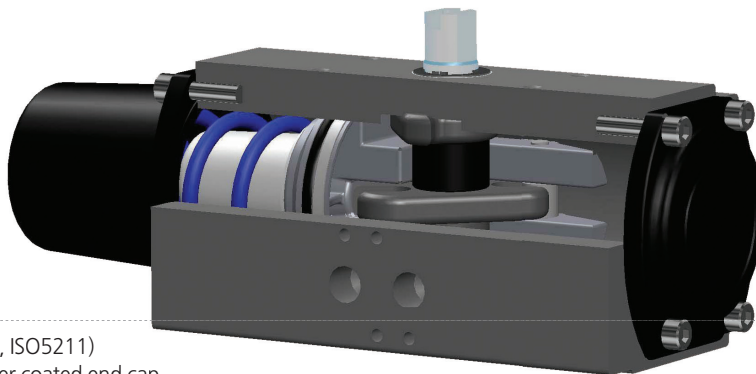


Pneumatic actuator (A/R series)



- International standard (DIN3337, NAMUR, ISO5211)
- Hard anodized aluminum body and powder coated end cap

- The working medium is compressed air, the maximum size of the foreign matter or dust from the filter can be supplied for demanding clean air, it is recommended that management does not exceed 40μ. (ISO 8573 Part 1, Class 5)
- It is good to be near or supply air, especially using a dehumidified air 41° F (5° C) so that the moisture contained in the air, if not less cooling in the supply line must be installed in a separate dehumidifier.

- Operating air pressure : 3~8Bar
- Recommended pressure : 4~6Bar
- Design pressure : 10Bar

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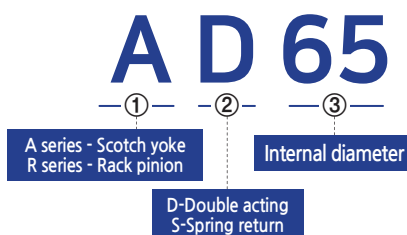
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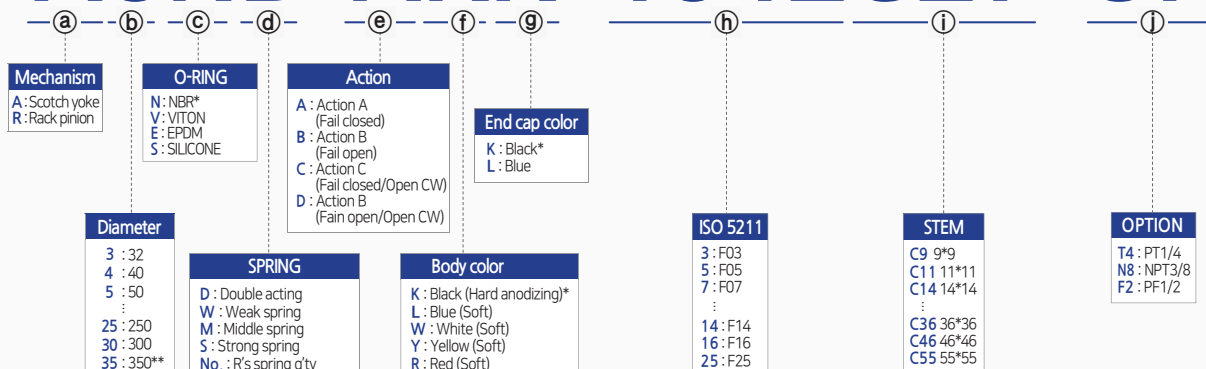
► Model range



AD	50/65/80/100/125/140/160/185/210/250/300
AS	50/65/80/100/125/140/160/185/210/250/300
RD	32/40/50/65/80/90/100/115/125/140/160/185/210
RS	40/50/65/80/90/100/115/125/140/160/185/210

► Model code

A6ND-AKK-1012C27-OP

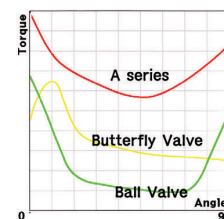
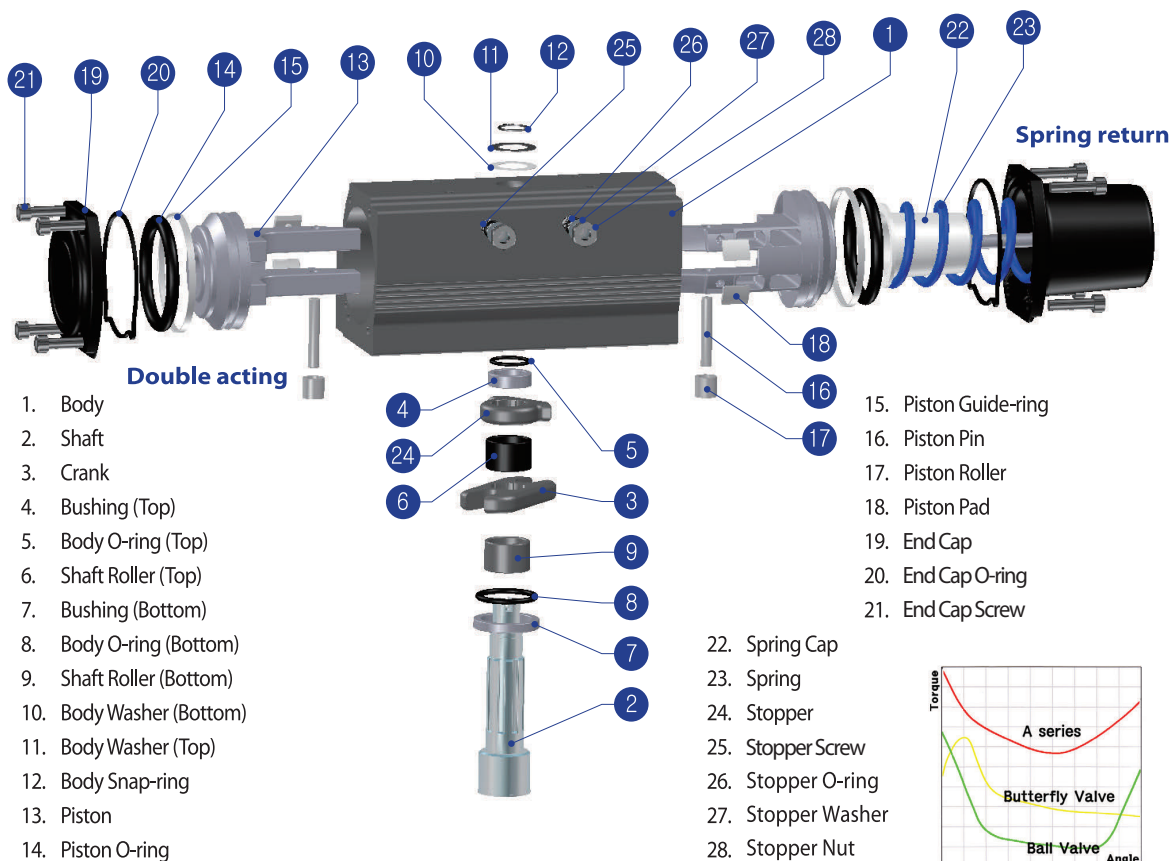


*Standard
**A350 is in development

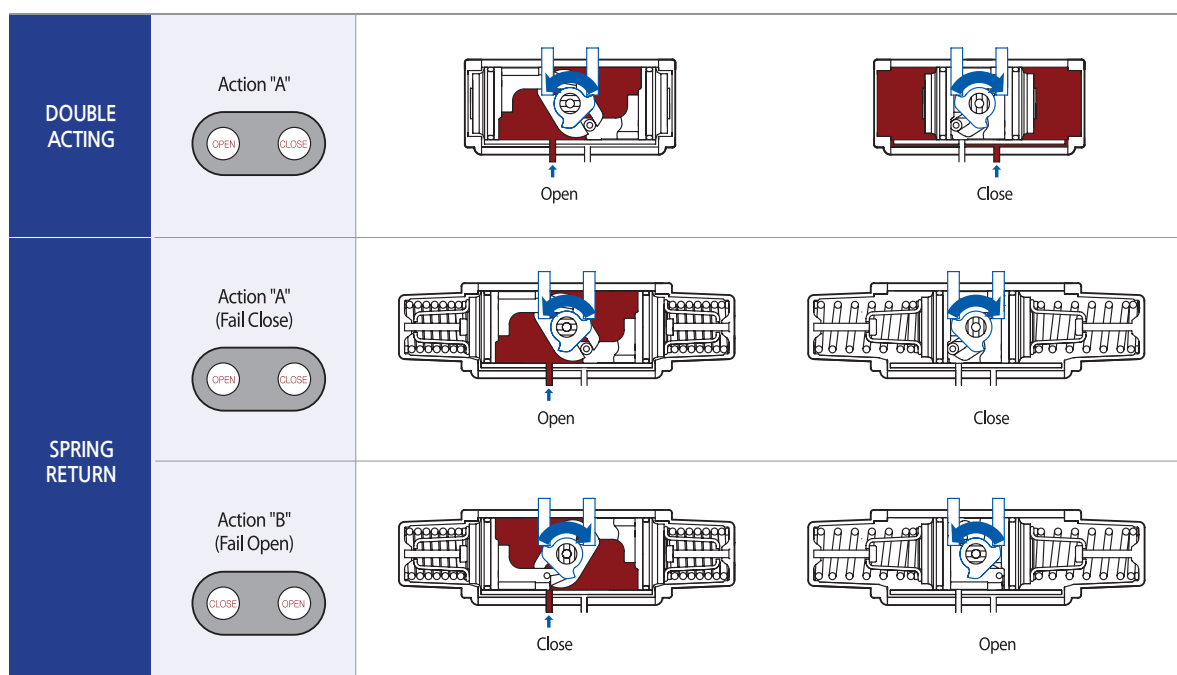
- Data contained in the Catalog may be subject to change without advance notice for improvement of performance&safety of Product.
- Contact us for the most recent product and technical information. Visit our website for more details: <http://www.kosaplus.com>

