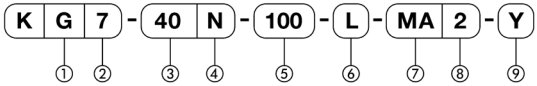
K□7 Series

Air cylinder/Double rod type
∅40, ∅50, ∅63, ∅80, ∅100

Ordering Instructions



① Magnet
G: Cylinder with switch available (With built-in magnet)

② Action
7: Double acting, double rod

③ Bore (mm)
40 : ∅40
50 : ∅50
63 : ∅63
80 : ∅80
100: ∅100

④ Cushion
No symbol: Both-side air cushion (Standard)
R : Rod side air cushion
H : Head side air cushion
N : No cushion
F : Cushion on the other side (R)

⑤ Stroke (mm)
Refer to Standard Stroke Table

⑥ Mounting
N : Standard type
L : Axial foot
A : Rod side flange
T : Center trunnion

⑦ Sensor switch type

No symbol	No switch	
MA	MA-1 (AC110V, DC24V)	M type reed switch
MB	MD-1 (DC24V)	
MC	MD-3 (DC5, 6V)	
MD	MR (AC, DC5~110V)	
ME	MA-2L (AC110V)	
MF	MA-2H (AC220V)	
MG	MT-3 (DC5~30V)	M type proximity switch
MH	MT-3U (DC5~30V)	
MJ	MT-2 (DC24V)	
MK	MT-2U (DC24V)	

⑧ Number of switchs
No symbol: No switch
2 : With 2 units
1 : With 1 unit

⑨ Accessories
No symbol: Rod end nut
Y : With rod end clevis
I : With rod end eye
YY : With two rod end clevis
II : With two rod end eye

Model No. of Mounting Bracket

Bore (mm)	∅40	∅50	∅63	∅80	∅100
Axial foot mount bracket	K40-L	K50-L	K63-L	K80-L	K100-L
Flange mount bracket	K40-A	K50-A	K63-A	K80-A	K100-A
Trunnion mount bracket	K40-T	K50-T	K63-T	K80-T	K100-T

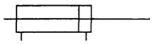
Model No. of Sensor Switch Mounting Bracket

Bore (mm)	M type sensor switch	
	Reed	Proximity
∅40	K40-MJ	K40-MTJ
∅50		
∅63		
∅80	K80-MJ	K80-MTJ
∅100		

Model No. of Packing

Bore (mm)	Packing
∅40	K740-PS
∅50	K750-PS
∅63	K763-PS
∅80	K780-PS
∅100	K7100-PS

JIS Label



Double acting

Value shown in this catalog is shown in SI unit. However, value within this output table is in generic unit. Use the following formula to convert to SI unit:

Pressure $Y(MPa) = X(kgf/cm^2) \times 9.80665 \times 10^{-2}$

Force $Y(N) = X(kgf) \times 9.80665$

Specifications

Action	Unit	Double-acting
Fluid		Non-lubricated air/Lubricated air
Pressure range	MPa(kgf/cm^2)	0.05~1(0.51~10.2)
Temperature range	℃	5~60
Piston speed range	mm/s	50~500
Cushion		Standard
Piston stroke allowance	mm	~250$^{+1.0}_{0}$ 251~1000$^{+1.4}_{0}$
Mounting		Standard type, Axial foot, Rod side flange , Center trunnion

(Note) When piston is within the buffer stroke range, the minimum pneumatic pressure is 0.1MPa{1.0kgf/cm2}. If it falls outside of the range, the minimum pneumatic pressure is 0.05MPa{0.51kgf/cm2}.

Standard Stroke

(Unit: mm)

Bore	Standard Stroke	Max. Stroke
∅40	50, 75, 100, 150, 200, 250, 300, 350, 400, 450, 500	600
∅50		800
∅63		
∅80		1000
∅100		

Cushion Stroke

(Unit : mm)

Bore	Cushion Stroke
∅40	16
∅50	
∅63	
∅80	20
∅100	

Accessories

Name		Standard type	Axial foot	Rod side flange	Center trunnion
Standard	Rod end nut	○	○	○	○
Optional	With rod end clevis	○	○	○	○
	With rod end eye	○	○	○	○

Model With Switch

M Type Reed Switch

Lead With Wire

Model No.	Rated voltage (V)	Rated current (mA)	Pilot lamp (Lights up at ON)	Application
MA-1	AC110	5~45	○	Relay PLC
	DC24	5~45		
MD-1	DC24	25~65	○	Relay
MD-3	DC5, 6	Max.50 (Inductive load) Max.300 (Resistive load)	○	IC circuit
MR	AC DC 5~110	Max.50 (Inductive load) Max.300 (Resistive load)	No indicator	Relay PLC
MA-2L	AC110	5~150	○	Relay
MA-2H	AC220	5~150	○	Relay

(Note) The MA-2L is the same as the MA-1 except that MA-2H is also equipped with protective circuit SS-2L.
The MA-2H is the same as the MA-1 except that MA-2H is also equipped with protective circuit SS-2H.

