01 -0.05	M8×1.25	15	30	M26×1.5	1/8	9	10	40	40	60	40
ϕ32	22	19.5	17	32	12 -0.01 -0.05	26 0 -0.033	13	8	45	6	37.5	10 -0.01 -0.05	M10×1.25	15	34.5	M26×1.5	1/8	9	10	40	40	60	40
ϕ40	24	21	22	41	16 -0.01 -0.05	32 0 -0.039	16	11	50	8	46.5	14 -0.01 -0.05	M14×1.5	21.5	42.5	M32×2	1/4	10	11	53	53	77	44.5

Stroke Dimension Adder

(mm)

Bore Size \ Stroke Symbol	1~50		51~100		101~150		151~200		201~250	
	LG	LT	LG	LT	LG	LT	LG	LT	LG	LT
ϕ20	87	141	112	166	137	191	–	–	–	–
ϕ25	87	145	112	170	137	195	–		–	–
ϕ32	89	147	114	172	139	197	164	222	–	–
ϕ40	113	179	138	204	163	229	188	254	213	279

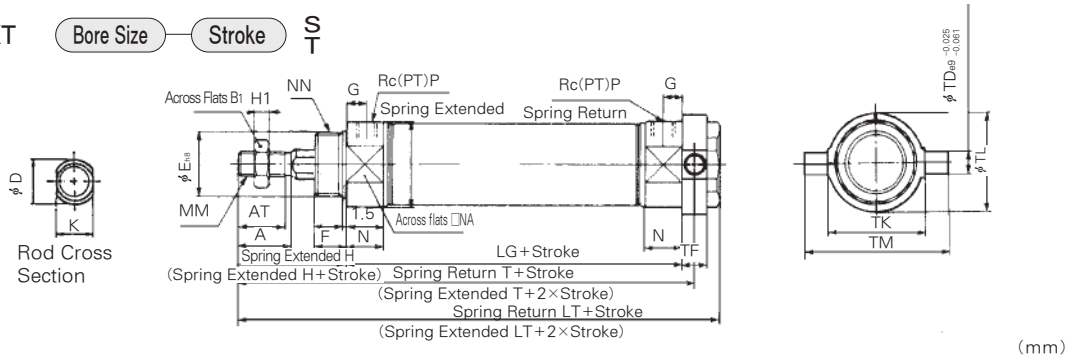
Boss-Cut Type

(mm)

Bore Size \ Stroke Symbol	1~50	51~100	101~150	151~200	201~250
	LT	LT	LT	LT	LT
ϕ20	128	153	178	–	–
ϕ25	132	157	182	–	–
ϕ32	134	159	184	209	–
ϕ40	163	188	213	238	263

Head Side Trunnion Type (T)

AXKT Bore Size — Stroke S T



(mm)

Bore Size	A	AT	B_1	B_2	D	E	F	G	H	H_1	I	K	MM	N	NA	NN	P	TD	TF	TK	TL	TM
ϕ20	18	15.5	13	26	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	27	$8^{-0.01}_{-0.05}$	M8×1.25	15	24	M20×1.5	1/8	8	10	32	32	52
ϕ25	22	19.5	17	32	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	33	$8^{-0.01}_{-0.05}$	M8×1.25	15	30	M26×1.5	1/8	9	10	40	40	60
ϕ32	22	19.5	17	32	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	37.5	$10^{-0.01}_{-0.05}$	M10×1.25	15	34.5	M26×1.5	1/8	9	10	40	40	60
ϕ40	24	21	22	41	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	46.5	$14^{-0.01}_{-0.05}$	M14×1.5	21.5	42.5	M32×2	1/4	10	11	53	53	77

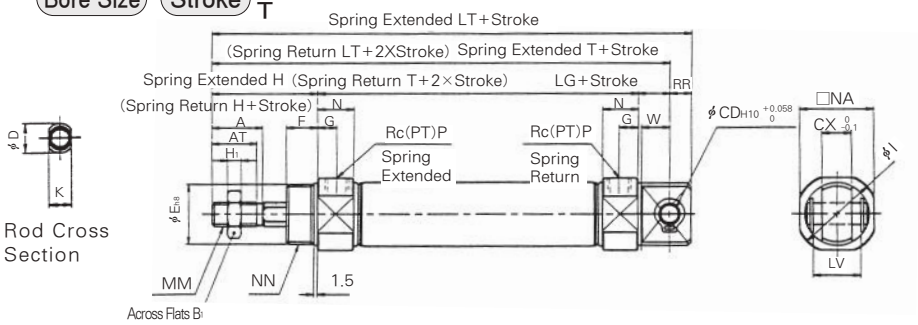
Stroke Dimension Adder

(mm)