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Valve Size		Double acting		Spring return	
		Ball valve	Butterfly valve	Ball valve	Butterfly valve
1/2"	15A	AD50		AS50	
3/4"	20A				
1"	25A				
1-1/4"	32A	AD65		AS65	
1-1/2"	40A				AS50
2"	50A		AD50	AS80	
2-1/2"	65A	AD80		AS100	AS65
3"	80A			AS125	
4"	100A		AD65	AS140	AS80
5"	125A	AD125	AD80	AS160	
6"	150A	AD140		AS185	AS100
8"	200A	AD160		AS210	AS125
10"	250A	AD185	AD100	AS250	AS140
12"	300A	AD210		AS300	AS160
14"	350A	AD250			AS185
16"	400A	AD300	AD160		AS210
18"	450A		AD185		AS250
20" ~ 22"	500A ~ 550A		AD210		AS300
24" ~ 32"	600A ~ 800A		AD250		
34" ~ 40"	850A ~ 1000A		AD300		

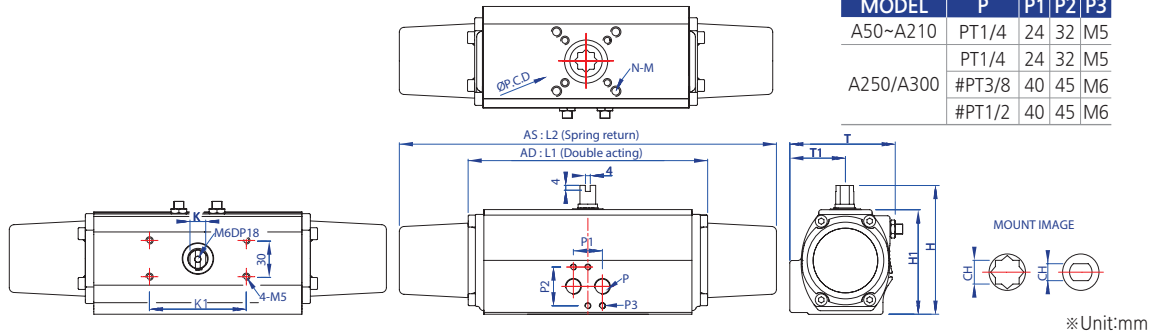
※A350 is in development

•Based on 10K/#150

•The above data is for reference only; the actual assembly may be different depending on valve material, pressure, structure, fluid and operational environment.

•The data is not legally effective and therefore should not be used as legal ground.

► Dimension table



MODEL	K1	ISO	P.C.D (ø)	N-G (depth)	K	AD L1	AS L2	T	T1	H	H1	CH	Stem depth	AD WG(Kg)	AS WG(Kg)
A50	80	F03/F05/F07	36/50/70	4-M5/M6/M8 (10/12/12.5)	9	162	257	75	40	90	70	11*11	13	1.4	1.6
												#14*14	14		
												#9.7*Ø15	14		
A65	80	F05/F07	50/70	4-M6/M8 (14/14)	13	202	314	89	46	107	87	14*14	17	2.3	3.0
												#11*11	13		
												#11.7*Ø17	17		
A80	80	F07	70	4-M8(15)	13	253	421	101	49.5	126	106	#9.7*Ø15	14	3.9	5.3
												17*17	19		
												#14.7*Ø19	20		
A100	80	F07/F10	70/102	4-M8/M10 (16/19)	19	311	500	129	61.5	148	128	22*22	26	6.7	9.5
												#17.7*Ø22	26		
A125	80	F07/F10	70/102	4-M8/M10 (16/19)	19	390	606	151	71.5	174	154	22*22	26	11.3	17.6
A140	80	F10/F12	102/125	4-M10/M12 (18/26)	24	431	682	164	77	192	172	27*27	30	16.4	23.9
												#22*22			
A160	80	F14	140	4-M16(25)	24	506	781	188	89	216	196	36*36	38	23.7	36.6
		#F10/F12	#102/125	4-M10/M12 (18/26)								#27*27	27		
A185	80/130	F14	140	4-M16(26)	24	581	894	217	102	244	224	36*36	38	34.8	56.9
A210	130	F16	165	4-M20(30)	36	605	982	231	115	284	254	46*46	60	45.5	77.2
		#F14	140	4-M16(26)								#36*36	50		
A250	130	F16	165	4-M20(30)	36	755	1108	301	152	335	305	46*46	60	65.8	119.6
A300	130	F16/F25	165/254	4-M20(30) / 8-M16(23)	36	889	1345	372	170	426	396	55*55	60	165.0	275.5

#Option

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▶ AD sereis Torque table

※Unit : Nm

Model	Angle	Supply air (Air to)													
		3Bar		4Bar		4.5Bar		5Bar		6Bar		7Bar		8Bar	
		Close	Open	Close	Open	Close	Open	Close	Open	Close	Open	Close	Open	Close	Open
AD50	0°	25.8	24.0	35.6	32.4	39.4	36.2	44.9	39.9	53.4	47.3	64.0	54.5	71.1	60.4
	45°	13.9	13.6	18.5	17.9	21.1	20.3	23.2	21.9	28.2	27.3	33.6	31.9	37.9	36.0
	90°	22.9	24.9	31.3	33.8	35.5	38.6	39.2	43.6	47.7	50.3	55.4	62.6	61.4	68.4
AD65	0°	60.2	54.6	81.7	70.3	93.6	78.1	105.0	83.8	123.5	105.8	142.9	119.1	164.1	135.8
	45°	31.6	30.1	42.2	40.0	47.4	44.4	52.8	51.1	63.5	59.9	74.2	70.6	85.1	79.8
	90°	52.9	52.0	69.2	70.7	77.4	78.1	84.9	87.0	108.5	102.3	125.2	120.0	142.9	138.5
AD80	0°	120.0	100.5	160.5	135.8	182.6	152.6	203.7	169.3	244.3	206.4	288.4	239.0	333.4	264.6
	45°	65.3	51.2	85.6	71.4	95.3	82.0	105.8	90.0	127.0	110.3	147.3	130.5	165.8	148.2
	90°	107.6	97.0	142.0	135.8	158.8	156.1	174.6	165.8	211.7	201.1	246.1	238.1	275.2	273.4
AD100	0°	201.1	185.2	268.1	241.7	305.2	280.5	345.7	311.3	321.0	381.0	495.7	433.9	558.3	483.3
	45°	116.4	109.4	154.4	148.2	176.4	167.6	196.7	185.2	235.5	224.9	271.7	269.9	305.2	314.9
	90°	187.9	173.8	251.4	234.6	281.4	266.4	310.5	295.5	373.1	362.5	440.1	428.7	493.9	485.1
AD125	0°	493.9	430.4	618.3	589.2	703.8	650.0	778.8	716.2	952.6	834.4	1,118.4	949.0	1,300.1	1,108.7
	45°	234.6	225.8	310.5	304.3	350.2	345.7	388.1	382.8	491.3	456.0	541.5	541.5	613.0	608.6
	90°	382.8	357.2	510.7	479.8	572.4	538.9	631.5	601.5	781.5	718.8	904.1	849.4	1,001.1	965.8
AD140	0°	800.0	649.2	1,030.2	833.5	1,179.2	932.3	1,266.6	1,016.9	1,584.1	1,178.4	1,796.6	1,338.0	1,987.1	1,494.1
	45°	339.6	311.3	448.1	414.5	506.3	467.5	553.9	520.4	669.4	624.5	774.4	727.7	872.3	821.1
	90°	516.9	531.0	680.0	715.3	786.7	796.4	862.6	912.0	1,025.8	1,064.6	1,223.3	1,261.3	1,338.9	1,412.1
AD160	0°	1,094.6	912.0	1,487.1	1,173.9	1,698.7	1,316.8	1,932.5	1,447.4	2,294.1	1,724.3	2,758.9	2,142.4	3,261.6	2,424.6
	45°	486.0	480.7	654.4	637.7	735.6	718.8	821.1	799.1	977.3	994.0	1,149.2	1,138.7	1,285.1	1,281.5
	90°	765.6	1,098.1	1,009.0	1,195.1	1,140.4	1,284.2	1,263.9	1,412.1	1,496.8	1,688.1	1,837.2	1,936.9	2,033.9	2,232.3
AD185	0°	1,566.4	1,268.3	2,082.4	1,620.2	2,313.5	1,794.9	2,404.3	1,964.2	2,942.4	2,310.8	3,532.4	2,672.5	4,029.9	2,988.2
	45°	753.2	733.8	1,009.9	976.4	1,136.0	1,089.3	1,260.4	1,218.0	1,507.3	1,472.9	1,755.2	1,736.7	2,028.6	1,984.5
	90°	1,204.8	1,145.7	1,581.4	1,536.4	1,771.1	1,749.0	2,057.7	1,854.8	2,347.9	2,257.0	2,774.8	2,654.8	3,141.7	3,159.3
AD210	0°	2,090.3	1,781.6	2,831.2	2,266.7	3,219.3	2,540.2	3,625.0	2,804.8	4,462.9	3,272.2	5,300.8	3,748.5	6,209.3	4,233.6
	45°	970.2	1,093.7	1,296.5	1,420.0	1,464.1	1,578.8	1,631.7	1,746.4	1,966.9	2,072.7	2,310.8	2,416.7	2,663.6	2,760.7
	90°	1,508.2	1,816.9	2,019.8	2,425.5	1,993.3	2,716.6	2,504.9	2,998.8	2,998.8	3,625.0	3,501.5	4,268.9	3,977.8	4,868.6
AD250	0°	3,783.8	2,866.5	5,124.4	3,686.8	5,821.2	4,101.3	6,650.3	4,533.5	8,237.9	5,344.9	9,613.8	6,121.1	10,001.9	6,809.0
	45°	1,764.0	1,852.2	2,390.2	2,399.0	2,663.6	2,698.9	2,963.5	3,025.3	3,572.1	3,598.6	4,233.6	4,224.8	4,798.1	4,877.5
	90°	2,919.4	3,342.8	3,827.9	4,639.3	4,295.3	5,230.3	4,771.6	5,856.5	5,715.4	6,782.6	6,588.5	7,179.5	7,470.5	7,320.6
AD300	0°	5,450.8	4,965.7	7,426.4	6,421.0	8,334.9	7,108.9	9,322.7	7,788.1	11,421.9	9,181.6	13,256.5	10,407.6	15,311.5	11,642.4
	45°	3,087.0	3,475.1	4,145.4	4,621.7	4,683.4	5,186.2	5,221.4	5,759.5	6,271.0	6,853.1	7,329.4	7,973.3	8,370.2	9,067.0
	90°	4,939.2	5,680.1	6,500.3	7,611.7	7,294.1	8,643.6	8,070.3	9,569.7	9,596.2	11,836.4	11,122.0	12,744.9	12,595.0	13,124.2

