

Single Axis Robot

단축 로봇

Single Axis Robot

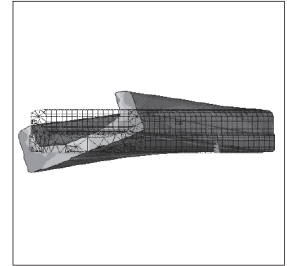
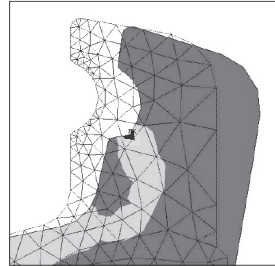
단축 로봇

HIWIN KK 단축로봇은 모듈화 설계를 통해 이루어졌습니다. 볼스크류 및 리니어 가이드웨이 조합으로 이루어져 있으며 간편한 설치, 고정밀도, 고강성, 컴팩트화 한 특성을 지니고 있습니다. 고정도의 볼스크류를 회전 운동으로 하여 최적화 설계된 U레일을 따라 고객이 요구하는 정도와 강성에 부합하게 직선 운동을 합니다.

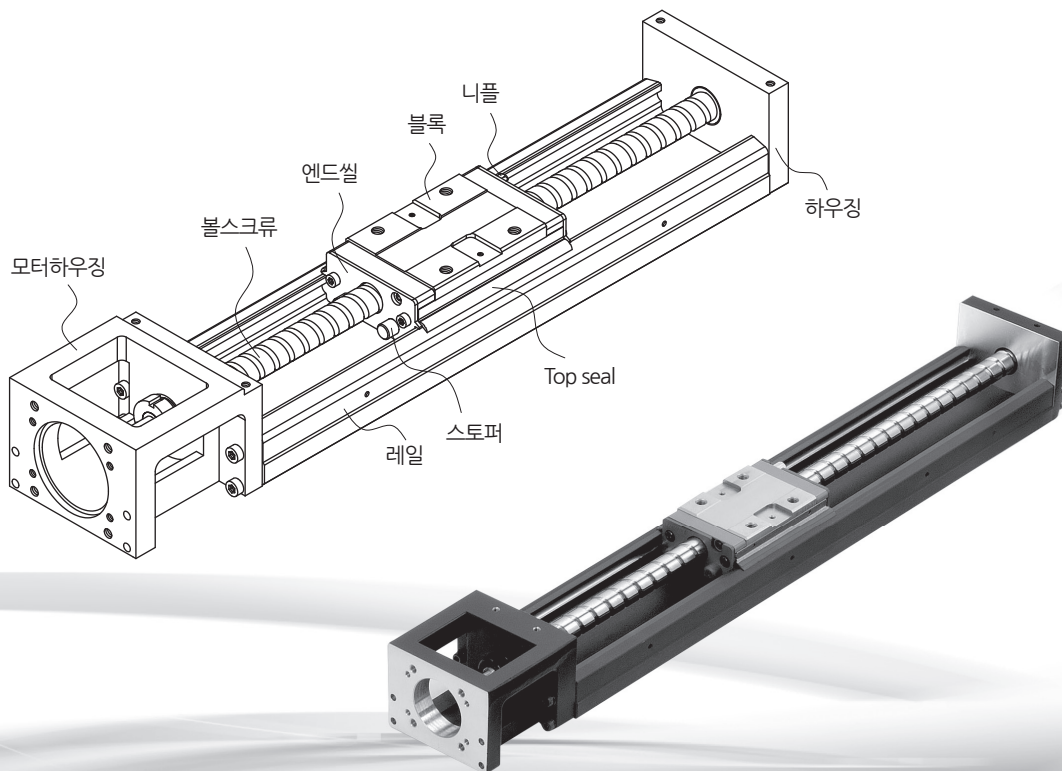
3. Single Axis Robot KK Series

3.1. KK특징

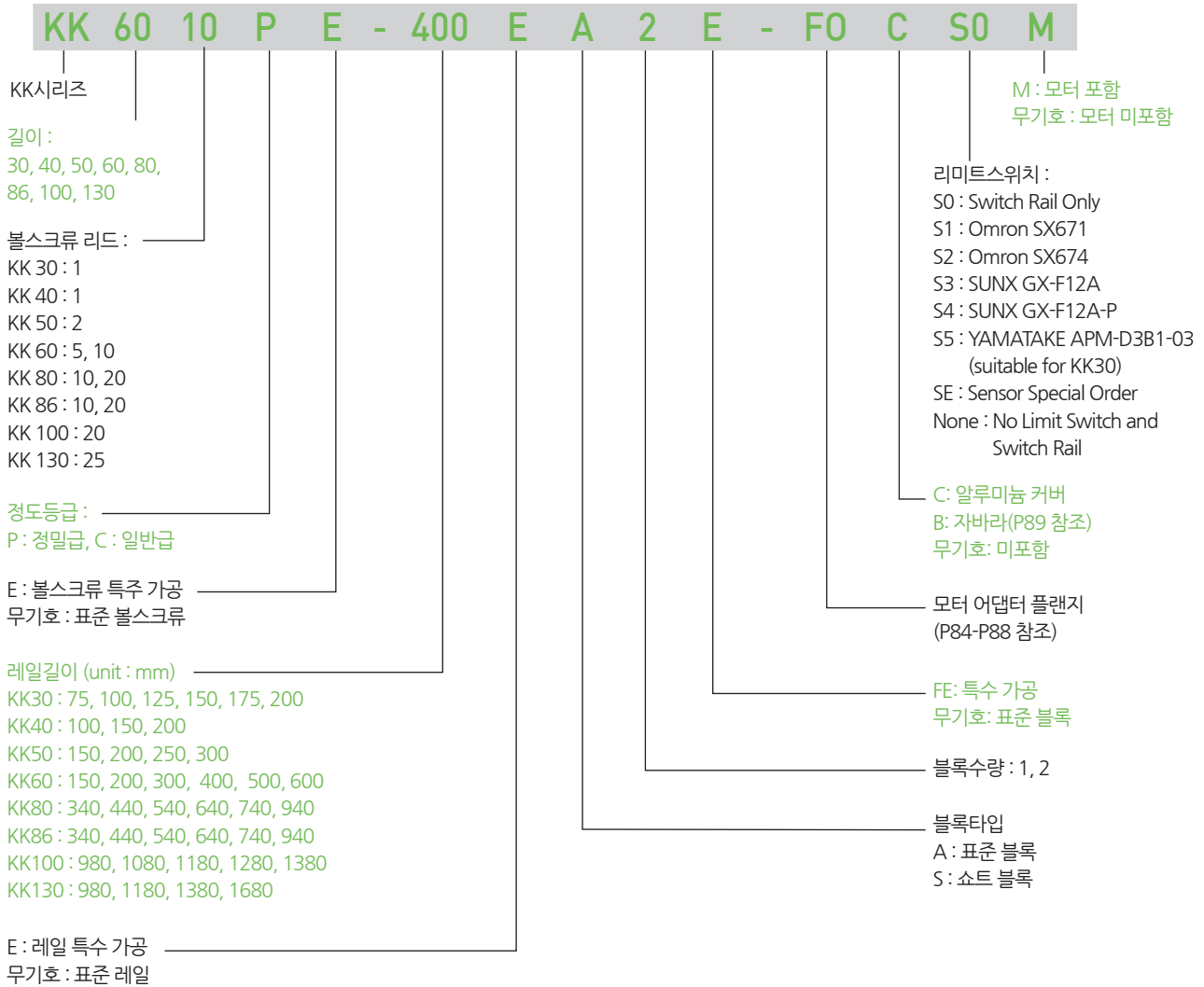
- 설계 및 설치 용이
- 컴팩트, 경량화
- 고정밀도
- 고강성
- 부품완비
- 최적화 설계



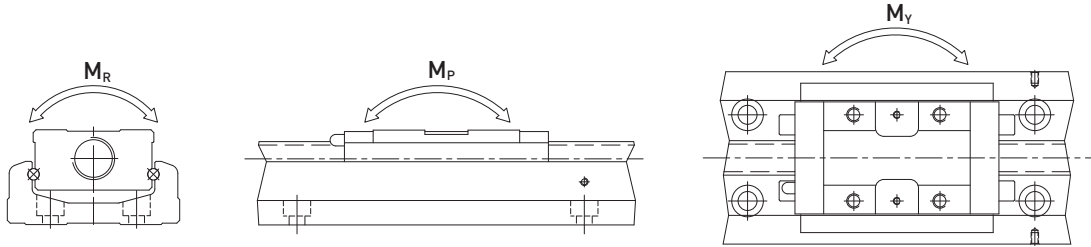
레일은 유한요소 분석을 통하여 최적화 된 강성 및 중량의 결과 값을 얻을 수 있습니다. 분석은 위 그림과 같습니다.



3.2. 제품형번



3.3 .상세규격



형번	볼스크류					가이드웨이															
	외경 (mm)	리드 (mm)	기본 동정격 하중 (N)	기본 정정격 하중 (N)	기본동정격하중 (N)		정적하중모멘트														
					Block A	Block S	M _p (N-m)				M _y (N-m)				M _r (N-m)						
							Block A	Block A	Block A1	Block A2	Block S1	Block S2	Block A1	Block A2	Block S1	Block S2	Block A1	Block A2	Block S1	Block S2	
KK3001	정밀급	6	1	647	1088	2210	-	3510	-	14	73	-	-	14	73	-	-	41	82	-	-
	일반급			618	1079																
KK4001	정밀급	8	1	735	1538	3920	-	6468	-	33	182	-	-	33	182	-	-	81	162	-	-
	일반급			676	1284																
KK5002	정밀급	8	2	2136	3489	8007	-	12916	-	116	545	-	-	116	545	-	-	222	444	-	-
	일반급			1813	2910																
KK6005	정밀급	12	5	3744	6243	13230	7173	21462	11574	152	760	72	367	152	760	72	367	419	838	241	482
	일반급			3377	5625																
KK6010	정밀급	12	10	2410	3743	13230	7173	21462	11574	152	760	72	367	152	760	72	367	419	838	241	482
	일반급			2107	3234																
KK8010	정밀급	15	10	7144	12642	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1433	2866	800	1600
	일반급			6429	11387																
KK8020	정밀급	15	20	4645	7655	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1433	2866	800	1600
	일반급			4175	6889																
KK8610	정밀급	15	10	7144	12642	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1507	3014	847	1694
	일반급			6429	11387																
KK8620	정밀급	15	20	4645	7655	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1507	3014	847	1694
	일반급			4175	6889																
KK10020	정밀급	20	20	7046	12544	39200	-	63406	-	960	4763	-	-	960	4763	-	-	2205	4410	-	-
	일반급			4782	9163																
KK13025	정밀급	25	25	7897	15931	48101	-	84829	-	1536	7350	-	-	1536	7350	-	-	3885	7770	-	-
	일반급			7092	14352																

3.4. 정도등급

Unit : mm

형번	레일길이	반복위치결정정도		위치결정도		주행평행도		기동토크(N-cm)	
		정밀급	일반급	정밀급	일반급	정밀급	일반급	정밀급	일반급
KK30	75	±0.003	±0.004	0.02	0.04	0.01	0.02	1.2	0.8
	100								
	125								
	150								
	175								
	200								
KK40	100	±0.003	±0.005	0.02	-	0.01	-	1.2	0.8
	150								
	200								
KK50	150	±0.003	±0.005	0.02	-	0.01	-	4	2
	200								
	250								
	300								
KK60	150	±0.003	±0.005	0.02	-	0.01	-	15	7
	200								
	300								
	400								
	500	±0.003	±0.005	0.025	-	0.015	-	15	7
		600							
KK80	340	±0.003	±0.005	0.025	-	0.015	-	15	10
	440								
	540								
	640								
	740	±0.003	±0.005	0.03	-	0.02	-	17	10
		940							
KK86	340	±0.003	±0.005	0.025	-	0.015	-	15	10
	440								
	540								
	640								
	740	±0.003	±0.005	0.03	-	0.02	-	17	10
		940							
KK100	980	±0.005	±0.01	0.035	-	0.025	-	17	12
	1080								
	1180	±0.005	±0.01	0.04	-	0.03	-	20	12
		1280							
	1380	±0.005	±0.01	0.045	-	0.035	-	23	15
1380	0.05	0.04		25					
KK130	980	±0.005	±0.01	0.035	-	0.025	-	25	15
	1180			0.04		0.03		25	
	1380			0.04		0.03		25	
	1680			±0.007		±0.012		0.05	

