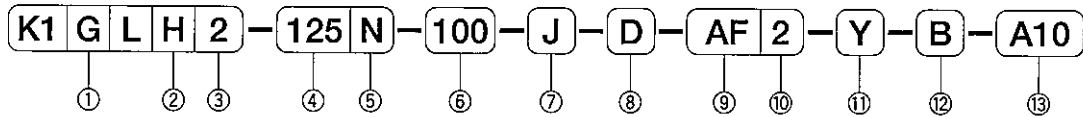


# AIR CYLINDER/WITH LOCK MECHANISM

# K1○L series

φ 40, φ 50, φ 63, φ 80, φ 100

## ORDERING INSTRUCTIONS



### ①Magnet

G	Aluminium tube with built-in magnet	Cylinder with switch available
CF	Iron tube with without magnet	Cylinder with switch not available

### ②Lock position

H	Head side
R	Rod side

### ③Action

2	Double acting, single rod
---	---------------------------

### ④Bore (mm)

40	φ 40
50	φ 50
63	φ 63
80	φ 80
100	φ 100

### ⑤Cushion

No symbol	Both-side air cushion
R	Rod side air cushion
H	Head side air cushion
N	No cushion

### ⑥Stroke (mm)

Refer to Page 78.

### ⑦Dustproof cover

No symbol	No dustproof cover provided (Standard)
J	With bellows (Nylon tarpaulin)
JN	With bellows (Chloroprene)
JK	With bellows (CONEX)

CONEX : Registered trademark of Teijin Ltd.

### ⑧Mounting

N	Basic type
L	Axial foot
M	Side lug
A	Rod side flange
B	Head side flange
C	Eye
D	Short eye
W	Clevis
T	Center trunnion

### ⑪Bracket at rod end

No symbol	No bracket
I	With rod end clevis
Y	With rod end eye

(Note) Y : Provided with pin

### ⑫Bracket

No symbol	No bracket
B	With bracket

(Note) Models with bracket : W and T

### ⑬Special shape of rod end

No symbol	Standard
-----------	----------

(Note) Refer to Pages 37 and 38.

### ⑨Type of switch

No symbol	No switch		
AF	AX101	DC5~30V AC5~120V	Reed switch
AG	AX105		
AH	AX111		
AJ	AX115		
AE	AX125	DC5~50V AC5~120V	Reed switch
AK	AX11A		
AL	AX11B	DC5~30V	Solid-state switch
S	SR405	AC80~220V	
BE	AX201	DC5~30V	
BF	AX205		
BH	AX221		
BJ	AX225		
CE	AX211		
CF	AX215		

### ⑩Number of switch

No symbol	No switch
2	With 2 units
1	With 1 unit

## Model No. of Mounting Bracket

Bore (mm)	φ 40	φ 50	φ 63	φ 80	φ 100
Axial foot mount bracket	K140-L	K150-L	K163-L	K180-L	K1100-L
Side lug mount bracket	K140-M	K150-M	K163-M	K180-M	K1100-M
Flange mount bracket	K140-A	K150-A	K163-A	K180-A	K1100-A
Eye mount bracket	K140-C	K150-C	K163-C	K180-C	K1100-C
Short eye mount bracket	K140-D	K150-D	K163-D	K180-D	K1100-D
Clevis mount bracket	K140-W	K150-W	K163-W	K180-W	K1100-W
Trunnion mount bracket	K140-T	K150-T	K163-T	K180-T	K1100-T
Bracket for clevis	K140-BA	K140-BA	K140-BA	K180-BA	K180-BA
Bracket for trunnion	K140-BC	K140-BC	K140-BC	K180-BC	K180-BC

(Note) Bracket for clevis : With pin, snap ring

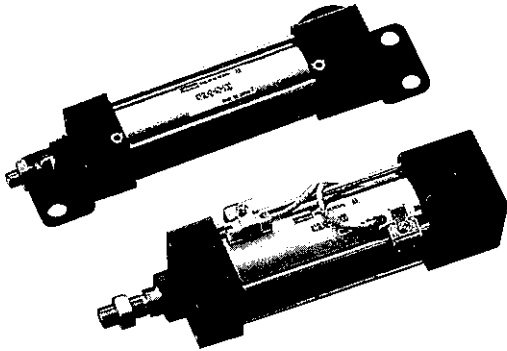
## Model No. of Packing Kit

Bore (mm)	Packing kit
φ 40	K1L40-PS
φ 50	K1L50-PS
φ 63	K1L63-PS
φ 80	K1L80-PS
φ 100	K1L100-PS

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

Each air cylinder is equipped with a magnet.

When compressed air discharges at the stroke end, a locking mechanism is actuated to lock the piston, thereby preventing the cylinder from dropping and also preventing a trouble when restarting operation.



## SPECIFICATIONS

Action	Unit	Double-acting
Fluid		Non-lubricated air
Pressure range	MPa	0.05~1
Proof pressure	MPa	1.5
Temperature range	°C	-10~70
Piston speed range	mm/s	30~700
Cushion		Air cushion
Piston stroke allowance	mm	~250 : ${}^{+1.0}_0$ 251~1000 : ${}^{+1.5}_0$ 1001~ : ${}^{+2.0}_0$
Lock position		Head side, rod side
Travel at the time of locking	mm	Less than 1
Mounting		Basic type, Axial foot, Side lug, Rod side flange, Head side flange, Eye, Short eye, Clevis, Center trunnion

(Note) \*When setting a switch at the intermediate position, set the maximum cylinder speed to less than 300 mm/s by reason of the relation with the response speed of relays etc.

\*Use the cylinder within a temperature range where it is not frozen.

### MAXIMUM STROKE (Unit : mm)

Bore (mm)	Max. stroke
φ 40	1000
φ 50	1500
φ 63	
φ 80	
φ 100	

### CUSHION STROKE (Unit : mm)

Bore (mm)	Cushion stroke
φ 40	16
φ 50	20
φ 63	
φ 80	25
φ 100	

### HOLDING POWER (Unit : N)

Bore (mm)	Holding power
φ 40	880
φ 50	1374
φ 63	2182
φ 80	3519
φ 100	5498

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

MODEL WITH SWITCH/For detailed specifications, handling precautions and mounting method of switches, refer to Page 116.

