

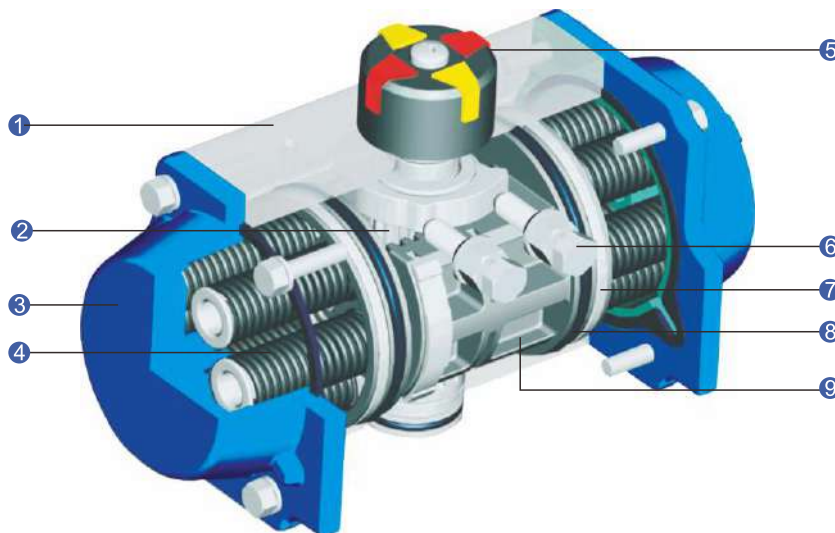
Pneumatic Actuators

Pneumatic Actuator KP Series

► Introduction

KI pneumatic actuators offer Double-acting type and Single-acting type (spring return). Superior aluminum extruded body with hard anodized polish internally and externally enhances its ability in corrosion-resistance and wear-proof, and extends life-cycle. KI pneumatic actuators equipped with brilliant performance of rack and pinion provide high output torque and flexible on/off to suit a wide range of ball valves, butterfly valves, and other valves for automation solutions.

► Design Features



1. ACTUATOR BODY

Aluminum extruded body with normal or hard anodized polish internally and externally offers beautiful appearance, lasting life-cycle and hard wear.

4. HEAVY DUTY SPRINGS

Springs produced by imported and quality alloy steel bring high performance and long lifespan.

7. PISTON GUIDES

“ACETAL” self-lubricating piston guides greatly increase life cycle of Actuator Body.

2. PINION

Alloy steel pinion machined precisely and nickel plated provides utmost wear proof and corrosion resistance.

5. INDICATOR

All types are equipped with a disc open/close indicator.

8. PISTON SEALS

Original Japan-made NBR-70 rubber seal rings of piston seals ensure top reliability at working operations.

3. END CAPS

Heavy duty die-cast aluminum end caps with polyester coating enhance corrosion resistance.

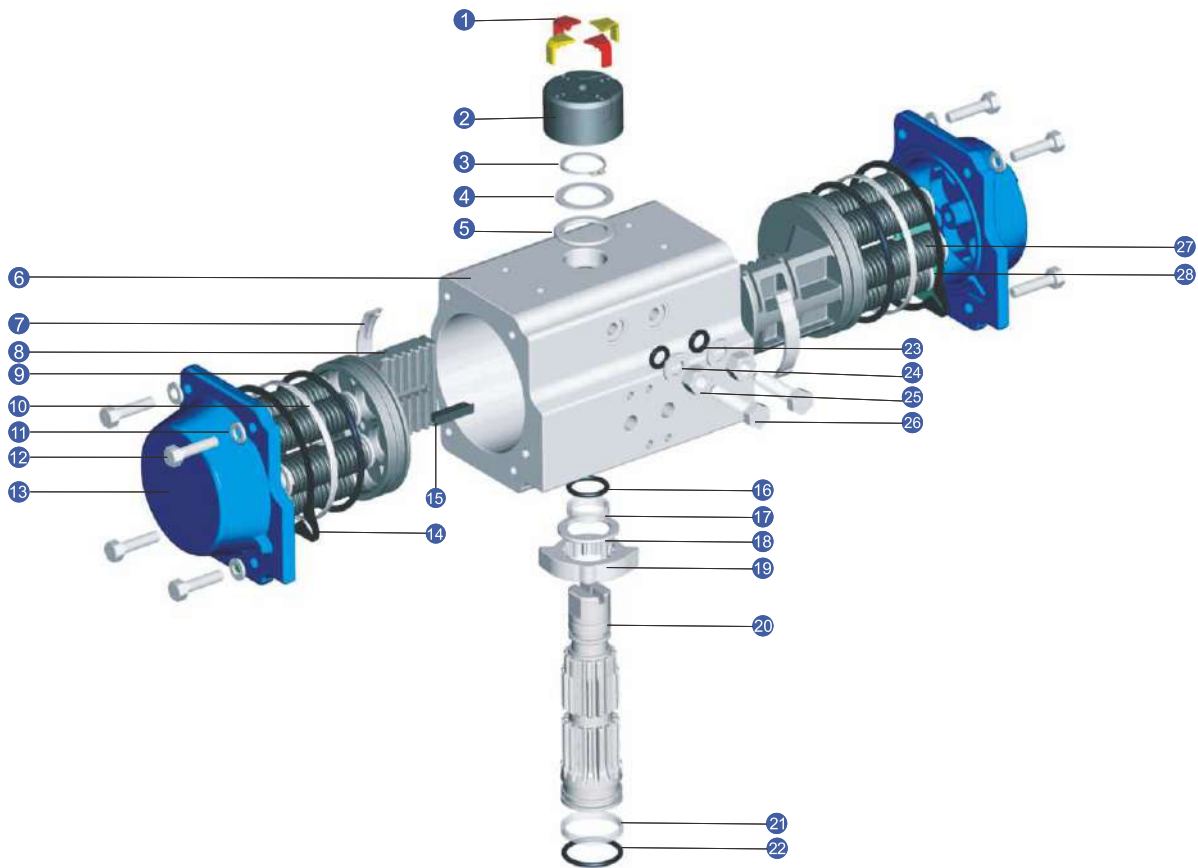
6. TRAVEL ADJUSTMENT

Adjustment between +5° and -5° through two external screws is available.

9. PISTON

Heavy duty die-cast aluminum pistons with hard-wear treatment on the surface and driven by double racks greatly enhance efficiency and constant torque during transmission.