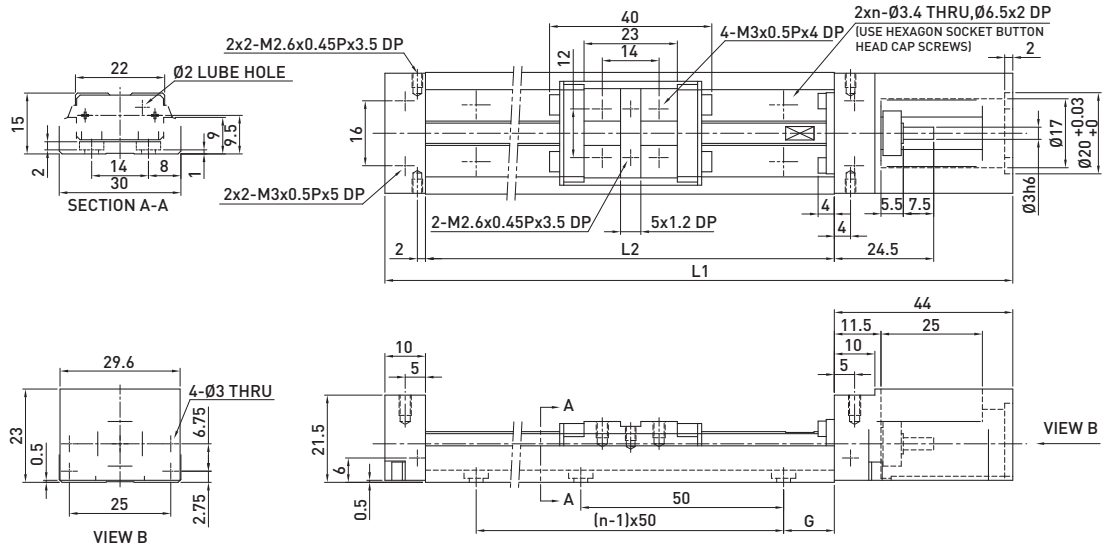
3.5. 최대속도

형번	볼스크류 리드 (mm)	레일길이 (mm)	최대속도 (mm/sec)	
			정밀급	일반급
KK30	01	75	160	160
		100	160	160
		125	160	160
		150	160	160
		175	160	160
		200	160	160
KK40	01	100	190	190
		150	190	190
		200	190	190
KK50	02	150	270	270
		200	270	270
		250	270	270
		300	270	270
KK60	05	150	550	390
		200	550	390
		300	550	390
		400	550	390
		500	550	390
		600	340	340
	10	150	1100	790
		200	1100	790
		300	1100	790
		400	1100	790
		500	1100	790
		600	670	670
KK80	10	340	740	520
		440	740	520
		540	740	520
		640	740	520
		740	740	520
		940	610	430
	20	340	1480	1050
		440	1480	1050
		540	1480	1050
		640	1480	1050
		740	1480	1050
		940	1220	870
KK86	10	340	740	520
		440	740	520
		540	740	520
		640	740	520
		740	740	520
		940	610	430
	20	340	1480	1050
		440	1480	1050
		540	1480	1050
		640	1480	1050
		740	1480	1050
		940	1220	870
KK100	20	980	1120	800
		1080	980	800
		1180	750	750
		1280	630	630
		1380	530	530
KK130	25	980	1120	800
		1180	1120	800
		1380	830	800
		1680	550	550

3.6. 상세치수

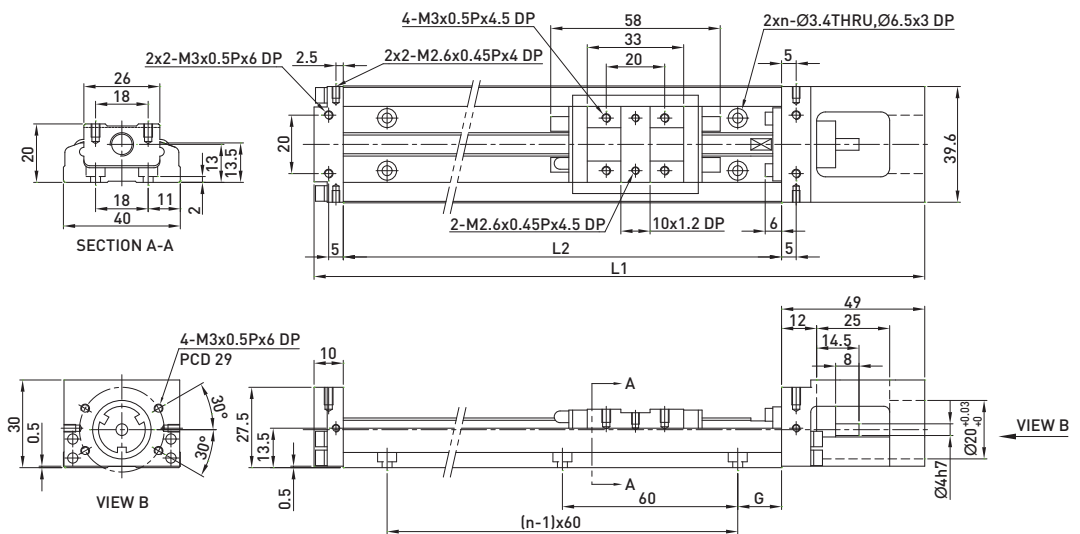
3.6.1. 커버 미포함

■ KK30



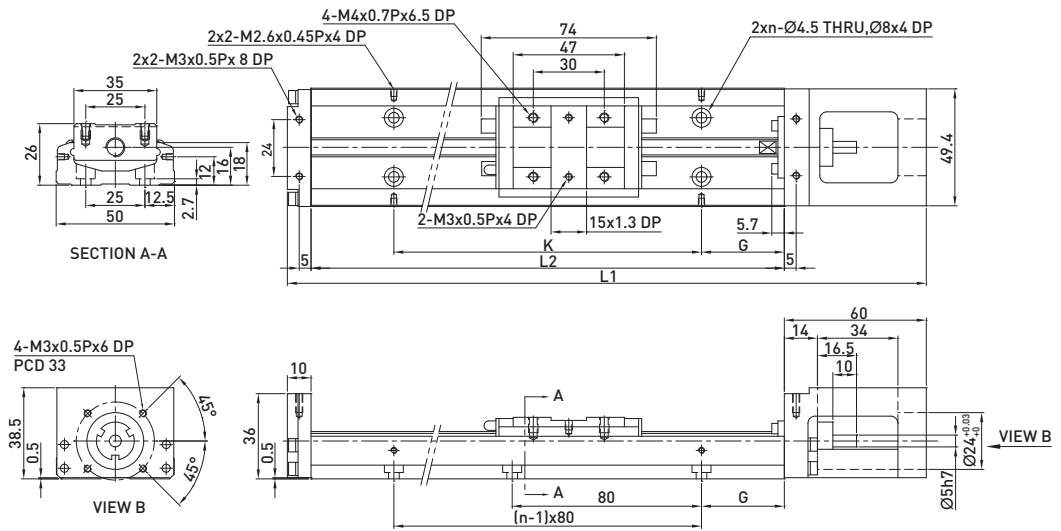
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	n	중량 (kg)	
		A1 Block	A2 Block			A1 Block	A2 Block
75	129	31	-	12.5	2	0.2	-
100	154	56	-	25	2	0.23	-
125	179	81	45	12.5	3	0.26	0.3
150	204	106	70	25	3	0.29	0.33
175	229	131	95	12.5	4	0.32	0.36
200	254	156	120	25	4	0.35	0.39

■ KK40



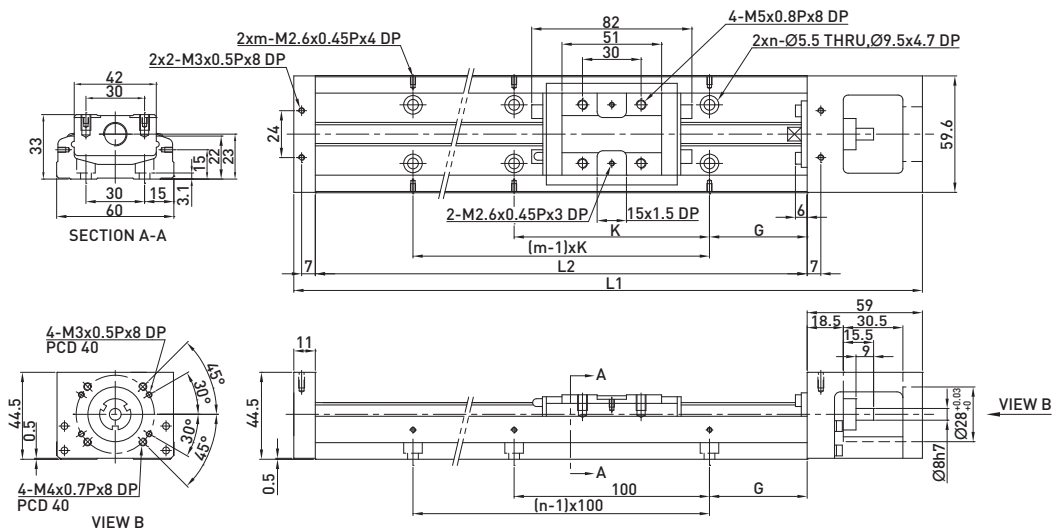
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	n	중량 (kg)	
		A1 Block	A2 Block			A1 Block	A2 Block
100	159	36	-	20	2	0.48	-
150	209	86	34	15	3	0.6	0.67
200	259	136	84	40	3	0.72	0.79

■ KK50



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	중량 (kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
150	220	70	-	35	80	2	1	-
200	270	120	55	20	160	3	1.2	1.4
250	320	170	105	45	160	3	1.4	1.6
300	370	220	155	30	240	4	1.6	1.8

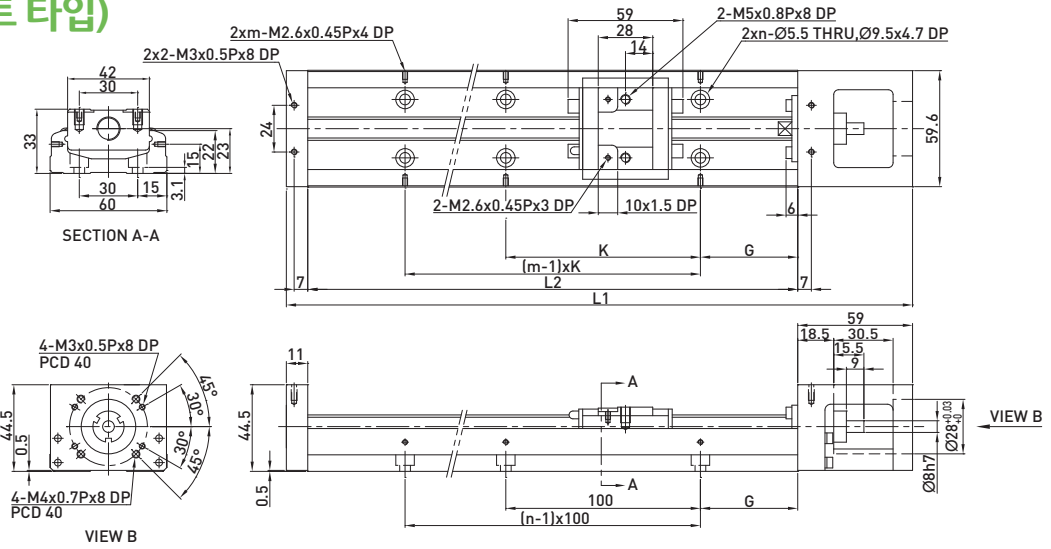
■ KK60D(표준 타입)