## •AX Type Switch

## •SR Type Switch

Cord type

Connector type



## LIST OF SWITCHES

Type	Symbol of switch	Load voltage range	Load current range	Max. switching capacity	Protective circuit	Pilot lamp	Connection	Cord length	Applicable load
Reed switch	AF AX101	DC5~30V AC5~120V	DC: 5~40mA AC: 5~20mA	DC: 1.5W AC: 2VA	Not provided	LED (Red LED lights up at ON.)	0.3 mm <sup>2</sup> 2-core, OD $\phi$ 4 mm Cord direction : Axial	1.5m	Miniature relay PLC
	AG AX105							5m	
	AH AX111				1.5m				
	AJ AX115				5m				
	AE AX125	DC5~50V AC5~120V	5~20mA	2VA	Not provided	Not provided	5m		
	AK AX11A	AC5~120V					5m		
	AL AX11B	DC5~30V			5~40mA	1.5W	Provided	LED (Red LED lights up at ON.)	
	S SR405	AC80~220V	2~300mA	30VA	Provided	Neon lamp (Red lights up at OFF.)	0.5 mm <sup>2</sup> 2-core, OD $\phi$ 6 mm Cord direction : Axial	5m	
Solid-state switch	BE AX201	DC5~30V	5~40mA	—	Provided	LED (Red LED lights up at ON.)	0.3 mm <sup>2</sup> 2-core, OD $\phi$ 4 mm Cord direction : Axial	1.5m	Miniature relay PLC
	BF AX205							5m	
	CE AX211							1.5m	
	CF AX215							5m	
	BH AX221	DC5~30V	Max.200mA NPN open collector output	—	Provided	LED (Red LED lights up at ON.)	0.3 mm <sup>2</sup> 3-core, OD $\phi$ 4 mm Cord direction : Axial	1.5m	Miniature relay PLC IC circuit
	BJ AX225							5m	

(Note) •When using inductive load (relay etc.) in a switch without a protective circuit, be sure to fit a protective circuit (SK-100) to the load.  
•AX type switch can be mounted on other type than above-mentioned. Refer to Specifications for Switches at the end of this catalog.

## MINIMUM STROKE FOR AIR CYLINDER WITH SWITCH (Unit : mm)

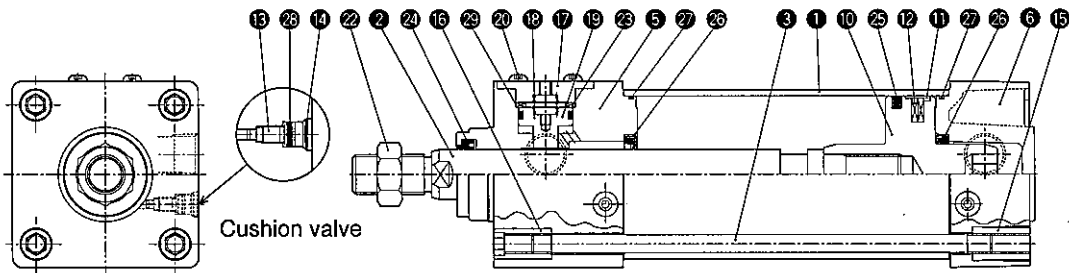
Type	AX type	SR type
1 unit mounted	25	15 ( 25)
2 units mounted on same surface	25	15 ( 25)
2 units mounted on opposite surface	25	15 ( 25)
Center trunnion type (T)	120	90 (130)

(Note) Bracketed figures : Bores for  $\phi$  80 to  $\phi$  100.

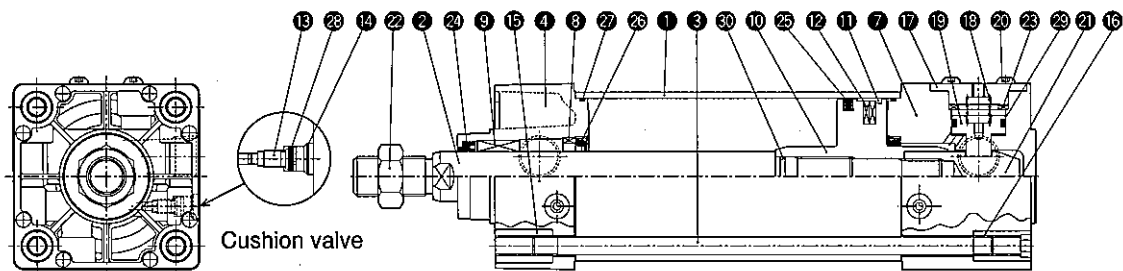
# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

## CONSTRUCTIONS AND PARTS LIST

Rod side lock type



Head side lock type



No.	Description	Material	No.	Description	Material
①	Cylinder tube	Aluminium alloy or carbon steel tube for machine structure	⑫	Magnet	—
②	Piston rod	Carbon steel for machine structure	⑬	Cushion needle	Carbon steel for machine structure
③	Tie rod	Carbon steel for machine structure	⑭	Snap ring	Spring steel
④	Rod cover	Aluminium alloys die casting	⑮	Tie rod nut R	Rolled steel for general structure
⑤	Rod cover (For lock)	Aluminium alloy	⑯	Tie rod nut H	Chromium molybdenum steel
⑥	Head cover	Aluminium alloys die casting	⑰	Lock cover	Aluminium alloy
⑦	Head cover (For lock)	Aluminium alloy	⑱	Spring for lock	Spring steel
⑧	Keep ring	Aluminium alloy	⑲	Piston for lock	Carbon steel for machine structure
⑨	Rod bushing	Sintered oil-impregnated bearing	⑳	Button bolt	Chromium molybdenum steel
⑩	Piston	Aluminium alloy	㉑	Globe pin	Carbon steel for machine structure
⑪	Wear ring	Synthetic resins	㉒	Rod end nut	Rolled steel for general structure
			㉓	Damper	Urethane rubber

## PACKING LIST

No.	Description	Material	Q'ty	Model No.				
				φ 40	φ 50	φ 63	φ 80	φ 100
㉔	Rod packing	Nitril rubber	1	DRP-16	DRP-20	DRP-20	DRP-25	DRP-30
㉕	Piston packing	Nitril rubber	1	PWP-40N	PWP-50N	PWP-63N	PWP-80N	PWP-100N
㉖	Cushion packing	Nitril rubber	2	CPF-20	CPF-24	CPF-24	CPF-30	CPF-35
㉗	O-ring for cover	Nitril rubber	2	1.5×40	1.5×50	1.5×63	1.5×80	1.5×100
㉘	O-ring for cushion valve	Nitril rubber	1	S-5	S-6	S-6	S-6	S-6
㉙	O-ring for lock piston	Nitril rubber	1	MYA-18	MYA-18	MYA-18	MYA-24	MYA-24
㉚	O-ring for piston	Nitril rubber	1	S-10	S-14	S-14	S-18	S-18

(Note) •Cover O-rings are made to our standard.  
•Packing set contains the wearing.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