※0°-Valve Closed / 90°-Valve open

▶ AS sereis Torque table

※Unit : Nm

Model	Spring type	Angle	Supply Air (Air to Open)							Spring to Close
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
AS50	Weak	0°	15.9	24.4	27.2	31.0	40.8	52.2	56.5	10.1
		45°	7.9	12.5	14.8	17.1	21.8	27.0	31.5	6.7
		90°	10.1	19.3	22.9	27.0	36.6	44.9	54.0	13.0
	Middle*	0°	11.1	19.2	23.5	27.6	36.0	45.5	52.1	13.5
		45°	4.5	9.1	11.9	14.1	18.7	23.6	27.7	9.5
		90°	4.5	14.0	18.5	22.4	32.2	41.8	49.7	19.1
	Strong	0°	11.9	19.3	23.4	30.0	37.0	46.0	54.2	18.2
		45°	1.8	7.2	10.0	12.6	17.9	22.3	26.5	12.4
		90°	-	7.2	10.9	15.7	22.7	31.3	37.5	23.2
AS65	Weak	0°	34.6	52.8	60.2	71.0	88.1	106.1	124.8	23.9
		45°	15.8	28.0	33.6	38.5	49.8	59.6	69.5	15.4
		90°	20.7	39.3	48.8	57.9	76.0	91.0	110.8	27.9
	Middle*	0°	21.6	39.9	48.7	56.1	76.7	92.5	113.6	36.1
		45°	6.9	17.9	23.4	29.0	38.2	49.5	59.6	24.3
		90°	-	25.3	24.5	33.6	52.2	70.7	89.8	49.2
	Strong	0°	12.7	31.7	40.3	51.8	67.9	85.0	105.5	45.6
		45°	-	9.5	14.7	20.6	31.3	42.5	53.9	32.1
		90°	-	-	9.3	18.6	37.3	55.1	65.5	66.1
AS80	Weak	0°	84.7	122.9	142.4	161.1	198.3	234.6	270.9	42.8
		45°	40.0	61.4	72.6	82.9	103.3	123.8	145.2	25.8
		90°	41.0	75.4	95.9	111.7	147.1	186.2	229.0	48.4
	Middle*	0°	43.8	80.1	104.3	122.9	159.2	197.4	234.6	69.8
		45°	9.3	28.9	40.0	54.0	75.4	95.9	118.2	48.4
		90°	-	37.2	56.8	74.5	113.6	151.8	212.3	95.9
	Strong	0°	20.5	59.6	79.1	95.9	139.7	176.9	212.3	95.0
		45°	-	11.2	25.1	37.2	56.8	77.3	99.6	66.1
		90°	-	-	20.5	39.1	74.5	109.9	147.1	130.3
AS100	Weak	0°	115.4	180.6	229.0	255.1	310.0	373.3	425.5	80.1
		45°	46.6	93.1	111.7	128.5	172.2	217.9	265.3	60.5
		90°	64.2	130.3	162.9	195.5	260.7	325.9	389.2	121.0
	Middle*	0°	77.3	144.3	176.9	207.6	271.9	332.4	412.4	112.7
		45°	14.0	60.5	81.9	100.5	141.5	179.7	233.7	85.7
		90°	-	70.8	102.4	135.0	202.0	270.0	353.8	164.8
	Strong	0°	49.3	121.0	150.8	186.2	257.9	317.5	375.2	147.1
		45°	-	40.0	60.5	81.9	120.1	161.1	205.8	112.7
		90°	-	24.2	58.7	91.2	159.2	230.9	293.3	240.2
AS125	W	0°	251.4	381.7	461.8	521.4	643.3	767.1	883.5	166.6
		45°	126.6	205.8	243.9	285.8	362.2	442.2	517.6	101.5
		90°	184.3	324.9	388.2	459.0	599.6	745.7	886.3	185.3
	WM	0°	203.0	333.3	400.3	461.8	582.8	702.9	827.7	243.0
		45°	83.8	166.6	203.9	243.0	324.9	398.5	474.8	147.1
		90°	91.2	220.6	288.6	356.6	497.2	634.0	775.5	283.0
	WS	0°	171.3	302.6	365.0	424.5	554.9	675.0	796.9	283.0
		45°	59.6	143.4	182.5	220.6	298.9	377.1	455.3	172.2
		90°	43.8	180.6	251.4	316.5	455.3	593.0	732.7	315.6
	M	0°	152.7	287.7	351.0	412.4	544.6	669.4	795.1	302.6
		45°	41.9	128.5	170.4	205.8	280.2	357.5	432.9	190.9
		90°	-	133.1	200.2	262.5	399.4	538.1	679.6	372.4
	MS	0°	119.2	248.6	314.7	378.9	501.8	652.6	773.7	354.7
		45°	18.6	100.5	138.7	176.9	256.0	331.4	405.9	215.1
		90°	-	85.7	148.0	215.1	348.2	485.1	623.8	417.1
	S*	0°	72.6	203.9	270.0	334.2	470.2	599.6	721.5	396.6
		45°	-	71.7	108.9	149.0	226.2	305.4	381.7	240.2
		90°	-	41.9	107.1	173.2	304.4	441.3	580.0	461.8

※0°-Valve Closed / 90°-Valve open

*Standard

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※Unit : Nm

Model	Spring type	Angle	Supply air (Air to)							Spring to Close
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
AS140	W	0°	499.4	701.1	797.1	888.4	1,094.9	1,272.5	1,394.5	144.1
		45°	244.9	360.2	413.0	470.6	581.0	696.3	806.7	91.2
		90°	374.6	561.8	662.7	758.7	960.4	1,166.9	1,378.2	182.5
	WM	0°	356.3	553.2	652.1	753.0	982.5	1,169.8	1,348.4	267.0
		45°	169.0	276.6	332.3	388.0	500.4	613.7	727.0	164.2
		90°	223.8	404.3	501.3	595.4	796.2	999.8	1,197.6	311.2
	WS	0°	331.3	538.8	654.0	739.5	957.5	1,143.8	1,318.6	330.4
		45°	132.5	251.6	312.1	370.7	486.9	604.1	716.5	204.6
		90°	133.5	338.1	430.3	530.1	727.0	927.7	1,127.5	386.1
	M	0°	249.7	465.8	568.6	663.6	871.1	1,078.5	1,156.3	397.6
		45°	91.2	212.2	266.0	314.1	426.4	556.1	665.6	236.3
		90°	77.8	284.3	376.5	477.3	690.5	875.9	1,075.6	450.4
	MS	0°	312.1	423.5	506.1	605.1	803.9	990.2	1,169.8	458.1
		45°	48.0	161.3	222.8	285.2	397.6	512.9	616.6	274.7
		90°	-	176.7	274.7	375.5	575.3	839.4	950.8	529.2
	S*	0°	172.9	379.4	475.4	571.4	768.3	960.4	1,162.1	566.6
		45°	14.4	139.3	196.9	259.3	374.6	489.8	600.3	321.7
		90°	-	100.8	196.9	297.7	489.8	691.5	888.4	600.3
AS160	W	0°	645.2	992.4	1,205.6	1,369.5	1,550.1	1,943.9	2,182.3	318.4
		45°	338.0	495.3	577.2	654.5	849.1	999.0	1,168.4	218.8
		90°	543.7	798.8	947.8	1,054.8	1,376.0	1,627.4	1,990.5	390.1
	WM	0°	616.3	956.1	1,174.9	1,267.1	1,561.3	1,925.3	2,081.7	413.4
		45°	280.2	440.4	540.9	637.7	772.7	959.9	1,152.6	243.9
		90°	365.9	703.8	845.3	981.3	1,288.5	1,606.9	1,911.3	468.3
	WS	0°	447.8	718.7	862.1	1,075.3	1,318.3	1,653.5	1,885.3	609.8
		45°	179.7	319.3	409.6	513.0	661.0	848.1	1,003.6	370.5
		90°	128.5	361.2	563.3	683.4	945.9	1,307.2	1,565.0	708.5
	M	0°	594.0	857.5	1,101.4	1,160.0	1,466.3	1,720.5	2,073.3	495.3
		45°	257.9	404.1	487.8	587.5	742.9	904.9	1,096.7	298.9
		90°	293.3	602.4	703.8	870.5	1,161.9	1,436.5	1,767.0	551.2
	MS	0°	365.0	718.7	863.0	1,094.9	1,282.9	1,552.0	1,835.9	705.7
		45°	135.0	284.9	364.0	459.9	607.9	791.4	961.7	419.0
		90°	-	314.7	465.5	594.0	891.0	1,159.1	1,555.7	805.3
	S*	0°	216.0	497.2	637.7	808.1	1,080.9	1,375.1	1,646.0	929.1
		45°	-	168.5	262.5	341.7	500.9	684.3	841.6	535.3
		90°	-	-	256.0	304.4	653.6	929.1	1,217.7	1,053.0
AS185	W	0°	951.5	1,317.4	1,511.0	1,713.0	2,105.9	2,395.5	2,794.9	386.4
		45°	484.1	745.7	872.3	1,002.7	1,289.4	1,549.2	1,818.2	260.7
		90°	656.4	1,064.1	1,273.6	1,458.9	1,820.1	2,220.4	2,676.6	492.5
	WM	0°	727.1	1,108.8	1,371.4	1,539.9	1,891.8	2,282.8	2,630.1	626.6
		45°	333.3	606.1	742.0	864.9	1,118.1	1,409.5	1,686.0	420.8
		90°	369.6	765.3	970.1	1,177.7	1,645.1	1,930.0	2,424.3	769.9
	WS	0°	506.5	895.6	1,113.5	1,337.8	1,718.6	2,081.7	2,518.4	911.4
		45°	171.3	444.1	584.7	713.1	978.5	1,231.7	1,501.7	567.0
		90°	18.6	485.1	703.8	899.3	1,318.3	1,679.5	2,100.3	1,074.4
	M	0°	468.3	886.3	1,130.2	1,313.6	1,689.8	2,098.5	2,370.3	902.1
		45°	177.8	442.2	566.0	693.6	951.5	1,215.9	1,490.5	592.1
		90°	-	468.3	671.3	877.0	1,287.6	1,689.8	2,079.9	1,157.2
	MS	0°	319.3	751.3	935.7	1,123.7	1,510.1	1,911.3	2,303.3	1,087.4
		45°	28.9	300.7	451.5	590.3	833.2	1,101.4	1,376.0	726.2
		90°	-	209.5	432.0	637.7	1,035.3	1,417.9	1,897.4	1,394.6
	S*	0°	138.7	606.1	817.4	1,010.1	1,446.8	1,819.2	2,194.4	1,336.9
		45°	-	156.4	289.5	417.1	674.0	990.6	1,215.9	869.6
		90°	-	-	169.4	382.6	795.7	1,242.0	1,652.5	1,654.4

