



PNEUMATIC CYLINDERS


SPECIFICATIONS

Bore size(mm)	32	40	50	63	80	100	125
Acting type	Double acting						
Fluid	Air(to be filtered by 40µm filter element)						
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)						
Proof pressure	1.5MPa(215psi)(15bar)						
Temperature °C	-20~70						
Speed range mm/s	30~800						30~500
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.5} ₀ 1001~1500 ^{+2.0} ₀						
Cushion type	Variable cushion						
Adjustable cushion stroke	27		30		36		40
Port size G-Thread	1/8"	1/4"		3/8"		1/2"	

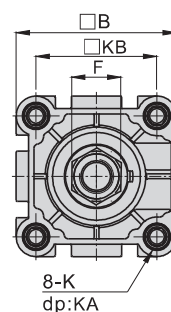
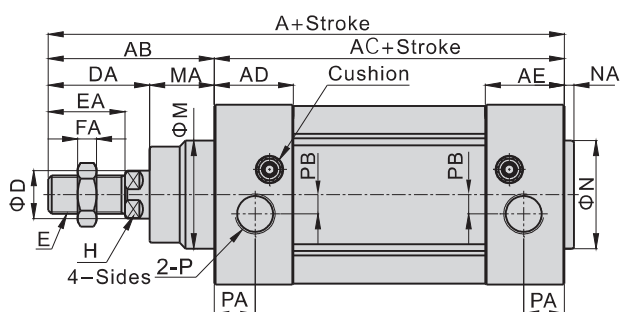
ORDERING CODE

NP121 - **50** - **75** **M**
 Series Bore Stroke M: With Magnet

STROKE

Bore size (mm)	Standard stroke (mm)	Max.std stroke	Max. stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	1800
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	1800
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	1800
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800

Note : Please contact the company for other special strokes.

DIMENSIONS


Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KA	KB	M	MA	NA	N	P	PA	PB
32	142	48	94	27.5	27.5	46.5	12	29	M10×1.25	22	17	6	10	M6	16	32.5	30	19	3	30	1/8"	13.5	6
40	159	54	105	32	32	54	16	33	M12×1.25	24	17	7	13	M6	17	38	35	21	3.5	35	1/4"	17.5	6
50	175	69	106	31	31	64	20	42	M16×1.5	32	23	8	17	M8	17	46.5	40	27	3.5	40	1/4"	14	8
63	190	69	121	33	33	75	20	42	M16×1.5	32	23	8	17	M8	17	56.5	45	27	4	45	3/8"	17	8
80	214	86	128	33	33	93	25	53	M20×1.5	40	26	10	22	M10	19	72	45	33	4	45	3/8"	16.5	8
100	229	91	138	37	37	110	25	55	M20×1.5	40	26	10	22	M10	19	89	55	36	4	55	1/2"	19.5	10
125	279	119	160	46	46	134	32	74	M27×2	54	41	13.5	27	M12	22	110	60	45	4	60	1/2"	23	11


SPECIFICATIONS

Bore size(mm)	32	40	50	63	80	100	125
Acting type	Double acting						
Fluid	Air(to be filtered by 40µm filter element)						
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)						
Proof pressure	1.5MPa(215psi)(15bar)						
Temperature °C	-20~70						
Speed range mm/s	30~800						
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.5} ₀ 1001~1500 ^{+2.0} ₀						
Cushion type	Variable cushion						
Adjustable cushion stroke	20						
Port size G-Thread	1/8"	1/4"	3/8"	1/2"			

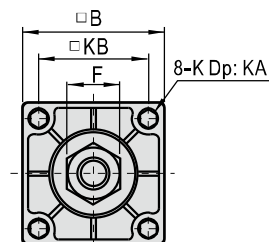
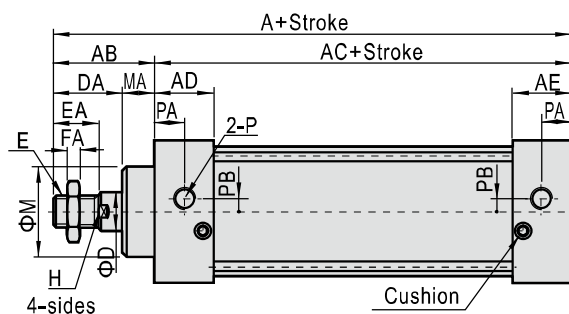
ORDERING CODE

