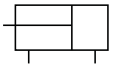
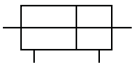
KP140HS series

KP140HS-SD80-S40

KP140HS-LA50-S30N

Features

- Compact hydraulic cylinder with steel tube.
- Double acting hydraulic cylinder for 140kgf/cm² with a bore from Ø20 to Ø125.
- Appropriate for pressing, clamping and short-stroke operations.
- Cylinder designed with a shorter length than a conventional cylinder.

Symbol
 Double Acting / Single Rod
 Double Acting / Double Rod

How to Order

KP140HS - ① ② SD ③ 40 ④ - **S** ⑤ 40 ⑥ ⑦ ⑧

① Series

Series	Type	Tube material	Operating pressure
KP140HS	Single rod	Steel	140 kgf/cm²
KP140HS W	Double rod		
KP140HS HL	Auto switch attached type (Single rod)	SUS	
KP140HS HL W	Auto switch attached type (Double rod)		

② Seal material

Nil	Nitrile Urethane (Standard)
1	Nitrile rubber
2	FPM rubber

③ Mounting style

SD	Standard
LA	Axial angle of foot

④ Bore size

32	Ø30
40	Ø40
50	Ø50
63	Ø63
80	Ø80
100	Ø100
125	Ø125

⑤ Cylinder stroke

Bore size	Standard stroke	Max. stroke
Ø32	5,10, 15, 20, 25, 30, 35, 40, 45, 50	50
Ø40		100
Ø50		
Ø63		
Ø80		
Ø100	-	
Ø125		

※ Check buckling, as it varies depending on mounting style.
※ Contact us for longer stroke.
※ Female thread, standard stroke type are in stock.

⑥ Rod end attachment

Nil	Rod end female thread (Standard)
N	Rod end male thread

⑦ Auto switch

Contact	Model	No contact	Model
A72	D-A72K	F7NV	D-F7NVK
A73	D-A73K	F7PV	D-F7PVK
A80	D-A80K	F7BV	D-F7BVK

※ Only for auto switch attached type.
※ For more information, refer to Auto Switch Catalogue.

⑧ Number of auto switch

Nil	2 pcs
S	1 pc
N	N pcs (N:3,4,5...)

※ Only for auto switch attached type.

Specifications

Modle	KP140HS
Bore size	Ø20, Ø25, Ø30, Ø40, Ø50, Ø63, Ø80
Max. Operating pressure	140kgf/cm² (14.0MPa)
Proof pressure	210kgf/cm² (21.0MPa)
Min. Operating pressure	3kgf/cm² (0.3MPa)
Operating piston speed	10~300mm/sec
Ambient & fluid temperature	-10 ~ 70℃
Working oil	Petroleum-based fluid
Tolerance of thread	KS class 2
Tolerance of stroke	0~+0.8mm

※ Contact us for delivery of auto switch attached type.

Mass

KP140HS

Unit : kg

Bore size	Standard Type (SD)				Foot Type(LA)				Additional mass of male thread
	Double acting single rod		Double acting double rod		Double acting single rod		Double acting double rod		
	Basic mass	Additional mass per each 1mm of stroke	Basic mass	Additional mass per each 1mm of stroke	Basic mass	Additional mass per each 1mm of stroke	Basic mass	Additional mass per each 1mm of stroke	
Ø32	1.4	0.025	1.6	0.024	1.4	0.027	1.9	0.028	0.057
Ø40	1.8	0.030	2.1	0.032	1.8	0.034	2.4	0.036	0.114
Ø50	2.5	0.037	2.7	0.036	2.6	0.044	3.3	0.048	0.201
Ø63	3.8	0.047	4.1	0.041	4.1	0.062	5.0	0.068	0.435
Ø80	6.6	0.067	7.6	0.083	-	-	-	-	0.798
Ø100	12.5	0.102	14.9	0.121	-	-	-	-	-
Ø125	21.5	0.152	29	0.222	-	-	-	-	-