Stroke / Symbol / Bore Size	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
ϕ20	87	133	143	112	158	168	137	183	193	–	–	–	–	–	–
ϕ25	87	137	147	112	162	172	137	187	197	–	–	–	–	–	–
ϕ32	89	139	149	114	164	174	139	189	199	164	214	224	–	–	–
ϕ40	113	168.5	179	138	193.5	204	163	218.5	229	188	243.5	254	213	268.5	279

Single Clevis Type(E)

AXKE Bore Size — Stroke S T



(mm)

Bore Size	A	AT	B_1	CD	CX	D	E	F	G	H	H_1	I	K	L	LV	MM	N	NA	NN	P	RR	W
ϕ20	18	15.5	13	8	12	$10^{-0.01}_{-0.05}$	$20^{0}_{-0.033}$	13	8	41	5	27	$8^{-0.01}_{-0.05}$	12	18.4	M8×1.25	15	24	M20×1.5	1/8	9	11.5
ϕ25	22	19.5	17	8	12	$10^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	33	$8^{-0.01}_{-0.05}$	12	18.4	M8×1.25	15	30	M26×1.5	1/8	9	11.5
ϕ32	22	19.5	17	10	20	$12^{-0.01}_{-0.05}$	$26^{0}_{-0.033}$	13	8	45	6	37.5	$10^{-0.01}_{-0.05}$	15	28	M10×1.25	15	34.5	M26×1.5	1/8	12	14.5
ϕ40	24	21	22	10	20	$16^{-0.01}_{-0.05}$	$32^{0}_{-0.039}$	16	11	50	8	46.5	$14^{-0.01}_{-0.05}$	15	28	M14×1.5	21.5	42.5	M32×2	1/4	12	14.5

Stroke Dimension Adder

(mm)

Stroke / Symbol / Bore Size	1~50			51~100			101~150			151~200			201~250		
	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT	LG	T	LT
ϕ20	87	140	149	112	165	174	137	190	199	–	–	–	–	–	–
ϕ25	87	144	153	112	169	178	137	194	203	–	–	–	–	–	–
ϕ32	89	149	161	114	174	186	139	199	211	164	224	236	–	–	–
ϕ40	113	178	190	138	203	215	163	228	240	188	253	265	213	278	290

Series AXR

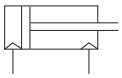
Direct Mounting Cylinder/Double Acting Single Rod

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- ADJUSTABLE STROKE AVAILABLE
- REPLACEABLE ROD GLAND

Symbol

Double Acting / Single Rod



How to Order

AXR — A — 20 — 25 — ○ — W5 — □

1 2 3 4 5 6 7

1 Direct Mount

2 Mounting
- A : Rear Pivot Mounting
- B : Front Face Mounting

3 Bore Size(mm)
- 20 : ϕ20
- 25 : ϕ25
- 32 : ϕ32
- 40 : ϕ40

4 Stroke/mm
- ϕ20 : 25, 50, 75, 100, 125, 150
- ϕ25 : 25, 50, 75, 100, 125, 150, 200
- ϕ32 : 25, 50, 75, 100, 125, 150, 200
- ϕ40 : 25, 50, 75, 100, 125, 150, 200, 250, 300

5 Series
- Blank : Standard type
- XC16 : Copper-free

6 Auto Switch
(Band Mounted Type)
〈Grommet〉
- Blank : None
- W5 : Reed Switch, 0.5m Lead Wire
- W5L : Reed Switch, 3m Lead Wire

7 Number of Auto Switches
- Blank : 2 pcs
- S : 1 pc
- N : N pcs

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore size (mm)			
	ϕ20	ϕ25	ϕ32	ϕ40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

- **Using the square rod cover, it is preferred to install the AXR Series direct mounting cylinder.**
- **Configuration with space saving**
  Its overall length is shorter, and its installation pitch can be made smaller since a directly mounted style can be possible without using brackets, so that the space needed for installation is significantly reduced.
- **Installstion with enhanced accuracy and strength**
  The installation accuracy can be improved using a centering boss since it is the directly mounted style, and the strength has been increased.
- **Two different styles in installation**
  The installation may be provided with two styles and may be selected based on the purpose : Thus, the front mounting style or the bottom mounting style.