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
150	220	60	-	25	100	2	2	1.5	-
200	270	110	-	50	100	2	2	1.8	-
300	370	210	135	50	200	3	2	2.4	2.7
400	470	310	235	50	100	4	4	3	3.3
500	570	410	335	50	200	5	3	3.6	3.9
600	670	510	435	50	100	6	6	4.2	4.6

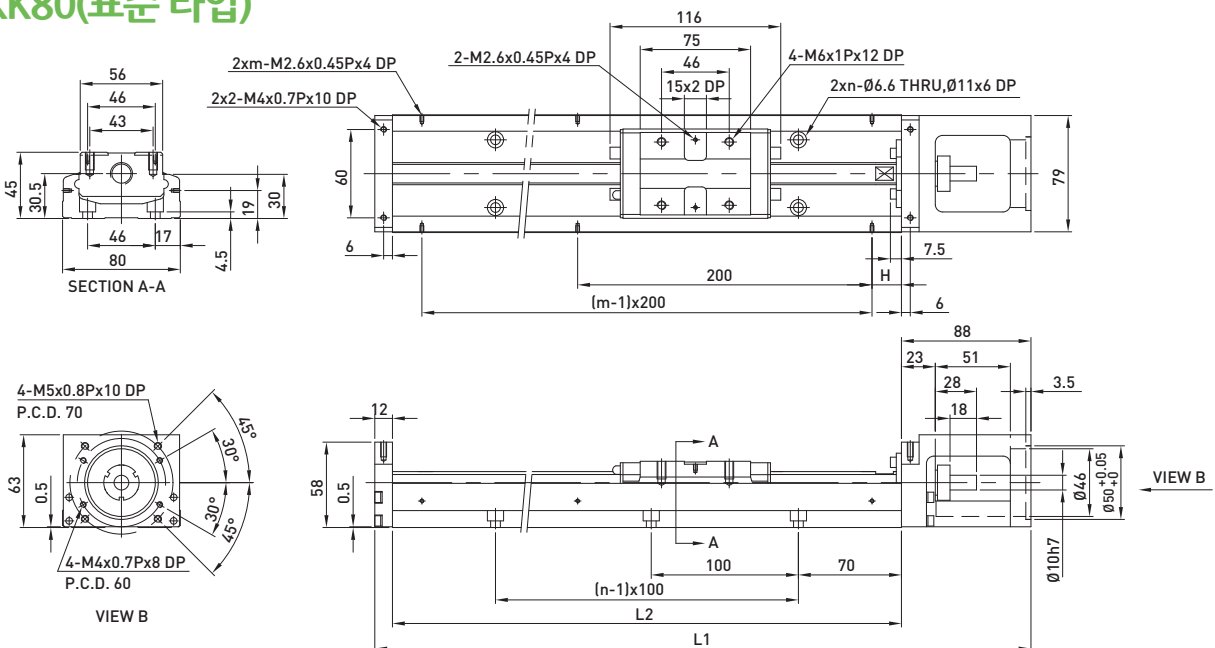
Single Axis Robot

■ KK60D(쇼트 타입)



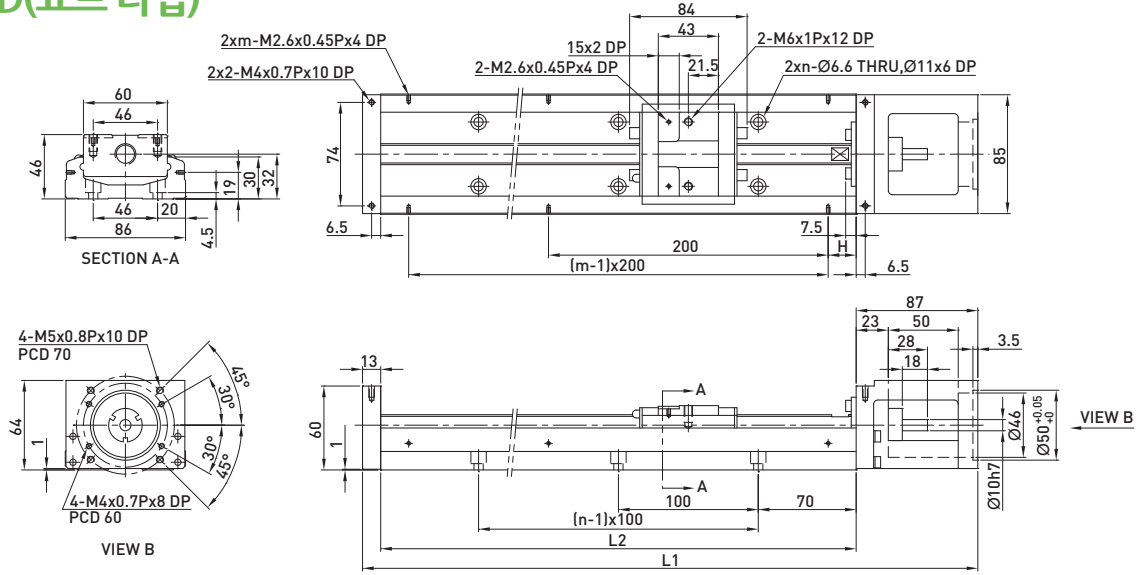
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	m	중량 (kg)	
		S1 Block	S2 Block					S1 Block	S2 Block
150	220	85	34	25	100	2	2	1.4	1.6
200	270	135	84	50	100	2	2	1.7	1.9
300	370	235	184	50	200	3	2	2.3	2.5
400	470	335	284	50	100	4	4	2.9	3.1
500	570	435	384	50	200	5	3	3.5	3.7
600	670	535	484	50	100	6	6	4.1	4.3

■ KK80(표준 타입)



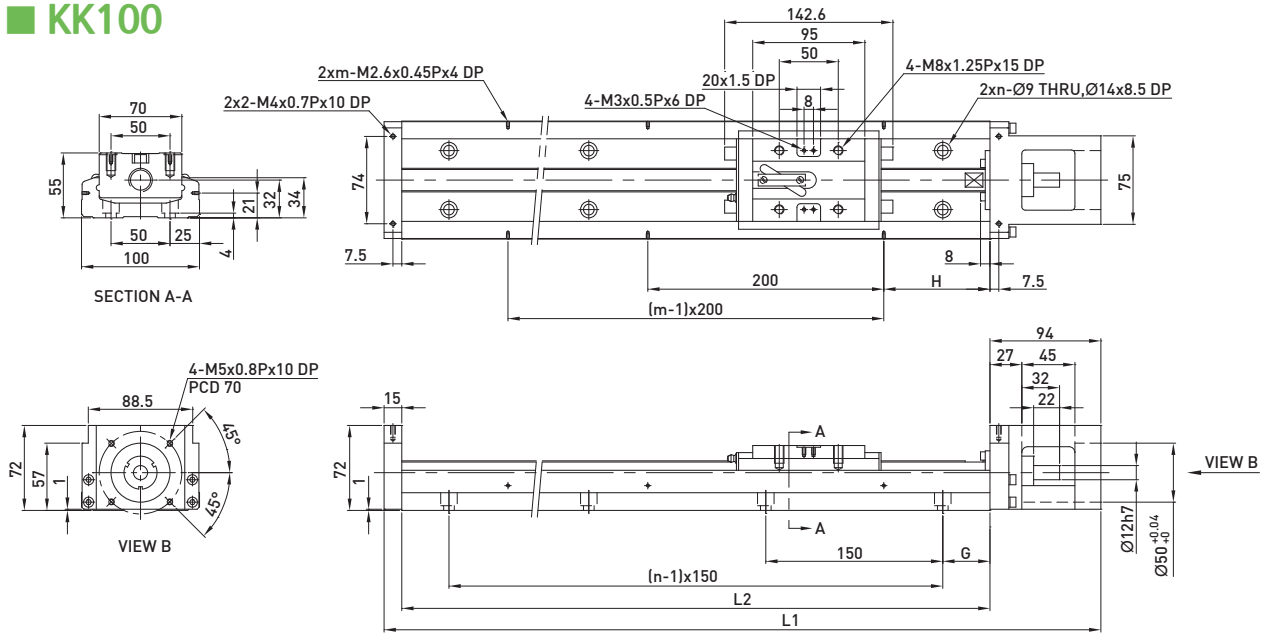
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	440	216.5	108.5	70	3	2	5.3	6
440	540	316.5	208.5	20	4	3	6.5	7.2
540	640	416.5	308.5	70	5	3	7.6	8.3
640	740	516.5	408.5	20	6	4	8.8	9.5
740	840	616.5	508.5	70	7	4	10	10.7
940	1040	816.5	708.5	70	9	5	12.4	13.1

■ KK86D(쇼트 타입)



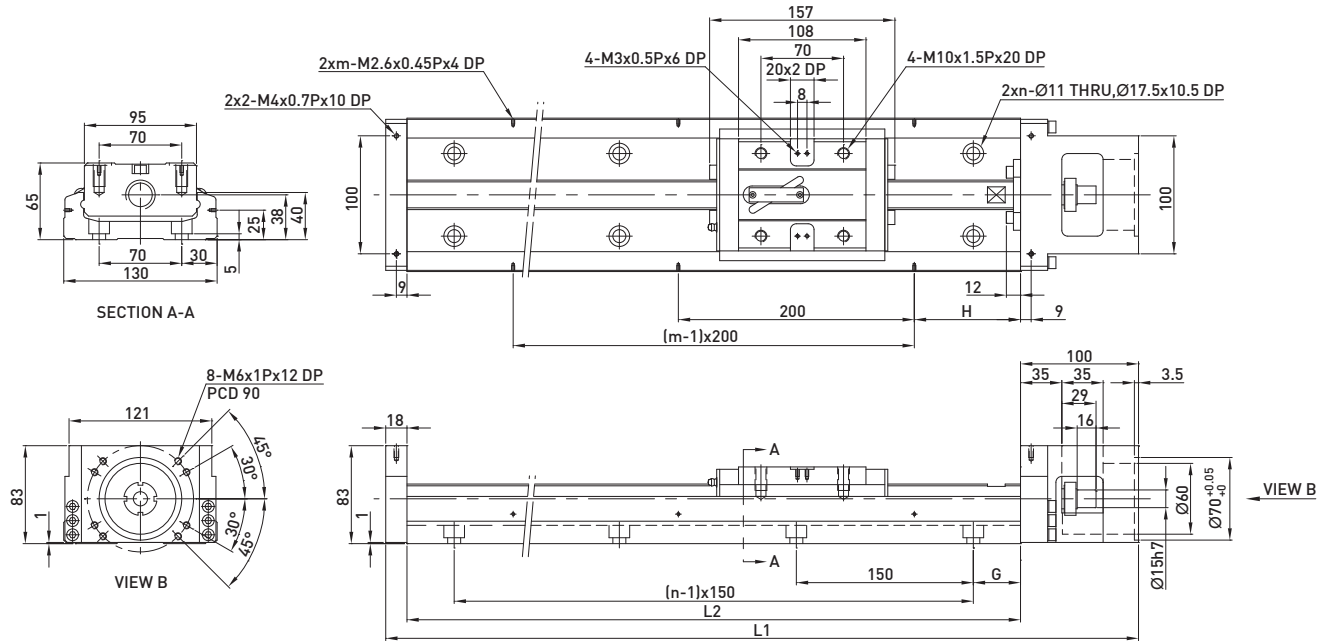
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		S1 Block	S2 Block				S1 Block	S2 Block
340	440	248.5	172.5	70	3	2	5.4	5.9
440	540	348.5	272.5	20	4	3	6.6	7.1
540	640	448.5	372.5	70	5	3	7.7	8.2
640	740	548.5	472.5	20	6	4	8.9	9.4
740	840	648.5	572.5	70	7	4	10.1	10.6
940	1040	848.5	772.5	70	9	5	11.3	11.8

■ KK100



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
980	1089	828	700	40	90	7	5	18.6	20.3
1080	1189	928	800	15	40	8	6	20.3	22.0
1180	1289	1028	900	65	90	8	6	22.0	23.7
1280	1389	1128	1000	40	40	9	7	23.6	25.3
1380	1489	1228	1100	15	90	10	7	25.3	27.0