※0°-Valve Closed / 90°-Valve open

*Standard

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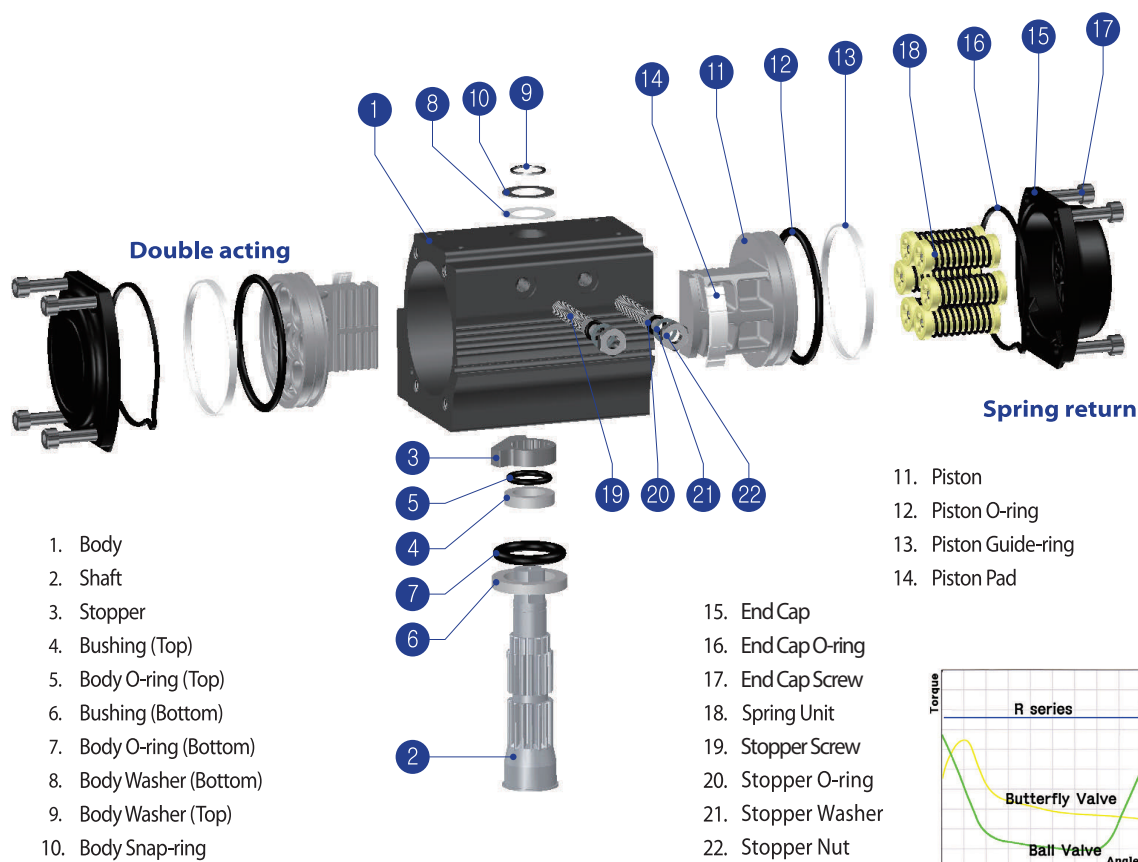
Model	Spring type	Angle	Air (to Open)							※Unit : Nm
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	Spring to Close
AS210	W	0°	1,443.1	1,955.1	2,290.3	2,495.1	3,025.8	3,556.4	4,124.3	335.2
		45°	837.9	1,191.7	1,359.3	1,536.2	1,889.9	2,253.0	2,597.5	214.1
		90°	1,182.4	1,713.0	2,001.7	2,318.2	2,895.4	3,472.6	4,105.7	400.3
	WM	0°	1,080.0	1,601.3	1,880.6	2,150.6	2,699.9	3,193.3	3,724.0	744.8
		45°	558.6	921.7	1,107.9	1,275.5	1,787.5	1,973.7	2,299.6	456.2
		90°	744.8	1,340.6	1,647.9	1,964.4	2,588.2	3,230.6	3,826.4	875.1
	WS	0°	986.9	1,564.1	1,834.1	2,066.8	2,644.0	3,212.0	3,742.6	977.6
		45°	437.6	800.7	977.6	1,154.4	1,489.6	1,852.7	2,206.5	540.0
		90°	465.5	1,005.5	1,377.9	1,666.5	2,271.6	2,942.0	3,519.2	1,042.7
	M	0°	623.8	1,173.1	1,405.8	1,666.5	2,187.9	2,718.5	3,193.3	1,182.4
		45°	288.6	670.3	865.8	1,033.4	1,405.8	1,787.5	2,197.2	698.3
		90°	167.6	791.4	1,098.6	1,387.2	2,048.2	2,662.7	3,314.4	1,331.3
	MS	0°	586.5	1,163.8	1,461.7	1,750.3	2,290.3	2,802.3	3,314.4	1,387.2
		45°	195.5	540.0	726.2	893.8	1,247.5	1,601.3	1,973.7	810.0
		90°	-	558.6	884.5	1,191.7	1,815.5	2,448.5	3,165.4	1,536.2
	S*	0°	297.9	837.9	1,117.2	1,387.2	1,973.7	2,495.1	2,979.2	1,601.3
		45°	-	400.3	586.5	763.4	1,154.4	1,526.8	1,899.2	958.9
		90°	-	270.0	567.9	847.2	1,452.4	2,076.1	2,662.7	1,778.2
AS250	W	0°	2,364.7	3,314.4	3,798.5	4,301.2	5,213.6	6,116.7	6,936.0	763.4
		45°	1,340.6	1,955.1	2,346.1	2,634.7	3,277.1	3,891.6	4,487.4	391.0
		90°	2,392.7	3,593.7	4,170.9	4,785.3	5,455.7	6,079.4	8,472.1	754.1
	WM	0°	1,787.5	2,755.8	3,258.5	3,733.3	4,673.6	5,576.7	6,451.8	1,461.7
		45°	1,024.1	1,629.3	1,936.5	2,253.0	2,876.8	3,509.9	4,133.6	763.4
		90°	1,601.3	2,746.5	3,351.6	3,910.2	5,101.9	6,312.2	7,587.7	1,387.2
	WS	0°	1,508.2	2,513.7	3,007.1	3,454.0	4,431.6	5,371.9	6,274.9	1,768.9
		45°	791.4	1,433.7	1,750.3	2,048.2	2,662.7	3,286.4	3,891.6	940.3
		90°	1,033.4	2,169.2	2,709.2	3,267.8	4,403.6	5,595.3	6,805.6	1,796.8
	M	0°	1,508.2	2,616.1	3,165.4	3,668.1	4,627.1	5,539.5	6,405.3	1,908.6
		45°	716.9	1,368.6	1,675.8	1,973.7	2,588.2	3,230.6	3,817.1	1,042.7
		90°	800.7	1,983.0	2,578.9	3,156.1	4,366.4	5,586.0	6,740.4	2,020.3
	MS	0°	1,145.1	2,132.0	2,625.4	3,100.2	4,068.5	5,008.8	5,828.1	2,364.7
		45°	353.8	986.9	1,303.4	1,592.0	2,215.8	2,848.9	3,463.3	1,396.5
		90°	232.8	1,284.8	1,862.0	2,457.8	3,565.7	4,627.1	5,781.5	2,448.5
	S*	0°	958.9	2,011.0	2,485.8	2,988.5	3,789.2	4,701.6	4,617.8	2,653.4
		45°	270.0	893.8	1,201.0	1,508.2	2,132.0	2,755.8	3,416.8	1,536.2
		90°	46.6	1,033.4	1,601.3	2,253.0	3,295.7	4,506.0	5,567.4	3,035.1
AS300	W	0°	4,394.3	6,126.0	6,908.0	7,755.2	9,216.9	10,576.2	11,963.4	1,368.6
		45°	2,718.5	3,910.2	4,515.4	5,111.2	6,274.9	7,429.4	8,583.8	698.3
		90°	4,319.8	6,330.8	7,354.9	8,397.6	9,915.2	10,762.4	11,311.7	1,322.0
	WM	0°	3,444.7	5,111.2	5,874.6	6,638.0	8,192.8	9,663.8	10,985.8	2,457.8
		45°	2,011.0	3,230.6	3,733.3	4,375.7	5,539.5	6,731.1	7,839.0	1,359.3
		90°	2,709.2	4,664.3	5,697.7	6,721.8	8,825.9	10,436.5	10,855.5	2,644.0
	WS	0°	2,550.9	4,143.0	4,971.5	5,818.8	7,503.9	8,993.5	9,570.7	3,696.1
		45°	1,377.9	2,541.6	3,146.8	3,733.3	4,887.8	6,051.5	7,196.6	1,880.6
		90°	1,489.6	3,547.1	4,580.5	6,014.3	7,801.8	9,570.7	10,408.6	3,333.0
	M	0°	2,448.5	4,236.1	5,083.3	5,902.5	7,448.0	8,928.3	10,092.0	3,956.8
		45°	1,070.7	2,308.9	2,867.5	3,454.0	4,589.8	5,809.4	6,898.7	2,150.6
		90°	1,145.1	3,090.9	4,105.7	5,092.6	7,029.1	8,984.2	10,110.7	3,956.8
	MS	0°	1,964.4	3,565.7	4,338.5	5,213.6	6,814.9	8,379.0	9,701.0	4,729.5
		45°	651.7	1,834.1	2,346.1	3,007.1	4,254.7	5,353.3	6,451.8	2,476.5
		90°	409.6	2,383.4	3,137.5	4,236.1	6,535.6	8,146.3	9,989.6	4,552.6
	S*	0°	1,247.5	3,100.2	4,096.4	4,943.6	6,619.4	8,313.8	9,645.2	5,818.8
		45°	-	1,266.2	1,843.4	2,355.4	3,537.8	4,757.4	5,939.8	3,165.4
		90°	-	958.9	1,899.2	2,839.6	4,925.0	7,038.4	9,086.6	5,744.3