M Type Proximity Switch

Lead With Wire

Model No.	Rated voltage (V)	Rated current range (mA)	Pilot lamp (Lights up at CN)	Application
MT-2 MT-2U	DC24 (DC10~30)	5~100	○	Relay PLC
MT-3 MT-3U	DC5~30	5~200	○	Relay PLC IC circulit

Minimum Stroke with M Type Switch

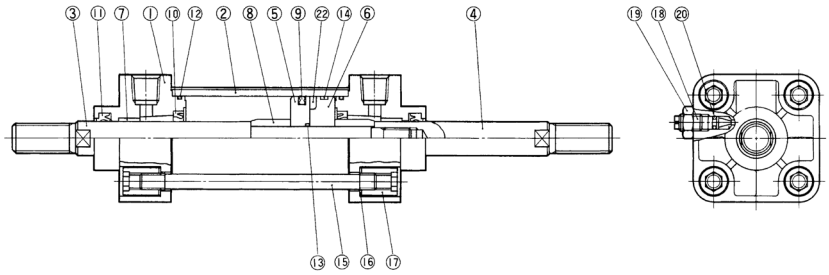
(Unit: mm)

Bore	Number of switchs			
	Aside from center trunnion			Center trunnion
	With 2 units (on the same surface)	With 2 units (on different surfaces)	With 1 unit	With 2 units (on the same surface)
∅40	10	10	5	75
∅50				85
∅63				
∅80				95
∅100				100

Sensor Switch Fixed Position

Sensor switch fixed position is the same as that of K Series Standard Type.

Construction



Parts List

No.	Description	No.	Description
1	Front cover	12	O-ring for cover
2	Outer tube	13	Sleeve gasket
3	Piston rod A	14	Wear ring
4	Piston rod B	15	Iron rod
5	Piston A	16	Washer
6	Piston B	17	Tie rod nut
7	Bearing	18	Cushion needle
8	Cushion sleeve	19	Cushion locking nut
9	Piston packing	20	Cushion needle packing
10	Cushion packing	21	Rod end nut
11	Rod packing	22	Magnet

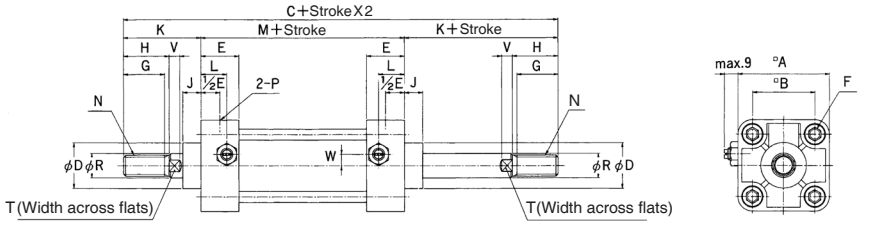
Packing List

Bore (mm)	9. Piston packing		10. Cushion packing		11. Rod packing		12. O-ring for cover		13. Sleeve gasket		20. Cushion needle packing	
	Model No.	Amount	Model No.	Amount	Model No.	Amount	Model No.	Amount	Model No.	Amount	Model No.	Amount
∅40	PSD-40	1	CP-18	2	PDU-16	2	KG40	2	IN-11.2	1	P3	2
∅50	PSD-50	1	CP-24	2	PDU-20	2	KG50	2	P12	1	P3	2
∅63	PSD-63	1	CP-24	2	PDU-20	2	KG63	2	P12	1	P3	2
∅80	PSD-80	1	CP-30	2	PDU-25	2	KG80	2	P16	1	P3	2
∅100	PSD-100	1	CP-35	2	PDU-30	2	KG100	2	P20	1	P3	2

(Note) Seal repair and assembly kits are also available for purchase.

Standard type/N

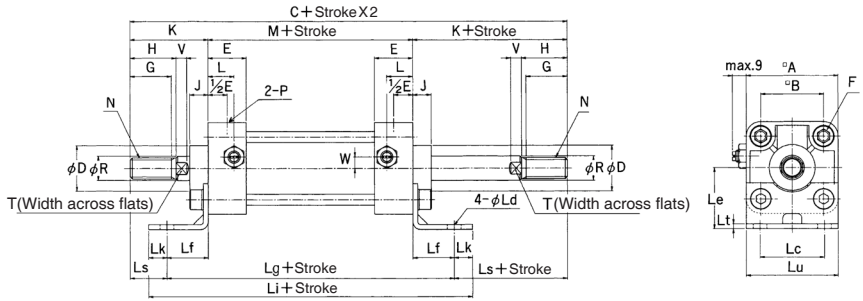
(Unit: mm)



Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	V	W
∅40	60	41	186	30	25	M8	27	30	12	51	17	84	M14×1.5	Rc¼	16	14	7	7.5
∅50	68	48	204	36	26	M8	32	35	13	57.5	18	89	M18×1.5	Rc⅜	20	17	7	6.5
∅63	78	58	214	36	26	M8	32	35	13	60.5	18	93	M18×1.5	Rc⅜	20	17	8	0
∅80	96	72	258	42	32	M10	36	40	16	74	24	110	M22×1.5	Rc½	25	22	13	0
∅100	110	86	270	48	32	M10	36	40	18	79	24	112	M26×1.5	Rc½	30	27	13	0