■ **KK130**

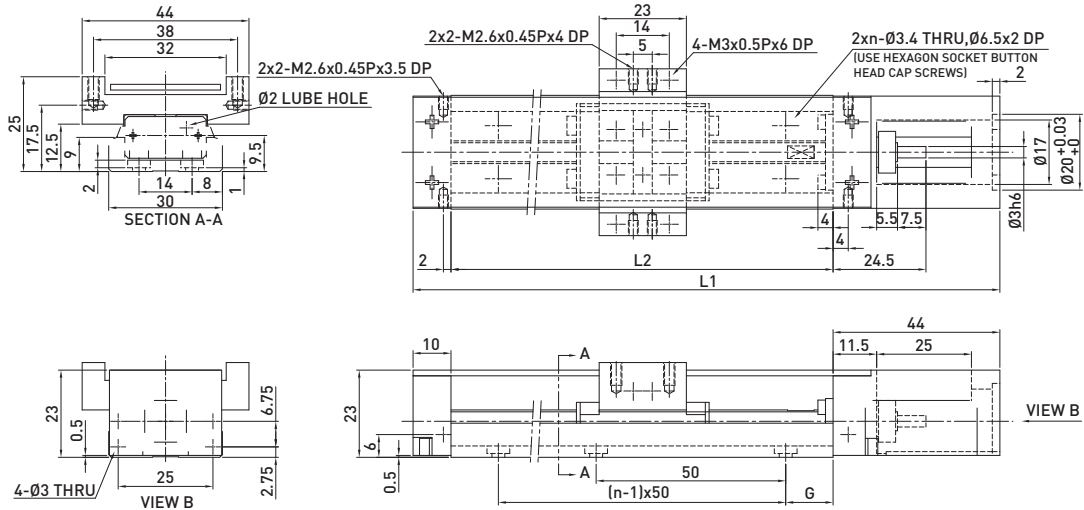


레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
980	1098	811	659	40	90	7	5	29.4	32.3
1180	1298	1011	859	65	90	8	6	34.3	37.2
1380	1498	1211	1059	90	90	9	7	39.2	42.1
1680	1798	1511	1359	90	40	11	9	46.5	49.4

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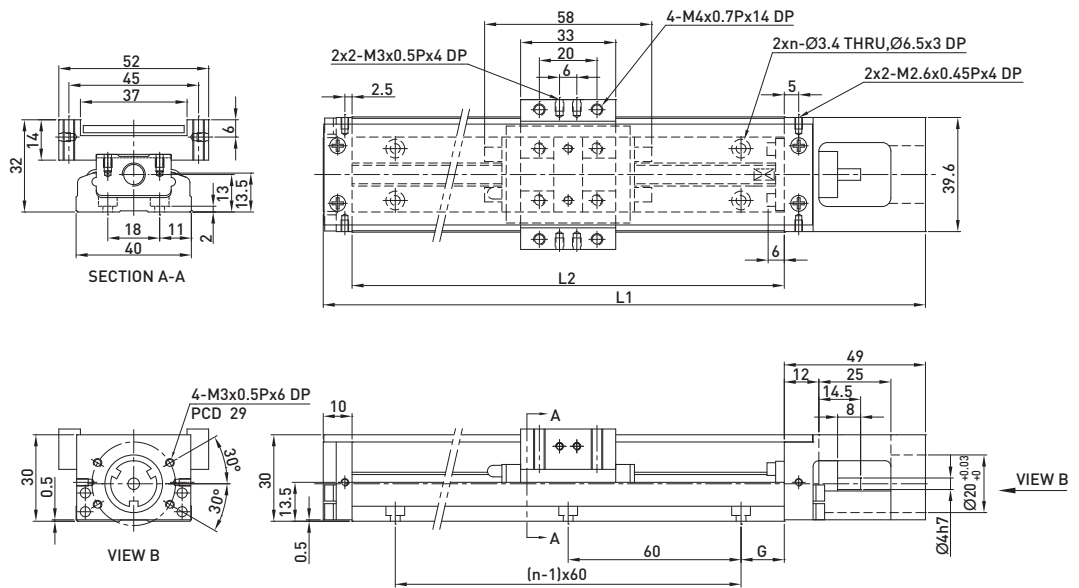
3.6.2. 커버포함

■ KK30



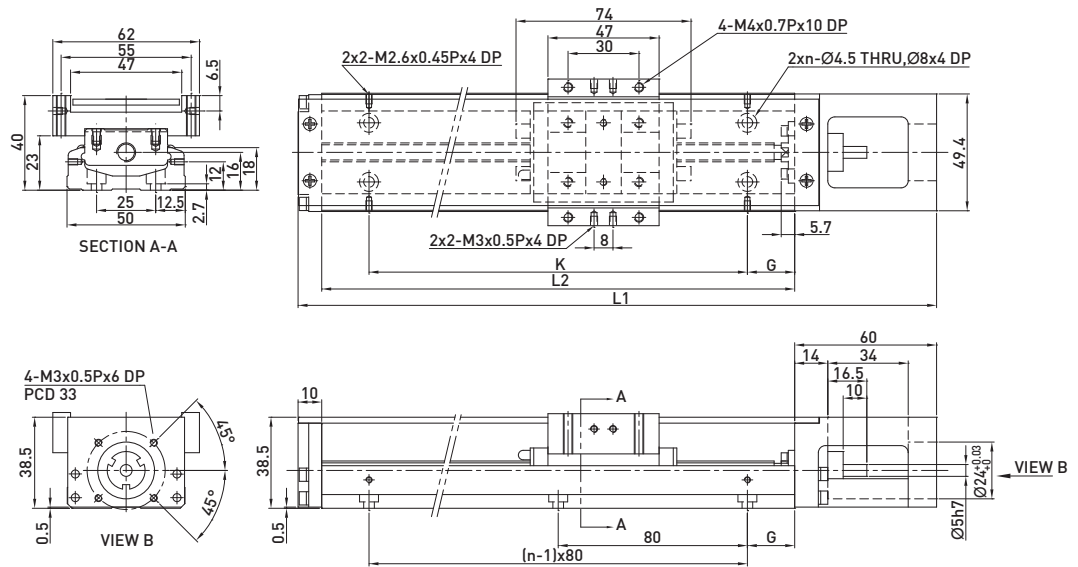
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	n	중량 (kg)	
		A1 Block	A2 Block			A1 Block	A2 Block
75	129	31	-	12.5	2	0.2	-
100	154	56	-	25	2	0.23	-
125	179	81	45	12.5	3	0.26	0.3
150	204	106	70	25	3	0.29	0.33
175	229	131	95	12.5	4	0.32	0.36
200	254	156	120	25	4	0.35	0.39

■ KK40



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	n	중량 (kg)	
		A1 Block	A2 Block			A1 Block	A2 Block
100	159	36	-	20	2	0.55	-
150	209	86	34	15	3	0.68	0.76
200	259	136	84	40	3	0.82	0.89

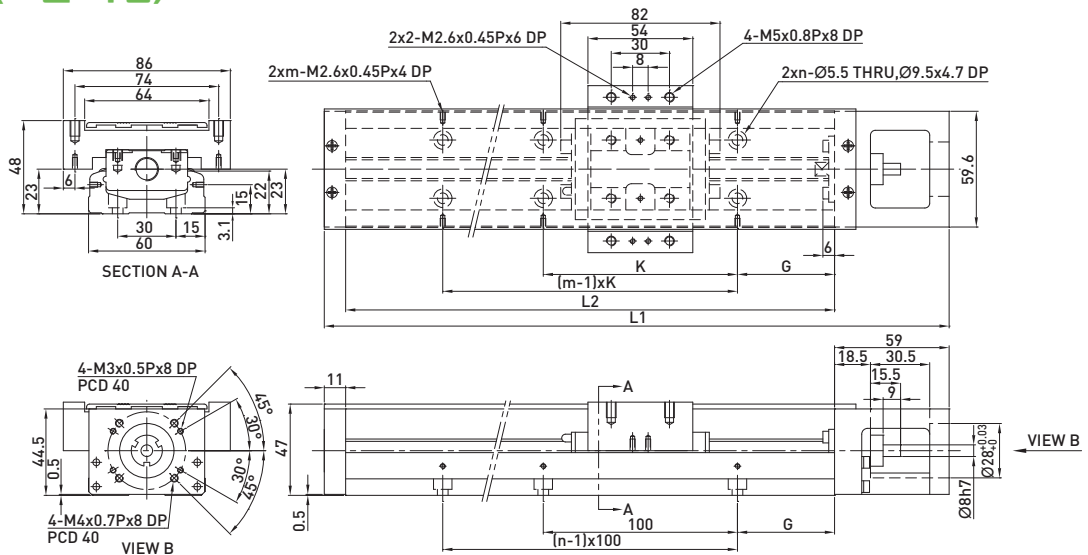
■ KK50



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	중량 (kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
150	220	70	-	35	80	2	1.1	-
200	270	120	55	20	160	3	1.3	1.5
250	320	170	105	45	160	3	1.6	1.8
300	370	220	155	30	240	4	1.8	2.0

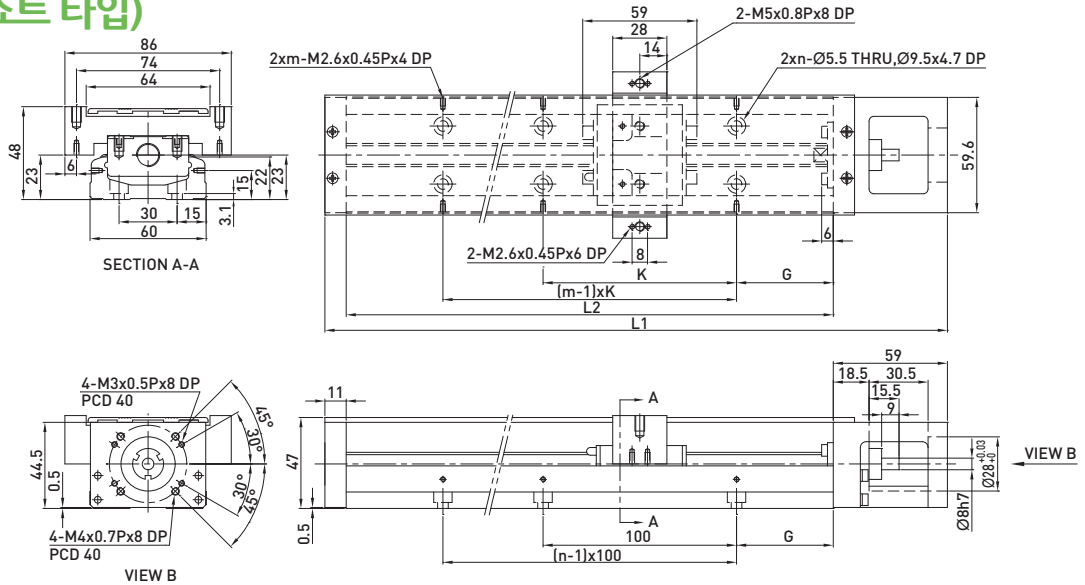
Single Axis Robot

■ KK60D(표준 타입)



