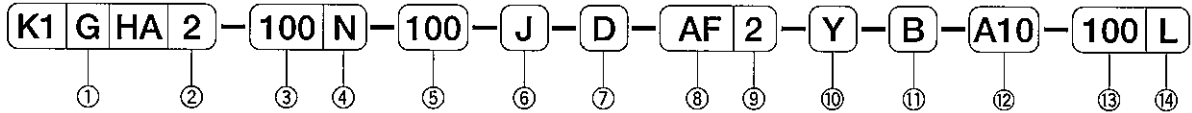


HI-PAL CYLINDER/WITH SOLENOID VALVE

K1 ○ HA series

φ 40, φ 50, φ 63, φ 80, φ 100

ORDERING INSTRUCTIONS



① Magnet

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

② Action

2	Double acting, single rod Rod extends at power on.
4	Double-acting, single rod Rod retracts at power on.

③ Bore (mm)

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

④ Cushion

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

⑤ (mm)

Refer to Standard Strokes (Page 62).

⑥ Dustproof 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.

⑦ Mounting

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

⑧ Type of switch

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

⑨ Number of switch

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

⑬ Voltage

100	AC100/110V
200	AC200/220V
D24	DC24V

⑩ Bracket at rod end

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

(Note) Y : Provided with pin

⑭ Wiring

L	Lead wire
G	Terminal grommet
C	Terminal conduit

⑪ Bracket

No symbol	No bracket
B	With bracket

(Note) Models with bracket : W and T

⑫ Special shape of rod end

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

(Note) Refer to Pages 37 and 38.

Model No. of Mounting Bracket

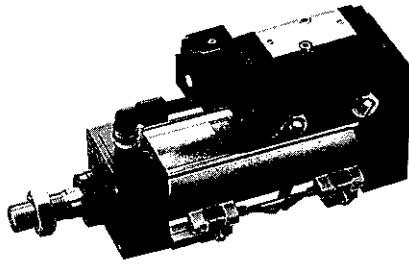
Bore (mm)	φ 40	φ 50	φ 63	φ 80	φ 100
Axial foot mount bracket	K140-L	K150-L	K163-L	K180-L	K1100-L
Side lug mount bracket	K140-M	K150-M	K163-M	K180-M	K1100-M
Flange mount bracket	K140-A	K150-A	K163-A	K180-A	K1100-A
Eye mount bracket	K140-C	K150-C	K163-C	K180-C	K1100-C
Short eye mount bracket	K140-D	K150-D	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	K140-PS
φ 50	K150-PS
φ 63	K163-PS
φ 80	K180-PS
φ 100	K1100-PS

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series



SPECIFICATIONS

Action	Unit	Double-acting
Fluid		Non-lubricated air
Pressure range	MPa	0.2~0.8
Proof pressure	MPa	1.5
Temperature range	°C	5~50
Piston speed range	mm/s	50~500
Cushion		Air cushion
Piston stroke allowance	mm	~250 : $^{+1.0}_0$ 251~1000 : $^{+1.5}_0$ 1001~ : $^{+2.0}_0$
Mounting		Basic type, Axial foot, Side lug, Rod side flange, Head side flange, Eye, Short eye, Clevis, Center trunnion

Solenoid valve		PCS2408			
Rated voltage	V	AC100/110, 200/220 DC24			
Insulation grade		JIS B			
Permissible voltage fluctuation	%	AC : ± 10 DC : $+10$ $^{-15}_0$			
Frequency	Hz	50/60			
Apparent power	AC	Hold	50Hz	VA	(100/200) 3.2
			60Hz	VA	(100/200) 2.6
	Start	50Hz	VA	(100/200) 5.0	
		60Hz	VA	(100/200) 4.5	
Power consumption DC	W	2			

(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.

STANDARD STROKE

(Unit : mm)

Bore	Standard stroke										Max. stroke	
	100	125	150	200	250	300	350	400	450	500		
φ 40	○	○	○	○	○	○	○	○	○	○	○	1500
φ 50	○	○	○	○	○	○	○	○	○	○	○	
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	

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

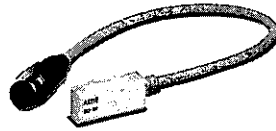
MODEL WITH SWITCH/For detailed specifications, handling precautions and mounting method of switches, refer to Page 116.

•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 ² 2-core, OD φ 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	4-pin connector Cord direction : Axial	5m			
	AK AX11A	AC5~120V						5m			
	AL AX11B	DC5~30V			5~40mA	1.5W		Provided		LED (Red LED lights up at ON.)	0.5m
	S SR405	AC80~220V			2~300mA	30VA		Provided		Neon lamp (Red lights up at OFF.)	0.5 mm ² 2-core, OD φ 6 mm Cord direction : Axial
Solid-state switch	BE AX201	DC5~30V	5~40mA	—	Provided	LED (Red LED lights up at ON.)	0.3 mm ² 2-core, OD φ 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 ² 3-core, OD φ 4 mm Cord direction : Axial	1.5m			
	BJ AX225							5m			

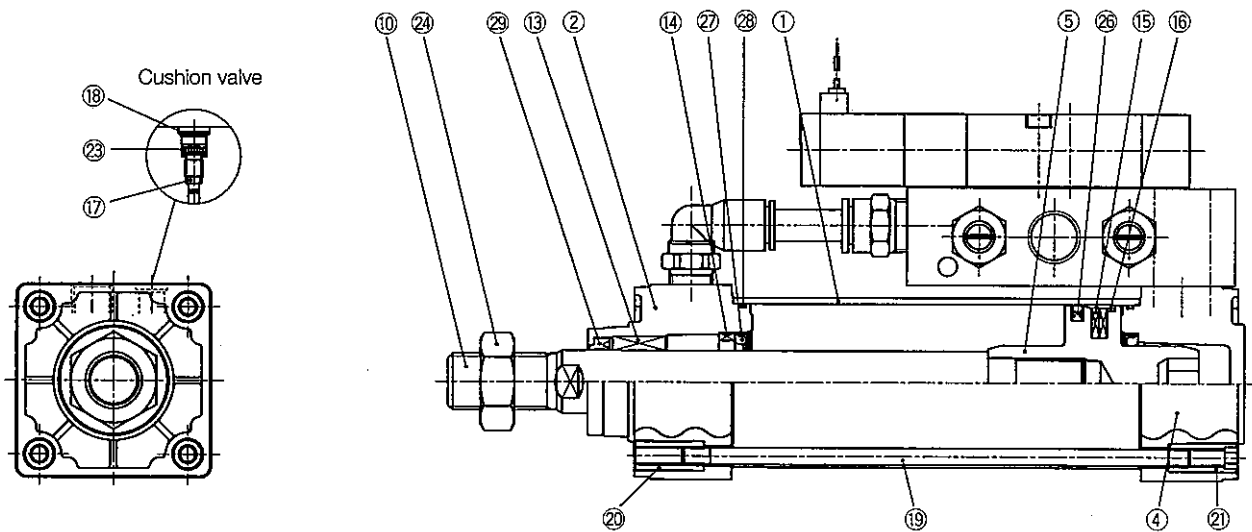
(Note) •When using inductive load (relay etc.) in a switch without a protective circuit, be sure to fit a protective circuit (SK-100) to the load.
•AX type switch can be mounted on other type than above-mentioned. Refer to Specifications for Switches at the end of this catalog.

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

Type	AX type	SR type
1 unit mounted	100	100
2 units mounted on same surface	100	100
2 units mounted on opposite surface	100	100
Center trunnion type (T)	120	125

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

CONSTRUCTIONS AND PARTS LIST



No.	Description	Material
①	Cylinder tube	Aluminium alloy or carbon steel tube for machine structure
②	Rod cover	Aluminium alloys die casting
④	Head cover	Aluminium alloys die casting
⑤	Piston	Aluminium alloy
⑩	Piston rod	$\phi 32$: Stainless steel $\phi 40\sim 125$: Carbon steel for machine structure
⑬	Bushing	Sintered oil-impregnated bearing
⑭	Keep ring	Aluminium alloy
⑮	Magnet	—
⑯	Wear ring	Synthetic resins
⑰	Cushion needle	Carbon steel for machine structure
⑱	Snap ring	Spring steel
⑲	Tie rod	Carbon steel for machine structure
⑳	Tie rod nut R	Rolled steel for general structure
㉑	Tie rod nut H	Chromium molybdenum steel
㉓	O-ring for cushion valve	Nitril rubber
㉔	Rod end nut	Rolled steel for general structure