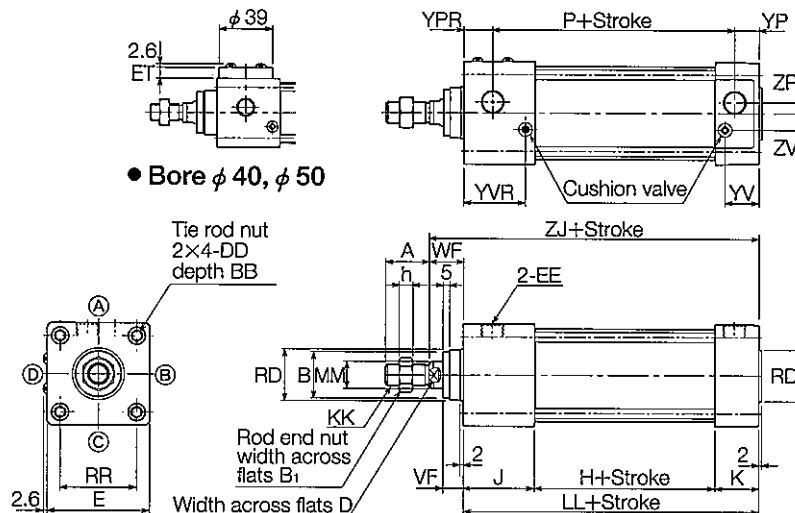


## DIMENSIONS

Basic type/N

### Rod side lock type

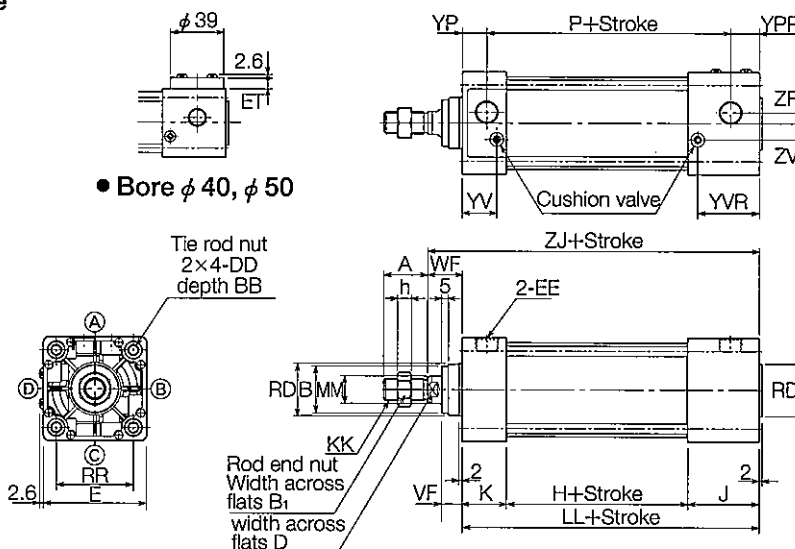
Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50

Bore	A	B	B1	BB	D	DD	E	EE	H	J	K	KK	LL	MM	P	RD	RR
φ 40	30 (27)	φ 30	22	14	14	M6×1	□50	Rc¼	31	46	31	M14×1.5	108	φ 16	69	φ 32	□37
φ 50	35 (32)	φ 34	27	14	17	M6×1	□62	Rc¼	31	51	31	M18×1.5	113	φ 20	74	φ 38	□47
φ 63	35 (32)	φ 34	27	14	17	M8×1.25	□75	Rc⅜	32	52	32	M18×1.5	116	φ 20	77	φ 38	□56
φ 80	40 (36)	φ 39	32	15	21	M10×1.5	□94	Rc⅝	36	61	36	M22×1.5	133	φ 25	89	φ 44	□70
φ 100	40 (36)	φ 46	36	15	26	M10×1.5	□112	Rc½	36	61	36	M26×1.5	133	φ 30	89	φ 50	□84

Bore	VF	WF	YP	YPR	YV	YVR	ZJ	ZP	ZV	h
φ 40	15	25	18	21	25.5	40.5	133	4	10	8
φ 50	15	25	18	21	24	44	138	7	12	11
φ 63	15	25	18	21	25	45	141	8	12	11
φ 80	21	35	20	24	29	54	168	11	16	13
φ 100	21	35	20	24	29	54	168	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series



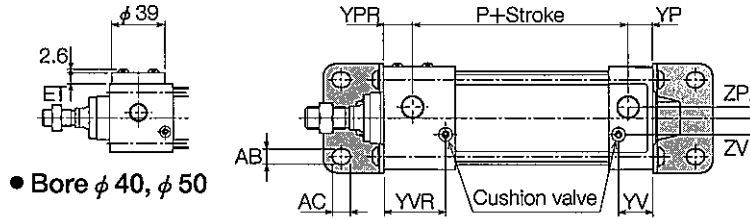
(Unit : mm)

## DIMENSIONS

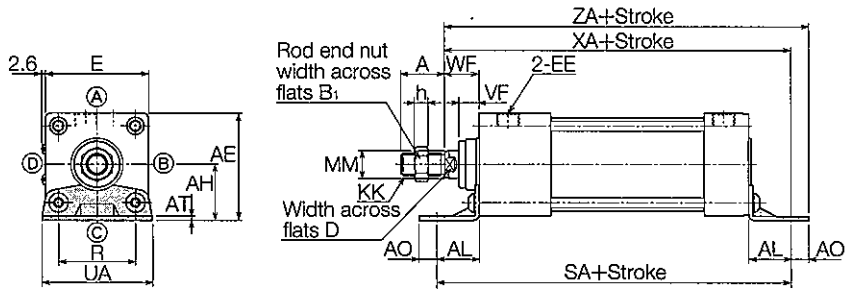
### Axial foot mounting/L

#### Rod side lock type

Bore	ET
φ 40	8
φ 50	4



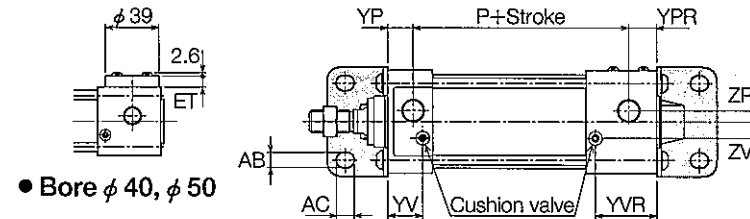
• Bore φ 40, φ 50



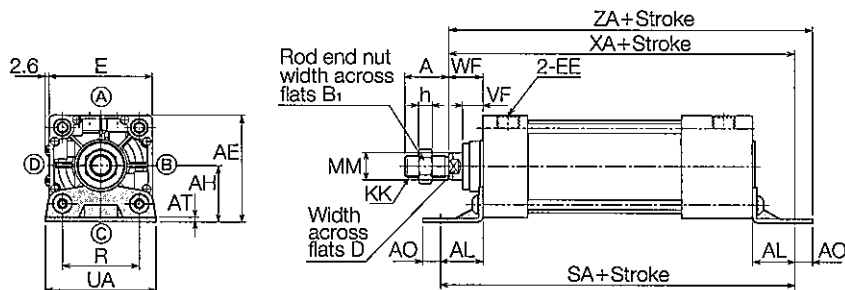
•For other sizes than mentioned in this drawing, refer to Basic type/N

#### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50



•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	AB	AC	AE	AH	AL	AO	AT	B1	D	E	EE	KK	MM	P	R	SA	UA
φ 40	30 (27)	11	13	55	30	23.5	12.5	3.2	22	14	□50	Rc¼	M14×1.5	φ 16	69	36	155	57
φ 50	35 (32)	11	13	67.5	36.5	28	12	3.2	27	17	□62	Rc¼	M18×1.5	φ 20	74	47	169	68
φ 63	35 (32)	11	13	78.5	41	31	13	3.2	27	17	□75	Rc⅝	M18×1.5	φ 20	77	56	178	80
φ 80	40 (36)	14	16	96	49	30	16	4	32	21	□94	Rc⅝	M22×1.5	φ 25	89	70	193	97
φ 100	40 (36)	14	16	113	57	30	16	4	36	26	□112	Rc½	M26×1.5	φ 30	89	84	193	112