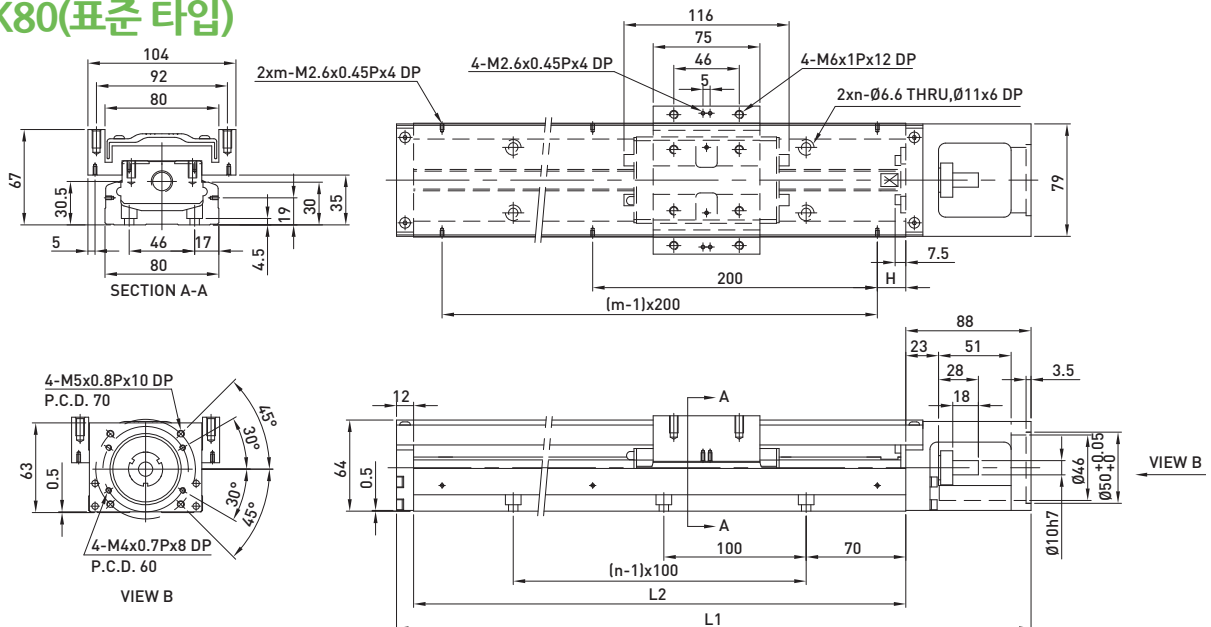
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
150	220	60	-	25	100	2	2	1.7	-
200	270	110	-	50	100	2	2	2.1	-
300	370	210	135	50	200	3	2	2.7	3.0
400	470	310	235	50	100	4	4	3.3	3.6
500	570	410	335	50	200	5	3	3.9	4.2
600	670	510	435	50	100	6	6	4.6	5.0

■ KK60D(쇼트 타입)



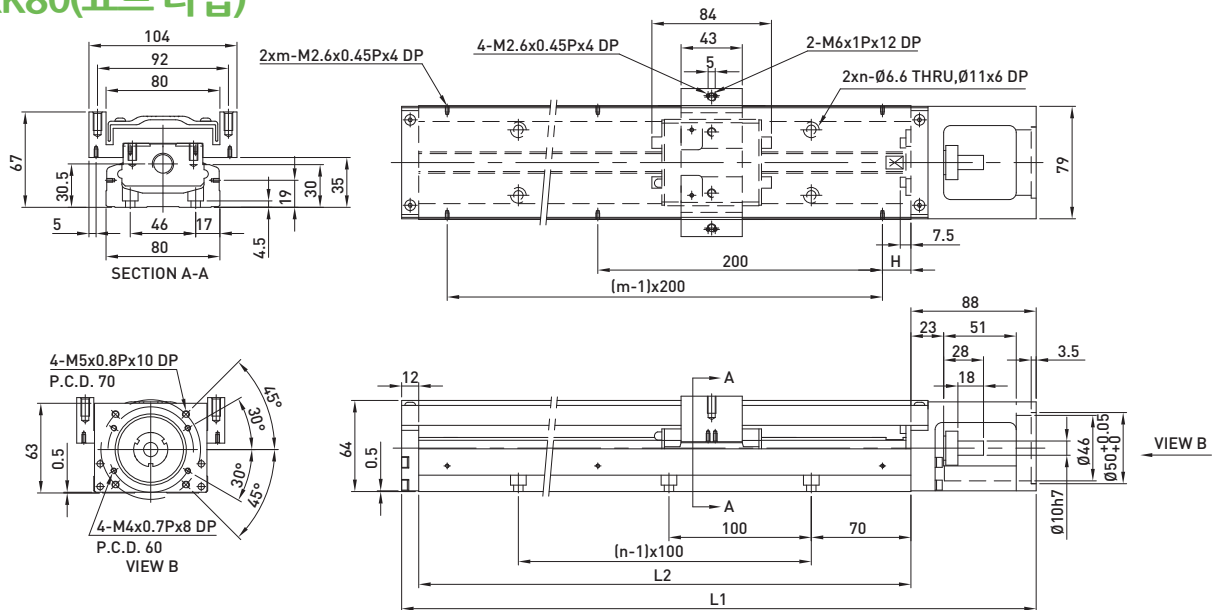
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	K (mm)	n	m	중량 (kg)	
		S1 Block	S2 Block					S1 Block	S2 Block
150	220	85	34	25	100	2	2	1.6	1.8
200	270	135	84	50	100	2	2	1.9	2.1
300	370	235	184	50	200	3	2	2.5	2.7
400	470	335	284	50	100	4	4	3.1	3.3
500	570	435	384	50	200	5	3	3.7	3.9
600	670	535	484	50	100	6	6	4.4	4.6

■ KK80(표준 타입)



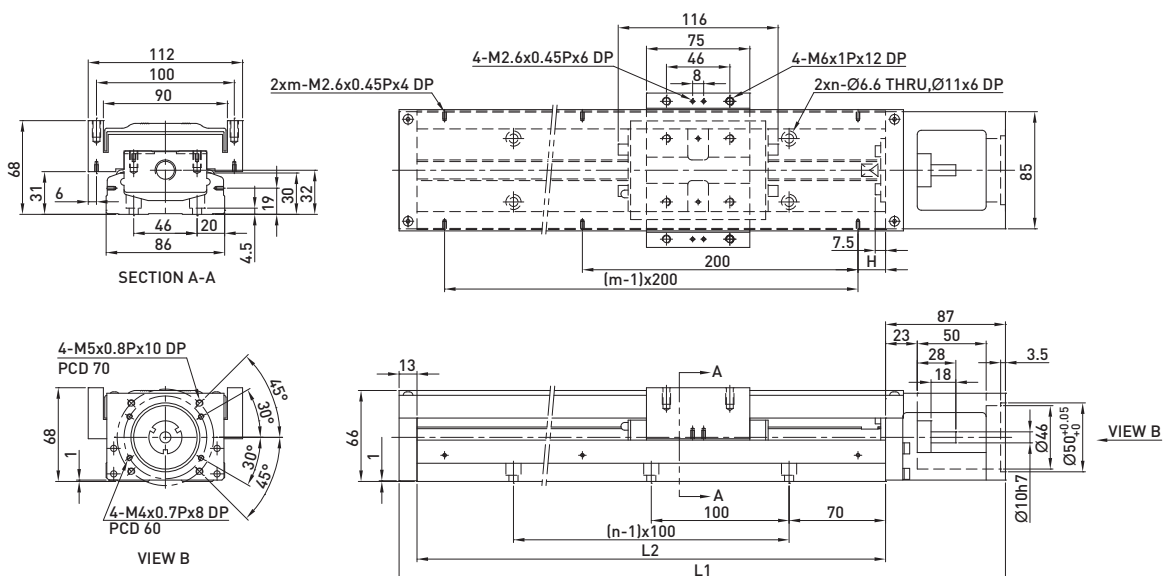
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	440	216.5	108.5	70	3	2	6	7.1
440	540	316.5	208.5	20	4	3	7.2	8.3
540	640	416.5	308.5	70	5	3	8.4	9.5
640	740	516.5	408.5	20	6	4	9.7	10.8
740	840	616.5	508.5	70	7	4	10.9	12
940	1040	816.5	708.5	70	9	5	13.5	14.6

■ KK80(쇼트 타입)



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		S1 Block	S2 Block				S1 Block	S2 Block
340	440	248.5	172.5	70	3	2	5.5	6.1
440	540	348.5	272.5	20	4	3	6.8	7.4
540	640	448.5	372.5	70	5	3	7.9	8.5
640	740	548.5	472.5	20	6	4	9.2	9.8
740	840	648.5	572.5	70	7	4	10.5	11.1
940	1040	848.5	772.5	70	9	5	13	13.6

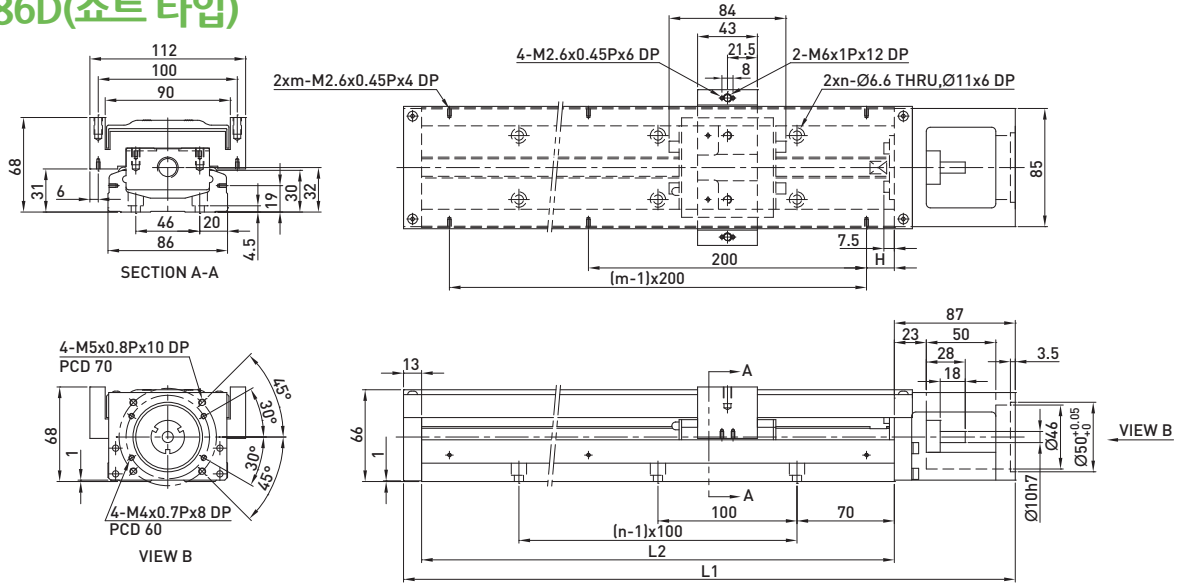
■ KK86D(표준 타입)



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	440	216.5	108.5	70	3	2	6.5	7.3
440	540	316.5	208.5	20	4	3	7.8	8.6
540	640	416.5	308.5	70	5	3	9.0	9.8
640	740	516.5	408.5	20	6	4	10.3	11.3
740	840	616.5	508.5	70	7	4	11.6	12.4
940	1040	816.5	708.5	70	9	5	13.0	13.8

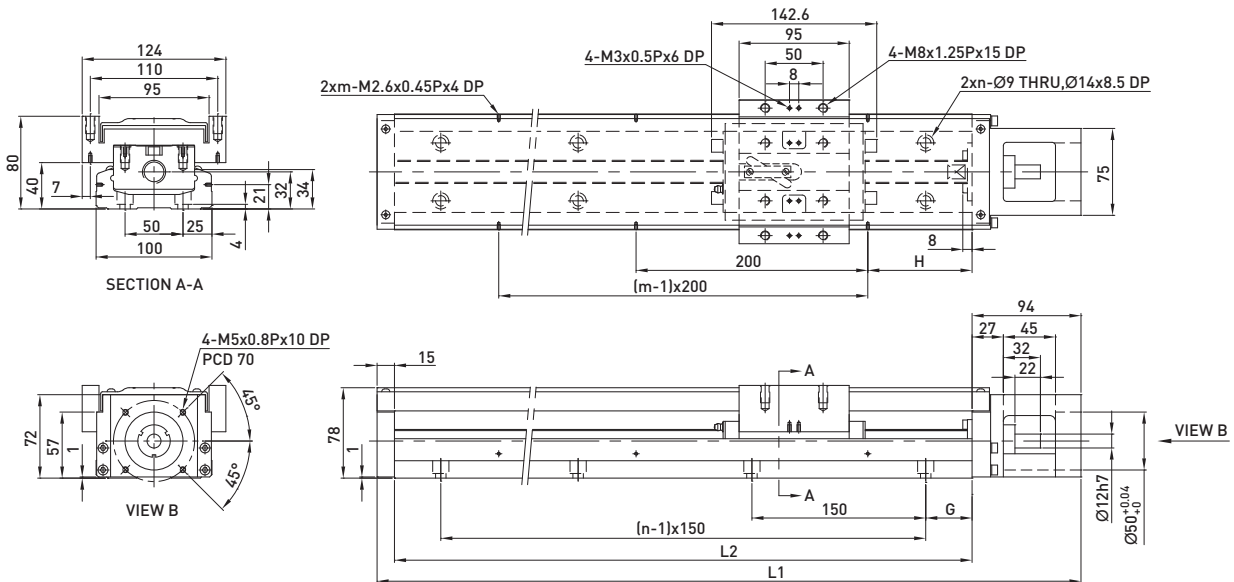
Single Axis Robot

■ KK86D(쇼트 타입)