KP140HS HL

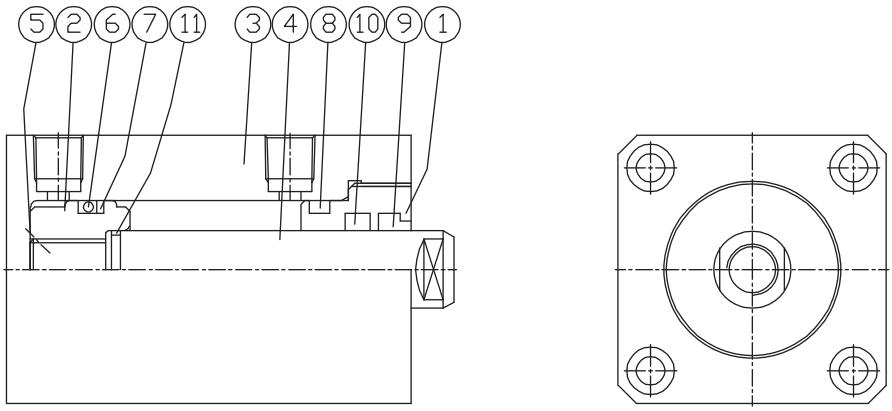
Unit : kg

Bore size	Standard Type (SD)				Foot Type(LA)		Additional mass of male thread
	Double acting single rod		Double acting double rod		Double acting single rod		
	Basic mass	Additional mass per each 1mm of stroke	Basic mass	Additional mass per each 1mm of stroke	Basic mass	Additional mass per each 1mm of stroke	
Ø32	1.2	0.022	1.3	0.024	1.2	0.022	0.057
Ø40	1.6	0.028	1.7	0.031	1.6	0.028	0.114
Ø50	2.2	0.036	2.4	0.041	2.3	0.036	0.201
Ø63	3.3	0.049	3.7	0.057	3.6	0.049	0.435
Ø80	6.2	0.071	7.2	0.084	-	-	0.0798

Calculation:

Ex) KP140HS-SD40-S50
Basic mass: 1.8
Additional mass: 0.030
Cylinder stroke: 50mm
1.8+(0.030 X 50) = 3.3kg

Structure



Part List

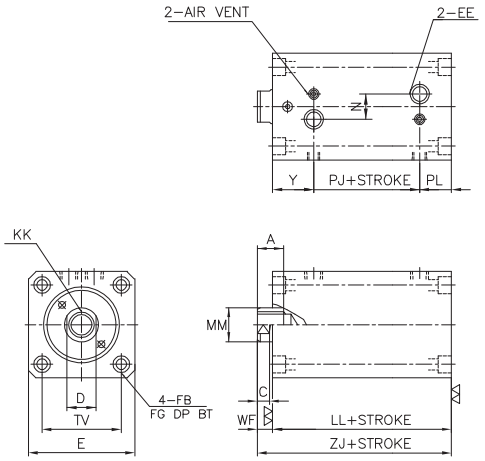
Part no.	Parts	Material
1	Rod Cover	GC200
2	Piston	GC200
3	Cylinder Tube	SM45C
4	Piston Rod	SM45C
5	Set Bolt	SCM430

Packing List

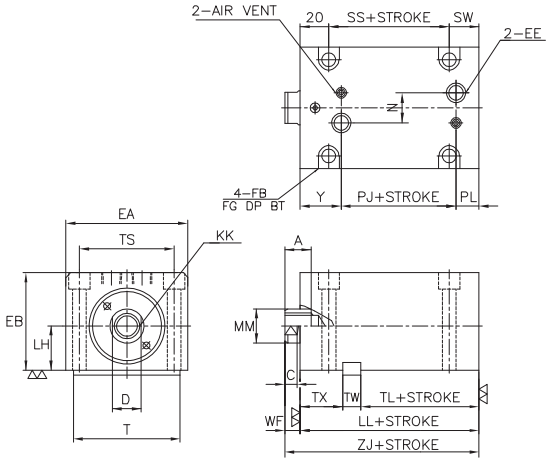
Part no.	6	7	8	9	10	11
Parts	Piston Packing	B.U.R	Tube O-Ring	Dust Seal	Rod Packing	Rod O-Ring
Material	NBR	PTFT	NBR	NBR	NBR	NBR
Bore size	Type	Type	Type	Type	Type	Type
Ø20	P16	For P16	S18	LBH12	USH12	P8
Ø25	P21	For P21	S22	LBH14	USH14	P10
Ø32	P26	For P26	S29	LBH18	USH18	S16
Ø40	P34	For P34	S35	LBH22	USH22	S20
Ø50	P44	For P44	S45	LBH28	USH28	S25
Ø63	P53	For P53	S58	LBH35	USH35	S32
Ø80	P70	For P70	S75	LBH45	USH45	S42
Ø100	P90	For P90	S95	LBH56	USH56	G40
Ø125	P115	For P115	S120	LBH35	USH35	G50