Specifications

Action	Double Acting Single Rod
Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa (7psi)
Ambient and Fluid Temperature	-50~158°F (-10°C~+70°C)
Lubricant	None(Non-Lube)
Stroke Tolerance	$^{+1.4}_{0}$mm
Mounting	Flush Mounting, Front Face Mounting

Piston Speed

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston Speed(mm/sec)	50~750			
Allowable Kinetic Energy(kgf-cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Mounting and Accessories

Accessories / Mounting	Standard	Option	
	Rod End Nut	Single Knuckle Joint	Double Knuckle Joint
Rear Pivot Mounting	○	○	○
Front Face Mounting	○	○	○

Weight Table

kgf(lb)

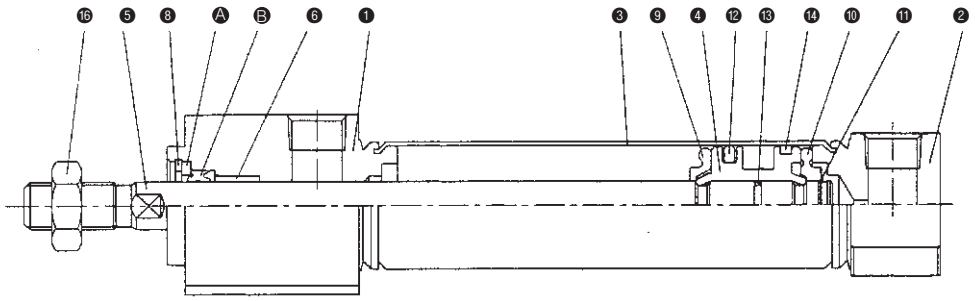
Bore size(mm)		ϕ20	ϕ25	ϕ32	ϕ40
Basic Weight	Rear Pivot Mounting	0.14 (0.31)	0.24 (0.51)	0.33 (0.7)	0.62 (1.36)
	Front Face Mounting	0.14 (0.31)	0.22 (0.48)	0.33 (0.7)	0.61 (1.34)
Additional Weight For Each 50 mm of Stroke		0.04 (0.09)	0.06 (0.13)	0.08 (0.17)	0.14 (0.28)

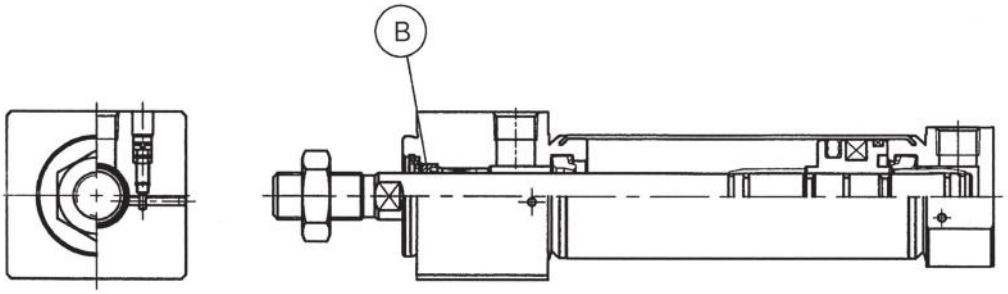
Calculation Example : AXRA 32-100

• Basic weight ··· 0.32kgf • Additional weight ··· 0.08/50 stroke • Cylinder stroke ··· 100 stroke

0.32+0.08×100/50=0.48 kgf

Construction/Parts List





Parts List

No.	Description	Material	Remarks
❶	Rod Cover	Aluminum Alloy	White Alumite
❷	Head Cover	Aluminum Alloy	White Alumite
❸	Cylinder Tube	Stainless Steel	
❹	Piston	Aluminum Alloy	Chromate
❺	Piston Rod	Carbon Steel	Hard Chrome Plated
❻	Bushing	Sintered BR	
Ⓐ	Packing	NBR	Nickel Plated
❽	Retaining Ring	Carbon Steel	Nickel Plated
❾	Bumper A	Urethane	
❿	Bumper B	Urethane	
⓫	Retaining Ring	Carbon Tool Steel	
⓬	Piston Packing	NBR	
⓭	Piston Packing	NBR	
⓮	Wear Ring		
⓰	Rod End Nut	Carbon Steel	Nickel Plated