Bore	VF	WF	XA	YP	YPR	YV	YVR	ZA	ZP	ZV	h
φ 40	15	25	156.5	18	21	25.5	40.5	169	4	10	8
φ 50	15	25	166	18	21	24	44	178	7	12	11
φ 63	15	25	172	18	21	25	45	185	8	12	11
φ 80	21	35	198	20	24	29	54	214	11	16	13
φ 100	21	35	198	20	24	29	54	214	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

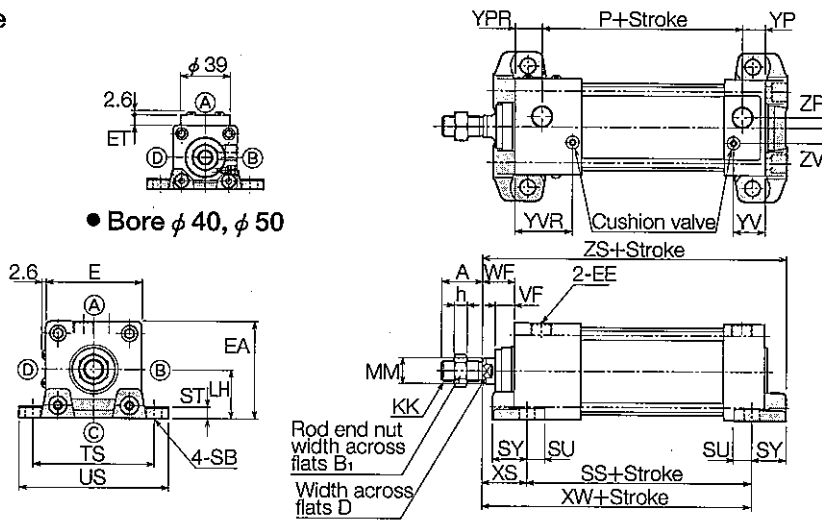


## DIMENSIONS

### Side lug mounting/M

#### Rod side lock type

Bore	ET
φ 40	8
φ 50	4

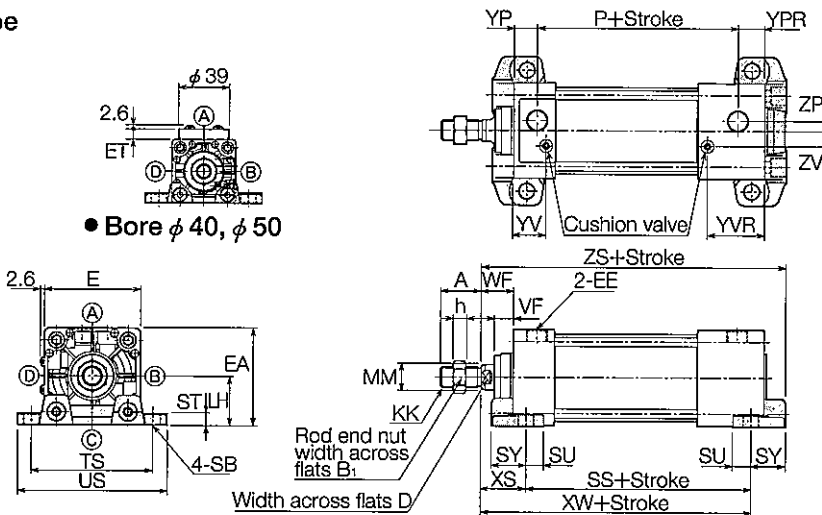


• Bore φ 40, φ 50

- For other sizes than mentioned in this drawing, refer to Basic type/N
- The standard port and cushion valve position for φ 40 and φ 50 is (B). (Port and cushion valve cannot be provided at position (A).)

#### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50

- For other sizes than mentioned in this drawing, refer to Basic type/N
- The standard port and cushion valve position for φ 40 and φ 50 is (B). (Port and cushion valve cannot be provided at position (A).)

Bore	A	B1	D	E	EA	EE	KK	LH	MM	P	SB	SS	ST	SU	SY	TS	US
φ 40	30 (27)	22	14	□50	50	Rc1/4	M14×1.5	25	φ 16	69	φ 12	88	8	14	23	70	92
φ 50	35 (32)	27	17	□62	62	Rc1/4	M18×1.5	31	φ 20	74	φ 12	93	9	14	25	83	105
φ 63	35 (32)	27	17	□75	75.5	Rc3/8	M18×1.5	38	φ 20	77	φ 12	96	9	14	27	95	117
φ 80	40 (36)	32	21	□94	94	Rc3/8	M22×1.5	47	φ 25	89	φ 14	107	13	18	34	121	147
φ 100	40 (36)	36	26	□112	113	Rc1/2	M26×1.5	57	φ 30	89	φ 14	107	14	18	38	140	168

Bore	VF	WF	XS	XW	YP	YPR	YV	YVR	ZP	ZS	ZV	h
φ 40	15	25	35	123	18	21	25.5	40.5	4	146	10	8
φ 50	15	25	35	128	18	21	24	44	7	153	12	11
φ 63	15	25	35	131	18	21	25	45	8	158	12	11
φ 80	21	35	48	155	20	24	29	54	11	189	16	13
φ 100	21	35	48	155	20	24	29	54	12	193	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series



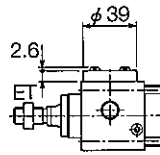
(Unit : mm)

## DIMENSIONS

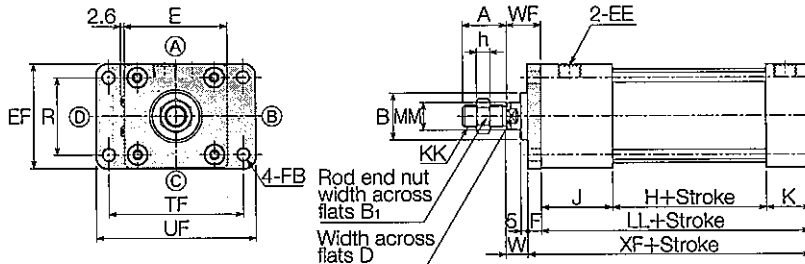
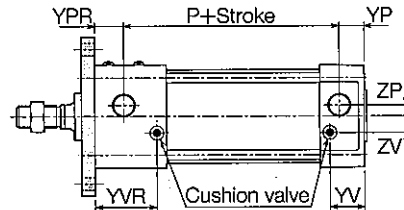
Rod side flange mounting/A

### Rod side lock type

Bore	ET
φ 40	8
φ 50	4



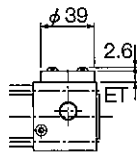
• Bore φ 40, φ 50



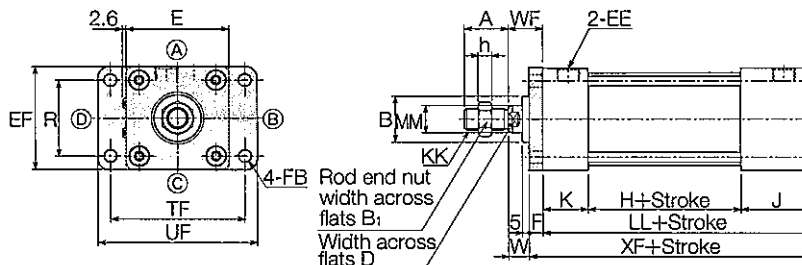
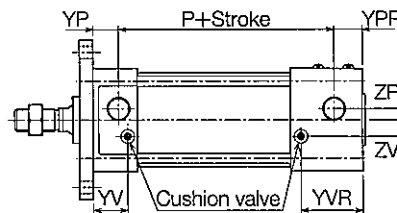
•For other sizes than mentioned in this drawing, refer to Basic type/N