Dimensions-Single Rod Female Thread Standard type, Axia Angle of Foot (SD, LA)

SD type / Bore size Ø32, Ø40, Ø50, Ø63, Ø80



LA type / Bore size Ø32, Ø40, Ø50, Ø63



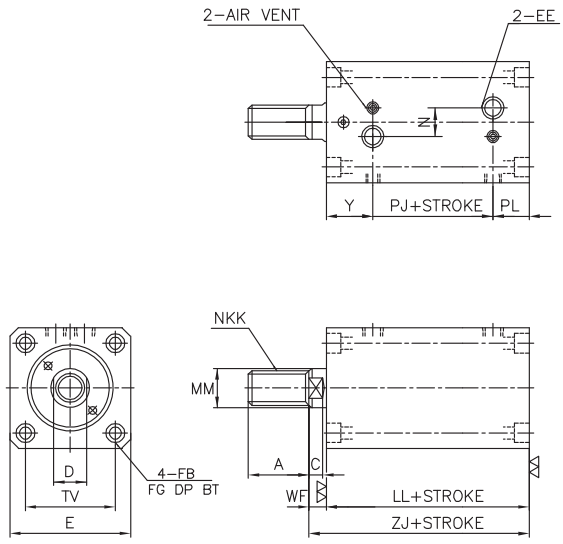
Unit : mm

Bore size	A	BT		C	D	E	EA	EB	EE	FB		FG		KK	LH	LL
		SD type	LA type							SD type	LA type	SD type	LA type			
Ø32	15	6.5	8.6	7	14	□62	70	56	Rc(PT)1/4	Ø6.6	Ø9	Ø11	Ø14	M12×1.75	$25^{\pm0.06}$	54
Ø40	20	8.6	10.8	7	19	□70	80	64	Rc(PT)1/4	Ø9	Ø11	Ø14	Ø17.5	M16×2.0	$29^{\pm0.06}$	55
Ø50	24	10.8	13	8	24	□80	94	74	Rc(PT)1/4	Ø11	Ø14	Ø17.5	Ø20	M20×2.5	$34^{\pm0.06}$	60
Ø63	33	13	15.2	9	30	□94	114	89	Rc(PT)1/4	Ø14	Ø16	Ø20	Ø23	M27×3.0	$42^{\pm0.06}$	67
Ø80	33	15.2	-	14	41	□114	-	-	Rc(PT)3/8	Ø16	-	Ø23	-	M30×3.5	-	78
Ø100	45	21.5	-	20	50	□145	-	-	Rc(PT)3/8	Ø22	-	Ø32	-	M39×4.0	-	95
Ø125	50	25.5	-	50	65	□185	-	-	Rc(PT)1/2	Ø26	-	Ø39	-	M42×4.5	-	105