NP221 - **50** - **50** **M**
 Series Bore Stroke M: With Magnet

STROKE

Bore size (mm)	Standard stroke (mm)	Max.std stroke	Max. stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Note : Please contact the company for other special strokes.

DIMENSIONS


Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KA	KB	M	MA	P	PA	PB
32	140	47	93	27.5	27.5	45	12	32	M10×1.25	22	17	6	10	M6×1.0	14.5	33	28	15	1/8"	14	5.5
40	142	49	93	27.5	27.5	50	16	34	M12×1.25	24	17	7	13	M6×1.0	14.5	37	32	15	1/4"	15	6
50	150	57	93	27.5	27.5	62	20	42	M16×1.5	32	23	8	17	M6×1.0	14.5	47	38	15	1/4"	17	8.5
63	153	57	96	27.5	27.5	75	20	42	M16×1.5	32	23	8	17	M8×1.25	14.5	56	38	15	3/8"	15	9.5
80	182	75	107	33	33	94	25	54	M20×1.5	40	26	10	22	M10×1.5	17	70	47	21	3/8"	19.5	10
100	188	75	113	33	33	112	25	54	M20×1.5	40	26	10	22	M10×1.5	17	84	47	21	1/2"	16.5	11
125	203	88	115	38	38	136	32	68	M27×2.0	54	41	13.5	27	M12×1.75	21.5	104	52	20	1/2"	20	14


SPECIFICATIONS

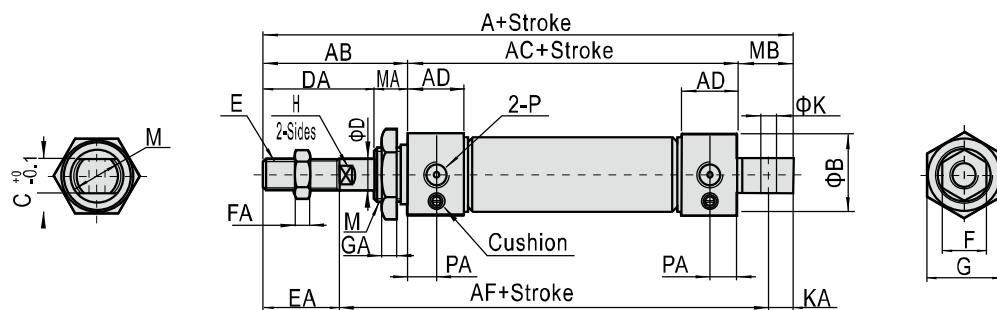
Bore size(mm)	16	20	25	32	40
Acting type	Double acting				
Fluid	Air(to be filtered by 40µm filter element)				
Operating Pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)				
Proof pressure	1.5MPa(215psi)(15bar)				
Temperature °C	-20~70				
Speed range mm/s	Double acting : 30~800 Single acting : 50~800				
Stroke tolerance	0~150 ^{+1.0} ₀ >150 ^{+1.5} ₀				
Port size (G-Thread)	M5×0.8		1/8"		

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NP321 – **20** – **50** **M**
 Series Bore Stroke M: With Magnet

STROKE

Bore size (mm)	Standard stroke (mm)																						Max.std stroke	Max. stroke
16	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	600
20	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	800
25	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	800
32	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	800
40	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	800