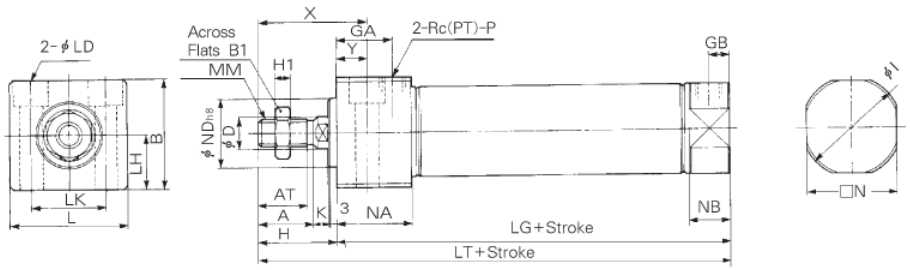
Packing List

Rubber Cushion / Air Cushion

No.	Decription	Material	Type	Bore Size			
				20	25	32	40
Ⓑ	Rod Packing	NBR	Rubber Cushion	PDU-8LZ	PDU-10LZ	PDU-12LZ	PDU-14LZ
			Air Cushion	PDU-8Z	PDU-10Z	PDU-12Z	PDU-14Z

Rear Pilot Mounting

AXRA Bore Size — Stroke



(Unit:mm)

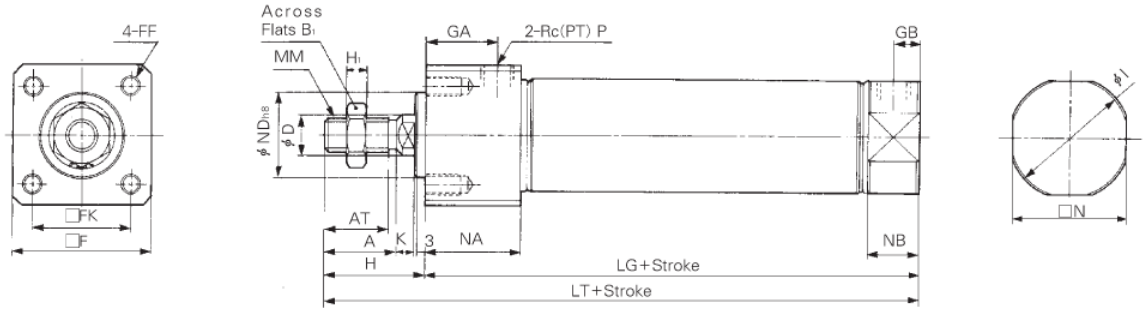
Bore size	Stroke range
φ20	~150
φ25	~200
φ32	~200
φ40	~300

(Unit:mm)

Bore Size	A	AT	B	B1	D	GA	GB	H	H1	I	K	L	LD	LH	LK	MM	N	NA	NB	ND	P	LG	X	Y	LT
φ20	18	15.5	30.3	13	8	22	8	27	5	27	5	33.5	φ5.5, φ9.5C-BORE Dp6.5	15	21	M8×1.25	24	29	15	$20^{0}_{-0.033}$	1/8	76	39	12	103
φ25	18	19.5	36.3	17	10	22	8	31	6	33	5.5	39	φ6.6, φ11C-BORE Dp7.5	18	25	M10×1.25	30	29	15	$26^{0}_{-0.033}$	1/8	76	43	12	107
φ32	22	19.5	42.3	17	12	22	8	31	6	37.5	5.5	47	φ9, φ14C-BORE Dp10	21	30	M10×1.25	34.5	29	15	$26^{0}_{-0.033}$	1/8	78	43	12	109
φ40	24	21	52.3	22	14	27	11	34	8	46.5	7	58.5	φ11, φ17.5C-BORE Dp12.5	26	38	M14×1.5	42.5	37.5	21.5	$32^{0}_{-0.039}$	1/4	104	49	15	138

Front Side Mounting

AXRB Bore Size — Stroke



(Unit : mm)

Bore Size	A	AT	B1	D	F	FF	FK	GA	GB	H	H1	I	K	MM	N	NA	NB	ND	P	LG	LT	Stroke
φ20	18	15.5	13	8	30.4	M5×0.8Depth9	22	22	8	27	5	27	5	M8×1.25	24	29	15	$20^{0}_{-0.033}$	1/8	76	103	~150
φ25	22	19.5	17	10	36.4	M6×1Depth11	26	22	8	31	6	33	5.5	M10×1.25	30	29	15	$26^{0}_{-0.033}$	1/8	76	107	~200
φ32	22	19.5	17	12	42.4	M6×1Depth11	30	22	8	31	6	37.5	5.5	M10×1.25	34.5	29	15	$26^{0}_{-0.033}$	1/8	78	109	~200
φ40	24	21	22	14	52.4	M8×1.25Depth14	36	27	11	34	8	46.5	7	M14×1.5	42.5	37.5	21.5	$32^{0}_{-0.039}$	1/4	104	138	~300