※0°-Valve Closed / 90°-Valve open

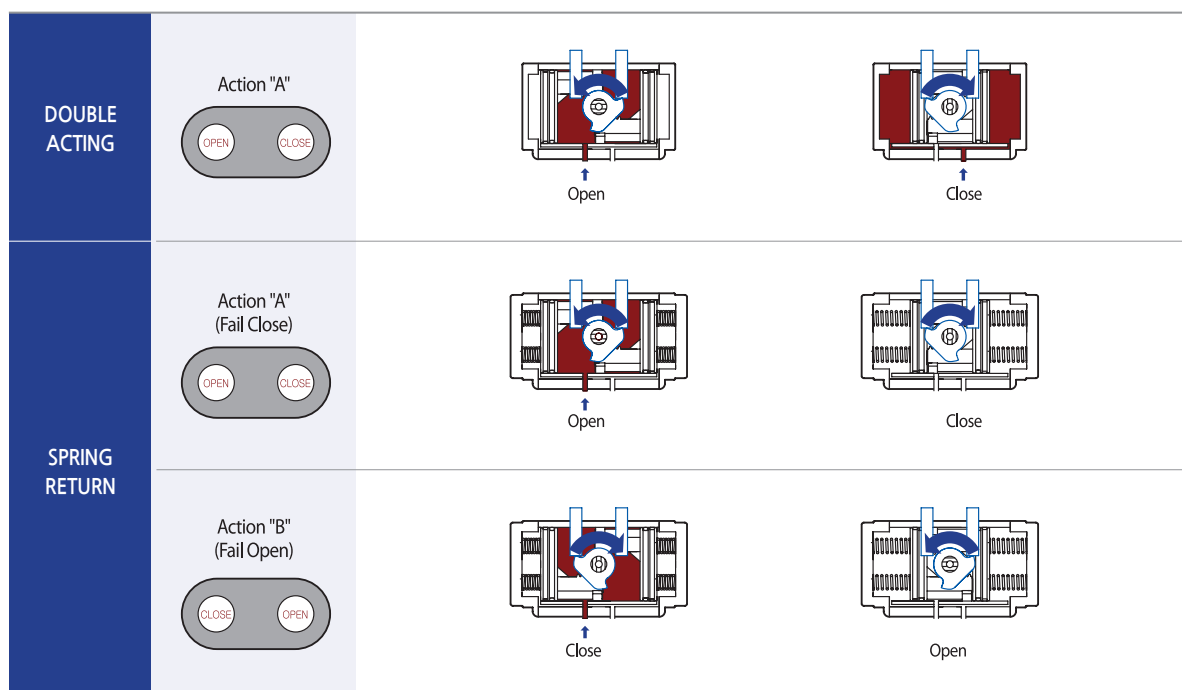
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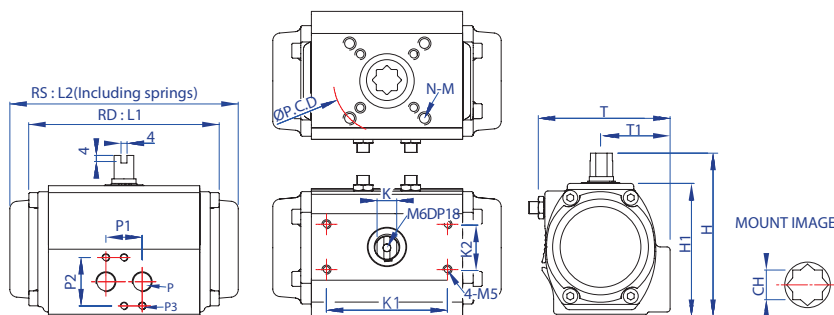
Valve Size		Double acting		Spring return	
		Ball valve	Butterfly valve	Ball valve	Butterfly valve
1/2"	15A	RD32 (1piece)	RD50	RS40	
3/4"	20A	RD40 (1piece)		RS50	
1"	25A			RS65	
1-1/4"	32A		RD65	RS80	
1-1/2"	40A			RS90	RS50
2"	50A		RD80	RS100	RS65
2-1/2"	65A		RD90	RS115	RS80
3"	80A		RD100 / RD115	RS125	RS90
4"	100A		RD115 / RD125	RS140	RS100
5"	125A		RD140	RS160 / RS185	RS115
6"	150A		RD160	RS185 / RS210	RS125
8"	200A		RD185	RD125	RS140
10"	250A		RD210	RD140	RS160
12"	300A			RD160	RS185
14"	350A			RD185	RS210
16"	400A			RD210	

▪Based on 10K/#150

▪The above data is for reference only; the actual assembly may be different depending on valve material, pressure, structure, fluid and operational environment.

▪The data is not legally effective and therefore should not be used as legal ground.

► Dimension table



MODEL	P	P1	P2	P3
R32, R40	PT1/8	24	32	M5
R50~R210	PT1/4	24	32	M5

	K1	K2
R32	25.5	25.5
R40	50	25
R50~R185	80	30
R210	130	30

※Unit:mm

MODEL	ISO	P.C.D (Ø)	N-G (depth)	K	RD L1	RS L2	T	T1	H	H1	CH	Stem depth	RD Wt(Kg)	RS Wt(Kg)
@RD32	F03	36	4-M5(7)	7	66	-	45	25	55	45	9*9	9	0.3	-
@R40	F03/F05	36/50	4-M5/M6 (8/12)	9	97	97	63	32	75	55	9*9	9	0.5	0.6
	#F04	#42	#4-M5											
R50	F03/F05/F07	36/50/70	4-M5/M6/M8 (10/12/12.5)	9	119	133	75	40	90	70	11*11	13	1.0	1.1
	#F04	#42	#4-M5											
R65	F05/F07	50/70	4-M6/M8 (11/11)	13	131	154	89	46	106.5	86.5	14*14	16	1.4	1.5
	#F04	#70	#4-M5											
R80	F05/F07	50/70	4-M6/M8 (11/15)	19	189	220	101	49.5	126	106	17*17	19	2.9	3.3
R90	F07	70	4-M8(17)	19	188	223	104	54.5	136	116	17*17	19	3.4	3.8
R100	F07/F10	70/102	4-M8/M10 (16/19)	19	229	256	132	61.5	148	128	22*22	26	4.7	5.4
R115	F07/F10	70/102	4-M8/M10 (16/19)	19	264	302	141.5	67.5	163	143	22*22	26	6.7	7.5
R125	F07/F10	70/102	4-M8/M10 (16/19)	19	299	330	151	71.5	174	154	22*22	26	8.6	9.9
R140	F10/F12	102/125	4-M10/M12 (18/25)	24	332	389	164	77	192	172	27*27	30	12.4	14.5
											#22*22	26		
R160	F10/F12	102/125	4-M10/M12 (18/25)	24	364	416	188	103.5	216	196	27*27	30	16.9	19.5
R185	F10/F12	102/125	4-M10/M12 (18/25)	24	434	465	217	103	244	224	36*36	30	24.2	29.0
R210	F14	140	4-M16(23)	36	444	527	231	115	284	254	36*36	30	32.3	37.9

@ models are a compact type without stopper bolts.

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※Unit : Nm

MODEL	Supply air						
	3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar
RD32	2.0	3.0	3.4	3.8	4.7	5.6	6.6
RD40	4.8	6.6	7.5	8.3	10.1	11.9	13.6
RD50	8.8	12.1	13.9	15.2	18.2	21.6	24.4
RD65	16.5	21.8	24.8	27.3	33.2	38.5	44.1
RD80	35.4	49.3	55.9	63.3	76.3	91.2	107.1
RD90	44.7	63.3	71.7	81.0	98.7	117.3	139.7
RD100	70.8	95.9	109.9	122.0	148.0	176.0	203.0
RD115	113.6	156.4	176.0	195.5	236.5	277.4	314.7
RD125	156.4	210.4	237.4	265.3	317.5	375.2	424.5
RD140	246.7	327.7	365.9	407.8	485.1	566.0	630.3
RD160	339.8	450.6	509.3	566.0	676.8	788.6	901.2
RD185	449.7	596.8	675.9	748.5	907.7	1,060.4	1,203.8
RD210	642.4	844.4	949.6	1,052.0	1,263.4	1,487.7	1,736.3