DIMENSIONS


Bore size\Item	A	AB	AC	AD	AF	B	C	D	DA	E	EA	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA
16	114	38	60	12.5	91	21	12	6	22	M6×1.0	16	10	5	22	6	5	6	7	M16×1.5	16	16	M5×0.8	7.5
20	137	40	76	16	108	27	16	8	28	M8×1.25	20	12	6	29	7	6	8	9	M22×1.5	12	21	1/8"	8
25	141	44	76	16	110	30	16	10	30	M10×1.25	22	17	6	29	7	8	8	9	M22×1.5	14	21	1/8"	8
32	147	44	76	16	113	35	16	12	30	M10×1.25	22	17	6	32	8	10	10	12	M24×2.0	14	27	1/8"	8
40	149	46	76	16.5	113	41.5	20	16	32	M12×1.25	24	17	7	41	8	14	12	12	M30×2.0	14	27	1/8"	9


SPECIFICATIONS

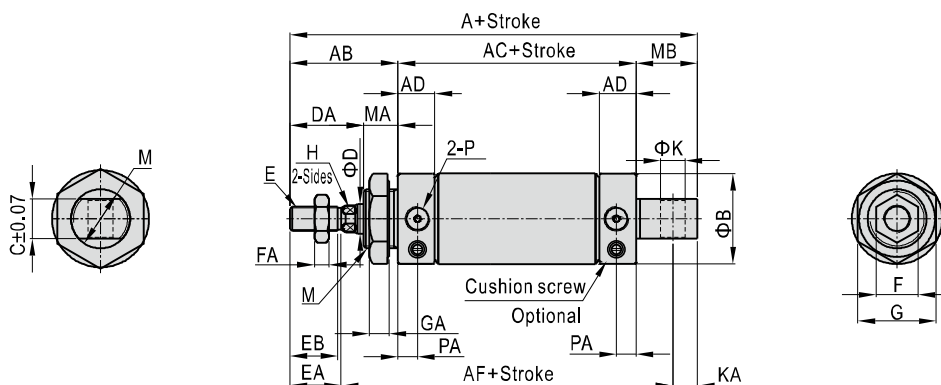
Bore size(mm)	16	20	25	32	40
Acting type	Double acting				
Fluid	Air(to be filtered by 40µm filter element)				
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)				
Double acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)				
Single acting	1.5MPa(215psi)(15bar)				
Proof pressure	-20~70				
Temperature °C	Double acting : 30~800 Single acting : 50~800				
Speed range mm/s	0~150 ^{+1.0} ₀ >150 ^{+1.5} ₀				
Stroke tolerance	M5×0.8 1/8" 1/4"				
Port size (G-Thread)					

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NP421 – **20** – **50** **M**
 Series Bore Stroke M: With Magnet

STROKE

Bore size (mm)	Standard stroke (mm)																						Max.std stroke	Max. stroke
16	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	800
20	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	1000
25	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	1000
32	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	1500
40	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	1500

DIMENSIONS


Bore size\Item	A	AB	AC	AD	AF	B	C	D	DA	M	MA	MB	E	EA	EB	F	FA	G	GA	H	P	K	KA	PA
16	110	38	56	10	99	24	12	6	22	M22×1.5	16	16	M6×1	16	15.5	12	6	24	6	6	M5	6	7	5.5
20	131	40	70	15.5	102	27	16	8	26	M22×1.5	14	21	M8×1.25	20	18.5	12	6	29	7	6	1/8"	8	9	7.5
25	135	44	70	15.5	105	30	16	10	30	M22×1.5	14	21	M10×1.25	21	19.5	17	6	29	7	8	1/8"	8	9	7.5
32	141	44	70	15.5	108	37	16	12	28	M24×2.0	16	27	M10×1.25	21	19.5	17	6	32	8	10	1/8"	10	12	7.5
40	165	46	92	22	130.5	45	20	16	30	M30×2.0	16	27	M12×1.25	22.5	21	17	7	41	8	14	1/4"	12	12	11