① Adjustable Stroke Cylinder/Extension Adjustable Type

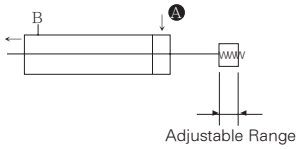
AXR (Mounting) (Bore Size) — (Stroke) (Stroke Adjusting Symbol) — XC8

• **Stroke adjusting symbol**

A-Stroke Adjusting Range 0~25 mm
B-Stroke Adjusting Range 0~50 mm

The extended stroke of the cylinder can be adjusted by the stopper on the head side from full stroke (0~25) mm or (0~50) mm.

Symbol

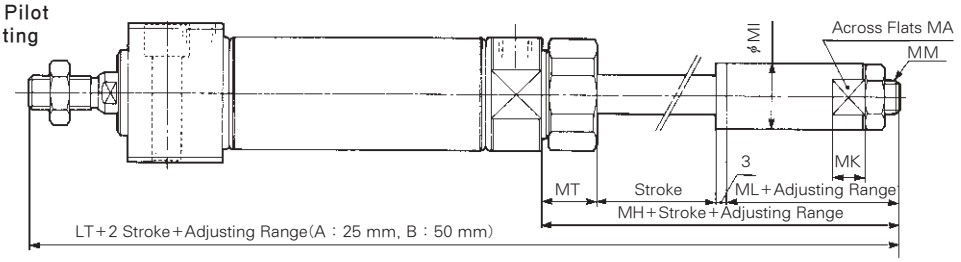


Specifications

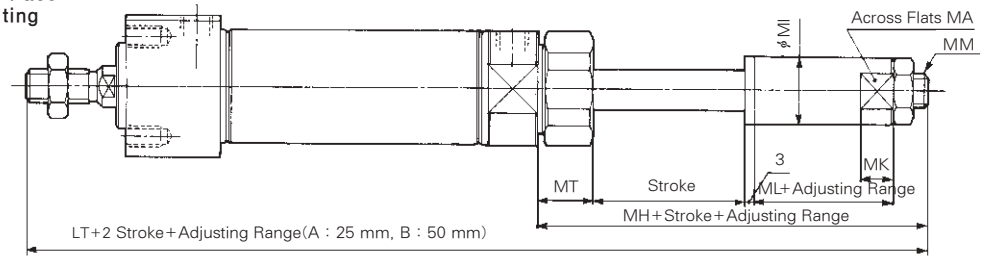
Type	Air Cylinder
Applicable Bore Size	ϕ20, ϕ25, ϕ32, ϕ40
Action	Double Acting Single Rod
Piston Speed(mm/sec)	50~750
Cushion	Rubber Cushion(Standard)
Stroke Adjusting System	Stopper Adjustment
Stroke Adjusting Range	A:0~25 mm, B : 0~50 mm
Mounting	Rear Pivot Mounting, Front Nose Mounting

Dimensions

Rear Pilot Mounting



Front Face Mounting



(mm)

Bore Size	MA	MH	MI	MK	ML	MM	MT	LT
ϕ20	12	47	15	8	18	M8×1.25	16.5	150
ϕ25	17	49	20	10	18	M8×1.25	17.5	156
ϕ32	17	49	20	10	18	M10×1.25	17.5	158
ϕ40	22	60	25	12	22	M14×1.5	21.5	198

※ Other dimensions are the same as for standard type.