PACKING LIST

No.	Description	Material	Q'ty	Model No.				
				$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
㉖	Piston packing	Nitril rubber	1	PWP-40N	PWP-50N	PWP-63N	PWP-80N	PWP-100N
㉗	Cushion packing	Nitril rubber	2	CPF-20	CPF-24	CPF-24	CPF-30	CPF-35
㉘	O-ring for cover	Nitril rubber	2	1.5×40	1.5×50	1.5×63	1.5×80	1.5×100
㉙	Rod packing	Nitril rubber	1	DRP-16	DRP-20	DRP-20	DRP-25	DRP-30

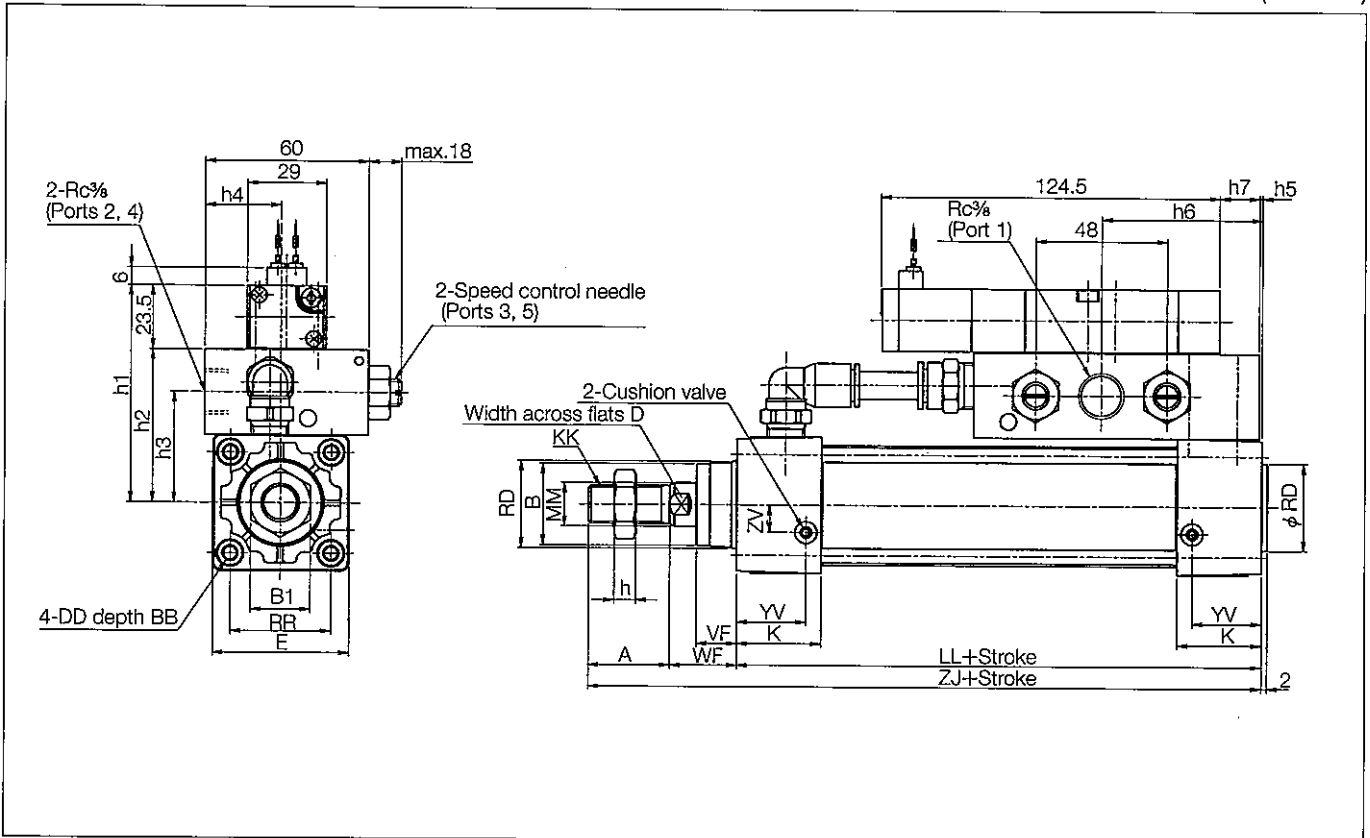
(Note) •Cover O-rings are made to our standard.
•Packing set contains the wearing.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Basic type/N

(Unit : mm)



Bore	A	B	B1	BB	D	DD	E	K	KK	LL	MM	RD	RR	VF	WF	YV	ZJ
φ 40	30 (27)	φ 30	22	14	14	M6×1	□50	31	M14×1.5	93	φ 16	φ 32	□37	15	25	25.5	148
φ 50	35 (32)	φ 34	27	14	17	M6×1	□62	31	M18×1.5	93	φ 20	φ 38	□47	15	25	24	153
φ 63	35 (32)	φ 34	27	14	17	M8×1.25	□75	32	M18×1.5	96	φ 20	φ 38	□56	15	25	25	156
φ 80	40 (36)	φ 39	32	15	21	M10×1.5	□94	36	M22×1.5	108	φ 25	φ 44	□70	21	35	29	183
φ 100	40 (36)	φ 46	36	15	26	M10×1.5	□112	36	M26×1.5	108	φ 30	φ 50	□84	21	35	29	183

Bore	ZV	h	h1	h2	h3	h4	h5	h6	h7
φ 40	10	8	79.5	56	40.5	28	1	59	15
φ 50	12	11	85.5	62	46.5	31	1	59	15
φ 63	12	11	92	68.5	53	35	1	59	15
φ 80	16	13	101.5	78	62.5	38	3	61	15
φ 100	18	14	110.5	87	71.5	39	1	64	20

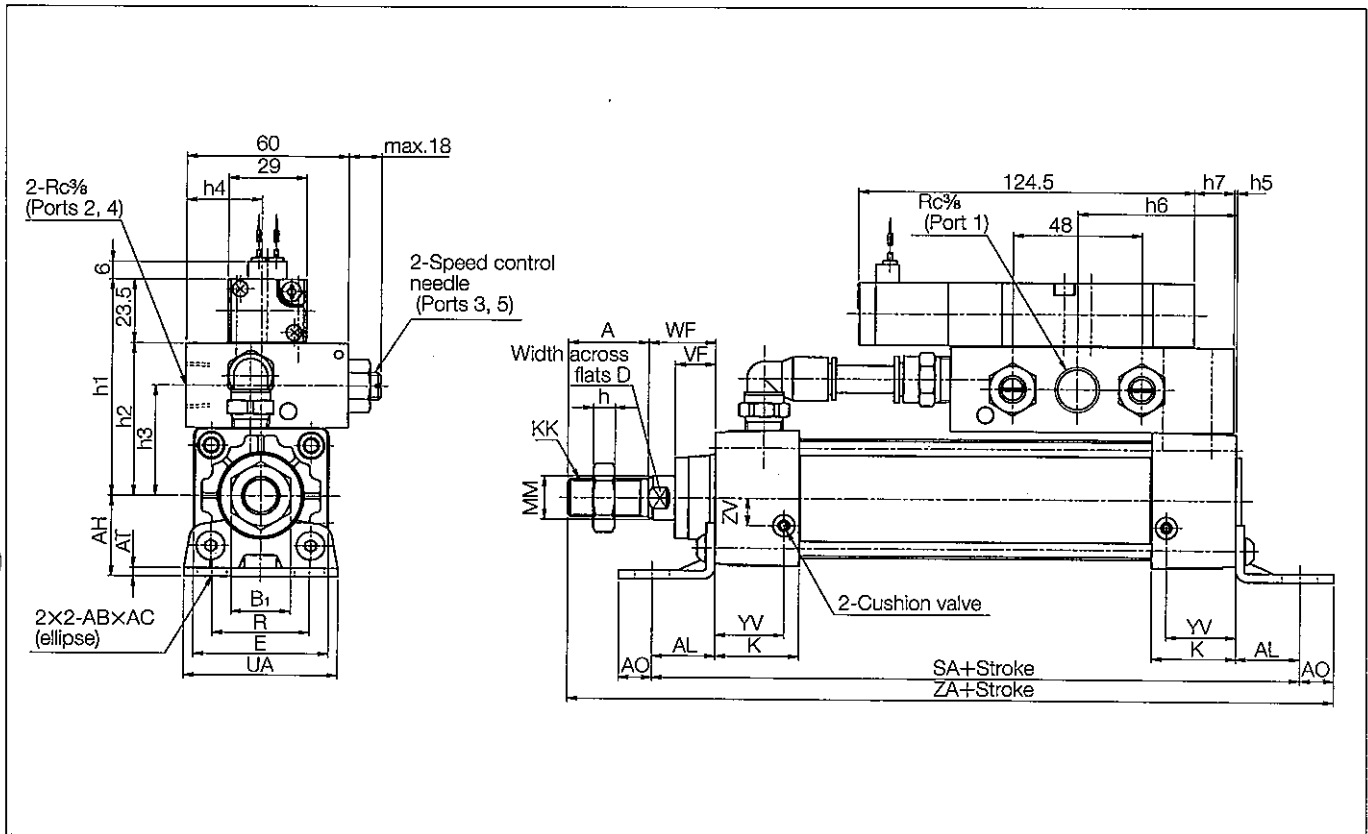
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Axial foot mounting/L