SPECIFICATIONS

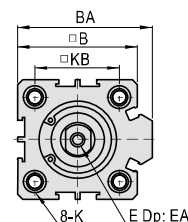
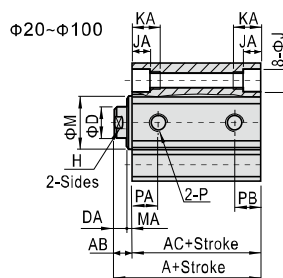
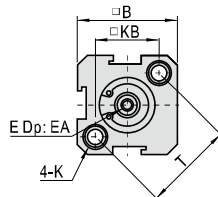
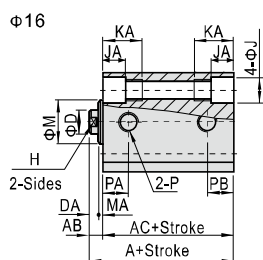
Bore size(mm)		16	20	25	32	40	50	63	80	100
Acting type		Double acting								
		Single acting_Push type、Single acting_Pull type								—
Fluid		Air(to be filtered by 40μm filter element)								
Operating pressure	Double acting	0.15~1.0MPa(22~145psi)(1.5~10.0bar)								
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)								
Proof pressure		1.5MPa(215psi)(15bar)								
Temperature °C		-20~70								
Speed range mm/s		Double acting : 30~500 Single acting : 50~500								
Stroke tolerance		Stroke≤100 ^{+1.0} ₀ Stroke>100 ^{+1.5} ₀								
Cushion type		Bumper								
Port size (G-Thread)		M5×0.8			1/8"		1/4"		3/8"	

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NP521 — **20** — **50** **M**
 Series Bore Stroke M: With Magnet

STROKE

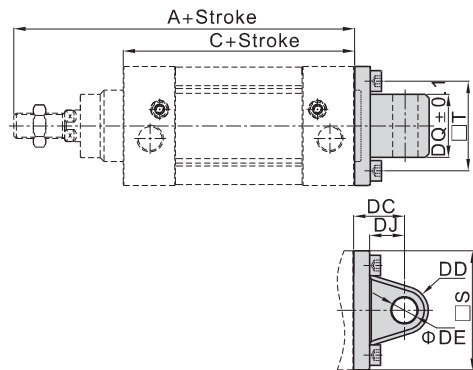
Bore size (mm)	Standard stroke (mm)	Max.std stroke
16	Double acting: 5 10 15 20 25 30 35 40 45 50 Single acting: 5 10 15 20 25 30	80 30
20	Double acting: 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 Single acting: 5 10 15 20 25 30	130 30
25 32 40 50 63	Double acting: 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120 Single acting: 5 10 15 20 25 30	150 30
80 100	Double acting: 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120	150

DIMENSIONS


Item	A	AC	AB	B	BA	D	DA	E	EA	H	J	JA	K	KA	KB	M	MA	P	PA		PB		T
Bore size	With magnet	St=5																	St>5	St=5	St>5		
16	34	28.5	5.5	29	-	6	4	M3×0.5	6	5	6.5	4.5	M5×0.8Thru.hole:Φ4.2	12	19.8	11	1.5	M5×0.8	8	8	5	5.5	28
20	35	29.5	5.5	34	36	8	4	M4×0.7	8	6	6.5	4.5	M5×0.8Thru.hole:Φ4.2	14	24	13	1.5	M5×0.8	8	9	5	5.5	-
25	37	31	6	40	42	10	4	M5×0.8	10	8	8.2	5.5	M6×1.0Thru.hole:Φ5.2	15	28	17	2	M5×0.8	9	9	5.5	5.5	-
32	41.5	34.5	7	44	50	12	4.5	M6×1.0	12	10	8.2	5.5	M6×1.0Thru.hole:Φ5.2	16	34	22	2.5	1/8"	9	9	6.5	9	-
40	43	36	7	52	58.5	16	4	M8×1.25	12	14	10.5	6.5	M8×1.25Thru.hole:Φ6.7	20	40	28	3	1/8"	9.5	9.5	7.5	7.5	-
50	47	38	9	62	71.5	20	5	M10×1.5	15	17	10.5	6.5	M8×1.25Thru.hole:Φ6.7	25	48	38	4	1/4"	8	10.5	8	10.5	-
63	51	42	9	75	84.5	20	5	M10×1.5	15	17	10.5	6.5	M8×1.25Thru.hole:Φ6.7	25	60	40	4	1/4"	9.5	12	9.5	11	-
80	62	51	11	94	104	25	6	M14×1.5	20	22	17	11	M12×1.75Thru.hole:Φ10.4	25	74	45	5	3/8"	11.5	14.5	11.5	14.5	-
100	73	61	12	114	124	32	7	M18×1.5	20	27	19	13	M14×2.0Thru.hole:Φ12.4	30	90	55	5	3/8"	16	20.5	16	20.5	-