※0°-Valve Closed / 90°-Valve open

► RS series Torque table

※Unit : Nm

Model	Spring unit	Supply air (to Open)															
		3Bar		4Bar		4.5Bar		5Bar		6Bar		7Bar		8Bar		Spring to Close	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
RS40	WM	3.3	0.5	5.0	1.3	5.9	1.9	6.8	2.2	8.7	3.2	10.5	4.3	12.4	5.3	2.4	1.4
	WS	2.6	-	4.4	0.7	5.3	1.3	6.1	1.7	8.0	2.7	9.8	3.5	11.5	4.3	3.3	1.9
	M	2.3	-	4.2	0.7	5.1	1.1	5.9	1.6	7.7	2.3	9.5	3.2	11.3	4.0	3.7	2.3
	MS	1.9	-	3.5	0.3	4.5	0.8	5.3	1.3	7.2	2.1	9.0	2.9	10.8	3.7	4.6	2.9
	S*	1.5	-	3.1	-	4.0	-	4.9	0.7	6.6	1.4	8.5	2.0	10.2	2.7	5.1	3.2
RS50	4	7.0	4.6	10.2	7.9	11.8	9.6	13.4	11.2	16.5	14.4	19.1	17.5	22.0	20.8	2.5	1.8
	5	6.3	4.3	9.6	7.6	11.2	9.2	12.7	10.7	15.9	14.6	18.6	17.2	21.4	20.3	3.6	2.0
	6	5.7	3.4	8.9	6.3	10.7	8.0	12.1	9.7	15.1	12.9	18.3	16.0	21.2	19.2	4.5	2.6
	7	5.2	2.3	8.4	5.6	10.0	7.2	11.6	8.8	14.5	11.9	17.4	15.2	20.3	18.3	4.8	3.1
	8*	4.8	1.6	7.9	4.7	9.6	6.3	11.1	7.9	14.1	11.1	17.2	14.2	20.2	17.4	5.4	3.6
	9	4.3	0.7	7.3	3.8	8.9	5.4	10.7	7.1	13.8	10.0	17.0	13.4	19.7	16.6	6.5	3.9
	10	3.8	-	7.0	2.8	8.6	4.4	10.1	6.1	13.4	9.3	16.0	12.5	19.1	15.7	7.2	4.6
	11	3.1	-	6.4	2.2	8.0	3.8	9.6	5.4	12.6	8.6	15.6	11.9	18.7	14.9	8.2	5.0
	12	2.7	-	5.8	1.4	7.5	2.7	9.0	4.3	12.1	7.6	15.3	10.8	18.0	13.9	9.0	5.5
RS65	4	11.3	8.2	17.1	13.8	19.3	16.7	22.0	19.5	27.5	25.2	33.1	31.0	38.4	36.9	6.8	4.0
	5	10.1	6.5	15.7	12.5	18.3	15.1	21.1	18.0	26.8	23.4	32.2	29.1	38.0	34.8	9.1	5.3
	6	8.8	4.5	14.6	10.3	17.3	13.2	20.2	16.0	25.6	21.8	31.2	27.9	36.6	33.5	10.8	6.5
	7	7.6	2.7	13.2	8.1	16.5	11.0	18.9	14.0	24.4	19.6	29.9	25.5	35.5	31.0	12.6	7.5
	8*	6.3	-	12.5	6.5	15.1	9.1	17.4	11.9	23.0	17.6	28.5	23.4	34.0	28.4	14.6	8.9
	9	5.0	-	10.7	4.4	13.7	7.3	16.4	10.2	22.3	15.7	28.1	21.6	32.6	27.4	15.9	10.4
	10	3.6	-	9.5	2.3	12.2	5.1	15.0	8.0	20.9	13.7	26.7	19.5	32.0	25.2	18.6	11.9
	11	2.6	-	8.2	-	11.1	3.4	14.2	6.4	20.0	11.9	25.6	17.5	31.7	23.6	20.5	12.6
	12	1.9	-	7.5	-	10.3	1.6	13.1	4.2	18.8	9.9	24.6	15.9	29.9	21.8	21.7	13.4
RS80	4	31.7	24.9	46.0	39.0	53.4	46.8	59.8	54.1	74.9	68.2	89.7	83.0	109.1	97.0	14.8	8.8
	5	29.0	19.8	43.0	34.4	50.5	41.5	57.6	48.5	71.8	63.8	86.8	78.3	105.4	92.0	18.7	11.0
	6	26.1	15.7	40.4	30.6	48.7	38.3	54.9	45.3	69.6	59.9	84.0	74.7	101.8	88.3	22.8	13.9
	7	23.0	10.9	38.2	25.1	45.7	32.7	52.1	39.2	66.5	54.2	83.9	69.7	99.4	82.7	27.7	15.9
	8*	19.9	5.9	35.3	20.8	42.3	28.9	49.5	35.4	64.0	50.1	77.6	65.5	93.5	78.3	32.0	18.4
	9	17.2	2.1	31.8	16.1	39.2	23.5	46.3	30.7	60.9	46.5	76.2	60.6	89.6	73.8	36.2	21.3
	10	14.6	-	29.1	12.2	36.6	18.7	44.2	26.7	58.5	41.1	73.2	55.8	86.3	68.1	40.7	24.7
	11	11.4	-	26.2	6.4	33.4	14.3	40.8	21.1	55.3	35.8	70.1	50.7	83.4	64.1	45.2	26.8
	12	9.3	-	23.1	-	30.4	9.6	37.9	16.4	52.8	31.3	67.0	46.4	80.6	61.2	49.5	29.2

※0°-Valve Closed / 90°-Valve open

*Standard

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※Unit : Nm

Model	Spring unit	Supply Air															
		3Bar		4Bar		4.5Bar		5Bar		6Bar		7Bar		8Bar		Spring to Close	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
RS90	4	39.1	27.9	57.7	47.5	66.1	56.8	76.3	66.1	95.0	84.7	113.6	103.3	132.2	121.0	17.7	9.3
	5	34.4	19.6	52.1	38.2	61.4	47.5	70.8	58.7	91.2	76.3	108.0	96.8	126.6	116.4	24.2	13.0
	6	31.7	17.7	49.3	33.5	59.6	43.8	68.0	52.1	87.5	69.8	108.0	88.4	123.8	108.9	29.8	17.7
	7	28.9	7.4	45.6	26.1	55.9	34.4	65.2	44.7	83.8	63.3	102.4	81.9	120.1	102.4	33.5	20.5
	8*	24.2	-	42.8	19.6	52.1	28.9	61.4	38.2	80.1	55.9	95.9	75.4	115.4	94.0	40.0	22.3
	9	22.3	-	41.0	18.6	51.2	27.0	60.5	35.4	78.2	54.0	96.8	72.6	111.7	89.4	46.6	26.1
	10	20.5	-	38.2	13.0	47.5	21.4	56.8	31.7	75.4	50.3	92.2	68.9	108.0	81.0	53.1	27.9
	11	16.8	-	36.3	-	43.8	14.9	53.1	22.3	72.6	42.8	90.3	62.4	107.1	81.9	55.9	31.7
	12	14.0	-	29.8	-	39.1	8.4	50.3	14.9	66.1	33.5	84.7	54.9	105.2	72.6	61.4	35.4
RS100	4	55.9	35.4	81.0	62.4	94.0	74.5	106.1	88.4	132.2	114.5	158.3	141.5	184.3	168.5	31.7	17.7
	5	50.3	25.1	75.4	52.1	88.4	65.2	100.5	77.3	126.6	104.3	152.7	131.3	177.8	157.3	40.0	22.3
	6	48.4	22.3	73.5	46.6	85.7	59.6	98.7	71.7	124.8	98.7	149.9	125.7	175.0	151.8	47.5	27.0
	7	41.9	-	67.0	34.4	79.1	47.5	93.1	59.6	117.3	87.5	144.3	113.6	170.4	136.9	55.9	29.8
	8*	36.3	-	61.4	24.2	74.5	37.2	87.5	50.3	113.6	78.2	139.7	104.3	164.8	130.3	67.0	37.2
	9	29.8	-	55.9	9.3	68.0	27.9	81.0	41.0	107.1	67.0	133.1	93.1	159.2	120.1	75.4	44.7
	10	24.2	-	48.4	-	62.4	22.3	76.3	34.4	100.5	58.7	126.6	84.7	151.8	110.8	84.7	50.3
	11	18.6	-	44.7	-	56.8	-	69.8	21.4	95.0	48.4	121.0	73.5	146.2	100.5	93.1	53.1
	12	13.0	-	39.1	-	51.2	-	64.2	13.0	90.3	38.2	115.4	64.2	141.5	87.5	103.3	58.7
RS115	4	99.6	86.6	143.4	126.6	163.9	146.2	183.4	167.6	226.2	210.4	268.1	251.4	312.8	298.9	32.6	18.6
	5	95.0	71.7	138.7	116.4	157.3	138.7	178.8	156.4	219.7	198.3	260.7	240.2	308.2	288.6	45.6	26.1
	6	87.5	59.6	130.3	102.4	150.8	115.4	170.4	144.3	211.3	186.2	254.2	230.0	297.9	274.6	56.8	32.6
	7	80.1	49.3	122.0	92.2	142.4	112.7	162.9	134.1	205.8	176.0	247.6	217.9	290.5	263.5	67.0	41.9
	8*	74.5	40.0	116.4	80.1	136.9	101.5	157.3	121.0	198.3	162.9	241.1	206.7	284.0	243.0	77.3	45.6
	9	66.1	25.1	108.0	67.0	129.4	88.4	149.0	108.0	191.8	150.8	232.8	193.6	274.6	233.7	86.6	54.9
	10	58.7	15.8	99.6	57.7	122.0	79.1	141.5	98.7	183.4	140.6	225.3	183.4	267.2	224.4	101.5	61.4
	11	52.1	-	93.1	46.6	113.6	66.1	135.9	85.7	176.9	127.5	218.8	169.4	260.7	249.5	111.7	68.0
	12	46.6	-	87.5	27.9	107.1	54.0	128.5	74.5	170.4	116.4	211.3	158.3	254.2	238.3	121.0	74.5
RS125	4	126.6	98.7	180.6	150.8	209.5	182.5	236.5	206.7	289.5	262.5	344.5	318.4	393.8	375.2	55.9	28.9
	5	116.4	78.2	168.5	133.1	196.4	161.1	224.4	189.0	275.6	242.1	328.6	298.9	378.0	359.4	74.5	38.2
	6	104.3	58.7	156.4	114.5	184.3	142.4	212.3	169.4	261.6	224.4	306.3	280.2	364.0	344.5	93.1	46.6
	7	96.8	38.2	149.0	94.0	179.7	122.9	202.0	149.0	257.0	203.9	310.0	261.6	371.5	329.6	108.0	55.9
	8*	84.7	31.7	138.7	76.3	165.7	103.3	193.6	130.3	246.7	185.3	299.8	239.3	361.2	317.5	125.7	68.0
	9	72.6	9.3	127.5	54.9	153.6	82.9	180.6	109.9	234.6	165.7	288.6	219.7	349.1	299.8	145.2	78.2
	10	60.5	-	115.4	37.2	140.6	65.2	168.5	90.3	221.6	148.0	275.6	204.8	327.7	260.7	163.9	91.2
	11	50.3	-	104.3	18.6	133.1	45.6	157.3	72.6	212.3	129.4	264.4	183.4	320.3	236.5	181.5	102.4
	12	41.0	-	95.0	-	122.0	27.9	147.1	55.9	202.0	109.9	254.2	162.9	309.1	219.7	196.4	109.9