(Unit : mm)



Bore	A	AC	AH	AL	AO	AT	B1	D	E	K	KK	MM	R	SA	UA	VF	WF	YV
φ 40	30 (27)	13	30	23.5	12.5	3.2	22	14	□50	31	M14×1.5	φ 16	36	140	57	15	25	25.5
φ 50	35 (32)	13	36.5	28	12	3.2	27	17	□62	31	M18×1.5	φ 20	47	149	68	15	25	24
φ 63	35 (32)	13	41	31	13	3.2	27	17	□75	32	M18×1.5	φ 20	56	158	80	15	25	25
φ 80	40 (36)	16	49	30	16	4	32	21	□94	36	M22×1.5	φ 25	70	168	97	21	35	29
φ 100	40 (36)	16	57	30	16	4	36	26	□112	36	M26×1.5	φ 30	84	168	112	21	35	29

Bore	ZA	ZV	h	h1	h2	h3	h4	h5	h6	h7
φ 40	184	10	8	79.5	56	40.5	28	1	59	15
φ 50	193	12	11	85.5	62	46.5	31	1	59	15
φ 63	200	12	11	92	68.5	53	35	1	59	15
φ 80	229	16	13	101.5	78	62.5	38	3	61	15
φ 100	229	18	14	110.5	87	71.5	39	1	64	20

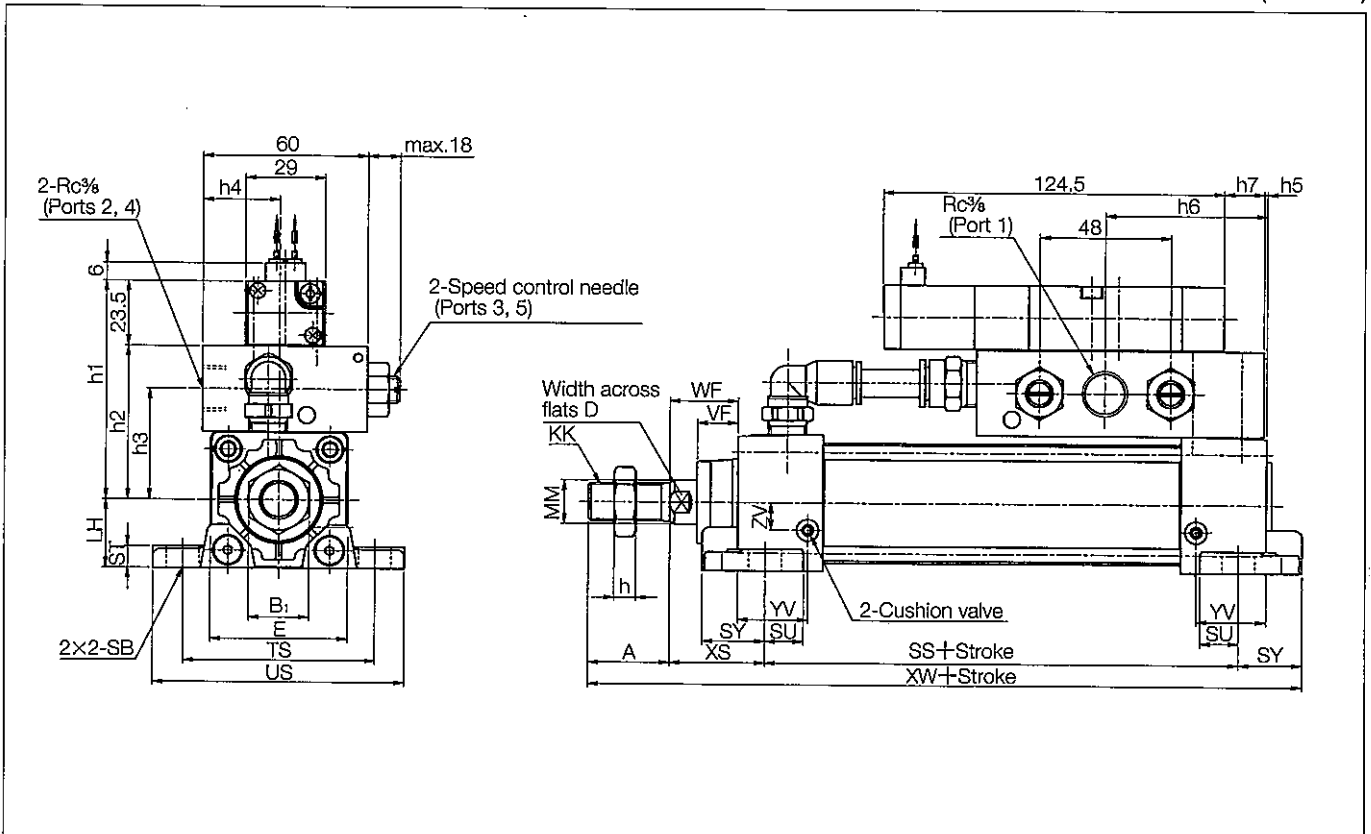
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Side lug mounting/M

(Unit : mm)



Bore	A	B ₁	D	E	KK	LH	MM	SB	SS	ST	SU	SY	TS	US	VF	WF	XS	XW	YV
φ 40	30 (27)	22	14	□50	M14×1.5	25	φ 16	φ 12	73	8	14	23	70	92	15	25	35	161	25.5
φ 50	35 (32)	27	17	□62	M18×1.5	31	φ 20	φ 12	73	9	14	25	83	105	15	25	35	168	24
φ 63	35 (32)	27	17	□75	M18×1.5	38	φ 20	φ 12	76	9	14	27	95	117	15	25	35	173	25
φ 80	40 (36)	32	21	□94	M22×1.5	47	φ 25	φ 14	82	13	18	34	121	147	21	35	48	204	29
φ 100	40 (36)	36	26	□112	M26×1.5	57	φ 30	φ 14	82	14	18	38	140	168	21	35	48	208	29

Bore	ZV	h	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇
φ 40	10	8	79.5	56	40.5	28	1	59	15
φ 50	12	11	85.5	62	46.5	31	1	59	15
φ 63	12	11	92	68.5	53	35	1	59	15
φ 80	16	13	101.5	78	62.5	38	3	61	15
φ 100	18	14	110.5	87	71.5	39	1	64	20

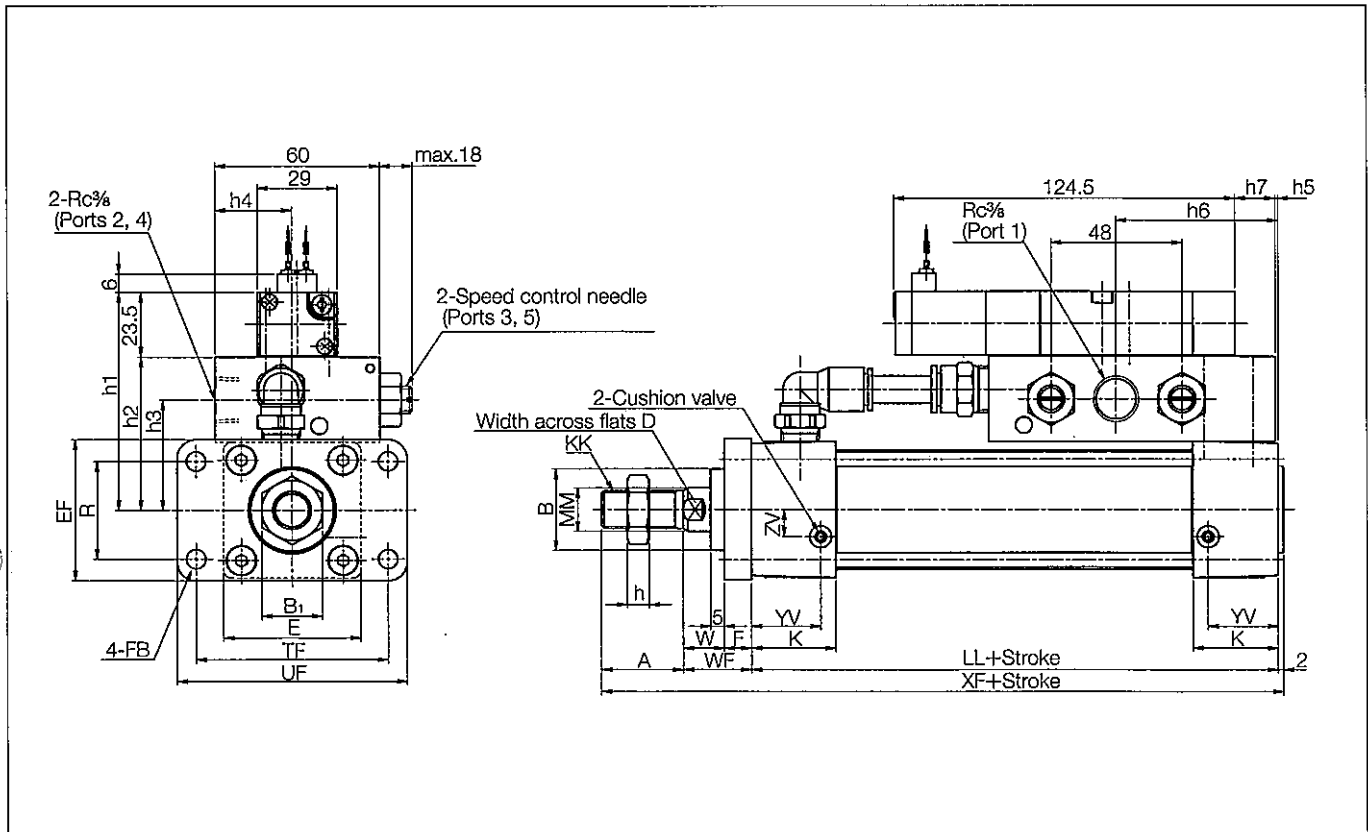
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Rod side flange mounting/A