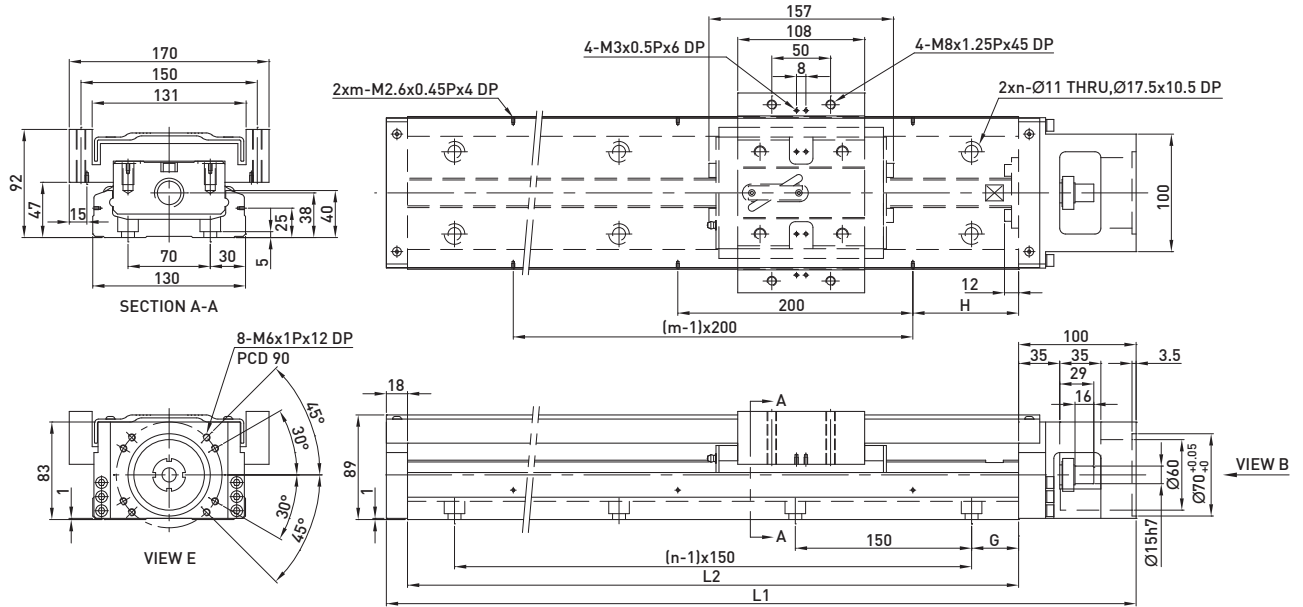
레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		H (mm)	n	m	중량 (kg)	
		S1 Block	S2 Block				S1 Block	S2 Block
340	440	248.5	172.5	70	3	2	6.3	7.1
440	540	348.5	272.5	20	4	3	7.6	8.4
540	640	448.5	372.5	70	5	3	8.8	9.6
640	740	548.5	472.5	20	6	4	10.1	11.1
740	840	648.5	572.5	70	7	4	11.4	12.2
940	1040	848.5	772.5	70	9	5	12.8	13.6

■ KK100



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
980	1089	828	700	40	90	7	5	20.4	22.1
1080	1189	928	800	15	40	8	6	22.2	23.9
1180	1289	1028	900	65	90	8	6	24.0	25.7
1280	1389	1128	1000	40	40	9	7	25.7	27.4
1380	1489	1228	1100	15	90	10	7	27.5	29.2

■ **KK130**



레일길이 L2 (mm)	전장 L1 (mm)	최대 스트로크 (mm)		G (mm)	H (mm)	n	m	중량 (kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
980	1098	811	659	40	90	7	5	31.9	35.9
1180	1298	1011	859	65	90	8	6	37.1	41.1
1380	1498	1211	1059	90	90	9	7	42.2	46.2
1680	1798	1511	1359	90	40	11	9	49.9	53.9

Single Axis Robot

3.7. 중간 플랜지 및 사용모터

3.7.1. KK형 사용모터

HIWIN Mikrosystem Servo Motor

정격 출력	모터형번	중량 (kg)	중간플랜지								브레이크 포함 중량 (kg)	드라이버	중량 (kg)	비고
			KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
50W	FRLS052□□A4□	0.45	-	F2	F2	F2	F3	F3	-	-	0.58	D2	1.25	220V
100W	FRLS102□□A4□	0.6	-	F2	F2	F2	F3	F3	-	-	0.76			220V
200W	FRLS202□□06□	1	-	-	-	-	F0	F0	F0	F1	1.5			220V
400W	FRLS402□□06□	1.45	-	-	-	-	F0	F0	F0	F1	1.86			220V
750W	FRMS752□□08□	2.66	-	-	-	-	-	-	F1	F2	3.32			220V

Mitsubishi Servo Motor

정격 출력	모터형번	중량 (kg)	중간플랜지								브레이크 포함 중량 (kg)	드라이버	중량 (kg)	비고
			KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
10W	HC-AQ0135D	0.19	F1	-	-	-	-	-	-	-	0.29	M2-JR-03A5	0.2	
20W	HC-AQ0235D	0.22	F1	-	-	-	-	-	-	-	0.32	M2-JR-03A5	0.2	
50W	HF-KP053	0.35	-	F1	F1	F1	F2	F2	-	-	0.75	MR-J3S-10A	0.8	220V
100W	HF-KP13	0.56	-	F1	F1	F1	F2	F2	-	-	0.89	MR-J3S-10A	0.8	220V
200W	HF-KP23	0.94	-	-	-	-	F0	F0	F0	F1	1.6	MR-J3S-20A	0.8	220V
400W	HF-KP43	1.5	-	-	-	-	F0	F0	F0	F1	2.1	MR-J3S-40A	1	220V
750W	HF-KP73	2.9	-	-	-	-	-	-	F1	F2	4	MR-J3S-70A	1.4	220V

Panasonic Servo Motor

정격 출력	모터형번	중량 (kg)	중간플랜지								브레이크 포함 중량 (kg)	드라이버	중량 (kg)	비고
			KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
50W	MSMD5AZP1	0.32	-	F2	F2	F2	F3	F3	-	-	0.53	MADDT1105	0.8	110V
50W	MSMD5AZP1	0.32	-	F2	F2	F2	F3	F3	-	-	0.53	MADDT1205	0.8	220V
100W	MSMD011P1	0.47	-	F2	F2	F2	F3	F3	-	-	0.68	MADDT1107	0.8	110V
100W	MSMD012P1	0.47	-	F2	F2	F2	F3	F3	-	-	0.68	MADDT1205	0.8	220V
200W	MSMD021P1	0.82	-	-	-	-	F1	F1	-	-	1.3	MADDT2110	1.1	110V
200W	MSMD022P1	0.82	-	-	-	-	F1	F1	-	-	1.3	MADDT1207	0.8	220V
400W	MSMD041P1	1.2	-	-	-	-	F1	F1	-	-	1.7	MADDT3120	1.5	110V
400W	MSMD042P1	1.2	-	-	-	-	F1	F1	-	-	1.7	MADDT2210	1.1	220V
750W	MSMD082S1	2.3	-	-	-	-	F4	F4	F2	F4	3.1	MADDT3520	1.5	220V

Yasukawa Servo Motor

정격 출력	모터형번	중량 (kg)	중간플랜지								브레이크 포함 중량 (kg)	드라이버	중량 (kg)	비고
			KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
10W	SGMMV-A1A2A21	0.13	F2	-	-	-	-	-	-	-	0.215	SGDV-R90A01A	0.9	220V
20W	SGMMV-A2A2A21	0.17	F2	-	-	-	-	-	-	-	0.27	SGDV-R90A01A	0.9	220V
50W	SGMAV-A5ADA61	0.3	-	F1	F1	F1	F2	F2	-	-		SGDV-R70A01A	0.9	with key
50W	SGMAV-A5ADA2C	0.3	-	F1	F1	F1	F2	F2	-	-		SGDV-R70A01A	0.9	no key
50W	SGMAV-A5ADA21	0.3	-	F1	F1	F1	F2	F2	-	-	0.75	SGDV-R70A01A	0.9	Mid inertia
100W	SGMAV-01ADA64	0.4	-	F1	F1	F1	F2	F2	-	-	0.89	SGDV-R90A01A	0.9	
200W	SGMAV-02ADA65	0.9	-	-	-	-	F0	F0	F0	F1	1.6	SGDV-1R6A01A	0.9	
400W	SGMAV-04ADA66	1.2	-	-	-	-	F0	F0	F0	F1	2.1	SGDV-2R8A01A	1	
750W	SGMAV-08ADA67	2.6	-	-	-	-	-	-	F1	F2	4	SGDV-5R5A01A	1.5	

HIWIN Mikosystem Step Motor

기종	모터형번	중간플랜지								중량 (kg)	내장모터	중량 (kg)	비고
		KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
ST40	FRST011024	-	F3	F3	F5	-	-	-	-	0.3	STD-24A	0.09	single axis
ST55	FRST021024	-	F3	F3	F5	-	-	-	-	0.55			
	FRST022024	-				-	-	-	-	-			0.8
	FRST023024	-	-	-	-	-	-	-	1.18				
	FRST121024	-	F3	F3	F5	-	-	-	-	0.58			
	FRST122024	-				-	-	-	-	0.83			
FRST123024	-	-				-	-	-	-	0.21			