② Adjustable Stroke Cylinder/Retraction Adjustable Type

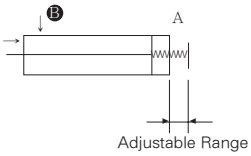
AXR (Mounting) (Bore Size) — (Stroke) (Stroke Adjusting Symbol) — XC9

Stroke Adjusting Symbol

A-Stroke Adjusting Range 0~25 mm
B-Stroke Adjusting Range 0~50 mm

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

Symbol

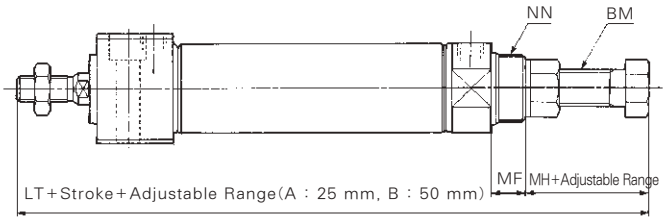


Specifications

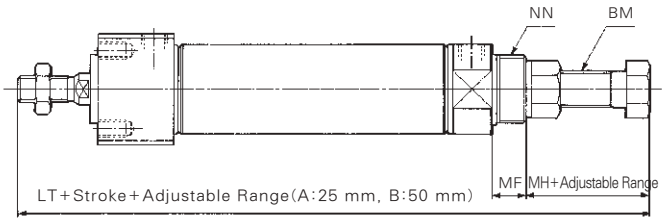
Type	Air Cylinder
Applicable Bore Size	ϕ20, ϕ25, ϕ32, ϕ40
Action	Double Acting Single Rod
Piston Speed(mm/sec)	50~750
Cushion	Rubber Cushion(Standard)
Stroke Adjusting System	Stopper Adjustment
Stroke Adjusting Range	A:0~25 mm, B : 0~50 mm
Mounting	Rear Pivot Mounting, Front Nose Mounting

Dimensions

Rear Pilot Mounting



Front Face Mounting



(Unit : mm)

Bore Size	BM	MF	MH	NN	LT
ϕ20	M8×1.25	13	20	M20×1.5	136
ϕ25	M8×1.25	13	20	M26×1.5	140
ϕ32	M10×1.25	13	20	M26×1.5	142
ϕ40	M12×1.75	16	24	M30×2	178

※ Other dimensions are the same for standard type.

Series AXRK

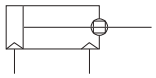
Non-Rotating Piston Rod Direct Mounting type

Bore Size(mm) : Ø20, Ø25, Ø32, Ø40

- DIRECT MOUNT CYLINDER
- HIGH ANTI-ROTATING ACCURACY
- SPACE SAVING CYLINDER
- SQUARE ROD COVER MAKES DIRECT MOUNTING POSSIBLE

Symbol

Double acting/Single rod
Non-rotating Piston rod



How to Order

AXRK [1] A [2] 20 [3] — 50 [4] — ( ) [5] — W5 [6] ( ) [7]

[1] Type
Non-Rotating/
Direct Pivot

[2] Mounting
A : Rear Pilot mounting
B : Front side mounting

[3] Bore Size(mm)
20 : ϕ20
25 : ϕ25
32 : ϕ32
40 : ϕ40

[4] Stroke(mm)
ϕ20 : 25, 50, 75, 100, 125, 150
ϕ25 : 25, 50, 75, 100, 125, 150, 200
ϕ32 : 25, 50, 75, 100, 125, 150, 200
ϕ40 : 25, 50, 75, 100, 125, 150, 200, 250, 300

[5] Special Options
Blank : Standard type
XC16 : Copper-free

[6] Auto Switch
(Band mounted type)
〈Grommet〉
Blank : None
W5 : Reed Switch, 0.5m Lead wire
W5L : Reed Switch, 3m Lead wire

[7] Number of Auto Switches
Blank : 2 pcs
S : 1 pc
N : N pcs

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore size(mm)			
	20	25	32	40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

- AXRK Series
- The Driect mounting of AXRK Series
  ϕ20, ϕ25 – ±0.8°
  ϕ32, ϕ40 – ±0.5°
- Accuracy with high non-rotation
  f20, f25 – ±0.8°
  f32, f40 – ±0.5°
- Configuration featuring space saving advantage
  Since a directly mounted style is adapted with no use of brackets, its entire length is shorter, and its installation pitch may be set smaller. So, the space required for installation is significanfly reduced.
- Enhanced accuracy and strength for installatin
  The installation accuracy is enhanced using a centering boss based on its directly mounted style, and the strength has also been enhanced.
- Two different installation available
  Two different installations are available and selectable based on their purpose of use : the front mounting method or the bottom mounting method.