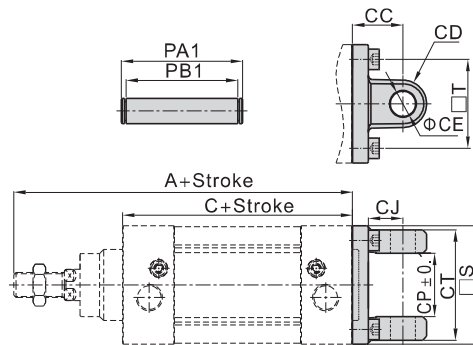
Unit : Newton(N)

Bore size	Rod size	Acting type	Pressure area(mm ²)	Operating pressure(MPa)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
32	12	Double acting	Push side	804	80.4	160.8	241.2	321.6	402.0	482.4	562.8	643.2	723.6
			Pull side	690	69.0	138.0	207.0	276.0	345.0	414.0	483.0	552.0	621.0
40	16	Double acting	Push side	1256	125.6	251.2	376.8	502.4	628.0	753.6	879.2	1004.8	1130.4
			Pull side	1055	105.5	211.0	316.5	422.0	527.5	633.0	738.5	844.0	949.5
50	20	Double acting	Push side	1963	196.3	392.6	588.9	785.2	981.5	1177.8	1374.1	1570.4	1766.7
			Pull side	1649	164.9	329.8	494.7	659.6	824.5	989.4	1154.3	1319.2	1484.1
63	20	Double acting	Push side	3117	311.7	623.4	935.1	1246.8	1558.5	1870.2	2181.9	2493.6	2805.3
			Pull side	2803	280.3	560.6	840.9	1121.2	1401.5	1681.8	1962.1	2242.4	2522.7
80	25	Double acting	Push side	5026	502.6	1005.2	1507.8	2010.4	2513.0	3015.6	3518.2	4020.8	4523.4
			Pull side	4536	453.6	907.2	1360.8	1814.4	2268.0	2721.6	3175.2	3628.8	4082.4
100	25	Double acting	Push side	7853	785.3	1570.6	2355.9	3141.2	3926.5	4711.8	5497.1	6282.4	7067.7
			Pull side	7362	736.2	1472.4	2208.6	2944.8	3681.0	4417.2	5153.4	5889.6	6625.8
125	32	Double acting	Push side	12272	1227.2	2454.4	3681.6	4908.8	6136.0	7363.2	8590.4	9817.6	11044.8
			Pull side	11468	1146.8	2293.6	3440.4	4587.2	5734.0	6880.8	8027.6	9174.4	10321.2
160	40	Double acting	Push side	20106	2010.6	4021.2	6031.8	8042.4	10053.0	12063.6	14074.2	16084.8	18095.4
			Pull side	18849	1884.9	3769.8	5654.7	7539.6	9424.5	11309.4	13194.3	15079.2	16964.1
200	40	Double acting	Push side	31416	3141.6	6283.2	9424.8	12566.4	15708.0	18849.6	21991.2	25132.8	28274.4
			Pull side	30159	3015.9	6031.8	9047.7	12063.6	15079.5	18095.4	21111.3	24127.2	27143.1
250	50	Double acting	Push side	49087	4908.7	9817.4	14726.1	19634.8	24543.5	29452.2	34360.9	39269.6	44178.3
			Pull side	47124	4712.4	9424.8	14137.2	18849.6	23562.0	28274.4	32986.8	37699.2	42411.6