Oriental Step Motor

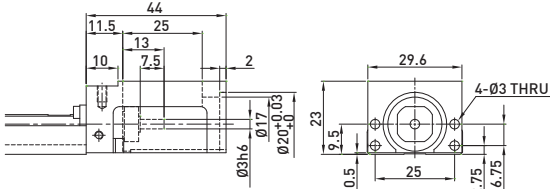
기종	모터형번	중간플랜지								내장모터	중량 (kg)	내장 드라이버	중량 (kg)
		KK30	KK40	KK50	KK60	KK80	KK86	KK100	KK130				
CSK 2 phase	CSK243-AP	-	F3	F3	F5	-	-	-	-	PK243-01A	0.21	CSD2109-P	0.12
	CSK244-AP	-	F3	F3	F5	-	-	-	-	PK244-01A	0.27	CSD2112-P	0.12
	CSK245-AP	-	F3	F3	F5	-	-	-	-	PK245-01A	0.35	CSD2112-P	0.12
	CSK264-AP	-	-	-	F4	F6	F6	-	-	PK264-02A	0.45	CSD2120-P	0.12
	CSK266-AP	-	-	-	F4	F6	F6	-	-	PK266-02A	0.7	CSD2120-P	0.12
	CSK268-AP	-	-	-	F4	F6	F6	-	-	PK268-02A	1	CSD2120-P	0.12
	CSK296-AP	-	-	-	-	-	-	F4	F3	PK296-03A	1.7	CSD2145P	0.2
	CSK299-AP	-	-	-	-	-	-	F4	F3	PK299-03A	2.8	CSD2145P	0.2
CSK2913-AP	-	-	-	-	-	-	F4	F3	PK2913-02A	3.8	CSD2140P	0.2	
CSK 5 phase	CSK523-AP	F3	-	-	-	-	-	-	-	PK523A	0.1	SD5103P3	0.04
CFKII 5 phase micro stepping	CFK543AP2	-	F3	F3	F5	-	-	-	-	PK543NAW	0.21	DFC5107P	0.2
	CFK544AP2	-	F3	F3	F5	-	-	-	-	PK544NAW	0.27	DFC5107P	0.2
	CFK545AP2	-	F3	F3	F5	-	-	-	-	PK545NAW	0.35	DFC5107P	0.2
	CFK564AP2	-	-	-	-	F5	F5	-	-	PK564NAW	0.6	DFC5114P	0.2
	CFK566AP2	-	-	-	-	F5	F5	-	-	PK566NAW	0.8	DFC5114P	0.2
	CFK569AP2	-	-	-	-	F5	F5	-	-	PK569NAW	1.3	DFC5114P	0.2
	CFK566HAP2	-	-	-	-	F5	F5	-	-	PK566HNAW	0.8	DFC5128P	0.22
	CKF569HAP2	-	-	-	-	F5	F5	-	-	PK569HNAW	1.3	DFC5128P	0.22
	CFK596HAP2	-	-	-	-	-	-	F3	-	PK596HNAW	1.7	DFC5128P	0.22
	CFK599HAP2	-	-	-	-	-	-	F3	-	PK599HNAW	2.8	DFC5128P	0.22
CFK5913HAP2	-	-	-	-	-	-	F3	-	PK5913HNAW	3.8	DFC5128P	0.22	
UMK 2 phase	UMK243A	-	F3	F3	F5	-	-	-	-	PK243-01	0.21	UDK2109	0.47
	UMK244A	-	F3	F3	F5	-	-	-	-	PK244-01	0.27	UDK2112	0.47
	UMK245A	-	F3	F3	F5	-	-	-	-	PK245-01	0.35	UDK2112	0.47
	UMK264A	-	-	-	F4	F6	F6	-	-	PK264-02	0.45	UDK2120	0.47
	UMK266A	-	-	-	F4	F6	F6	-	-	PK266-02	0.7	UDK2120	0.47
	UMK268A	-	-	-	F4	F6	F6	-	-	PK268-02	1	UDK2120	0.47
RK 5 phase	RK543AA	-	F3	F3	F5	-	-	-	-	PK543W	0.25	RKD507-A	0.4
	RK544AA	-	F3	F3	F5	-	-	-	-	PK544W	0.3	RKD507-A	0.4
	RK545AA	-	F3	F3	F5	-	-	-	-	PK545W	0.4	RKD507-A	0.4
	RK566AA	-	-	-	-	F5	F5	-	-	PK566W	0.8	RKD514L-A	0.85
	RK569AA	-	-	-	-	F5	F5	-	-	PK569W	1.3	RKD514L-A	0.85
	RK596AA	-	-	-	-	-	-	F3	-	PK596W	1.7	RKD514H-A	0.85
	RK599AA	-	-	-	-	-	-	F3	-	PK599W	2.8	RKD514H-A	0.85
RK5913AA	-	-	-	-	-	-	F3	-	PK5913W	3.8	RKD514H-A	0.85	
ASC α-step	ASC34AK	F3	-	-	-	-	-	-	-	ASM34AK	0.15	ASD10A-K	0.25