※0°-Valve Closed / 90°-Valve open

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※Unit : Nm

Model	Spring unit	Supply Air															
		3Bar		4Bar		4.5Bar		5Bar		6Bar		7Bar		8Bar		Spring to Close	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
RS140	4	179.7	154.5	257.0	237.4	297.9	283.0	335.2	317.5	412.4	402.2	491.6	485.1	606.1	552.1	78.2	49.3
	5	175.0	132.2	252.3	211.3	290.5	252.3	329.6	291.4	405.9	372.4	486.0	454.3	599.6	524.2	95.9	55.9
	6	160.1	107.1	237.4	187.1	280.2	228.1	316.5	268.1	393.8	346.3	471.1	429.2	587.5	499.0	116.4	68.0
	7	146.2	84.7	223.4	165.7	262.5	206.7	300.7	246.7	381.7	325.9	459.0	407.8	575.4	477.6	139.7	82.9
	8*	131.3	65.2	211.3	146.2	249.5	186.2	288.6	225.3	366.8	305.4	443.2	385.4	560.5	461.8	160.1	95.0
	9	116.4	45.6	198.3	122.9	235.5	162.9	274.6	204.8	353.8	284.0	430.1	365.0	547.4	441.3	182.5	108.9
	10	95.9	18.6	178.8	96.8	219.7	138.7	261.6	180.6	338.0	261.6	416.2	342.6	533.5	419.0	205.8	126.6
	11	81.0	-	165.7	75.4	204.8	118.2	246.7	153.6	323.1	236.5	404.1	317.5	521.4	393.8	223.4	135.9
	12	75.4	-	153.6	54.0	191.8	94.0	230.9	131.3	312.8	212.3	393.8	293.3	509.3	373.3	245.8	145.2
RS160	4	261.6	221.6	372.4	336.1	429.2	390.1	482.3	445.0	594.0	559.5	710.4	670.3	820.2	780.2	114.5	71.7
	5	236.5	179.7	349.1	294.2	405.0	351.0	463.6	405.0	569.8	517.6	686.1	628.4	796.0	736.4	149.0	96.8
	6	214.1	150.8	326.8	264.4	383.6	317.5	438.5	375.2	550.2	485.1	661.0	596.8	770.9	703.8	179.7	115.4
	7	194.6	111.7	307.2	226.2	364.0	283.0	420.8	337.0	530.7	450.6	650.8	558.6	751.3	666.6	209.5	135.9
	8*	173.2	83.8	284.9	196.4	340.7	254.2	397.5	310.0	507.4	421.7	627.5	532.5	728.0	637.7	241.1	156.4
	9	152.7	51.2	263.5	159.2	317.5	219.7	374.3	274.6	484.1	393.8	604.2	499.0	704.8	605.2	270.9	177.8
	10	127.5	14.9	238.3	131.3	296.1	187.1	351.0	242.1	460.8	355.6	580.9	470.2	681.5	574.4	302.6	198.3
	11	117.3	-	220.6	98.7	280.2	156.4	332.4	212.3	447.8	326.8	567.9	442.2	668.5	546.5	331.4	216.9
	12	89.4	-	203.9	71.7	258.8	123.8	314.7	180.6	425.5	296.1	545.6	410.6	646.1	514.8	359.4	237.4
RS185	4	336.1	279.3	490.6	438.5	571.6	518.6	648.9	589.3	806.2	745.7	964.5	904.0	1,115.3	1,081.8	166.6	108.9
	5	320.3	240.2	471.1	391.0	554.9	469.2	628.4	547.4	789.5	703.8	941.2	864.9	1,091.1	1,030.6	214.1	143.4
	6	286.7	187.1	438.5	346.3	521.4	425.5	590.3	500.9	756.9	655.4	913.3	820.2	1,079.0	966.4	259.7	168.5
	7	253.2	136.9	409.6	290.5	486.0	374.3	559.5	449.7	734.6	612.6	883.5	767.1	1,031.5	933.8	309.1	203.9
	8*	216.9	90.3	380.8	245.8	458.1	323.1	534.4	403.1	702.0	560.5	855.6	718.7	990.6	887.2	356.6	234.6
	9	195.5	42.8	353.8	198.3	433.8	278.4	509.3	355.6	678.7	513.0	832.3	675.0	966.4	842.6	405.9	270.0
	10	161.1	-	320.3	147.1	405.9	226.2	476.7	306.3	633.1	467.4	790.4	624.7	924.5	788.6	457.1	294.2
	11	128.5	-	288.6	99.6	365.0	177.8	441.3	259.7	597.7	415.2	784.8	578.2	891.0	741.1	492.5	324.9
	12	105.2	-	258.8	48.4	340.7	137.8	416.2	216.0	572.6	376.1	738.3	527.9	865.8	691.7	543.7	357.5
RS210	4	518.6	438.5	744.8	670.3	868.6	784.8	956.1	897.5	1,219.6	1,170.3	1,443.1	1,364.8	1,660.0	1,576.2	233.7	152.7
	5	481.3	369.6	703.8	598.6	835.1	711.3	946.8	823.9	1,174.9	1,053.9	1,397.4	1,288.5	1,622.7	1,499.8	297.9	193.6
	6	438.5	308.2	663.8	532.5	776.5	644.3	901.2	756.9	1,139.5	988.7	1,360.2	1,220.5	1,576.2	1,442.1	356.6	233.7
	7	405.9	256.0	632.1	479.5	745.7	589.3	861.2	705.7	1,097.6	932.9	1,326.7	1,170.3	1,540.8	1,387.2	397.5	262.5
	8*	366.8	189.9	591.2	419.9	704.8	530.7	819.3	648.0	1,050.2	875.1	1,294.1	1,104.2	1,509.2	1,320.2	468.3	312.8
	9	319.3	118.2	542.8	345.4	655.4	462.7	768.1	568.8	1,010.1	801.6	1,240.1	1,026.9	1,453.3	1,254.1	533.5	355.6
	10	272.8	50.3	503.7	275.6	608.9	392.0	721.5	509.3	963.6	728.0	1,195.4	953.3	1,397.4	1,184.2	597.7	400.3
	11	236.5	-	456.2	214.1	574.4	331.4	686.1	448.7	911.4	676.8	1,162.8	905.9	1,364.8	1,123.7	649.8	442.2
	12	193.6	-	417.1	147.1	530.7	266.3	644.3	384.5	875.1	608.9	1,118.1	842.6	1,323.0	1,058.5	724.3	480.4

※0°-Valve Closed / 90°-Valve open

*Standard

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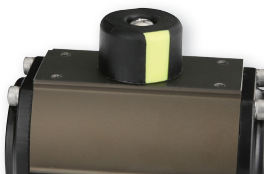
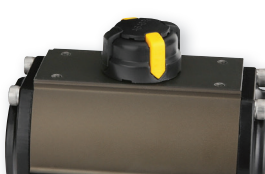
Various option

Valve position
indicator

Product
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► Various option

● Indicator

A	B	D	E
			
It is fixed with screws.	- Standard indicator - It is possible to assemble the switch box in an indicator-mounted state.	- There is no discoloration with plastic 4 piece indicator system. *For R40/AR50~AR125	- There is a magnet inside the indicator, and there are sensors on both sides to detect the status of the valve. *For R40~AR125

● Epoxy coated actuator



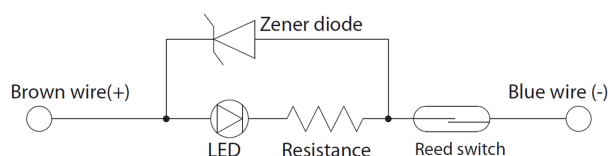
- Epoxy coated after hard anodized aluminum body.
- It is used for Chemical pipe line.

* Teflon coating, urethane coating, and polyester coating are also available.

● Side sensor



[Sensor Circuit Diagram]

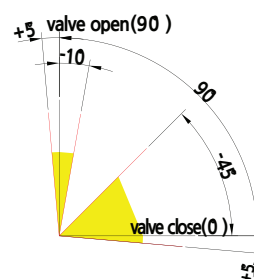
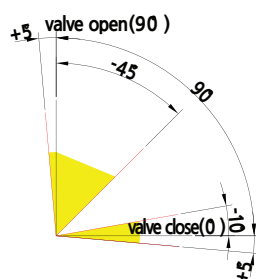


Sensor Specification

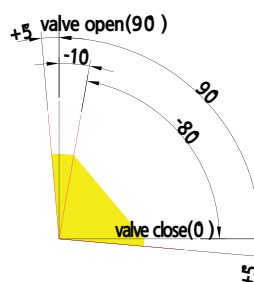
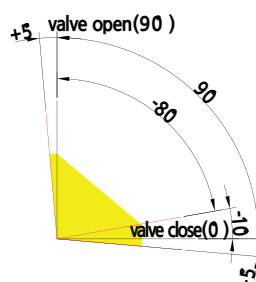
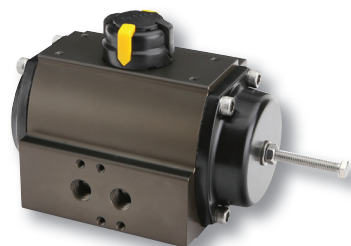
Sensor	D-93K (KCC)	
Application	Relay, PLC	
Voltage	DC24V	AC110V
Current range	5~40mA	5~20mA
Contact protection circuit	None	
Internal voltage drop	≤2.7V	
Indicator lamp	Red LED	
Wire length	1m(standard), 3m, 5m	

● Stopper

[Center stopper]



[End cap stopper]

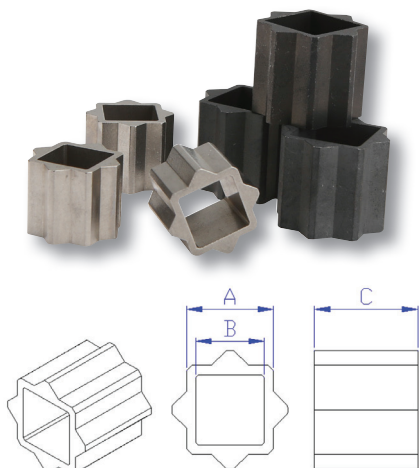


● Port pad



- Change Port size easily.
- Assemble other size NAUMUR solenoid valve with long screws.
- Add vent hole for quick response time in case of spring return.