Axial foot mounting/L

(Unit: mm)

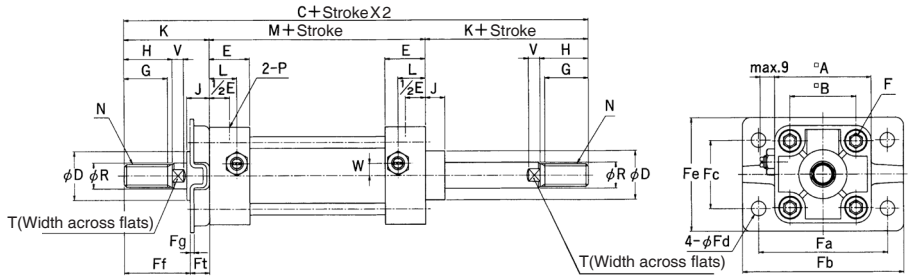


Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	V	W
∅40	60	41	186	30	25	M8	27	30	12	51	17	84	M14×1.5	Rc¼	16	14	7	7.5
∅50	68	48	204	36	26	M8	32	35	13	57.5	18	89	M18×1.5	Rc⅜	20	17	7	6.5
∅63	78	58	214	36	26	M8	32	35	13	60.5	18	93	M18×1.5	Rc⅜	20	17	8	0
∅80	96	72	258	42	32	M10	36	40	16	74	24	110	M22×1.5	Rc½	25	22	13	0
∅100	110	86	270	48	32	M10	36	40	18	79	24	112	M26×1.5	Rc½	30	27	13	0

Bore	Lc	Ld	Le	Lf	Lg	Li	Lk	Ls	Lt	Lu
∅40	42	9	40	27	138	162	12	24	3.2	60
∅50	50	9	45	27.5	144	169	12.5	30	3.2	68
∅63	59	11.5	50	36.5	166	193	13.5	24	3.2	78
∅80	76	13.5	65	47	204	238	17	27	4	100
∅100	92	13.5	75	50	212	246	17	29	4	116

Rod side flange/A

(Unit: mm)

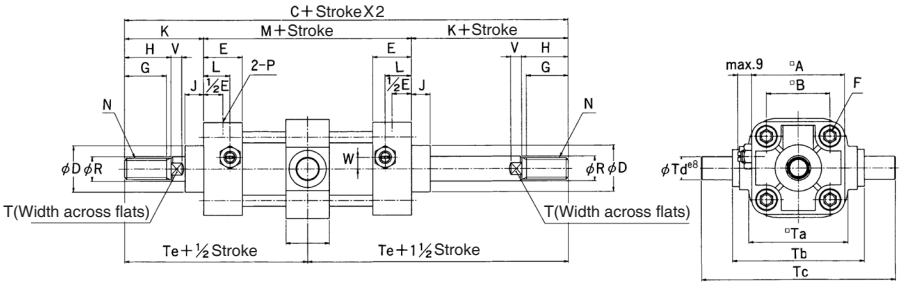


Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	V	W
∅40	60	41	186	30	25	M8	27	30	12	51	17	84	M14×1.5	Rc¼	16	14	7	7.5
∅50	68	48	204	36	26	M8	32	35	13	57.5	18	89	M18×1.5	Rc⅜	20	17	7	6.5
∅63	78	58	214	36	26	M8	32	35	13	60.5	18	93	M18×1.5	Rc⅜	20	17	8	0
∅80	96	72	258	42	32	M10	36	40	16	74	24	110	M22×1.5	Rc½	25	22	13	0
∅100	110	86	270	48	32	M10	36	40	18	79	24	112	M26×1.5	Rc½	30	27	13	0

Bore	Fa	Fb	Fc	Fd	Fe	Ff	Fg	Ft
∅40	80	100	42	9	70	39	2.3	12
∅50	90	110	50	9	80	45	3.2	12.5
∅63	105	130	59	11.5	92	43	3.2	17.5
∅80	130	160	76	13.5	114	53	4	21
∅100	150	180	92	13.5	130	54	4	25

Certer trunnion mounting/T

(Unit: mm)



Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	V	W
∅40	60	41	186	30	25	M8	27	30	12	51	17	84	M14×1.5	Rc¼	16	14	7	7.5
∅50	68	48	204	36	26	M8	32	35	13	57.5	18	89	M18×1.5	Rc⅜	20	17	7	6.5
∅63	78	58	214	36	26	M8	32	35	13	60.5	18	93	M18×1.5	Rc⅜	20	17	8	0
∅80	96	72	258	42	32	M10	36	40	16	74	24	110	M22×1.5	Rc½	25	22	13	0
∅100	110	86	270	48	32	M10	36	40	18	79	24	112	M26×1.5	Rc½	30	27	13	0

Bore	Ta	Tb	Tc	Td	Te	Tf
∅40	64	85	125	15	93	28
∅50	76	95	135	15	102	28
∅63	92	110	160	18	107	30
∅80	112	140	200	25	129	40
∅100	136	162	222	25	135	45