(Unit : mm)



Bore	A	B	B1	D	E	EF	F	FB	K	KK	LL	MM	R	TF	UF	W	WF	XF	YV
φ 40	30 (27)	φ 30	22	14	□50	52	10	φ 7	31	M14×1.5	93	φ 16	36	70	84	15	25	150	25.5
φ 50	35 (32)	φ 34	27	17	□62	65	10	φ 9	31	M18×1.5	93	φ 20	47	86	104	15	25	155	24
φ 63	35 (32)	φ 34	27	17	□75	76	10	φ 9	32	M18×1.5	96	φ 20	56	98	116	15	25	158	25
φ 80	40 (36)	φ 39	32	21	□94	95	16	φ 12	36	M22×1.5	108	φ 25	70	119	143	19	35	185	29
φ 100	40 (36)	φ 46	36	26	□112	115	16	φ 12	36	M26×1.5	108	φ 30	84	138	162	19	35	185	29

Bore	ZV	h	h1	h2	h3	h4	h5	h6	h7
φ 40	10	8	79.5	56	40.5	28	1	59	15
φ 50	12	11	85.5	62	46.5	31	1	59	15
φ 63	12	11	92	68.5	53	35	1	59	15
φ 80	16	13	101.5	78	62.5	38	3	61	15
φ 100	18	14	110.5	87	71.5	39	1	64	20

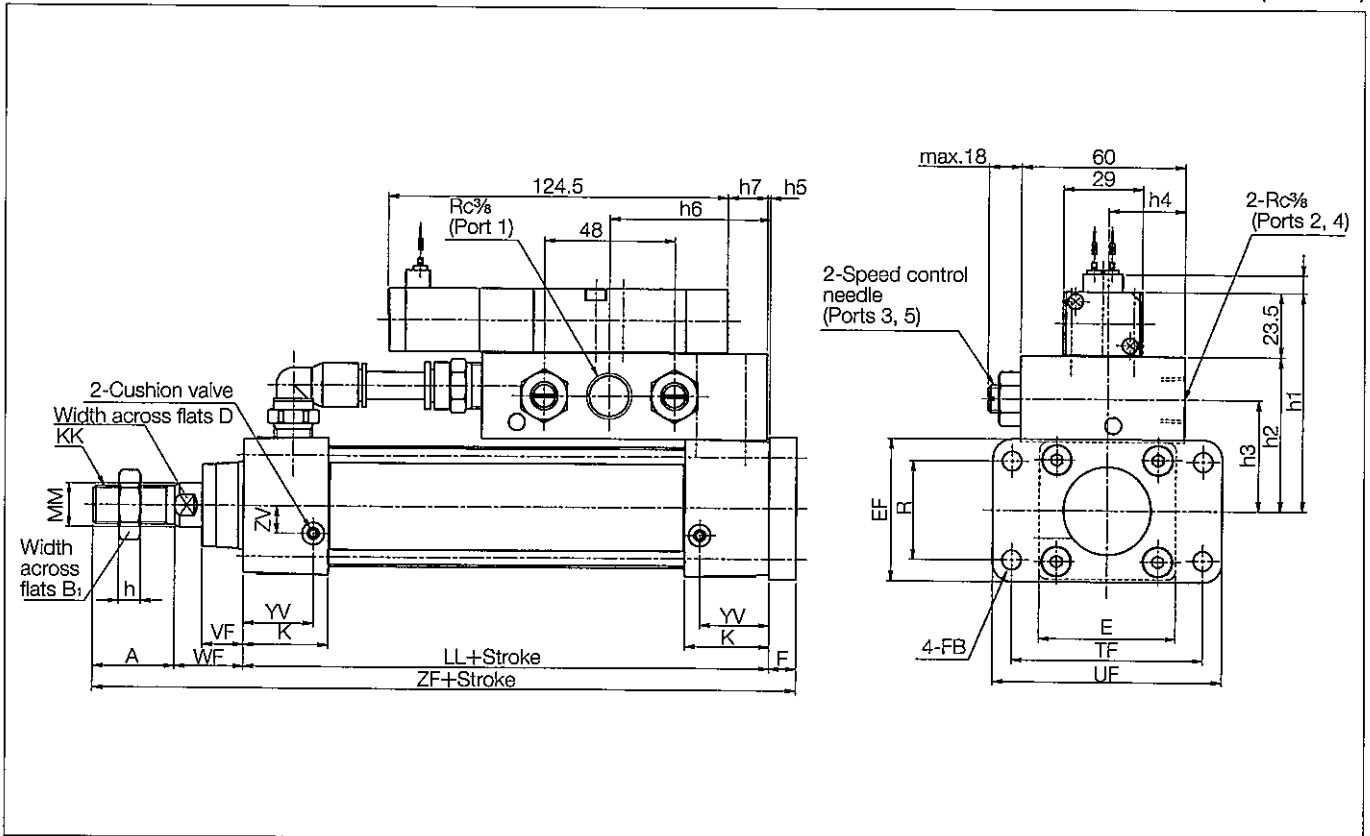
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Head side flange mounting/B

(Unit : mm)



Bore	A	B1	D	E	EF	F	FB	K	KK	LL	MM	R	TF	UF	VF	WF	YV	ZF	ZV
$\phi 40$	30 (27)	22	14	$\square 50$	52	10	$\phi 7$	31	M14 \times 1.5	93	$\phi 16$	36	70	84	15	25	25.5	158	10
$\phi 50$	35 (32)	27	17	$\square 62$	65	10	$\phi 9$	31	M18 \times 1.5	93	$\phi 20$	47	86	104	15	25	24	163	12
$\phi 63$	35 (32)	27	17	$\square 75$	76	10	$\phi 9$	32	M18 \times 1.5	96	$\phi 20$	56	98	116	15	25	25	166	12
$\phi 80$	40 (36)	32	21	$\square 94$	95	16	$\phi 12$	36	M22 \times 1.5	108	$\phi 25$	70	119	143	21	35	29	199	16
$\phi 100$	40 (36)	36	26	$\square 112$	115	16	$\phi 12$	36	M26 \times 1.5	108	$\phi 30$	84	138	162	21	35	29	199	18

Bore	h	h1	h2	h3	h4	h5	h6	h7
$\phi 40$	8	79.5	56	40.5	28	1	59	15
$\phi 50$	11	85.5	62	46.5	31	1	59	15
$\phi 63$	11	92	68.5	53	35	1	59	15
$\phi 80$	13	101.5	78	62.5	38	3	61	15
$\phi 100$	14	110.5	87	71.5	39	1	64	20