Single Axis Robot

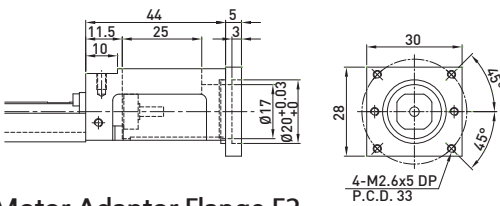
3.7.2. 모터 하우징 및 중간플랜지

■ KK30

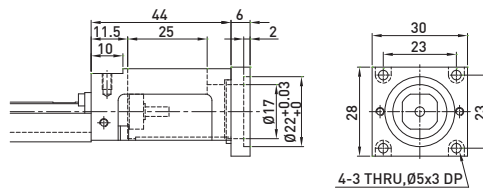
Motor Housing F0



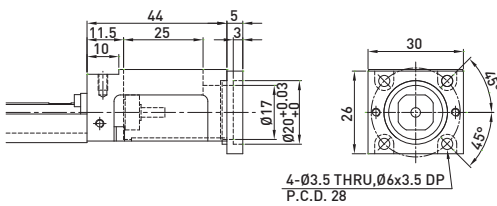
Motor Adaptor Flange F1



Motor Adaptor Flange F3

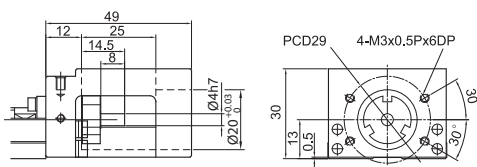


Motor Adaptor Flange F2

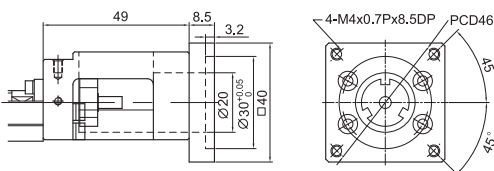


■ KK40

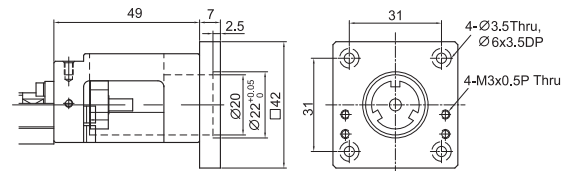
Motor Housing F0



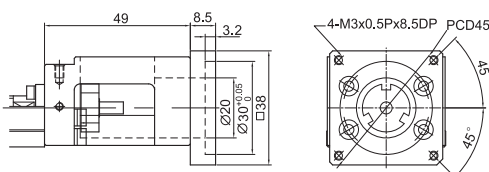
Motor Adaptor Flange F1



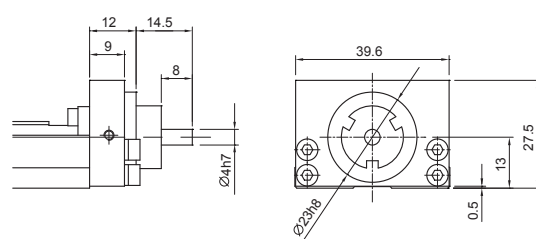
Motor Adaptor Flange F3



Motor Adaptor Flange F2

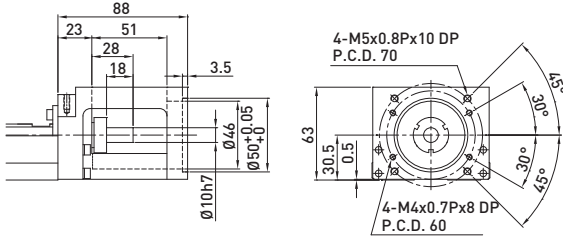


Mount Housing H0

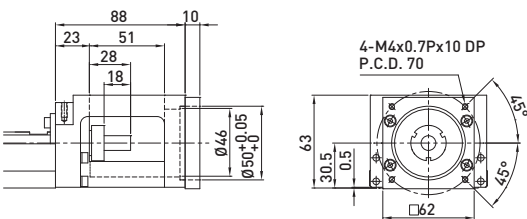


KK80

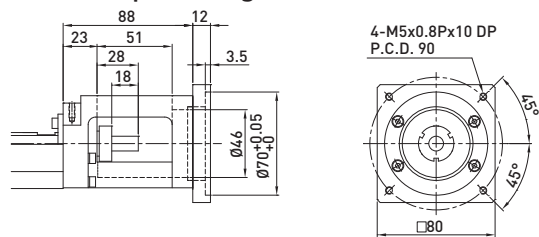
Motor Housing F0



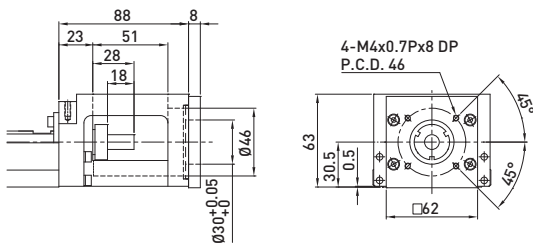
Motor Adaptor Flange F1



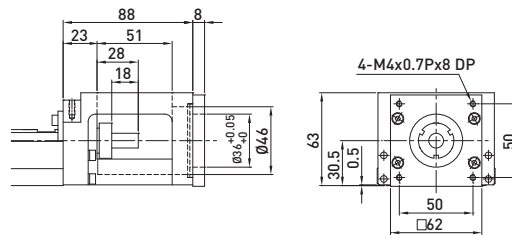
Motor Adaptor Flange F4



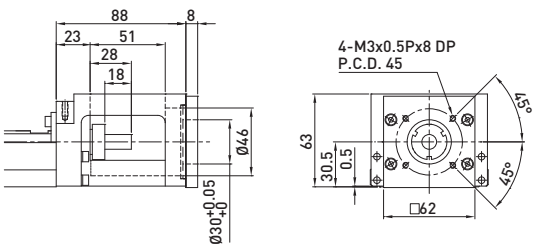
Motor Adaptor Flange F2



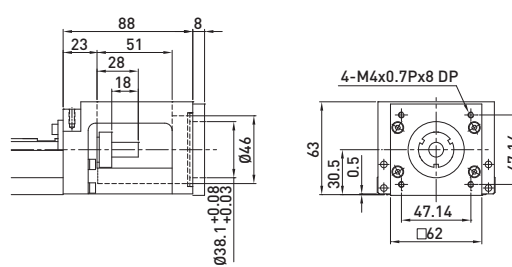
Motor Adaptor Flange F5



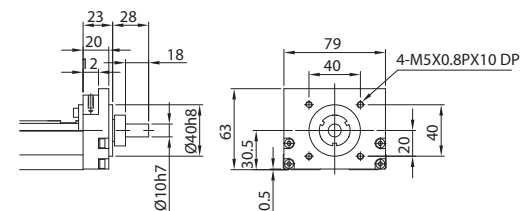
Motor Adaptor Flange F3



Motor Adaptor Flange F6

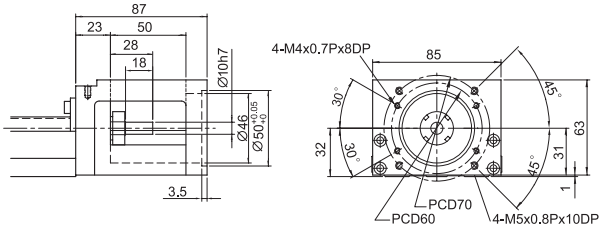


Mount Housing H0

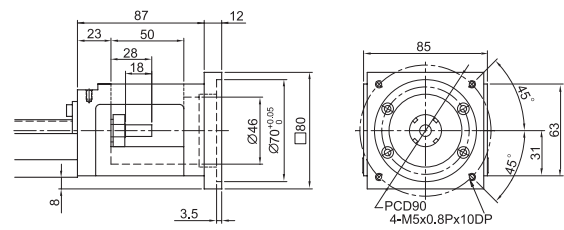


KK86D

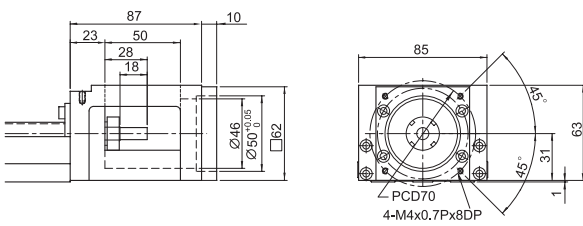
Motor Housing F0



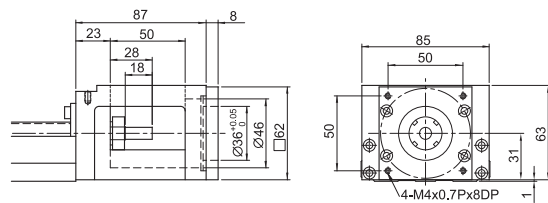
Motor Adaptor Flange F4



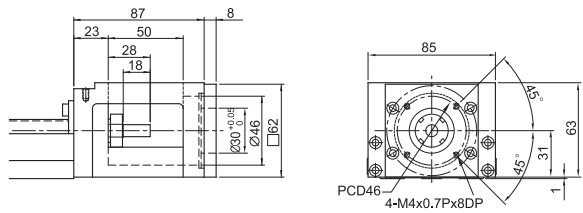
Motor Adaptor Flange F1



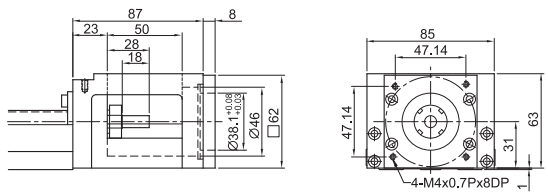
Motor Adaptor Flange F5



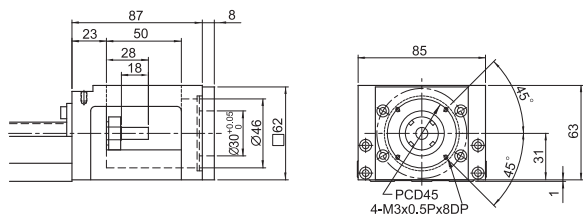
Motor Adaptor Flange F2



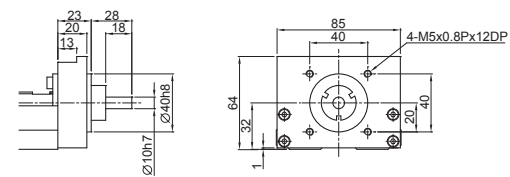
Motor Adaptor Flange F6



Motor Adaptor Flange F3



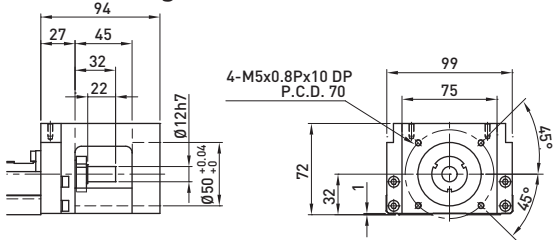
Mount Housing H0



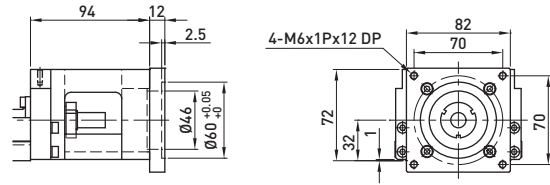
Single Axis Robot

■ KK100

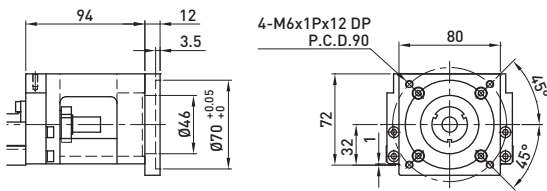
Motor Housing F0



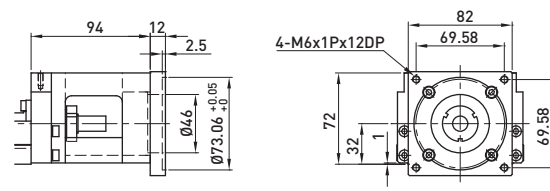
Motor Adaptor Flange F3



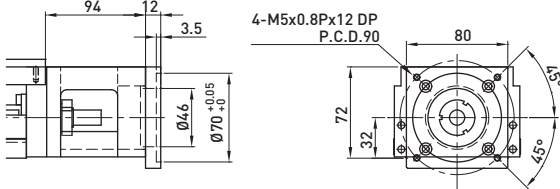
Motor Adaptor Flange F1



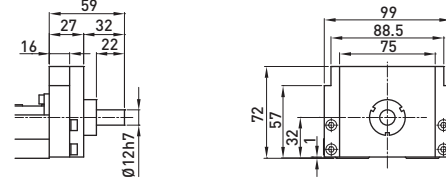
Motor Adaptor Flange F4



Motor Adaptor Flange F2

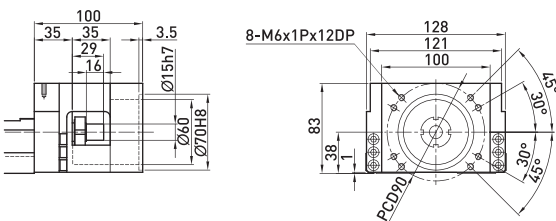


Mount Housing H0

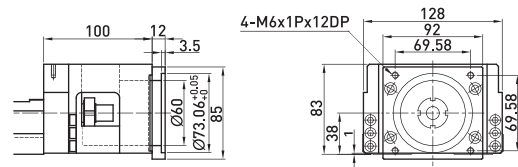


■ KK130

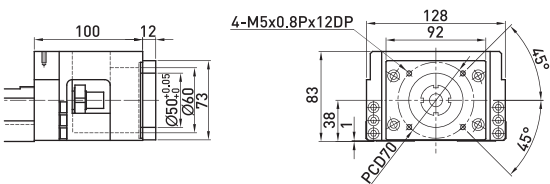
Motor Housing F0



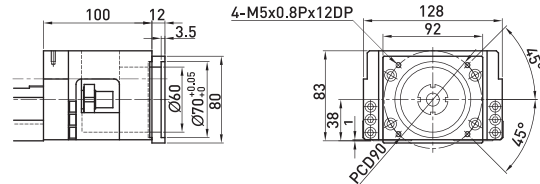
Motor Adaptor Flange F3



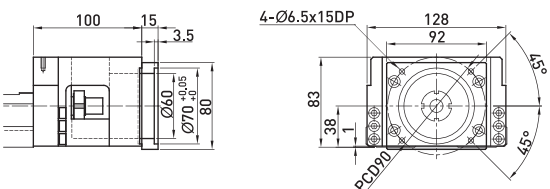
Motor Adaptor Flange F1



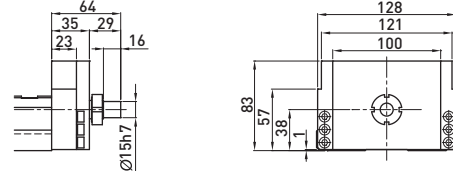
Motor Adaptor Flange F4



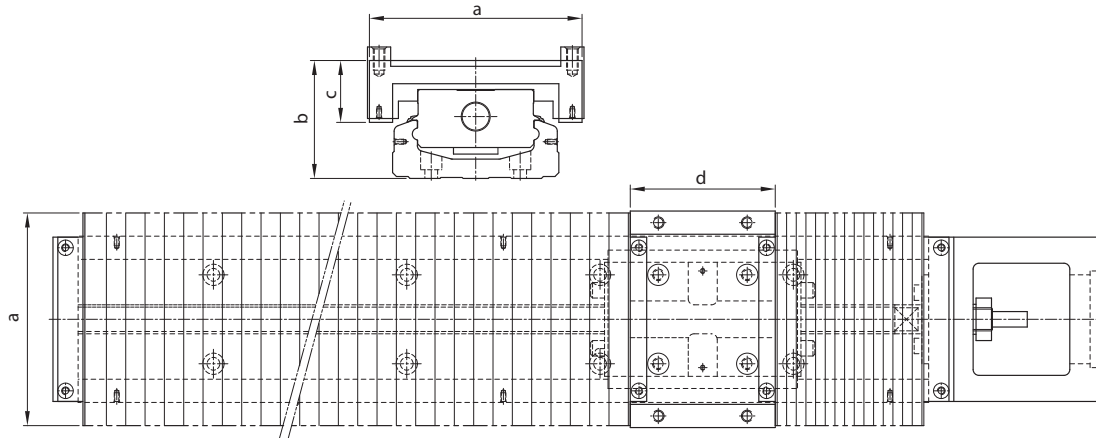
Motor Adaptor Flange F2



Mount Housing H0



3.8. 자바라

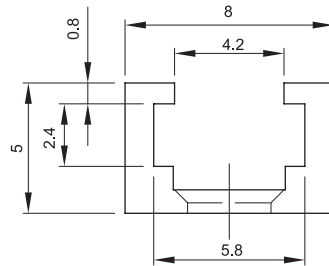


Unit : mm

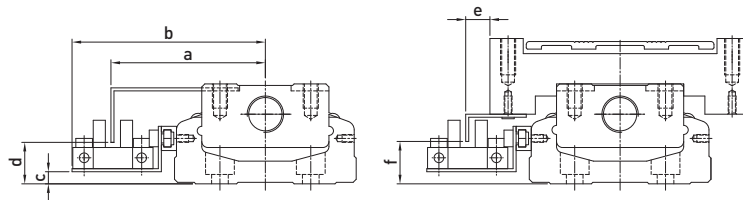
형번	레일길이	스트로크	Min.	Max.	a	b	c	d
KK30	75	22	15	37	47	22.5	15.5	23
	100	37	20	57				
	125	52	25	77				
	150	67	30	97				
	175	82	35	117				
KK40	200	97	40	137	60	29.5	19	33
	100	35	16	51				
KK50	150	63	27	90	62	37	19	47
	200	93	37	130				
	150	60	21.5	81.5				
KK60	200	95	29	124	84	45.5	24	54
	250	130	36.5	166.5				
	300	160	46.5	206.5				
	150	56	16	80				
	200	106	20	126				
	300	166	40	206				
KK80	400	234	56	290	106	62.5	34.5	75
	500	306	70	376				
	600	366	90	456				
	340	181	42	223				
	440	257	54	311				
	540	333	66	399				
KK86	640	409	78	487	110	61	32	75
	740	485	90	575				
	940	649	108	757				
	340	188	36	224				
	440	260	50	310				
	540	336	62	398				
KK100	640	408	76	484	150	73	41	95
	740	480	90	570				
	940	640	110	750				
	980	769	58	827				
	1080	855	65	920				
KK130	1180	945	70	1015	180	89	53	108
	1280	1029	78	1107				
	1380	1115	85	1200				
	980	748	62	810				
KK130	1180	916	78	994	180	89	53	108
	1380	1084	94	1178				
	1680	1346	113	1459				

3.9. Sensor

Sensor rail

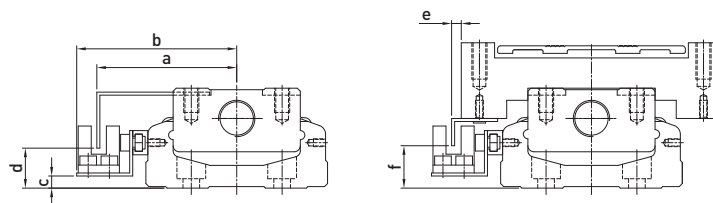


Switch



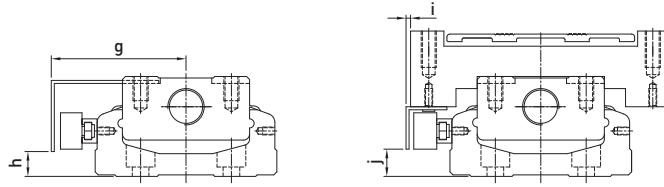
형번	a	b	c	d	e	f
KK40	41.5	54.1	0.5	10.8	15.3	12
KK50	45.5	59	1	10	15	11
KK60	51	63.8	4	14.5	8	13
KK80	61	74	8	19	9	19
KK86	63.5	76.7	8	18	8	18
KK100	71	84	10	20	9	20
KK130	85.5	98.5	14	24	0.5	23

Switch 1 : OMRON EE-SX-671



형번	a	b	c	d	e	f
KK40	36.5	44.3	1	9.8	10.5	12
KK50	41.3	48	1	10.5	10.2	11
KK60	46.2	52.8	4	14	3.2	13
KK80	56	63	8	18	4	18
KK86	59	65.7	8	18	3	18
KK100	66	73	10	20	4.2	20
KK130	80.8	87.5	14	23.5	-4.1	23.5

Switch 2 : OMRON EE-SX-674



형번	g	h	i	j
KK40	40	5.5	13.5	5.5
KK50	39.5	5.7	7	19.5
KK60	44.5	9	2	9
KK80	54	12	2	13
KK86	57	13	1	13
KK100	64.5	15	2.5	15
KK130	79	19	-6	19

Switch 3 : PANASONIC GX-F12A

Switch 4 : PANASONIC GX-F12A-P



형번	g	h	i	j
KK30	28	1.8	5.8	1.8

Switch 5 : YAMATAKE APM-D3B1-03