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50



•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	B	B1	D	E	EE	EF	F	FB	H	J	K	KK	LL	MM	P	R	TF
φ 40	30 (27)	φ 30	22	14	□50	Rc1/4	52	10	φ 7	31	46	31	M14×1.5	108	φ 16	69	36	70
φ 50	35 (32)	φ 34	27	17	□62	Rc1/4	65	10	φ 9	31	51	31	M18×1.5	113	φ 20	74	47	86
φ 63	35 (32)	φ 34	27	17	□75	Rc3/8	76	10	φ 9	32	52	32	M18×1.5	116	φ 20	77	56	98
φ 80	40 (36)	φ 39	32	21	□94	Rc3/8	95	16	φ 12	36	61	36	M22×1.5	133	φ 25	89	70	119
φ 100	40 (36)	φ 46	36	26	□112	Rc1/2	115	16	φ 12	36	61	36	M26×1.5	133	φ 30	89	84	138

Bore	UF	W	WF	XF	YP	YPR	YV	YVR	ZP	ZV	h
φ 40	84	15	25	103	18	21	25.5	40.5	4	10	8
φ 50	104	15	25	103	18	21	24	44	7	12	11
φ 63	116	15	25	106	18	21	25	45	8	12	11
φ 80	143	19	35	124	20	24	29	54	11	16	13
φ 100	162	19	35	124	20	24	29	54	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.



# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

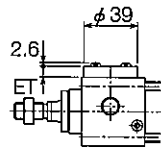


## DIMENSIONS

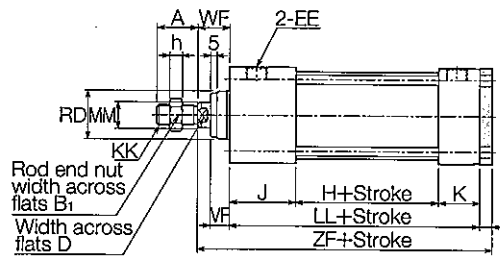
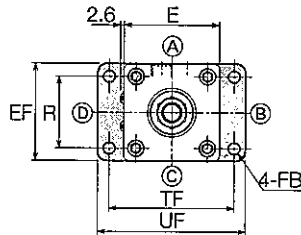
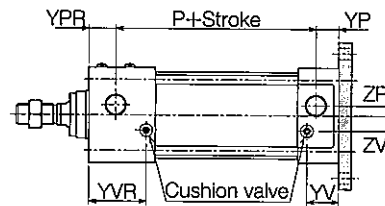
### Head side flange mounting/B

#### Rod side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50

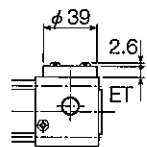


Rod end nut width across flats B<sub>1</sub>  
Width across flats D

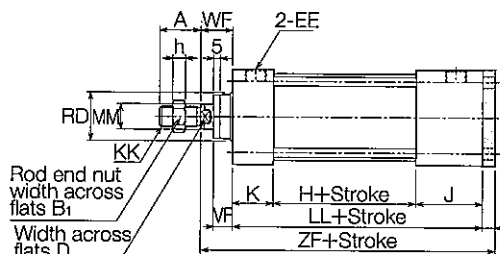
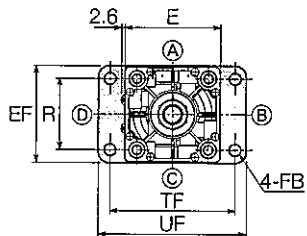
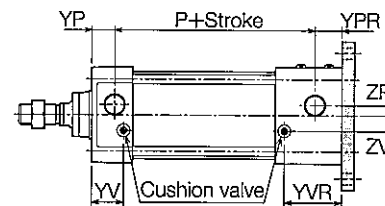
•For other sizes than mentioned in this drawing, refer to Basic type/N

#### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50



Rod end nut width across flats B<sub>1</sub>  
Width across flats D

•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	B <sub>1</sub>	D	E	EE	EF	F	FB	H	J	K	KK	LL	MM	P	R	RD
φ 40	30 (27)	22	14	□50	Rc1/4	52	10	φ 7	31	46	31	M14×1.5	108	φ 16	69	36	φ 32
φ 50	35 (32)	27	17	□62	Rc1/4	65	10	φ 9	31	51	31	M18×1.5	113	φ 20	74	47	φ 38
φ 63	35 (32)	27	17	□75	Rc3/8	76	10	φ 9	32	52	32	M18×1.5	116	φ 20	77	56	φ 38
φ 80	40 (36)	32	21	□94	Rc3/8	95	16	φ 12	36	61	36	M22×1.5	133	φ 25	89	70	φ 44
φ 100	40 (36)	36	26	□112	Rc1/2	115	16	φ 12	36	61	36	M26×1.5	133	φ 30	89	84	φ 50

Bore	TF	UF	VF	WF	YP	YPR	YV	YVR	ZF	ZP	ZV	h
φ 40	70	84	15	25	18	21	25.5	40.5	143	4	10	8
φ 50	86	104	15	25	18	21	24	44	148	7	12	11
φ 63	98	116	15	25	18	21	25	45	151	8	12	11
φ 80	119	143	21	35	20	24	29	54	184	11	16	13
φ 100	138	162	21	35	20	24	29	54	184	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series



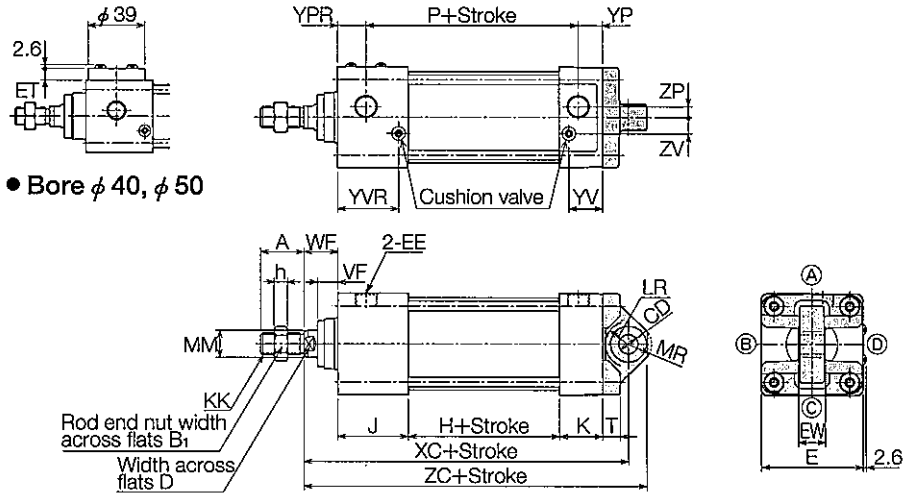
(Unit : mm)