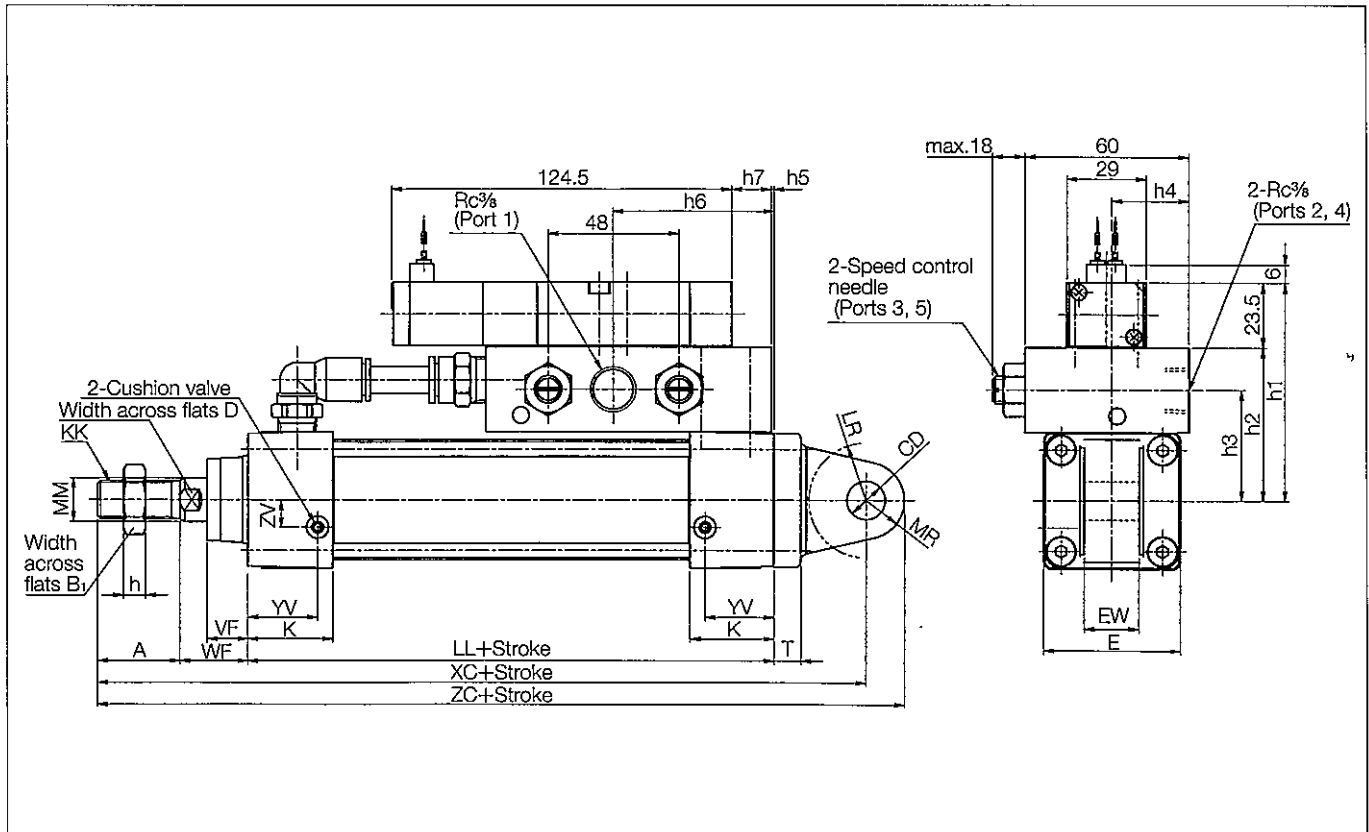
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Eye mounting/C

(Unit : mm)



Bore	A	B1	CD	D	E	EW	K	KK	LR	LL	MM	MR	T	VF	WF	XC	YV	ZC	ZV
φ 40	30 (27)	22	φ 14 ^{H9}	14	□50	20 ⁰ _{-0.3}	31	M14×1.5	R21	93	φ 16	R14	11	15	25	182	25.5	196	10
φ 50	35 (32)	27	φ 14 ^{H9}	17	□62	20 ⁰ _{-0.3}	31	M18×1.5	R21	93	φ 20	R15	11	15	25	187	24	202	12
φ 63	35 (32)	27	φ 14 ^{H9}	17	□75	20 ⁰ _{-0.3}	32	M18×1.5	R21	96	φ 20	R15	11	15	25	190	25	205	12
φ 80	40 (36)	32	φ 20 ^{H9}	21	□94	32 ⁰ _{-0.3}	36	M22×1.5	R25	108	φ 25	R20	15	21	35	231	29	251	16
φ 100	40 (36)	36	φ 20 ^{H9}	26	□112	32 ⁰ _{-0.3}	36	M26×1.5	R25	108	φ 30	R20	15	21	35	231	29	251	18

Bore	h	h1	h2	h3	h4	h5	h6	h7
φ 40	8	79.5	56	40.5	28	1	59	15
φ 50	11	85.5	62	46.5	31	1	59	15
φ 63	11	92	68.5	53	35	1	59	15
φ 80	13	101.5	78	62.5	38	3	61	15
φ 100	14	110.5	87	71.5	39	1	64	20

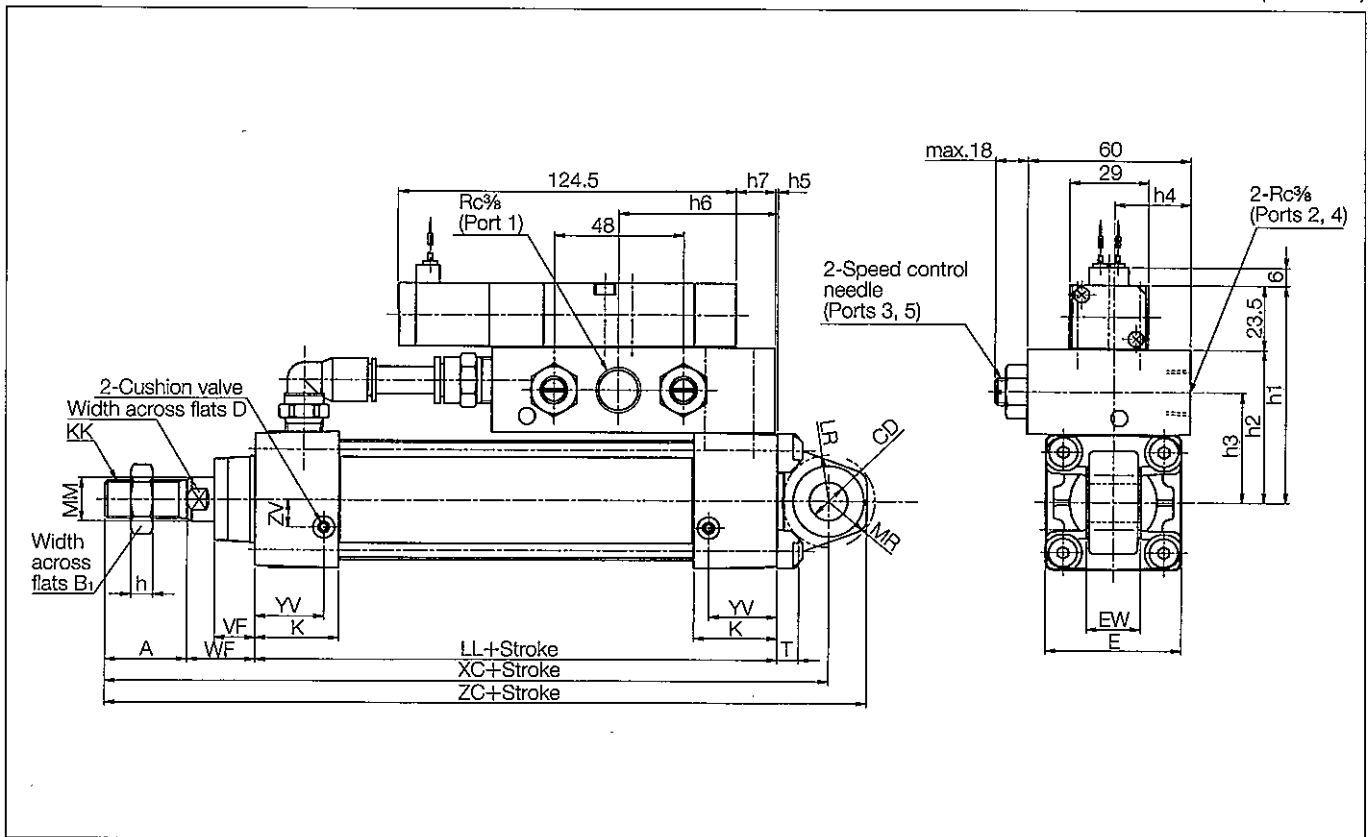
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Short eye mounting/D

(Unit : mm)