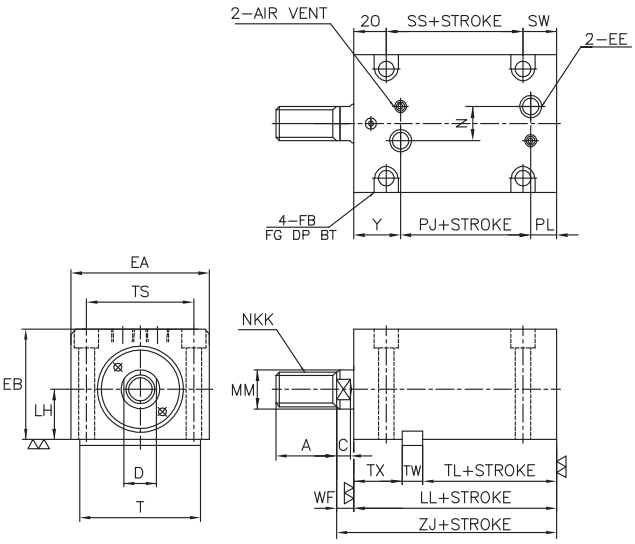
Bore size	MM	N	PJ	PL	SS	SW	T	TL	TS	TV	TW	TX	WF	Y	ZJ
	Ø18	20	14	12	24	10	63	14	56	□47	12	28	10	28	64
Ø40	Ø22	20	16	12	23	12	70	15	62	□52	12	28	10	27	65
Ø50	Ø28	20	19	13	27	13	80	17	74	□58	14	29	11	28	71
Ø63	Ø35	20	24	13	32	15	100	20	90	□69	16	31	13	30	80
Ø80	Ø45	30	25	18	-	-	-	-	-	□86	-	-	17	35	95
Ø100	Ø56	30	39	21	-	-	-	-	-	□105	-	-	26(36)	35	121(131)
Ø125	Ø71	50	44	26	-	-	-	-	-	□140	-	-	31	35	136

Dimensions-Single Rod Male Thread Standard Type, Axia Angle of Foot (SD, LA)

SD type / Bore size Ø32, Ø40, Ø50, Ø63, Ø80



LA type / Bore size Ø32, Ø40, Ø50, Ø63



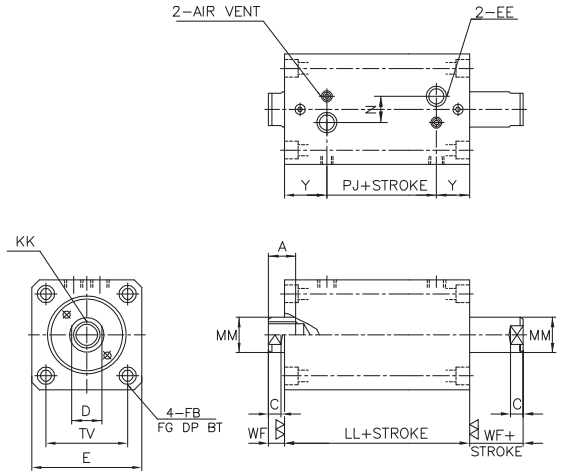
Unit : mm

Bore size	A	BT		C	D	E	EA	EB	EE	FB		FG		NKK	LH	LL
		SD type	LA type							SD type	LA type	SD type	LA type			
Ø32	20	6.5	8.6	7	16	□62	70	56	Rc(PT)1/4	Ø6.6	Ø9	Ø11	Ø14	M16×1.5	$25^{\pm0.06}$	54
Ø40	20	8.6	10.8	7	20	□70	80	64	Rc(PT)1/4	Ø9	Ø11	Ø14	Ø17.5	M20×1.5	$29^{\pm0.06}$	55
Ø50	25	10.8	13	8	25	□80	94	74	Rc(PT)1/4	Ø11	Ø14	Ø17.5	Ø20	M24×1.5	$34^{\pm0.06}$	60
Ø63	35	13	15.2	9	32	□94	114	89	Rc(PT)1/4	Ø14	Ø16	Ø20	Ø23	M30×1.5	$42^{\pm0.06}$	67
Ø80	60	15.2	-	14	40	□114	-	-	Rc(PT)3/8	Ø16	-	Ø23	-	M39×1.5	-	78
Ø100	75	21.5	-	20	50	□145	-	-	Rc(PT)3/8	Ø22	-	Ø32	-	M48×1.5	-	95
Ø125	95	25.5	-	25	65	□185	-	-	Rc(PT)1/2	Ø26	-	Ø39	-	M64×2.0	-	105