Specifications

• Mounting Autoswitch : Existing Plug point

Front Face Mounting

Rear Pivot Mounting

• Calculation Example : AXRKA 32-100
• Basic Weigut ··· 0.32kgf
• Additional Weight ··· 0.09kgf
• Cylmder stroke ··· 100mm
0.32+0.09×100/50=0.50kgf

Specifications

Action	Double acting single rod
Fluid	Air
Proof Pressure	1.5MPa (213psi)
Max. Operating Pressure	1.0MPa (140psi)
Min. Operating Pressure	0.05MPa 7psi)
Ambient and Fluid Temperature	-10℃~+70°C (-50~153°F)
Cushion	Rubber Cushion (Standard)
Stroke Tolerance	$^{+1.4}_{0}$ mm
Non-Rotating Accuracy	ϕ20, ϕ25:±0.8°, ϕ32, ϕ40:±5°
Mounting	Rear Pivot Mounting, Front Face mounting

Piston Speed

Bore Size(mm)	ϕ20	ϕ25	ϕ32	ϕ40
Piston Speed	50~500 mm/sec			
Allowable Kinetic Energy(kgf/cm)	2.7	4	6.5	12

Auto Switch Specifications

Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Mounting and Accessaries

Accessaries / Mounting	Standard	Option	
	Rod End Nut	Single Knuckel Joint	Double Knuckel Joint
Rear Pivot Mounting	O	O	O
Front Face Mounting	O	O	O

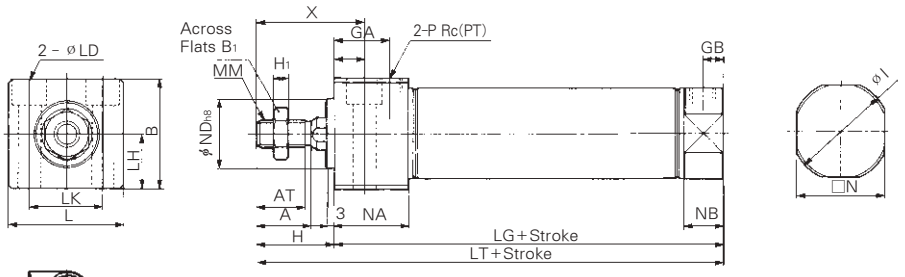
Weight Table

kgf(lbf)

Bore Size(mm)		ϕ20	ϕ25	ϕ32	ϕ40
Basic Weight	Rear Pivot Mounting	0.14	0.24	0.33	0.63
	Front Face Mounting	0.14	0.23	0.32	0.62
Additional weight for each 50 of stroke		0.04	0.07	0.09	0.15

Rear Pirot Mounting

AXRKA (Bore Size)—(Stroke)



Rod Cross Section

(mm)

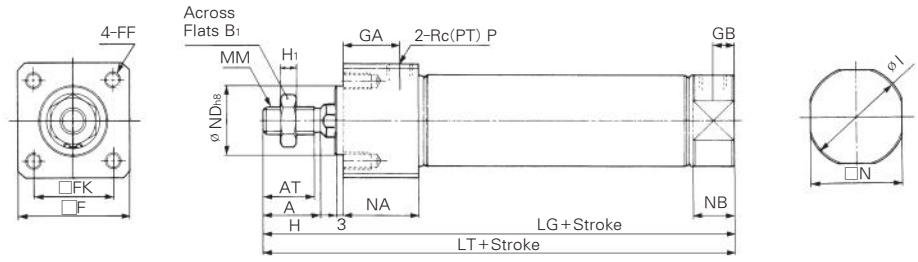
Bore size	D	K	Stroke range
ϕ20	10 $^{-0.01}_{-0.05}$	8 $^{-0.01}_{-0.05}$	~150
ϕ25	10 $^{-0.01}_{-0.05}$	8 $^{-0.01}_{-0.05}$	~200
ϕ32	12 $^{-0.01}_{-0.05}$	10 $^{-0.01}_{-0.05}$	~200
ϕ40	16 $^{-0.01}_{-0.05}$	14 $^{-0.01}_{-0.05}$	~300

(mm)

Bore size	A	AT	B	B1	GA	GB	H	H1	I	L	LD	LH	LK	MM	N	NA	NB	ND	P	LG	X	Y	LT
ϕ20	18	15.5	30.3	13	22	8	27	5	27	33.5	ϕ5.5,ϕ9.5C-BORE Dp6.5	15	21	M8×1.25	24	29	15	20 $^{0}_{-0.033}$	1/8	76	39	12	103
ϕ25	22	19.5	36.3	17	22	8	31	6	33	39	ϕ6.6,ϕ11C-BORE Dp7.5	18	25	M8×1.25	30	29	15	26 $^{0}_{-0.033}$	1/8	76	43	12	107
ϕ32	22	19.5	42.3	17	22	8	31	6	37.5	47	ϕ9,ϕ14C-BORE Dp10	21	30	M10×1.25	34.5	29	15	26 $^{0}_{-0.033}$	1/8	78	43	12	109
ϕ40	24	21	52.3	22	27	11	34	8	46.5	58.5	ϕ11,ϕ17.5C-BORE Dp12.5	26	38	M14×1.5	42.5	37.5	21.5	32 $^{0}_{-0.039}$	1/4	104	49	15	138