Bore	A	B1	CD	D	E	EW	K	KK	LR	LL	MM	MR	T	VF	WF	XC	YV	ZC
φ 40	30 (27)	22	φ 14 ^{H9}	14	□50	20 ⁰ _{-0.084}	31	M14×1.5	R17	93	φ 16	R17	8	15	25	167	25.5	181
φ 50	35 (32)	27	φ 14 ^{H9}	17	□62	20 ⁰ _{-0.084}	31	M18×1.5	R17	93	φ 20	R17	10	15	25	172	24	186
φ 63	35 (32)	27	φ 14 ^{H9}	17	□75	20 ⁰ _{-0.084}	32	M18×1.5	R17	96	φ 20	R17	13	15	25	175	25	189
φ 80	40 (36)	32	φ 20 ^{H9}	21	□94	32 ⁰ _{-0.100}	36	M22×1.5	R25	108	φ 25	R24	18	21	35	215	29	236
φ 100	40 (36)	36	φ 20 ^{H9}	26	□112	32 ⁰ _{-0.100}	36	M26×1.5	R26	108	φ 30	R24	18	21	35	215	29	235

Bore	ZV	h	h1	h2	h3	h4	h5	h6	h7
φ 40	10	8	79.5	56	40.5	28	1	59	15
φ 50	12	11	85.5	62	46.5	31	1	59	15
φ 63	12	11	92	68.5	53	35	1	59	15
φ 80	16	13	101.5	78	62.5	38	3	61	15
φ 100	18	14	110.5	87	71.5	39	1	64	20

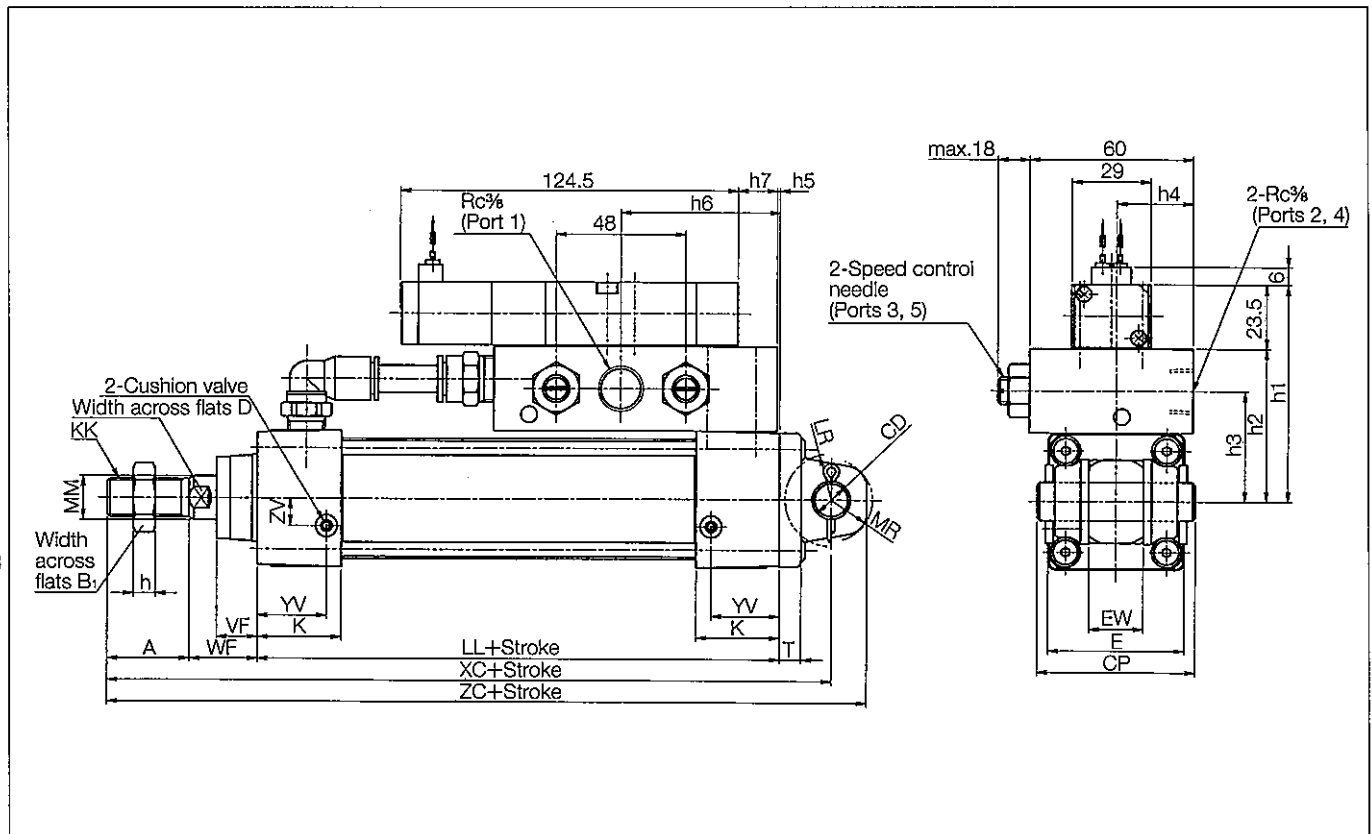
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Clevis mounting/W

(Unit : mm)



Bore	A	B1	CD	CP	D	E	EW	K	KK	LR	MM	MR	T	VF	WF	XC	YV	ZC
φ 40	30 (27)	22	φ 14 ^{H9/f8}	58	14	□50	20 ^{+0.7/+0.5}	31	M14×1.5	R17	φ 16	R15	8	15	25	167	25.5	180
φ 50	35 (32)	27	φ 14 ^{H9/f8}	66	17	□62	20 ^{+0.7/+0.5}	31	M18×1.5	R17	φ 20	R17	8	15	25	172	24	187
φ 63	35 (32)	27	φ 14 ^{H9/f8}	66	17	□75	20 ^{+0.7/+0.5}	32	M18×1.5	R17	φ 20	R17	8	15	25	175	25	190
φ 80	40 (36)	32	φ 20 ^{H9/f8}	78	21	□94	32 ^{+0.7/+0.5}	36	M22×1.5	R30	φ 25	R24	11	21	35	215	29	236
φ 100	40 (36)	36	φ 20 ^{H9/f8}	78	26	□112	32 ^{+0.7/+0.5}	36	M26×1.5	R30	φ 30	R24	11	21	35	215	29	236

Bore	ZV	h	h1	h2	h3	h4	h5	h6	h7
φ 40	10	8	79.5	56	40.5	28	1	59	15
φ 50	12	11	85.5	62	46.5	31	1	59	15
φ 63	12	11	92	68.5	53	35	1	59	15
φ 80	16	13	101.5	78	62.5	38	3	61	15
φ 100	18	14	110.5	87	71.5	39	1	64	20

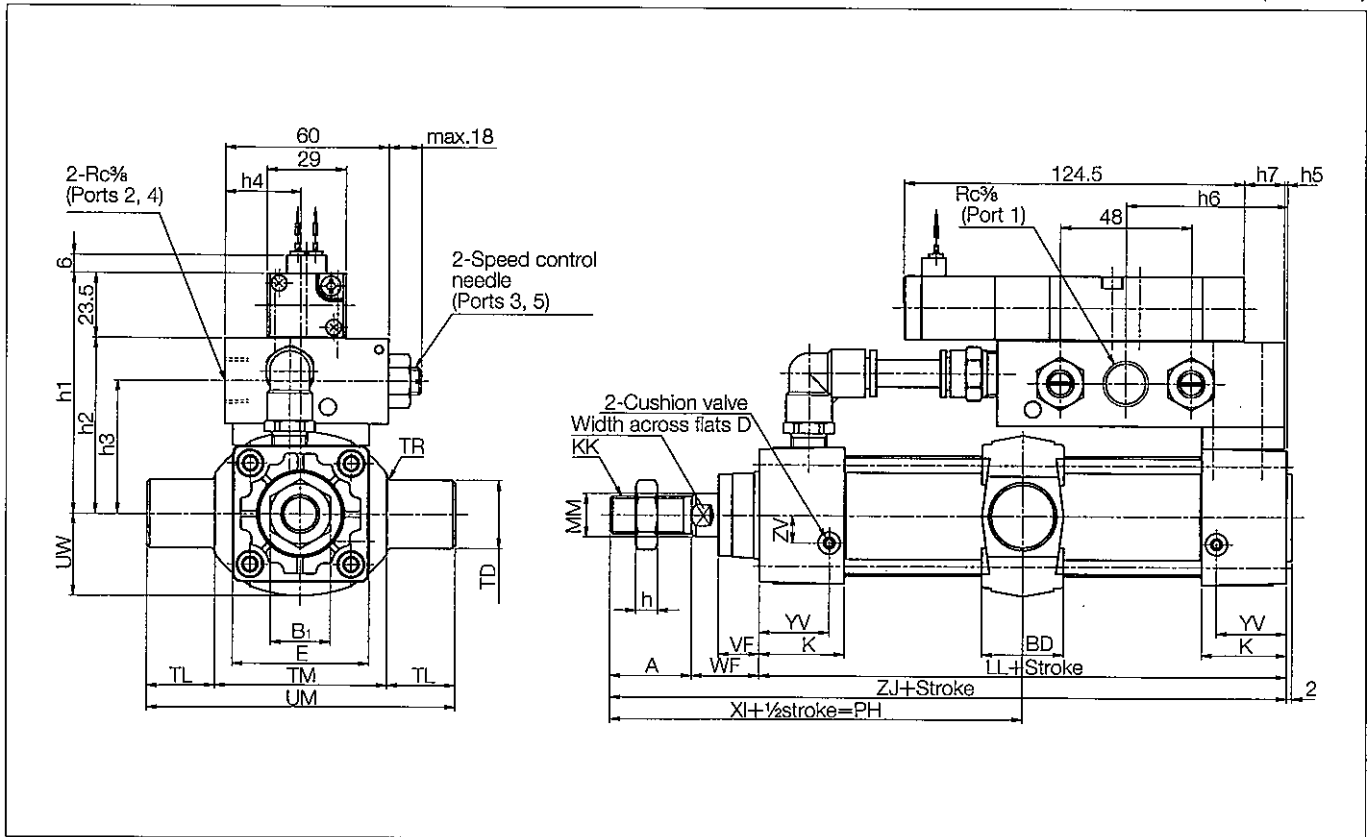
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