Parts



Materials

PART NO	PART DESCRIPTION	STANDARD MATERIAL	UNIT Q'TY	OPTIONAL MATERIAL
1	Position indicator	Polypropylene+GF	4	—
2	Position indicator holder	Polypropylene+GF	1	—
3	Spring clip (pinion)	Stainless Steel, KP-160, 200 Nickel plated	1	—
4	Thrust washer (pinion)	Stainless Steel	1	—
5	Thrust bearing (pinion)	Polyphthalamide	1	—
6	Body	Extruded Aluminium alloy, Anodized	1	—
7	Bearing (piston back)	Polyphthalamide	2	—
8	Piston	Die cast Aluminium, Hard anodized	2	—
9	" O " Ring (piston)	Nitrile (NBR70)	2	FKM/Silicon Viton
10	Bearing (piston head)	Polyphthalamide	2	—
11	Cap bolt washer	Stainless Steel	8	—
12	Cap bolt (end cap)	Stainless Steel	2	—
13	Right and left end cap	Die cast Aluminium, Chromate+Polyester coated	2	—
14	" O " Ring (end cap)	Nitrile (NBR70)	2	FKM/Silicon Viton
15	Piston guide	Polypropylene+GF	2	—
16	" O " Ring (pinion top)	Nitrile (NBR70)	1	FKM/Silicon Viton
17	Bearing (piston top)	Nylon46	1	—
18	Thrust bearing (pinion)	Polyphthalamide	1	—
19	Open.Close cam (stop arrangement)	Stainless Steel	1	—
20	Drive shaft	Steel alloy, Nickel plated	1	—
21	Bearing (piston bottom)	Nylon46	1	—
22	" O " Ring (pinion bottom)	Nitrile (NBR70)	1	FKM/Silicon Viton
23	" O " Ring (stop screw)	Nitrile (NBR70)	1	FKM/Silicon Viton
24	Stop bolt washer	Stainless Steel	2	—
25	Stop nut	Stainless Steel	2	—
26	Stop bolt	Stainless Steel	2	—
27	Spring (catridge)	High alloy Spring Steel, Epoxy coated	Min.5/max.12	—
28	Spring holder	Polypropylene+GF	1	—

► KP Series Torque Outputs

Double Acting Actuator

Output torque (Nm) for double acting actuators

Model	Air supply	0.35 MPa	0.4 MPa	0.45 MPa	0.5 MPa	0.55 MPa	0.6 MPa	0.7 MPa
KP - 35		5.0	5.7	6.4	7.3	8.0	8.7	10.0
KP - 50		11.7	13.5	15.1	16.7	18.4	20.0	23.4
KP - 63		20.6	23.6	26.5	29.4	32.3	35.3	41.1
KP - 75		40.8	46.6	52.5	58.3	64.1	69.9	81.5
KP - 88		64.2	73.3	82.5	91.6	101.1	110.1	128.1
KP - 100		93.4	106.3	120.3	133.3	146.3	160.3	186.3
KP - 110		120.4	137.6	154.8	172.0	189.2	206.4	240.8
KP - 125		195.0	223.0	250.0	278.0	306.0	333.0	389.0
KP - 140		243.0	278.0	312.0	347.0	382.0	417.0	495.0
KP - 160		398.0	455.0	512.0	577.0	625.0	682.0	806.0
KP - 190		653.0	746.0	839.0	932.0	1026.0	1119.0	1305.0
KP - 200		746.0	852.0	976.0	1065.0	1171.0	1277.0	1490.0
KP - 210		820.0	937.0	1054.0	1171.0	1289.0	1406.0	1640.0
KP - 240		1339.0	1530.0	1721.0	1913.0	2104.0	2295.0	2678.0
KP - 270		2033.0	2324.0	2614.0	2905.0	3195.0	3486.0	4067.0
KP - 300		2556.0	2922.0	3287.0	3652.0	4017.0	4383.0	5113.0
KP - 350		3796.0	4338.0	4881.0	5423.0	5968.0	6508.0	7592.0
KP - 400		5454.0	6233.0	7012.0	7791.0	8570.0	9350.0	10908.0

Single Acting Actuator

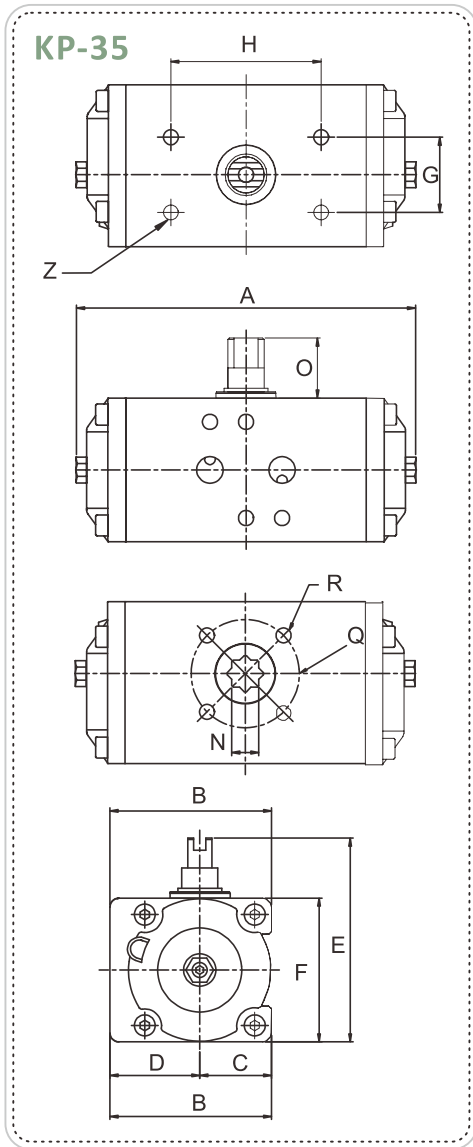
Output torque (Nm) for single acting (spring return) actuators