Front Face Mounting

AXRKB (Bore Size)—(Stroke)



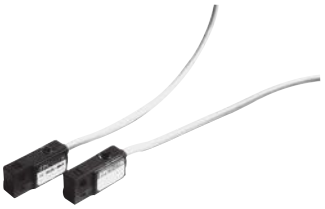
Rod Cross Section

(mm)

Bore size	D	K	Stroke range
ϕ20	10 $^{-0.01}_{-0.05}$	8 $^{-0.01}_{-0.05}$	~150
ϕ25	10 $^{-0.01}_{-0.05}$	8 $^{-0.01}_{-0.05}$	~200
ϕ32	12 $^{-0.01}_{-0.05}$	10 $^{-0.01}_{-0.05}$	~200
ϕ40	16 $^{-0.01}_{-0.05}$	14 $^{-0.01}_{-0.05}$	~300

(mm)

Bore size	A	AT	B1	F	FF	FK	GA	GB	H	H1	I	MM	N	NA	NB	ND	P	LG	LT
ϕ20	18	15.5	13	30.4	M5×0.8Dp9	22	22	8	27	5	27	M8×1.25	24	29	15	20 $^{0}_{-0.033}$	1/8	76	103
ϕ25	22	19.5	17	36.4	M6×1Dp11	26	22	8	31	6	33	M8×1.25	30	29	15	26 $^{0}_{-0.033}$	1/8	76	107
ϕ32	22	19.5	17	42.4	M6×1Dp11	30	22	8	31	6	37.5	M10×1.25	34.5	29	15	26 $^{0}_{-0.033}$	1/8	78	109
ϕ40	24	21	22	52.4	M8×1.25Dp14	36	27	11	34	8	46.5	M14×1.5	42.5	37.5	21.5	32 $^{0}_{-0.039}$	1/4	104	138



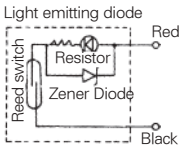
Specifications W5 (With indicator lamp)

Auto Switch Model	W5	
Application	Relay, Sequence Control	
Load Voltage	DC24V	AC100V
Max. Load Current/Range of Load Current	5~40mA	5~20mA
Protection Circuit for Contact Breaker Point	None	
Internal Voltage Drop	2.4V or less	
Indicator Lamp	ON:Red light emitting diode	

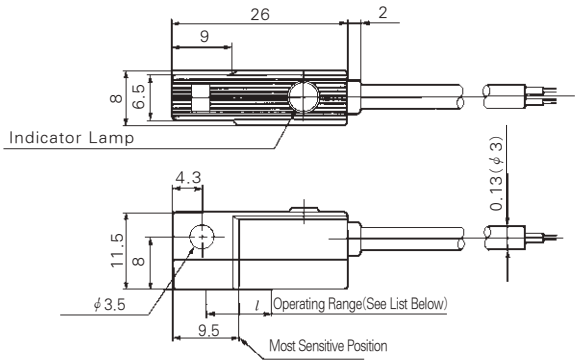
- Leakage Current – None
- Response Time – 1.2ms
- Lead Wire – Oil proof vinyl, ϕ3.4 0.2㎟, 2 Wire(red, black), 0.5m(18in)
- Impact Resistance– 30G
- Insulation Resistance – 50MΩ or more under the test voltage DC500V (Between case and cable)
- Withstand Voltage – AC1500V 1min (between case and cable)
- Ambient Temperature – 14~140°F (-10~60℃)
- Protection Structure – IEC spec IP67, Water-proof(JISCO920), oil-proof.

※ If 3m lead wire is required, L is put at the end of numbers.
Example : W5L

Auto Switch/Internal Circuit



Auto Switch Dimensions (mm)



Operating Range(ℓ Dimension) (mm)

Series	Bore size			
	ϕ20	ϕ25	ϕ32	ϕ40
AX	7	8	8	8