Center trunnion mounting/T

(Unit : mm)



Bore	A	B1	BD	D	E	K	KK	LL	MM	PH(min)	TD	TL	TM	TR	UM	UW	VF	WF	XI
$\phi 40$	30 (27)	22	30	14	$\square 50$	31	M14 \times 1.5	93	$\phi 16$	71	$\phi 25^{e9}$	25	63	R1.6	113	30	15	25	101.5
$\phi 50$	35 (32)	27	30	17	$\square 62$	31	M18 \times 1.5	93	$\phi 20$	71	$\phi 25^{e9}$	25	76	R1.6	126	36	15	25	106.5
$\phi 63$	35 (32)	27	30	17	$\square 75$	32	M18 \times 1.5	96	$\phi 20$	72	$\phi 25^{e9}$	25	88	R1.6	138	43.5	15	25	108
$\phi 80$	40 (36)	32	35	21	$\square 94$	36	M22 \times 1.5	108	$\phi 25$	88.5	$\phi 25^{e9}$	25	114	R1.6	164	52.5	21	35	129
$\phi 100$	40 (36)	36	40	26	$\square 112$	36	M26 \times 1.5	108	$\phi 30$	91	$\phi 25^{e9}$	25	132	R2	182	64.5	21	35	129

Bore	YV	ZJ	ZV	h	h1	h2	h3	h4	h5	h6	h7
$\phi 40$	25.5	148	10	8	87.5	64	48.5	28	1	59	15
$\phi 50$	24	153	12	11	93.5	70	54.5	31	1	59	15
$\phi 63$	25	156	12	11	101	77.5	62	35	1	59	15
$\phi 80$	29	183	16	13	110.5	87	71.5	38	3	61	15
$\phi 100$	29	183	18	14	121.5	98	82.5	39	1	64	20

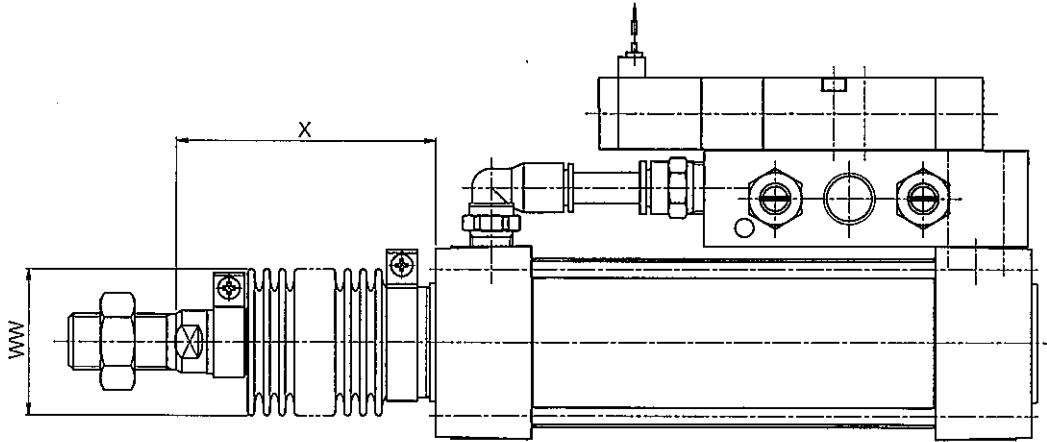
(Note) Bracketed figures in size A columns are thread lengths.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

DIMENSIONS

With dustproof cover

(Unit : mm)



	Standard	Custom-made	
Material	Nylon tarpaulin	Chloroprene	CONEX
Heat resistance temp.	80°C	100°C	200°C

- (Note) •CONEX is a registered trademark of Teijin Ltd.
 •Heat resistance temperature is not that of the cylinder body but that of the dustproof cover.
 •The cylinder is delivered with the dustproof cover fitted.

Nylon tarpaulin/J and Chloroprene/JN

Bore	WW	X (Standard stroke)												X
		50	75	100	125	150	200	250	300	350	400	450	500	(Other stroke than standard)
φ 40	φ 41	62	70	79	87	95	112	129	145	162	179	195	212	1/2stroke+45
φ 50	φ 47	67	75	84	92	100	117	134	150	167	184	200	217	
φ 63	φ 47	67	75	84	92	100	117	134	150	167	184	200	217	1/2stroke+50
φ 80	φ 56	68	74	80	87	93	105	118	130	143	155	168	180	
φ 100	φ 61	68	74	80	87	93	105	118	130	143	155	168	180	1/2stroke+55

(Note) Round off fractions below the decimal point.

CONEX/JK

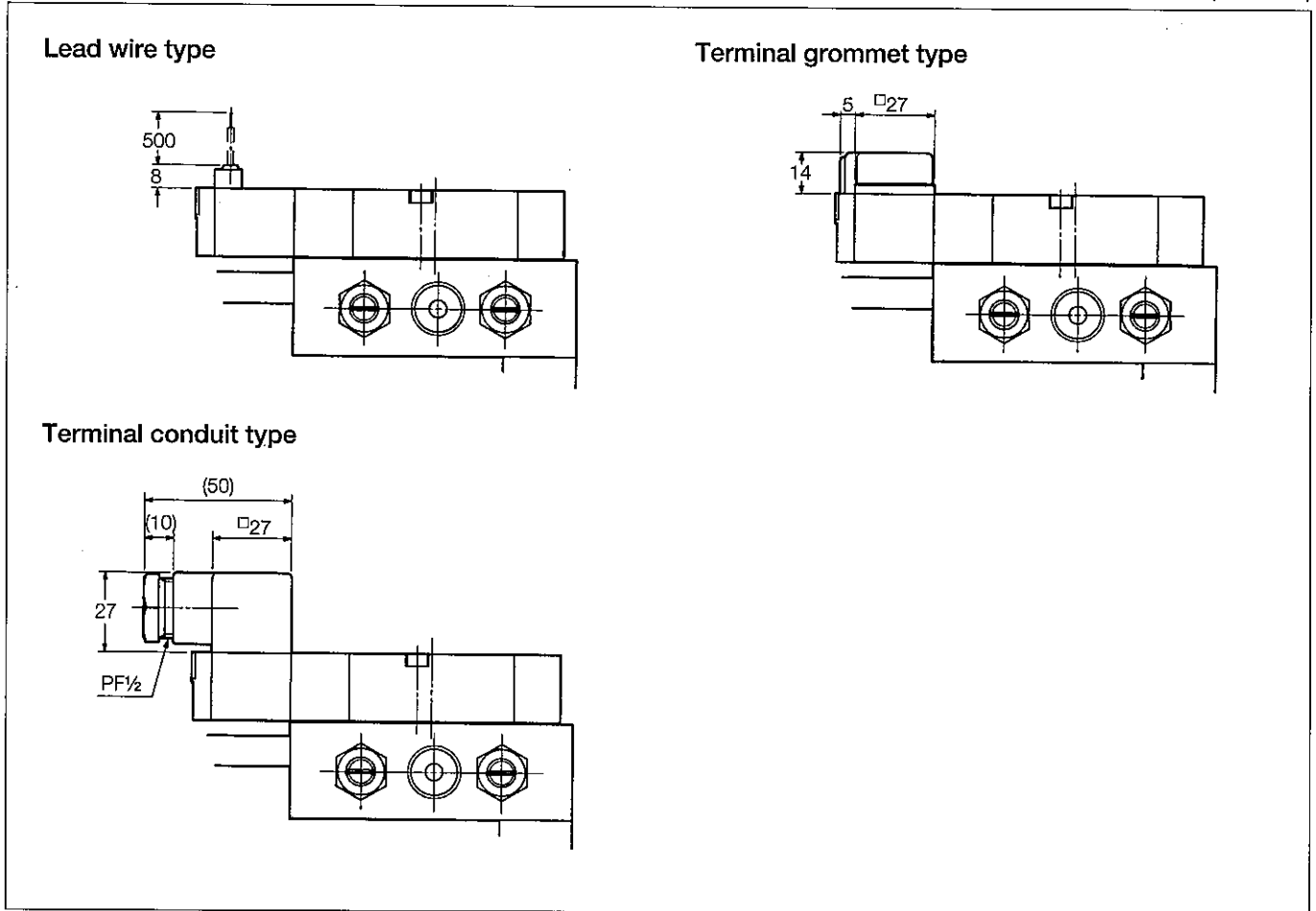
Bore	WW	X (Standard stroke)												X
		50	75	100	125	150	200	250	300	350	400	450	500	(Other stroke than standard)
φ 40	φ 61	70	83	95	108	120	145	170	195	220	245	270	295	1/2stroke+45
φ 50	φ 61	75	88	100	113	125	150	175	200	225	250	275	300	
φ 63	φ 61	75	88	100	113	125	150	175	200	225	250	275	300	1/2stroke+50
φ 80	φ 61	75	85	95	105	115	135	155	175	195	215	235	255	
φ 100	φ 61	75	85	95	105	115	135	155	175	195	215	235	255	2/3stroke+55