Model No.	Spring Qty	0.35 MPa		0.4 MPa		0.45 MPa		0.5 MPa		0.55 MPa		0.6 MPa		0.7 MPa		0.8 MPa		Spring Torque		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
KP - 50S	S.set	S	E	S	E	S	E	S	E	S	E	S	E	S	E	S	E	S	E	
	5	8.4	6.9	10.0	8.5	11.7	10.2	13.3	11.8									5.0	3.5	
	6	7.7	5.9	9.4	7.5	11.0	9.2	12.7	10.9	14.3	12.5							5.9	4.1	
	7	7.0	4.9	8.7	6.6	10.3	8.2	12.0	9.9	13.7	11.6	15.3	13.2					6.9	4.8	
	8	6.3	3.9	8.0	5.6	9.7	7.3	11.3	8.9	13.0	10.6	14.7	12.2	18.0	15.6			7.9	5.5	
	9			7.3	4.6	9.0	6.3	10.7	7.9	12.3	9.6	14.0	11.3	17.3	14.6	20.6	17.9	8.9	6.2	
	10					8.3	5.3	10.0	7.0	11.6	8.6	13.3	10.3	16.6	13.6	19.9	16.9	9.8	6.8	
	11							9.3	6.0	11.0	7.7	12.6	9.3	16.0	12.6	19.3	16.0	10.8	7.5	
	12									10.3	6.7	12.0	8.3	15.3	11.7	18.6	15.0	11.8	8.1	
	KP - 63S	5	15.1	12.2	18.0	15.1	20.9	18.0	23.9	21.0									8.5	5.6
		6	14.0	10.5	16.9	13.4	19.8	16.4	22.8	19.3	25.7	22.2							10.2	6.8
		7	12.9	8.8	15.8	11.7	18.7	14.7	21.6	17.6	24.6	20.5	27.5	23.5					11.9	7.9
8		11.7	7.1	14.7	10.1	17.6	13.0	20.5	15.9	23.5	18.8	26.4	21.8	32.3	27.6			13.6	9.0	
9				13.6	8.4	16.5	11.3	19.4	14.2	22.4	17.2	25.3	20.1	31.2	26.0	38.0	31.8	15.3	10.1	
10						15.4	9.6	18.3	12.54	21.2	15.5	24.2	18.4	30.0	24.3	35.9	30.1	17.0	11.2	
11								17.2	10.9	20.1	13.8	23.1	16.7	28.9	22.6	34.8	28.4	18.7	12.3	
12										19.0	12.1	22.0	15.0	27.8	20.9	33.7	26.8	20.3	13.4	
KP - 75S		5	29.8	23.5	35.6	29.3	41.4	35.1	47.2	41.0									17.4	11.2
		6	27.6	20.0	33.4	25.9	39.2	31.7	45.0	37.5	50.8	43.3							20.9	13.4
		7	25.3	16.6	31.2	22.4	37.0	28.2	42.8	34.0	48.6	39.9	54.4	45.7					24.3	15.6
		8	23.1	13.1	28.9	18.9	34.8	24.8	40.6	30.6	46.4	36.4	52.2	42.2	63.8	53.8			27.8	17.8
	9			26.7	15.5	32.6	21.3	38.4	27.1	44.2	32.9	52.0	38.7	61.6	50.4	73.3	62.0	31.3	20.0	
	10					30.3	17.8	36.2	23.7	42.0	29.5	47.8	35.3	59.4	46.9	71.1	58.6	34.7	22.2	
	11							33.9	20.2	39.8	26.0	45.6	31.8	57.2	43.5	68.8	55.1	38.2	24.4	
	12									37.6	22.5	43.4	28.4	55.0	40.0	66.6	51.6	41.6	26.6	
	KP - 88S	5	45.8	35.3	55.0	44.4	64.1	53.6	73.3	62.7									29.0	18.4
		6	42.2	29.5	51.3	38.7	60.5	47.8	69.6	57.0	78.8	66.1							24.8	22.1
		7	38.5	23.7	47.6	32.9	56.8	42.0	65.9	51.2	75.1	60.3	84.32	69.5					40.5	25.8
		8	34.8	18.0	44.0	27.1	53.1	36.3	62.3	45.4	71.4	54.6	80.6	63.7	98.9	82.0			46.3	29.4
9				40.3	21.3	49.5	30.5	58.6	39.6	67.8	48.8	76.9	57.9	95.2	76.2	113.0	94.6	52.1	33.1	
10						45.8	24.7	54.9	33.9	64.1	43.0	73.2	52.2	91.6	70.5	110.0	88.8	57.9	36.8	
11								51.3	28.1	60.4	37.2	69.6	46.4	87.9	64.7	106.0	83.0	63.6	40.4	
12										56.8	31.5	65.9	40.6	84.2	58.9	102.0	77.2	69.4	44.1	
KP - 100S		5	67.8	53.8	81.1	67.1	94.4	80.4	108.0	93.7									39.5	25.4
		6	62.8	45.9	76.1	59.2	89.4	72.5	103.0	85.8	116.0	99.1							47.4	30.5
		7	57.7	38.0	71.0	51.3	84.3	64.6	97.6	77.9	111.0	91.2	124.0	104.0					55.2	35.6
		8	52.6	30.1	65.9	43.4	79.2	56.7	92.5	70.0	106.0	83.3	119.0	96.6	146.0	123.0			63.1	40.6
	9			60.9	35.6	74.1	48.9	87.4	62.2	101.0	75.4	114.0	88.7	141.0	115.0	167.0	142.0	71.0	45.7	
	10					69.1	41.0	82.4	54.3	95.7	67.6	109.0	80.9	135.0	107.0	162.0	134.0	78.9	50.8	
	11							77.3	46.3	90.6	59.7	104.0	73.0	130.0	99.1	157.0	126.0	86.8	55.8	
	12									85.5	51.8	98.8	65.1	125.0	92.1	152.0	118.0	94.6	60.9	
	KP - 110S	5	86.0	70.0	104.0	87.0	121.0	104.0											34.0	50.0
		6	80.0	60.0	97.0	77.0	114.0	94.0	131.0	112.0									41.0	60.0
		7	73.0	50.0	90.0	67.0	107.0	84.0	124.0	101.0	142.0	119.0							48.0	71.0
		8	66.0	40.0	83.0	57.0	100.0	74.0	118.0	91.0	135.0	109.0	152.0	126.0	186.0	160.0			54.0	81.0
9		59.0	30.0	76.0	47.0	94.0	64.0	111.0	81.0	128.0	99.0	145.0	116.0	180.0	150.0	214.0	185.0	61.0	91.0	
10				70.0	37.0	87.0	54.0	104.0	71.0	121.0	88.0	138.0	106.0	173.0	140.0	207.0	175.0	68.0	101.0	
11				63.0	27.0	80.0	44.0	97.0	61.0	114.0	78.0	132.0	96.0	166.0	130.0	200.0	164.0	75.0	111.0	
12						73.0	34.0	90.0	51.0	108.0	68.0	125.0	86.0	159.0	120.0	194.0	154.0	82.0	121.0	