## DIMENSIONS

Eye mounting/C

### Rod side lock type

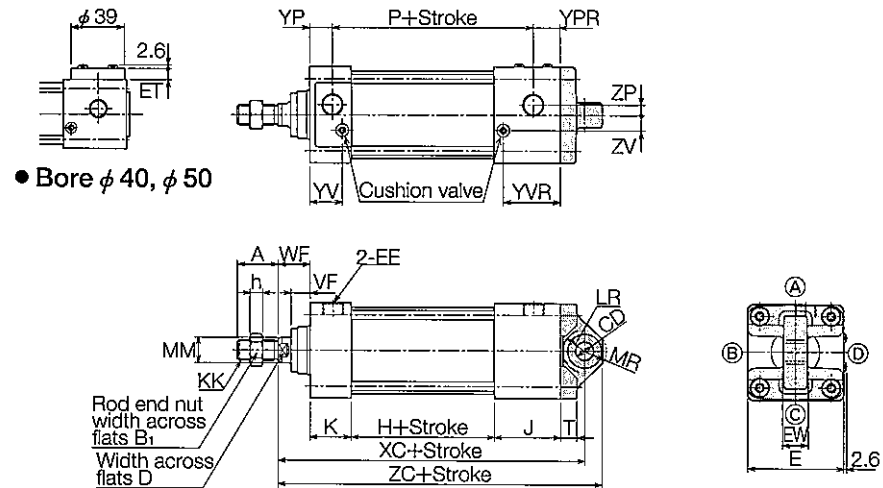
Bore	ET
φ 40	8
φ 50	4



•For other sizes than mentioned in this drawing, refer to Basic type/N

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	B1	CD	D	E	EE	EW	H	J	K	KK	LR	MM	MR	P	T	VF
φ 40	30 (27)	22	φ 14 <sup>H9</sup>	14	□50	Rc¼	20 <sup>0</sup> <sub>-0.3</sub>	31	46	31	M14×1.5	R21	φ 16	R14	69	11	15
φ 50	35 (32)	27	φ 14 <sup>H9</sup>	17	□62	Rc¼	20 <sup>0</sup> <sub>-0.3</sub>	31	51	31	M18×1.5	R21	φ 20	R15	74	11	15
φ 63	35 (32)	27	φ 14 <sup>H9</sup>	17	□75	Rc¾	20 <sup>0</sup> <sub>-0.3</sub>	32	52	32	M18×1.5	R21	φ 20	R15	77	11	15
φ 80	40 (36)	32	φ 20 <sup>H9</sup>	21	□94	Rc¾	32 <sup>0</sup> <sub>-0.3</sub>	36	61	36	M22×1.5	R25	φ 25	R20	89	15	21
φ 100	40 (36)	36	φ 20 <sup>H9</sup>	26	□112	Rc½	32 <sup>0</sup> <sub>-0.3</sub>	36	61	36	M26×1.5	R25	φ 30	R20	89	15	21

Bore	WF	XC	YP	YPR	YV	YVR	ZC	ZP	ZV	h
φ 40	25	167	18	21	25.5	40.5	181	4	10	8
φ 50	25	172	18	21	24	44	187	7	12	11
φ 63	25	175	18	21	25	45	190	8	12	11
φ 80	35	216	20	24	29	54	236	11	16	13
φ 100	35	216	20	24	29	54	236	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

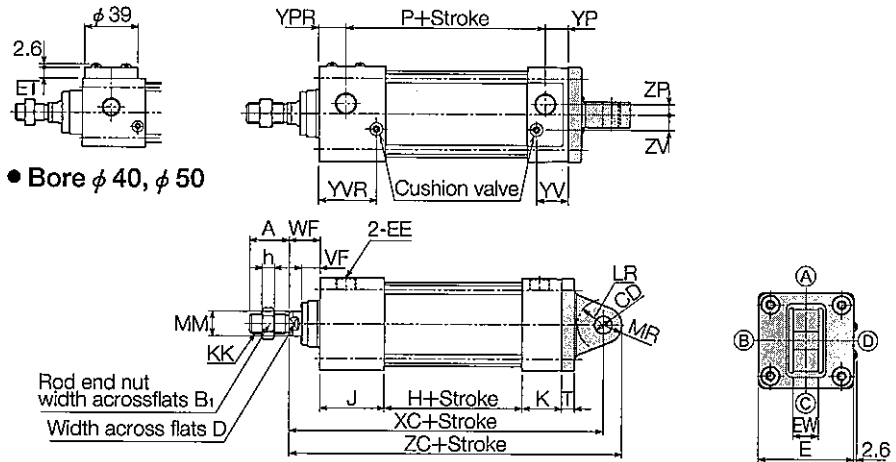


## DIMENSIONS

Short eye mounting/D

### Rod side lock type

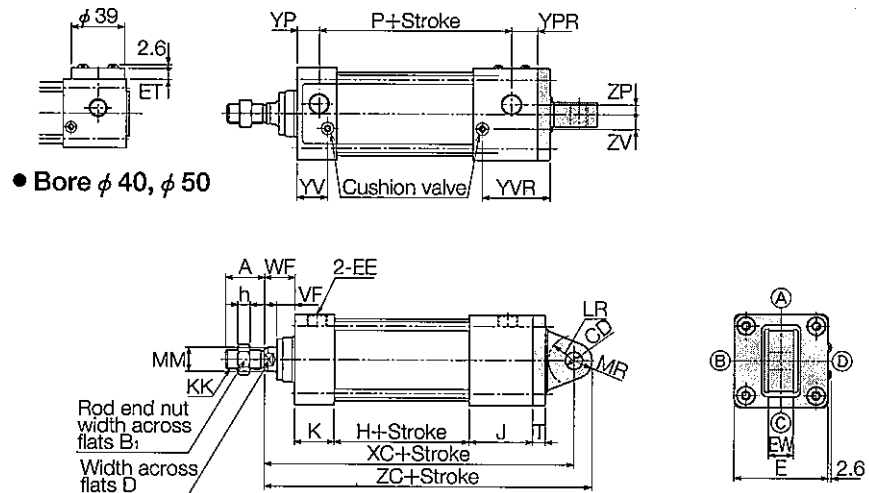
Bore	ET
φ 40	8
φ 50	4



•For other sizes than mentioned in this drawing, refer to Basic type/N

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	B1	CD	D	E	EE	EW	H	J	K	KK	LR	MM	MR	P	T	VF
φ 40	30 (27)	22	φ 14 <sup>H9</sup>	14	□50	Rc1/4	20 <sup>0</sup> <sub>-0.084</sub>	31	46	31	M14X1.5	R17	φ 16	R17	69	8	15
φ 50	35 (32)	27	φ 14 <sup>H9</sup>	17	□62	Rc1/4	20 <sup>0</sup> <sub>-0.084</sub>	31	51	31	M18X1.5	R17	φ 20	R17	74	10	15
φ 63	35 (32)	27	φ 14 <sup>H9</sup>	17	□75	Rc3/8	20 <sup>0</sup> <sub>-0.084</sub>	32	52	32	M18X1.5	R17	φ 20	R17	77	13	15
φ 80	40 (36)	32	φ 20 <sup>H9</sup>	21	□94	Rc3/8	32 <sup>0</sup> <sub>-0.100</sub>	36	61	36	M22X1.5	R25	φ 25	R24	89	18	21
φ 100	40 (36)	36	φ 20 <sup>H9</sup>	26	□112	Rc1/2	32 <sup>0</sup> <sub>-0.100</sub>	36	61	36	M26X1.5	R26	φ 30	R24	89	18	21