(Note) Round off fractions below the decimal point.

HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

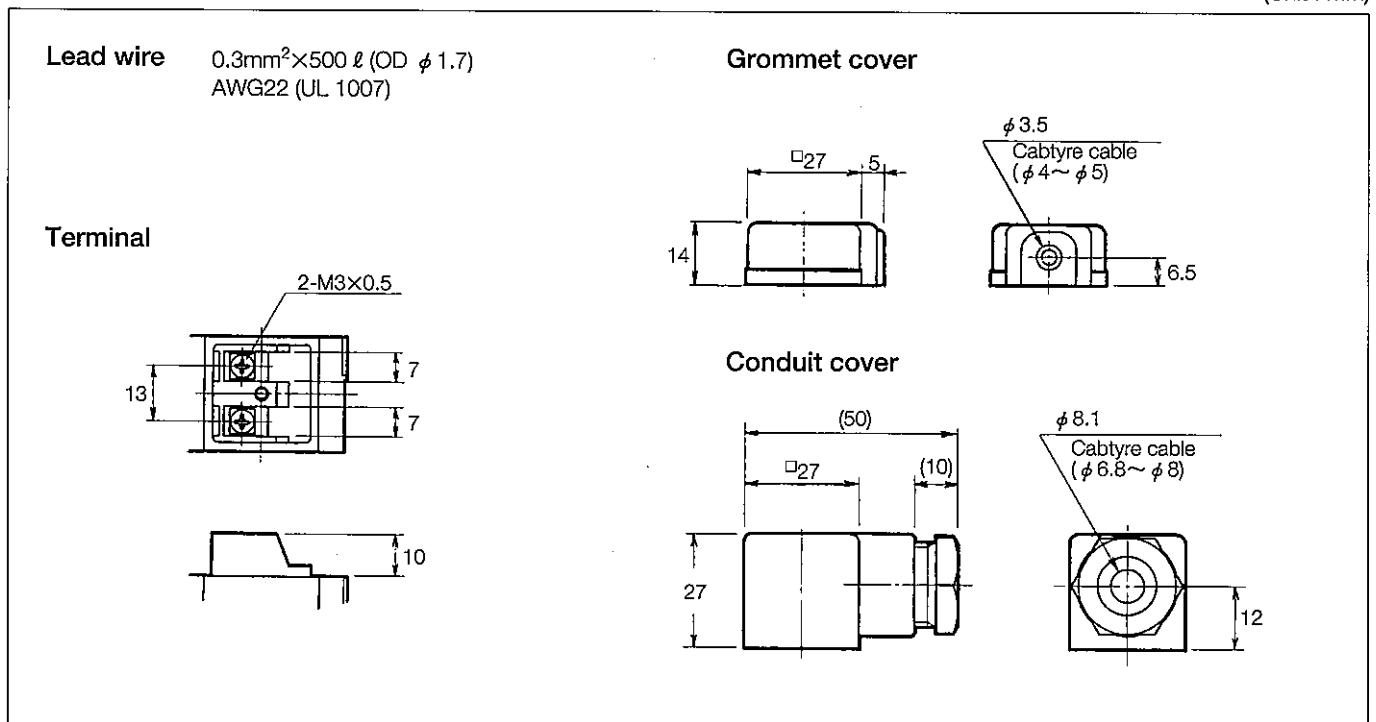
DIMENSIONS OF SOLENOID VALVES CLASSIFIED BY TYPE OF WIRING

(Unit : mm)



WIRING OF SOLENOID VALVE

(Unit : mm)

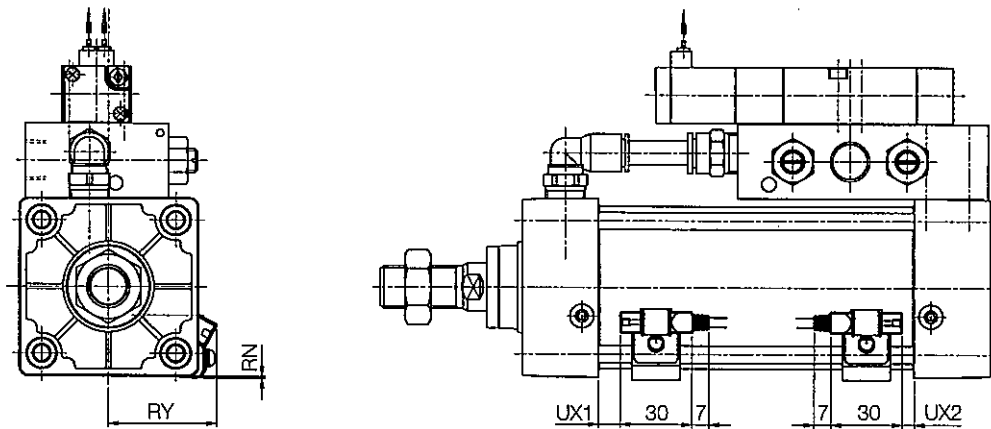


HI-PAL CYLINDER/WITH SOLENOID VALVE K1○HA series

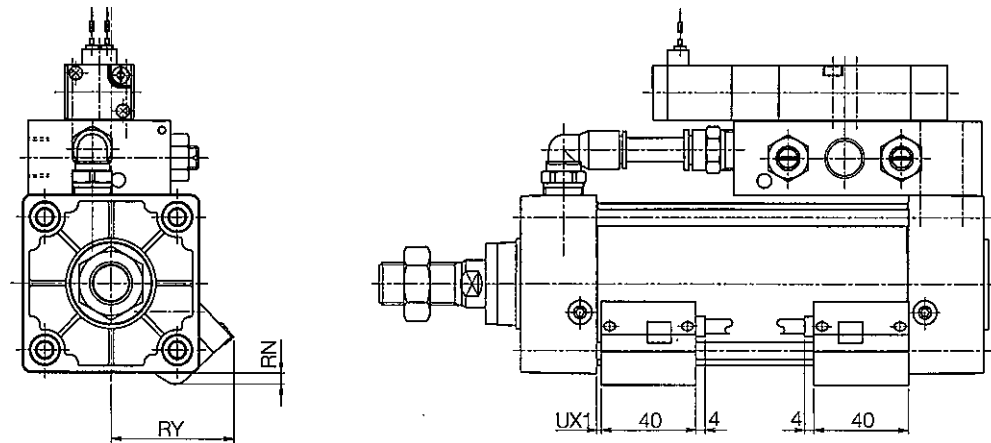
SWITCH SET POSITION

(Unit : mm)

With AX type switch



With SR type switch



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

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	6~12	Below 1	8~12	Below 2	3~6	Below 1
φ 50			9~13		4~8	
φ 63						
φ 80						
φ 100						