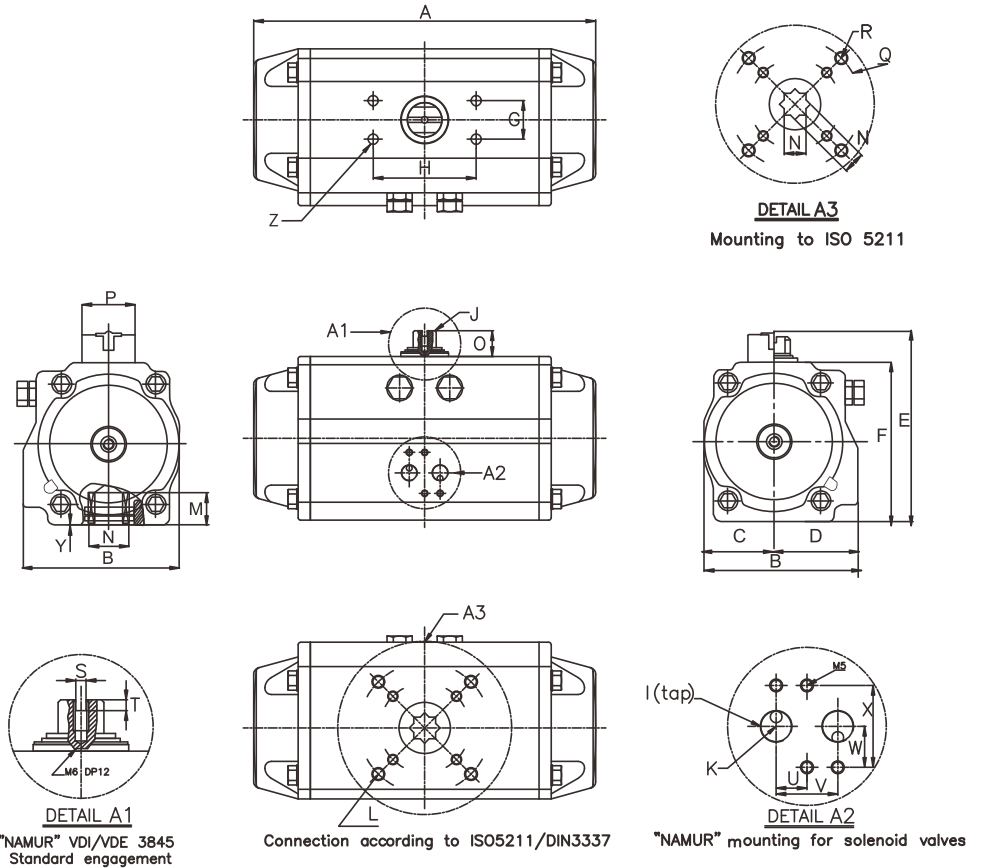
Single Acting Actuator
Output torque (Nm) for single acting (spring return) actuators