CA MALE CLEVIS //

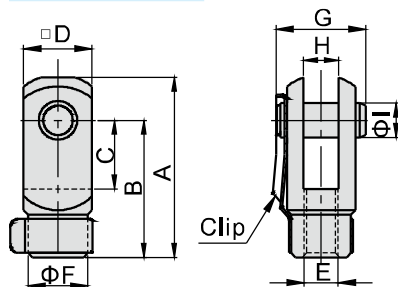
Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	142	94	46.5	32.5	22	10.5	10	13	25.8
40	159	105	54	38	25	12	12	16	27.8
50	175	106	64	46.5	27	12	12	17	31.7
63	190	121	75	56.5	32	15	16	22	39.7
80	214	128	93	72	36	15.5	16	22	49.7
100	229	138	110	89	41	20	20	27	59.7
125	279	160	134	110	50	24	25	33	69.7



CB FEMALE CLEVIS //

Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	142	94	22	10.5	10	13	26	45	51	45.5	46.5	32.5
40	159	105	25	12	12	16	28	52	59	52.5	54	38
50	175	106	27	12	12	17	32	60	67	60.5	64	46.5
63	190	121	32	15	16	22	40	70	77	70.5	75	56.5
80	214	128	36	15.5	16	22	50	90	97	90.5	93	72
100	229	138	41	20	20	27	60	110	119	110.5	110	89
125	279	160	50	24	25	33	70	130	139	130.5	134	110

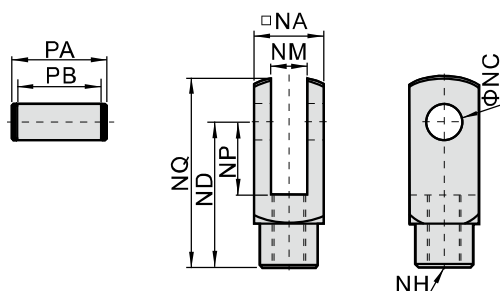
M10 and below



ROD FORK //

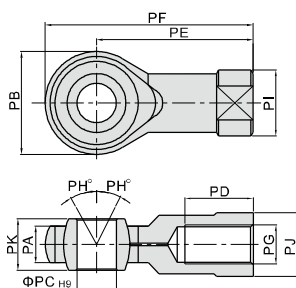
Type\Item	A	B	C	D	F	E	G	H	I
M6X1	32	24	12	12	10	M6×1.0	16	6	6
M8X1.25	42	32	16	16	14	M8×1.25	21	8	8
M10X1.25	52	40	20	19	18	M10×1.25	25	10	10

M12 and above



ROD FORK

Type\Item	NA	NC	ND	NP	NQ	NM	NH	PA	PB
M12X1.25	25.4	12	48	24	62	12	M12×1.25	32.4	26.2
M16X1.5	32	16	64	32	80	16	M16×1.5	39	32.8
M20X1.5	44.4	20	80	40	101	20	M20×1.5	53.4	45.2
M27X2.0	54	30	110	55	139	30	M27×2.0	64.2	54.8



ROD EYE

Type\Item	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK
M10X1.25	11	26	10	20	43	56	M10×1.25	13	19	17	14
M12X1.25	12	32	12	22	50	66	M12×1.25	13	22	19	16
M16X1.5	15	40	16	28	64	84	M16×1.5	15	27	22	21
M20X1.5	18	46	20	33	77	100	M20×1.5	15	34	30	25
M20X2.0	25	70	30	51	110	145	M27×2.0	15	50	41	37



REED SWITCH

CS1 Reed Switch for ISO 15552 Cylinder (NP121 Series)
 CS1-F Reed Switch for Tie Rod Cylinder (NP221 Series)
 CS1-J Reed Switch for Compact Cylinder (NP521 Series)
 Clamp for Tie Rod Cylinder (NP221 Series)