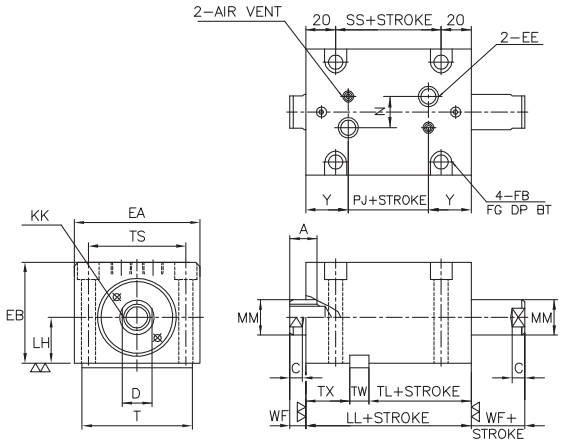
Bore size	MM	N	PJ	PL	SS	SW	T	TL	TS	TV	TW	TX	WF	Y	ZJ
	Ø18	20	14	12	24	10	63	14	56	□47	12	28	10	28	64
Ø40	Ø22	20	16	12	23	12	70	15	62	□52	12	28	10	27	65
Ø50	Ø28	20	19	13	27	13	80	17	74	□58	14	29	11	28	71
Ø63	Ø35	20	24	13	32	15	100	20	90	□69	16	31	13	30	80
Ø80	Ø45	30	25	18	-	-	-	-	-	□86	-	-	17	35	95
Ø100	Ø56	0	39	21	-	-	-	-	-	□105	-	-	26	35	121
Ø125	Ø71	0	44	26	-	-	-	-	-	□140	-	-	31	35	136

Dimensions-Double Rod Female Thread Standard Type, Axia Angle of Foot (SD, LA)

SD type / Bore size Ø32, Ø40, Ø50, Ø63, Ø80



LA type / Bore size Ø32, Ø40, Ø50, Ø63



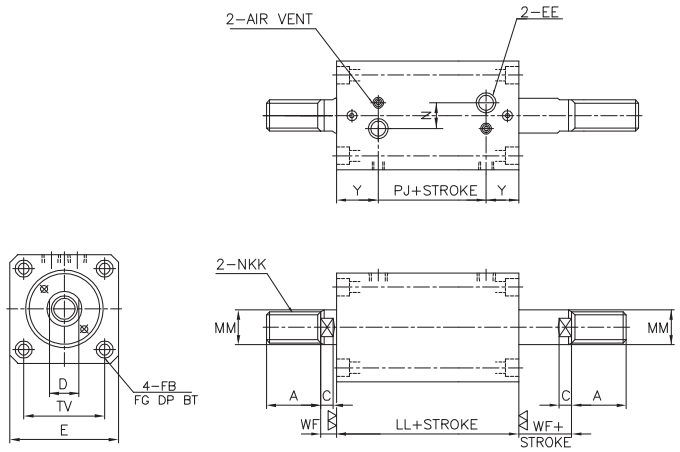
Unit : mm

Bore size	A	BT		C	D	E	EA	EB	EE	FB		FG		KK	LH	LL
		SD type	LA type							SD type	LA type	SD type	LA type			
Ø32	15	6.5	8.6	7	14	□62	70	56	Rc(PT)1/4	Ø6.6	Ø9	Ø11	Ø14	M12×1.75	$25^{\pm0.06}$	72
Ø40	20	8.6	10.8	7	19	□70	80	64	Rc(PT)1/4	Ø9	Ø11	Ø14	Ø17.5	M16×2	$29^{\pm0.06}$	72
Ø50	24	10.8	13	8	24	□80	94	74	Rc(PT)1/4	Ø11	Ø14	Ø17.5	Ø20	M20×2.5	$34^{\pm0.06}$	75
Ø63	33	13	15.2	9	30	□94	114	89	Rc(PT)1/4	Ø14	Ø16	Ø20	Ø23	M27×3	$42^{\pm0.06}$	82
Ø80	33	15.2	-	14	41	□114	-	-	Rc(PT)3/8	Ø16	-	Ø23	-	M30×3.5	-	95
Ø100	45	21.5	-	20	50	□145	-	-	Rc(PT)3/8	Ø22	-	Ø32	-	M39×4.0	-	112
Ø125	50	25.5	-	25	65	□185	-	-	Rc(PT)1/2	Ø26	-	Ø39	-	M42×4.5	-	117