Model No. Spring Qty	0.35 MPa		0.4 MPa		0.45 MPa		0.5 MPa		0.55 MPa		0.6 MPa		0.7 MPa		0.8 MPa		Spring Torque			
	0° 90°		0° 90°		0° 90°		0° 90°		0° 90°		0° 90°		0° 90°		0° 90°		90°	0°		
	S	E	S	E	S	E	S	E	S	E	S	E	S	E	S	E	S	E		
KP - 125S	S.set																			
	5	141.0	111.0	169.0	139.0	197.0	167.0	224.0	195.0									82.1	52.6	
	6	131.0	95.1	159.0	123.0	186.0	150.0	214.0	178.0	242.0	206.0							99.1	63.1	
	7	120.5	78.6	148.0	106.0	176.0	134.0	203.0	162.0	231.0	189.0	259.0	217.0					115.0	73.6	
	8	110.0	62.1	137.6	89.8	165.0	117.0	193.0	145.0	221.0	160.0	248.0	201.0	304.0	256.0			132.0	84.1	
	9			76.0	73.4	155.0	101.0	182.0	129.0	210.0	156.0	238.0	184.0	293.0	239.0	349.0	295.0	148.0	94.6	
	10					144.0	84.6	172.0	112.0	200.0	140.0	227.0	168.0	283.0	223.0	338.0	278.0	165.0	105.0	
	11							161.0	95.8	189.0	123.0	217.0	151.0	272.0	206.0	328.0	262.0	181.0	116.0	
	12									179.0	107.0	206.0	135.0	262.0	109.0	317.0	246.0	198.0	126.0	
	KP - 140S	5	174.0	141.0	209.0	176.0	244.0	211.0											69.0	102.0
		6	161.0	121.0	195.0	156.0	230.0	190.0	265.0	225.0									82.0	122.0
		7	147.0	101.0	182.0	135.0	216.0	170.0	251.0	205.0	286.0	240.0							96.0	142.0
8		133.0	80.0	168.0	115.0	203.0	150.0	237.0	184.0	272.0	219.0	307.0	254.0	376.0	323.0			110.0	163.0	
9		120.0	60.0	154.0	95.0	189.0	129.0	224.0	164.0	259.0	199.0	293.0	234.0	363.0	303.0	432.0	372.0	123.0	183.0	
10				141.0	74.0	175.0	109.0	210.0	144.0	245.0	179.0	280.0	213.0	349.0	283.0	418.0	352.0	137.0	203.0	
11				127.0	54.0	162.0	89.0	196.0	123.0	231.0	158.0	266.0	193.0	335.0	262.0	405.0	332.0	151.0	224.0	
12						148.0	68.0	183.0	103.0	217.0	138.0	252.0	173.0	322.0	242.0	391.0	311.0	165.0	244.0	
KP - 160S		5	285.0	231.0	342.0	283.0	398.0	344.0	455.0	401.0									166.0	112.0
		6	262.0	198.0	319.0	255.0	376.0	311.0	433.0	368.0	489.0	425.0							199.0	135.0
		7	240.0	165.0	297.0	221.0	353.0	278.0	410.0	335.0	467.0	391.0	524.0	448.0					233.0	157.0
		8	218.0	131.0	274.0	188.0	331.0	245.0	388.0	302.0	444.0	358.0	501.0	415.0	615.0	528.0			266.0	180.0
	9			252.0	155.0	309.0	212.0	365.0	268.0	422.0	325.0	479.0	382.0	592.0	495.0	706.0	609.0	299.0	202.0	
	10					286.0	178.0	343.0	235.0	400.0	292.0	456.0	349.0	570.0	462.0	683.0	575.0	332.0	224.0	
	11							320.0	202.0	377.0	259.0	434.0	315.0	547.0	429.0	661.0	542.0	365.0	247.0	
	12									355.0	225.0	411.0	282.0	525.0	396.0	638.0	509.0	399.0	273.0	
	KP - 190S	5	469.0	390.0	562.0	473.0	655.0	566.0											184.0	273.0
		6	432.0	325.0	525.0	418.0	618.0	511.0	711.0	605.0									221.0	328.0
		7	395.0	270.0	488.0	364.0	581.0	457.0	675.0	550.0	768.0	643.0							258.0	382.0
		8	358.0	216.0	451.0	309.0	545.0	402.0	638.0	495.0	731.0	589.0	824.0	682.0	1010.0	868.0			295.0	437.0
9		321.0	161.0	415.0	254.0	508.0	348.0	601.0	441.0	694.0	534.0	787.0	627.0	973.0	814.0	1160.0	1000.0	331.0	492.0	
10				378.0	200.0	471.0	293.0	564.0	386.0	657.0	479.0	751.0	573.0	936.0	759.0	1123.0	945.0	368.0	546.0	
11				341.0	145.0	434.0	238.0	527.0	332.0	621.0	524.0	714.0	518.0	900.0	704.0	1086.0	891.0	405.0	601.0	
12						397.0	184.0	491.0	277.0	584.0	370.0	677.0	463.0	863.0	650.0	1049.0	836.0	442.0	656.0	
KP - 200S		5	532.0	430.0	638.0	536.0	745.0	642.0	851.0	792.0									315.0	213.0
		6	489.0	367.0	596.0	473.0	702.0	579.0	808.0	686.0	915.0	792.0							378.0	255.0
		7	447.0	304.0	553.0	410.0	660.0	516.0	766.0	623.0	872.0	729.0	979.0	835.0					441.0	298.0
		8	404.0	241.0	511.0	347.0	617.0	453.0	723.0	560.0	830.0	666.0	936.0	772.0	1149.0	985.0			504.0	340.0
	9			468.0	284.0	575.0	390.0	681.0	497.0	787.0	603.0	894.0	709.0	1106.0	922.0	1319.0	1135.0	567.0	383.0	
	10					532.0	327.0	638.0	434.0	745.0	540.0	851.0	646.0	1064.0	859.0	1277.0	1072.0	630.0	425.0	
	11							596.0	371.0	702.0	477.0	809.0	583.0	1021.0	769.0	1234.0	1009.0	693.0	468.0	
	12									660.0	414.0	766.0	520.0	979.0	733.0	1192.0	946.0	756.0	510.0	
	KP - 210S	5	589.0	477.0	706.0	594.0	823.0	711.0											231.0	343.0
		6	542.0	409.0	660.0	526.0	777.0	643.0	894.0	760.0									278.0	412.0
		7	496.0	340.0	613.0	457.0	731.0	574.0	848.0	691.0	965.0	809.0							324.0	480.0
		8	450.0	271.0	567.0	388.0	684.0	506.0	801.0	623.0	919.0	740.0	1036.0	857.0	1270.0	1091.0			370.0	549.0
9		404.0	203.0	521.0	320.0	638.0	437.0	788.0	554.0	872.0	671.0	990.0	789.0	1223.0	1022.0	1458.0	1257.0	416.0	617.0	
10				475.0	251.0	592.0	369.0	709.0	486.0	826.0	603.0	944.0	720.0	1177.0	954.0	1411.0	1188.0	463.0	686.0	
11				428.0	183.0	546.0	300.0	663.0	417.0	780.0	534.0	897.0	651.0	1131.0	885.0	1365.0	1119.0	509.0	754.0	
12						499.0	232.0	616.0	348.0	734.0	466.0	851.0	583.0	1085.0	817.0	1319.0	1051.0	555.0	823.0	
KP - 240S		5	929.0	785.0	1120.0	976.0	1311.0	1167.0											410.0	554.0
		6	847.0	674.0	1038.0	865.0	1229.0	1056.0	1421.0	1248.0									492.0	665.0
		7	764.0	564.0	955.0	755.0	1146.0	946.0	1338.0	1138.0	1529.0	1329.0							575.0	775.0
		8	683.0	453.0	874.0	644.0	1065.0	835.0	1257.0	1027.0	1448.0	1218.0	1639.0	1409.0	2022.0	1792.0			656.0	886.0
	9	600.0	341.0	791.0	532.0	982.0	723.0	1174.0	915.0	1365.0	1106.0	1556.0	1297.0	1939.0	1680.0	2321.0	2062.0	739.0	998.0	
	10			709.0	422.0	900.0	613.0	1092.0	805.0	1283.0	996.0	1474.0	1187.0	1857.0	1570.0	2239.0	1952.0	821.0	1108.0	
	11			627.0	311.0	818.0	502.0	1010.0	694.0	1201.0	885.0	1392.0	1076.0	1775.0	1459.0	2157.0	1841.0	903.0	1219.0	
	12					736.0	391.0	928.0	583.0	1119.0	774.0	1310.0	956.0	1693.0	1348.0	2075.0	1730.0	985.0	1330.0	
	KP - 270S	5	1439.0	1158.0	1730.0	1449.0	2020.0	1739.0											594.0	875.0
		6	1320.0	983.0	1611.0	1274.0	1901.0	1564.0	2192.0	1855.0									713.0	1050.0
		7	1201.0	808.0	1492.0	1099.0	1782.0	1389.0	2073.0	1680.0	2363.0	1970.0							832.0	1225.0
		8	1083.0	633.0	1374.0	924.0	1664.0	1214.0	1955.0	1505.0	2245.0	1795.0	2536.0	2086.0	3117.0	2667.0			950.0	1400.0
9		964.0	458.0	1255.0	749.0	1545.0	1039.0	1836.0	1330.0	2126.0	1620.0	2417.0	1911.0	2998.0	2492.0	3579.0	3073.0	1069.0	1575.0	
10				1136.0	574.0	1426.0	864.0	1717.0	1155.0	2207.0	1445.0	2298.0	1736.0	2879.0	2317.0	3460.0				