Bore	WF	XC	YP	YPR	YV	YVR	ZC	ZP	ZV	h
φ 40	25	152	18	21	25.5	40.5	166	4	10	8
φ 50	25	157	18	21	24	44	171	7	12	11
φ 63	25	160	18	21	25	45	174	8	12	11
φ 80	35	200	20	24	29	54	221	11	18	13
φ 100	35	200	20	24	29	54	220	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series



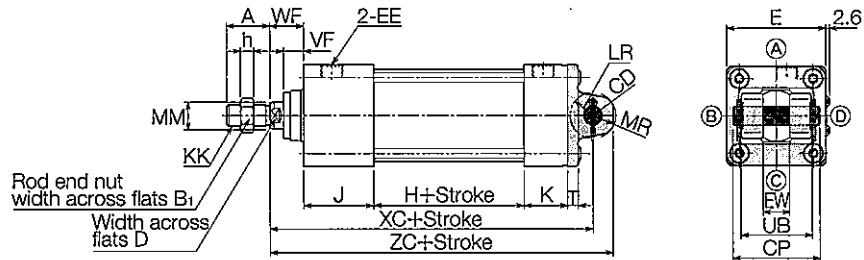
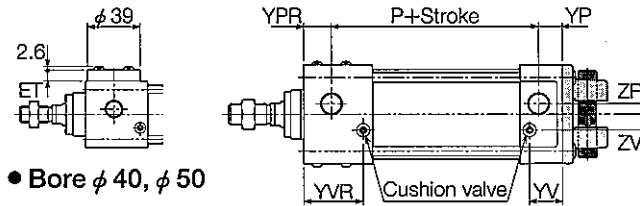
(Unit : mm)

## DIMENSIONS

Clevis mounting/W

### Rod side lock type

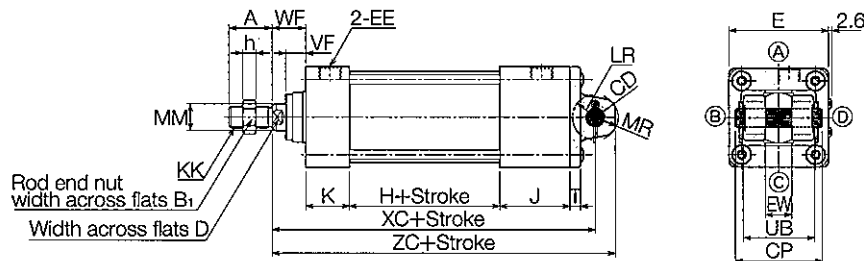
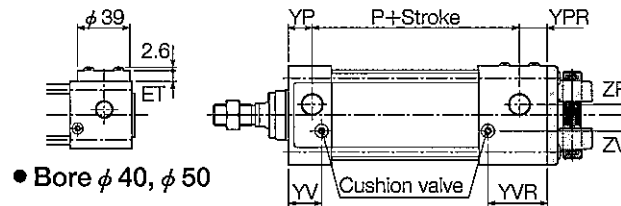
Bore	ET
φ 40	8
φ 50	4



•For other sizes than mentioned in this drawing, refer to Basic type/N

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



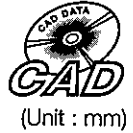
•For other sizes than mentioned in this drawing, refer to Basic type/N

Bore	A	B1	CD	CP	D	E	EE	EW	H	J	K	KK	LR	MM	MR	P	T
φ 40	30 (27)	22	φ 14 <sup>H9/18</sup>	58	14	□50	Rc1/4	20 <sup>+0.7/-0.5</sup>	31	46	31	M14×1.5	R17	φ 16	R15	69	8
φ 50	35 (32)	27	φ 14 <sup>H9/18</sup>	66	17	□62	Rc1/4	20 <sup>+0.7/-0.5</sup>	31	51	31	M18×1.5	R17	φ 20	R17	74	8
φ 63	35 (32)	27	φ 14 <sup>H9/18</sup>	66	17	□75	Rc3/8	20 <sup>+0.7/-0.5</sup>	32	52	32	M18×1.5	R17	φ 20	R17	77	8
φ 80	40 (36)	32	φ 20 <sup>H9/18</sup>	78	21	□94	Rc3/8	32 <sup>+0.7/-0.5</sup>	36	61	36	M22×1.5	R30	φ 25	R24	89	11
φ 100	40 (36)	36	φ 20 <sup>H9/18</sup>	78	26	□112	Rc1/2	32 <sup>+0.7/-0.5</sup>	36	61	36	M26×1.5	R30	φ 30	R24	89	11

Bore	UB	VF	WF	XC	YP	YPR	YV	YVR	ZC	ZP	ZV	h
φ 40	45	15	25	152	18	21	25.5	40.5	165	4	10	8
φ 50	53	15	25	157	18	21	24	44	172	7	12	11
φ 63	53	15	25	160	18	21	25	45	175	8	12	11
φ 80	67	21	35	200	20	24	29	54	221	11	16	13
φ 100	67	21	35	200	20	24	29	54	221	12	18	14

(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series



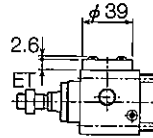
## DIMENSIONS

Center trunnion mounting/T

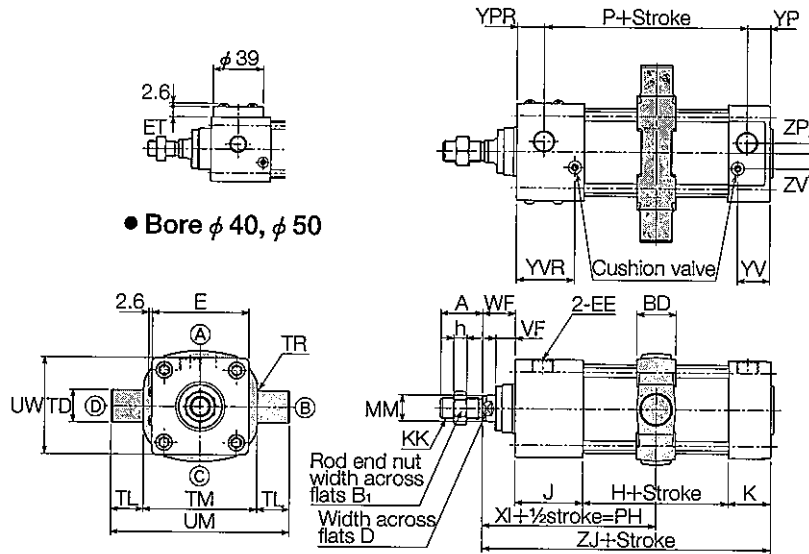
(Unit : mm)