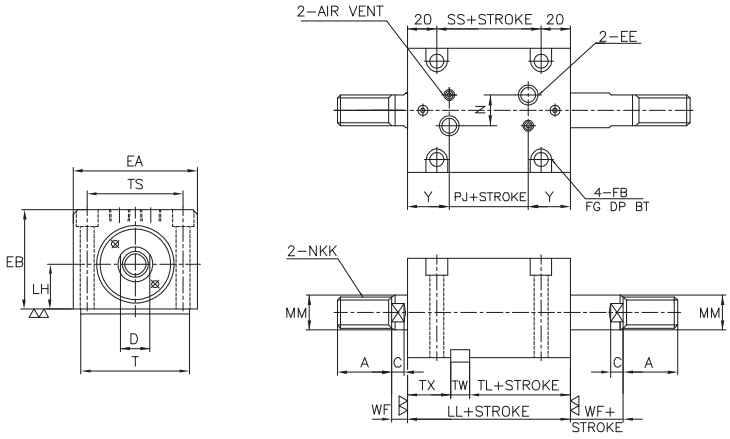
Bore size	MM	N	PJ	SS	T	TL	TS	TV	TW	TX	WF	Y
	Ø18	20	16	32	63	32	56	□47	12	28	10	28
Ø40	Ø22	20	18	32	70	32	62	□52	12	28	10	27
Ø50	Ø28	20	19	35	80	32	74	□58	14	29	11	28
Ø63	Ø35	20	22	42	100	35	90	□69	16	31	13	30
Ø80	Ø45	30	25	-	-	-	-	□86	-	-	17	35
Ø100	Ø56	0	42	-	-	-	-	□105	-	-	26	35
Ø125	Ø71	0	47	-	-	-	-	□140	-	-	31	35

Dimensions-Double Rod Male Thread Standard Type, Axia Angle of Foot (SD, LA)

SD type / Bore size Ø32, Ø40, Ø50, Ø63, Ø80



LA type / Bore size Ø32, Ø40, Ø50, Ø63



Unit : mm

Bore size	A	BT		C	D	E	EA	EB	EE	FB		FG		NKK	LH	LL
		SD type	LA type							SD type	LA type	SD type	LA type			
Ø32	20	6.5	8.6	7	16	□62	70	56	Rc(PT)1/4	Ø6.6	Ø9	Ø11	Ø14	M16×1.5	$25^{\pm0.06}$	72
Ø40	20	8.6	10.8	7	20	□70	80	64	Rc(PT)1/4	Ø9	Ø11	Ø14	Ø17.5	M20×1.5	$29^{\pm0.06}$	72
Ø50	25	10.8	13	8	25	□80	94	74	Rc(PT)1/4	Ø11	Ø14	Ø17.5	Ø20	M24×1.5	$34^{\pm0.06}$	75
Ø63	35	13	15.2	9	32	□94	114	89	Rc(PT)1/4	Ø14	Ø16	Ø20	Ø23	M30×1.5	$42^{\pm0.06}$	82
Ø80	60	15.2	-	14	40	□114	-	-	Rc(PT)3/8	Ø16	-	Ø23	-	M39×1.5	-	95
Ø100	75	21.5	-	20	50	□145	-	-	Rc(PT)3/8	Ø22	-	Ø32	-	M48×1.5	-	112
Ø125	95	25.5	-	25	65	□185	-	-	Rc(PT)1/2	Ø26	-	Ø39	-	M64×2.0	-	117

Bore size	MM	N	PJ	SS	T	TL	TS	TV	TW	TX	WF	Y
Ø40	Ø18	20	16	32	63	32	56	□47	12	28	10	28
Ø50	Ø22	20	18	32	70	32	62	□52	12	28	10	27
Ø63	Ø28	20	19	35	80	32	74	□58	14	29	11	28
Ø80	Ø35	20	22	42	100	35	90	□69	16	31	13	30
Ø100	Ø45	30	25	-	-	-	-	□86	-	-	17	35
Ø125	Ø56	0	42	-	-	-	-	□105	-	-	26	35
	Ø71	0	47	-	-	-	-	□140	-	-	31	35