► Dimensional Drawing



KP-50, KP-63, KP-75, KP-88, KP-100, KP-110, KP-125, KP-140, KP-190, KP-210, KP-240, KP-270, KP-300, KP-350



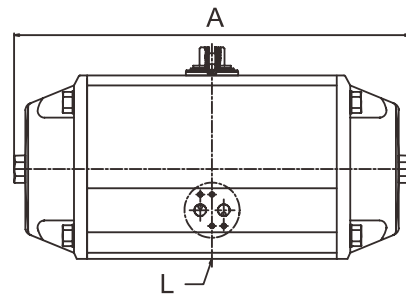
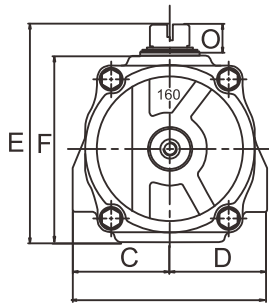
► Dimension

Unit:mm

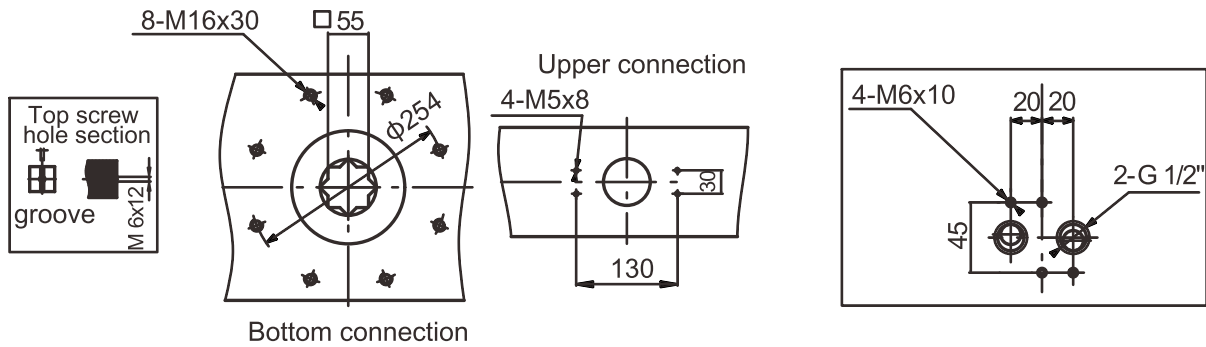
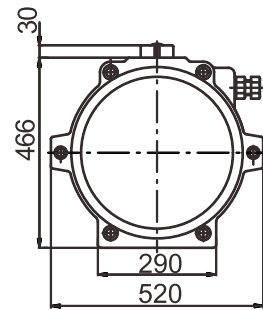
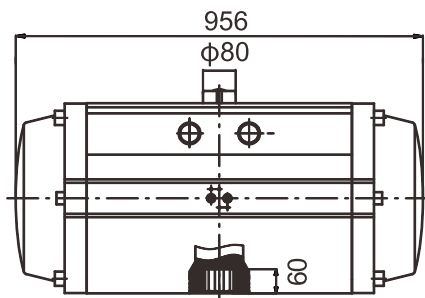
Model	FLANGE L (ISO 5211)		A	B	C	D	E	F	G	H	I	J	K	O	P	S	T	U	V	W	X	Weight (kg)	Z
	Q	M/N																					
KP - 35	F03/F05	M5/M6	125	54	24.0	30.0	76	48	25	50	PF	M6	1/8"	20	41.5	4	4	12	24	16	32	0.54	M5
	ø36/ø50	10/9																					
KP - 50	F03/F05	M5/M6	142	72	30.0	42.0	100	72	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32	1.16	M5
	ø36/ø50	12/11																					
KP - 63	F05/F07	M6/M8	162	84	37.0	47.0	113	85	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32	1.66	M5
	ø50/ø70	16/14																					
KP - 75	F05/F07	M6/M8	208	96	42.5	53.5	144	103	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32	3.22	M5
	ø50/ø70	19/17																					
KP - 88	F05/F07	M6/M8	246	108	49.5	58.5	156	116	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32	4.30	M5
	ø50/ø70	19/17																					
KP - 100	F07/F10	M8/M10	266	123	56.0	67.0	153	128	30	80	PF	M6	1/4"	20	41.5	4	4	12	24	16	32	5.92	M5
	ø70/ø102	22/17																					
KP - 110	F10/F07	M8/M10	268	121.5	57.5	64.0	196	133	30	80	PF	M6	1/4"	12	40	4	4	12	24	16	32	6.80	M5
	ø102/ø70	26/22																					
KP - 125	F07/F10	M8/M10	347	151	69.0	82.0	202	159	30	80	PF	M6	1/4"	30	41.5	4	4	12	24	16	32	11.25	M5
	ø70/ø102	24/22																					
KP - 140	F10/F12	M10/M12	390	152	75.0	77.0	233	172	30	130	PF	M6	1/4"	30	55	4	4	12	24	16	32	15.00	M5
	ø102/ø125	29/27																					