### Rod side lock type

Bore	ET
φ 40	8
φ 50	4



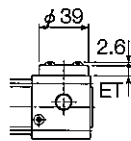
• Bore φ 40, φ 50



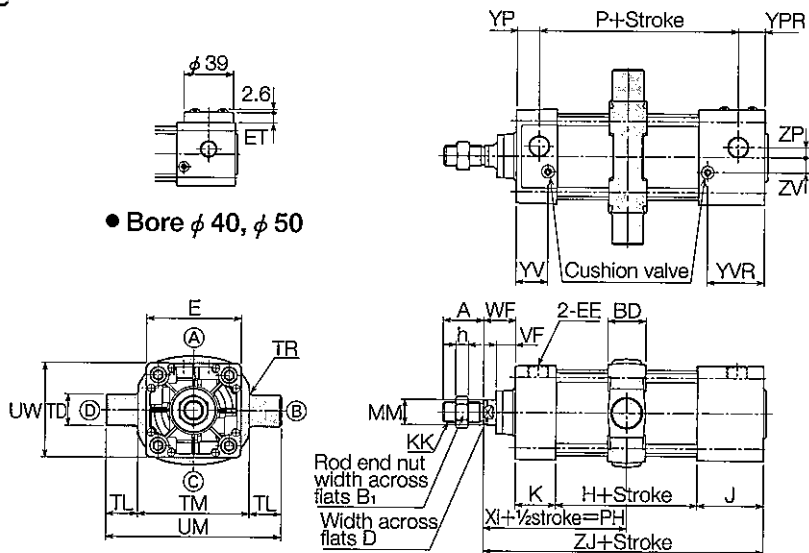
•For other sizes than mentioned in this drawing, refer to Basic type/N  
 (Note) In case of a small stroke for bore φ 40, specify position ② as port and cushion valve position to prevent interference with the lock cover.

### Head side lock type

Bore	ET
φ 40	8
φ 50	4



• Bore φ 40, φ 50



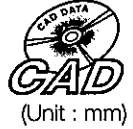
•For other sizes than mentioned in this drawing, refer to Basic type/N  
 (Note) In case of a small stroke for bore φ 40, specify position ② as port and cushion valve position to prevent interference with the lock cover.

Bore	A	B1	BD	D	E	EE	H	J	K	KK	MM	P	PH (min)		TD	TL	TM
													Rod side lock	Head side lock			
φ 40	30 (27)	22	30	14	□50	Rc1/4	31	46	31	M14×1.5	φ 16	69	86	71	φ 25 <sup>e9</sup>	25	63
φ 50	35 (32)	27	30	17	□62	Rc1/4	31	51	31	M18×1.5	φ 20	74	91	71	φ 25 <sup>e9</sup>	25	76
φ 63	35 (32)	27	30	17	□75	Rc3/8	32	52	32	M18×1.5	φ 20	77	92	72	φ 25 <sup>e9</sup>	25	88
φ 80	40 (36)	32	35	21	□94	Rc3/8	36	61	36	M22×1.5	φ 25	89	113.5	88.5	φ 25 <sup>e9</sup>	25	114
φ 100	40 (36)	36	40	26	□112	Rc1/2	36	61	36	M26×1.5	φ 30	89	116	91	φ 25 <sup>e9</sup>	25	132

Bore	TR	UM	UW	VF	WF	XI		YP	YPR	YV	YVR	ZJ	ZP	ZV	h
						Rod side lock	Head side lock								
φ 40	R1.6	113	60	15	25	86.5	71.5	18	21	25.5	40.5	133	4	10	8
φ 50	R1.6	126	72	15	25	91.5	71.5	18	21	24	44	138	7	12	11
φ 63	R1.6	138	87	15	25	93	73	18	21	25	45	141	8	12	11
φ 80	R1.6	164	105	21	35	114	89	20	24	29	54	168	11	16	13
φ 100	R2	182	129	21	35	114	89	20	24	29	54	168	12	18	14

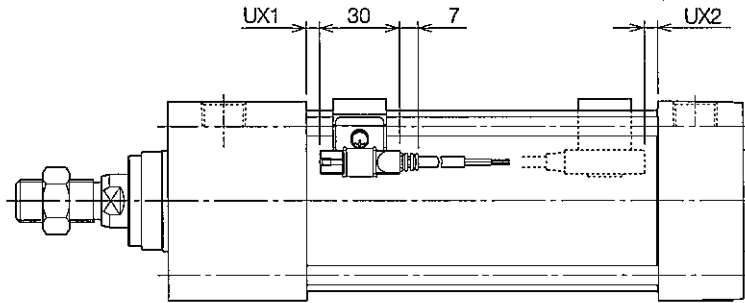
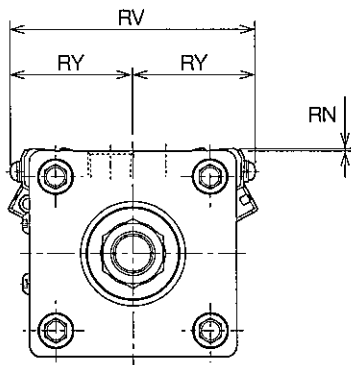
(Note) Bracketed figures in size A columns are thread lengths.

# AIR CYLINDER/WITH LOCK MECHANISM K1○L series

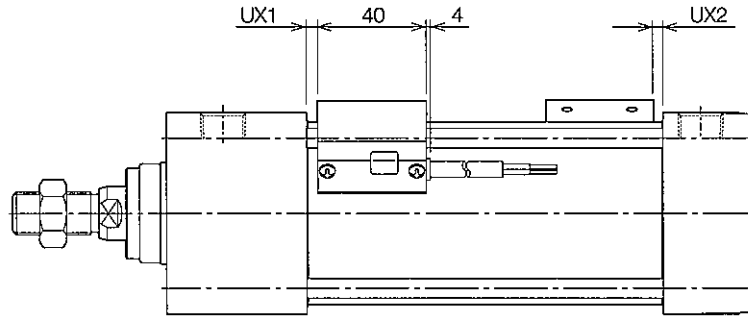
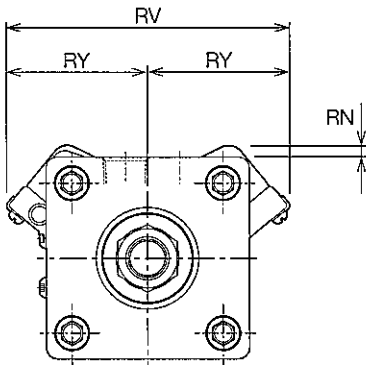


## SWITCH SET POSITION

With AX type switch



With SR type switch



Bore	RY		RV		RN		UX1		UX2	
	AX type	SR type	AX type	SR type	AX type	SR type	AX type	SR type	AX type	SR type
φ 40	36	40	72	80	3	4	8	2	4	0
φ 50	40	45	80	90	2	3	9	2	5	0
φ 63	47	52	94	104	2	5	9	2	5	0
φ 80	52	60	104	120	0	2	11	4	6	0
φ 100	60	67	120	134	0	0	11	4	6	0

(Note) UX : Most suitable position for mounting switch when stroke end is detected.

## HYSTERESIS AND RESPONSE RANGE OF SWITCHES (Unit : mm)

Bore	Reed switch				Solid-state switch	
	AX1□□ type		SR type		AX2□□ type	
	Response range	Hysteresis	Response range	Hysteresis	Response range	Hysteresis
φ 40	5~10	Below 1	8~12	Below 2	3~6	Below 1
φ 50	6~12		9~13		4~8	
φ 63						
φ 80						
φ 100						