Dimensional Drawing

KP-160, KP-200



KP-400

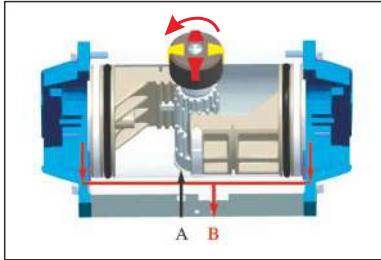


Dimension

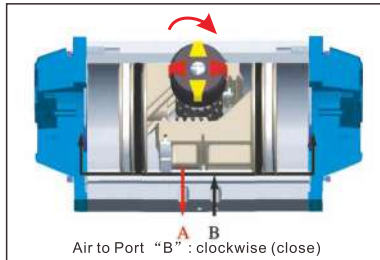
Unit:mm

Model	FLANGE L (ISO 5211)		A	B	C	D	E	F	G	H	I	J	K	O	P	S	T	U	V	W	X	Weight (kg)	Z
	Q	M/N																					
KP - 160	F10/F12	M10/M12	475	202	101	101	233	197	30	130	PF	M6	1/4"	30	41.5	4	4	12	24	16.0	32	21.80	M5
	φ102/φ125	29/27																					
KP - 190	F10/F14	M10/M16	525	206	103	103	260	230	30	130	PF	M6	1/4"	30	80	4	4	12	24	16.0	32	31.25	M5
	φ102/φ140	38/36																					
KP - 200	F14	M16	570	203	116	116	274	246	30	130	PF	M6	1/4"	30	80	4	4	12	24	16.0	32	38.40	M5
	φ140	50/36																					
KP - 210	F14	M16	532	226	113	113	285	255	30	130	PF	M6	1/4"	30	80	4	4	12	24	16.0	32	43.89	M5
	φ140	38/36																					
KP - 240	F16	M20	602	260	130	130	320	290	30	130	PF	M6	1/4"	30	80	4	4	20	40	22.5	45	69.43	M5
	φ165	50/46																					
KP - 270	F16	M20	722	294	147	147	360	330	30	130	PF	M6	1/2"	30	80	4	4	20	40	22.5	45	92.80	M5
	φ165	50/46																					
KP - 300	F16	M20	738	304	137	167	460	330	30	130	PF	M6	1/2"	30	80	4	4	20	40	22.5	45	120.90	M5
	φ165	50/46																					
KP - 350	F16/F25	M16	846	385	190	195	440	410	30	130	PF	M6	1/2"	30	80	4	4	20	40	22.5	45	159.00	M5
	φ165/φ254	50/46																					
KP - 400	F25	M20/M16	956	520	260	260	496	466	30	130	PF	M6	1/2"	30	80	4	4	20	40	22.5	45	292.10	M5
	φ254	60/55																					

▶ Double Acting Operation



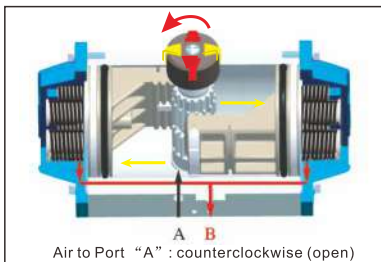
Air to Port "A" : counterclockwise (open)



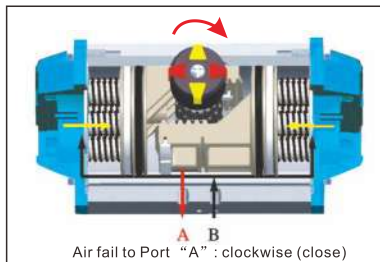
Air to Port "B" : clockwise (close)

* Pistons must be inverted to reverse actuator rotation

▶ Spring Return Operation



Air to Port "A" : counterclockwise (open)



Air fail to Port "A" : clockwise (close)

* Spring force makes the actuator clockwise when the air is exhausted at port "A"

* When air fail to counterclockwise is required, the pistons must be inverted

▶ KP Series Spring Set

Set #5		
Set #6		
Set #7		
Set #8		

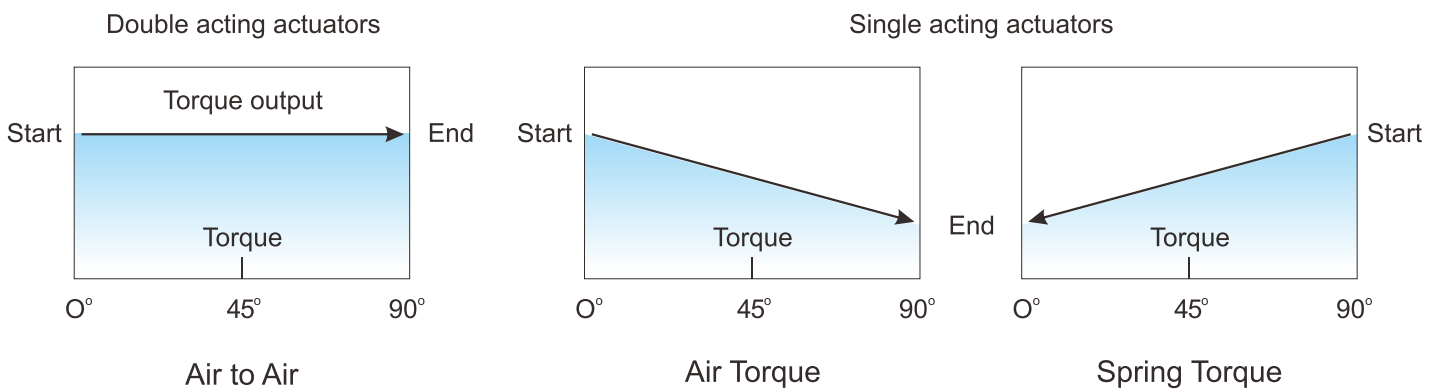
Set #9		
Set #10		
Set #11		
Set #12		

► Specification

- Media: Dry or lubricated air, inert gas or non-corrosive gas
- Pressure Range: 0.25MPa~0.8MPa
- Temperature Range: Standard -20°C ~ 80°C
- Option: -40°C ~ 80°C or -20°C ~ 150°C
- Movement: 90°C ~ ± 5°C
- Lubrication: No need for lubricant under normal conditions.
- Life-Cycle Test on Actuator: 1,000,000 Operations
- Life-Cycle Test on Springs: 1,000,000 Operations
- Quality Assurance: CE SIL3 Ex ATEX



► Torque Diagram



► Bracket Namur Standard

Part No. Type	K-UB (L*W*H)	K-CB (L*W*H)
A	50 X 25 X 20	80 X 30 X 20
B	80 X 30 X 20	80 X 30 X 30
C	80 X 30 X 30	130 X 30 X 30
D	130 X 30 X 30	130 X 30 X 50

► Air Consumption

Air Volume Opening & Closing

Unit:L

Model	Air Volume Closing(A1)	Air Volume Opening(A2)	Model	Air Volume Closing(A1)	Air Volume Opening(A2)
KP-35	0.045	0.045	KP-160	4.92	3.14
KP-50	0.15	0.09	KP-190	5.90	5.90
KP-63	0.26	0.16	KP-200	9.46	5.94
KP-75	0.49	0.31	KP-210	7.50	7.60
KP-88	0.78	0.51	KP-240	9.00	11.00
KP-100	1.11	0.71	KP-270	14.00	17.00
KP-110	0.70	0.70	KP-300	28.00	23.50
KP-125	2.34	1.54	KP-350	40.00	34.00
KP-140	2.10	2.30	KP-400	58.00	58.00

Air consumption rest with Air Supply. Air volume and Action cycle times, expressions:

$$L / \text{Min} = \text{Air volume (A1+A2)} \times \left[\frac{\text{Air Supply (Kpa)} + 101.3}{101.3} \right] \times \text{Action cycle times (/min)}$$

► KP Series Repair Kits

O-Ring

Part Name	Pinion Bottom	Pinion Top	Piston	Stop Screw	End Cap	Total
Quantity	1	1	2	2	2	8

► Models Available



KP-35

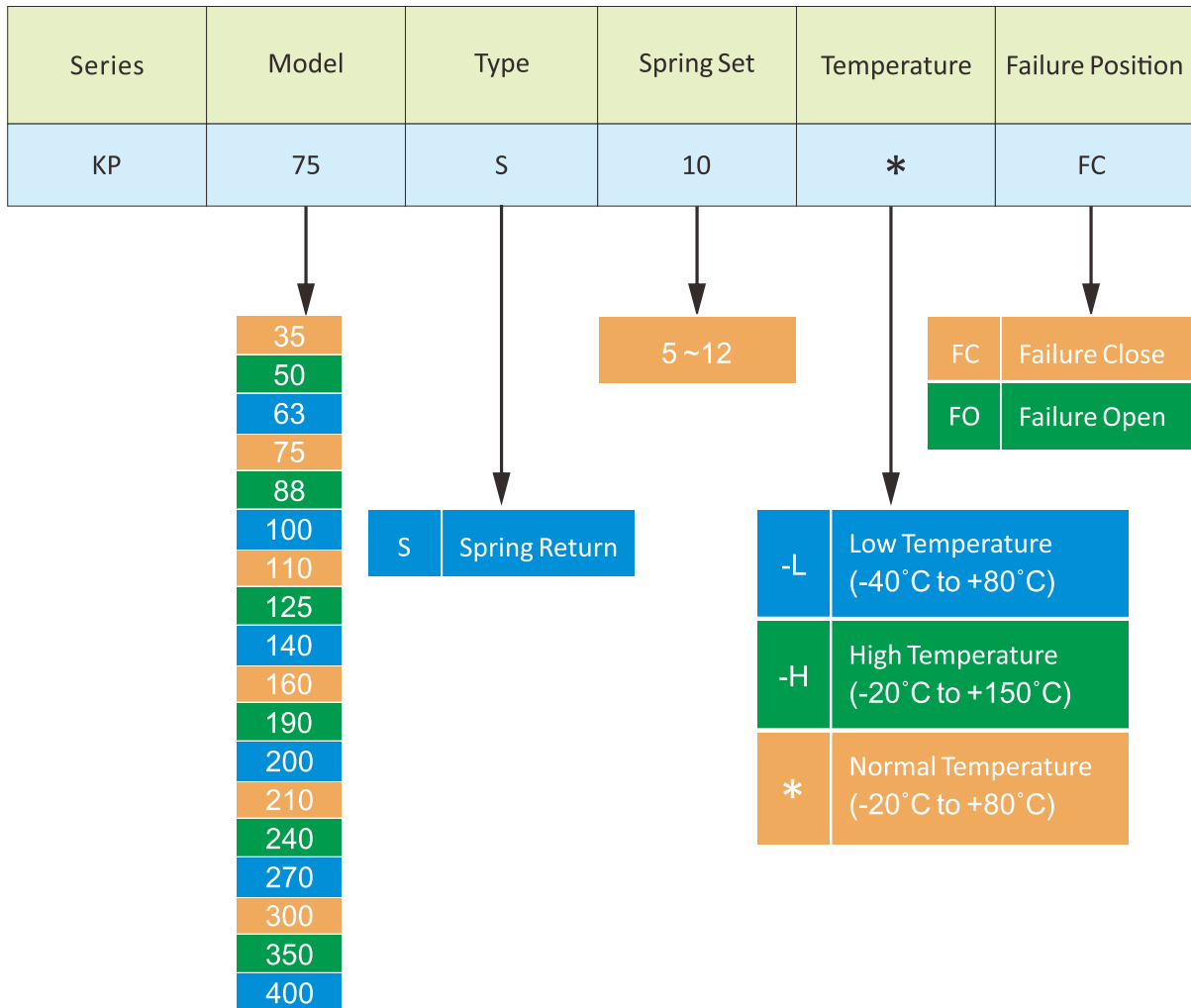
KP-50 ~ KP-125

KP-160 ~ KP-200

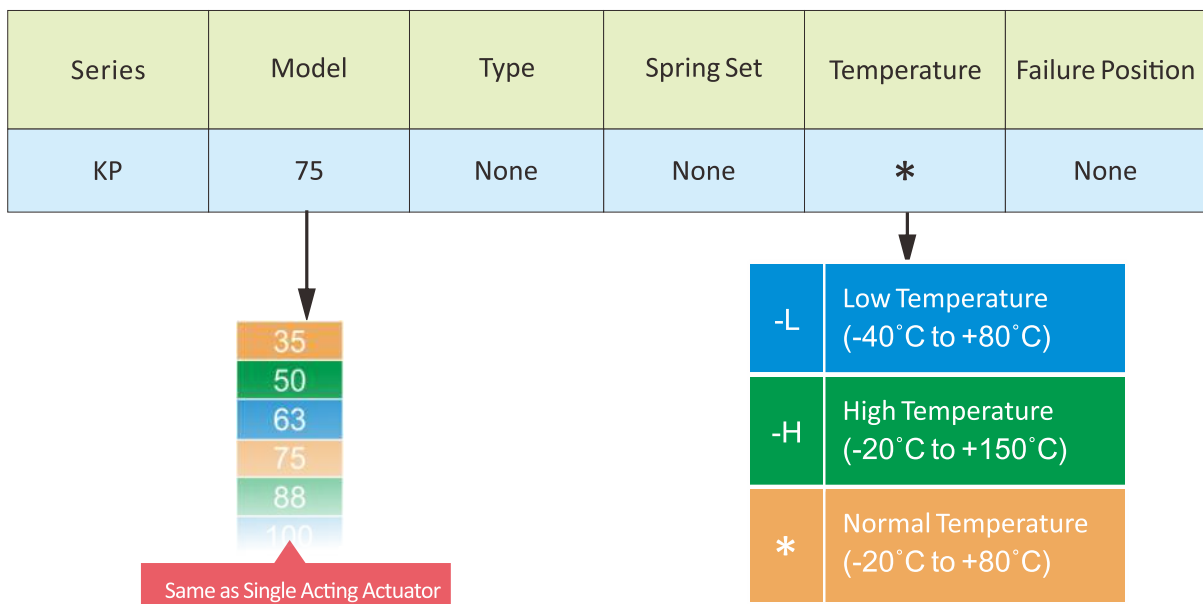
KP-210 ~ KP-400

► Order Coding

Single Acting Actuator



Double Acting Actuator



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