● Adapter



Single square	A(mm)	B(mm)	C(mm)	Double square	A(mm)	B(mm)	C(mm)
SQ9*6	9	6	11	DQ11*9	11	9	12
SQ11*9	11	9	10	DQ14*9	14	9	16
SQ14*9	14	9	15	DQ14*11	14	11	16
SQ14*11		11	15	DQ17*9	17	9	19
SQ17*9	17	9	17	DQ17*11		11	
SQ17*11		11	17	DQ17*14	22	14	24
SQ17*14		14	17	DQ22*14		14	
SQ22*14	22	14	22	DQ22*17		17	29
SQ22*17		17	22	DQ22*19	27	19	
SQ22*19		19	22	DQ27*17		17	
SQ27*17	27	17	27	DQ27*19		19	38
SQ27*19		19	27	DQ27*22	36	22	
SQ27*22		22	27	DQ36*19		19	
SQ36*19	36	19	38	DQ36*22		22	48
SQ36*22		22	38	DQ36*27	46	27	
SQ36*27		27	38	DQ46*27		27	
				DQ46*36	55	36	57
				DQ55*27		27	
				DQ55*36		36	
				DQ55*46		46	

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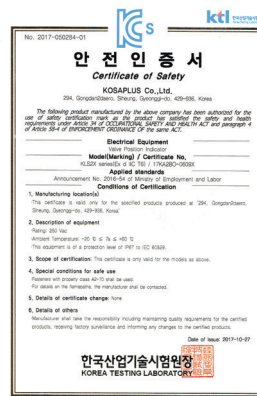


Valve position indicator

[KLS20]
KLS20 height 104.6mm



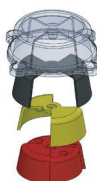
[KLS10]
KLS10 height 87.1mm



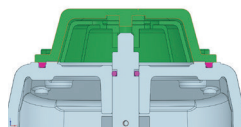
Ex d II C T6



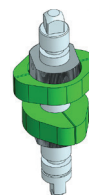
· 3way indicator



· 4 piece plastic indicator

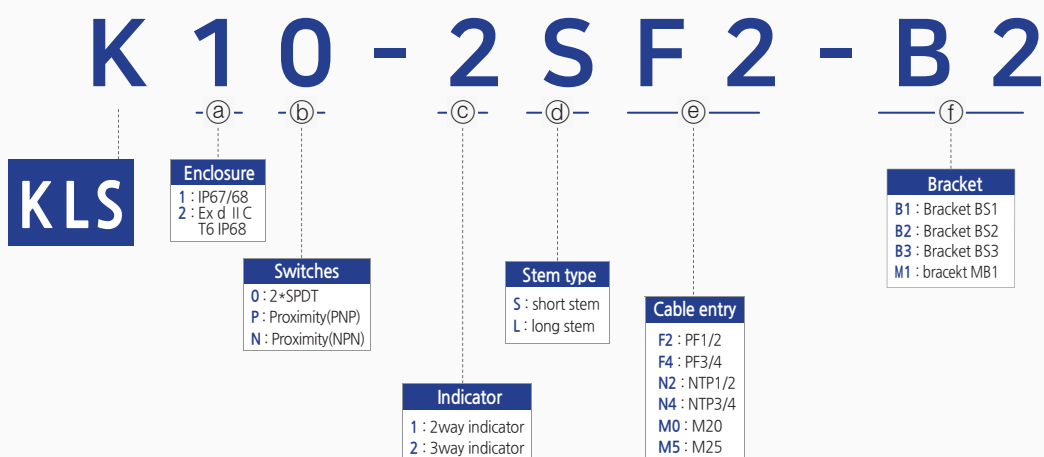


· The top two-fold
weatherproof structure



· Quick-set &
Both side contact cam
· Subdivided serrature
(Resolution 2.25°)

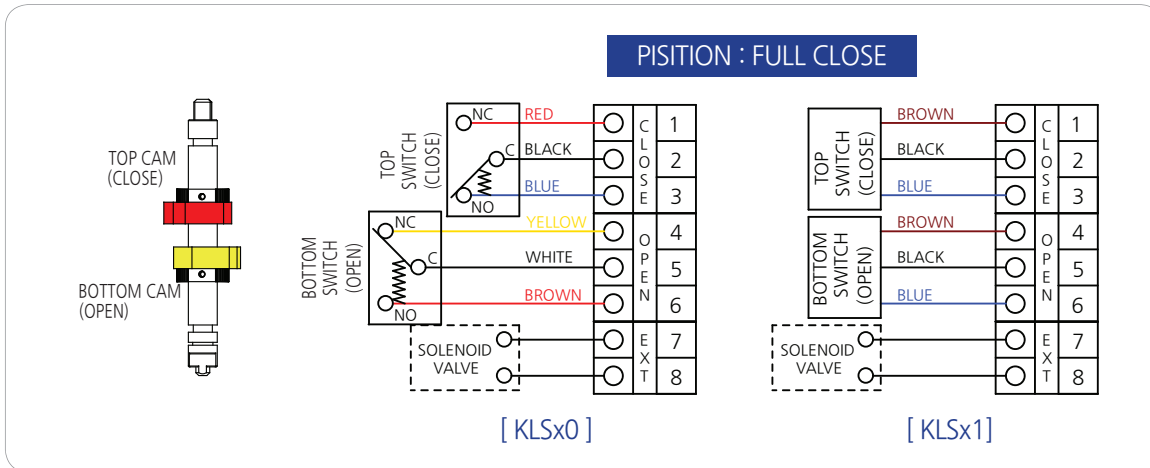
▶ Model code



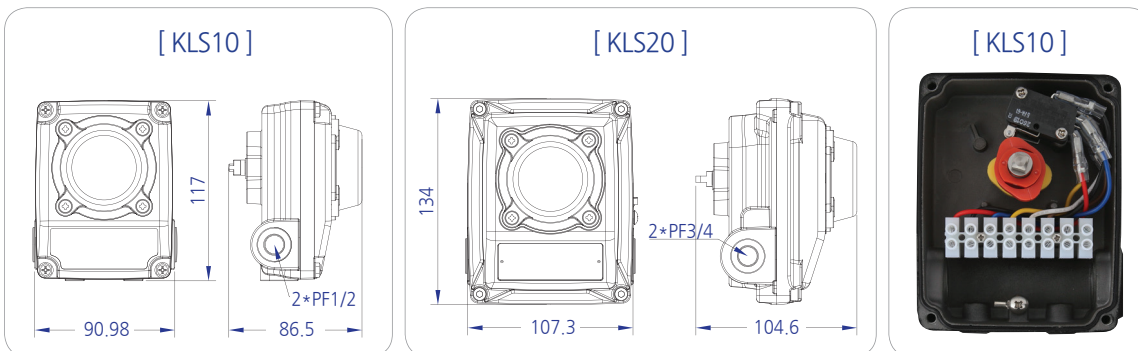
► Switch specification

KLSx0	2*SPDT	(125/250) Vac, 16Aac or 125Vdc, 0.6Adc or 250Vdc, 0.3Adc
KLSx1	2*Proximity	DC 12-24V

► Wiring



► Dimension



► Bracket

BS1	BS2	BS3	MB1
Size 50*25*20 (R40)	Size 30*80*20 (AR50~AR185)	Size 30*130*30 (AR210~A300)	Size 30*80(130)*20(30)
Material Stainless steel	Material Stainless steel	Material Stainless steel	Material Stainless steel

When using MB1, Long Stem is recommended due to interference from bolts.

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► Pneumatic actuator

Scotch yoke

(Double acting/Spring return) ~10,000Nm

► A50/A65/A80/A100/A125/A140/A160/A185/A210/A250/A300/A350

Rack pinion

(Double acting/Spring return) 4Nm~

► R32/R40/R50/R65/R80/R90/R100/R115/R125/R140/R160/R185/R210

► Electric actuator

Quarter turn

8Nm~2,000Nm

► Spur gear

KE001/KE002/KE004/
KE005/KE006/KE008

► TR gear(scotch yoke)

KE010/KE016/KE028/
KE040/KE050/KE080/
KE120/KE200

Explosion proof

25Nm~500Nm

KP002/KP006/KP008/
KP010/KP016/KP028/
KP040/KP050

Quick operating time

10Nm~25Nm

KS001(1second 10Nm)
KS002(3seconds 25Nm)

Safe-return

20Nm~60Nm

KR002
KR004
KR005
KR006

► Valve position indicator

- Weather proof KLS1x
- Explosion proof KLS2x



*in development

Are you having trouble selecting an pneumatic actuator?
Are you wasting time looking at data sheets unnecessarily?

Find the right model quickly and easily with your keyboard and mouse.
Save your working time!

Torque version 2024.09.10

This data is for reference only the actual assembly may be different depending on valve material, pressure, structure, fluid and operational environment. We do not guarantee this.

본 데이터는 단순 참고용으로 실제 밸브의 소재, 압력, 구조, 유체, 기타 구동환경에 의해 달라질 수 있으며, 당사에서 이를 보증하지는 않습니다.

Actuator

- ☒ Double acting
☐ Spring return

Field air pressure(Bar)

3

Safety factor(%)

30(× 1.3)

Valve torque (unit : Nm) [Help](#)

OPEN

CLOSE

0°(BTO)

45°(RTO)

90°(ETO)

0°(ETC)

45°(RTC)

90°(BTC)

50

30

25

25

30

50

Valve torque (unit : Nm) from excel [Help](#)

Ctrl + V from excel

Insert

Result

Valve torque (w. safety factory)	65.0	39.0	32.5	32.5	39.0	65.0
Model	0°(BTO)	45°(RTO)	90°(ETO)	0°(ETC)	45°(RTC)	90°(BTC)
AD65 F57C14	54.6 (-16%)	30.1 (-23%)	52.0 (60%)	60.2 (85%)	31.6 (-19%)	52.9 (-19%)
AD80 F7C14 recommended	100.5 (55%)	51.2 (31%)	97.0 (198%)	120.0 (269%)	65.3 (67%)	107.6 (66%)
AD100 F710C22	185.2 (185%)	109.4 (181%)	173.8 (435%)	201.1 (519%)	116.4 (198%)	187.9 (189%)
AD65	44.7	44.7	44.7	44.7	44.7	44.7

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► A series (scotch yoke) ISO5211 / Stem / Weight

MODEL	ISO5211	STEM	AD(Kg)	AS(Kg)
A50	F03/F05/F07	11*11	1.4	1.6
		#14*14		
		#9.7*15		
A65	F05/F07	14*14	2.3	3.0
		#11*11		
		#11.7* Ø17		
		#9.7* Ø15		
A80	F07	17*17	3.9	5.3
		#14.7* Ø19		
A100	F07/F10	22*22	6.7	9.5
		#17.7* Ø22		
A125	F07/F10	22*22	11.3	17.6
A140	F10/F12	27*27	16.4	23.9
		#22*22		
A160	F14	36*36	23.7	36.6
	#F10/F12	#27*27		
A185	F14	36*36	34.8	56.9
A210	F16	46*46	45.5	77.2
	#F14	#36*36		
A250	F16	46*46	65.8	119.6
A300	F16/F25	55*55	165	275.5

#Option

► R series (rack pinion) ISO5211 / Stem / Weight

MODEL	ISO5211	STEM	RD(Kg)	RS(Kg)
RD32	F03	9*9	0.3	-
R40	F03/F05	9*9	0.5	0.6
	#F04			
R50	F03/F05/F07	11*11	1.0	1.1
	#F04			
R65	F05/F07	14*14	1.4	1.5
	#F04/F07			
R80	F05/F07	17*17	2.9	3.3
R90	F07	17*17	3.4	3.8
R100	F07/F10	22*22	4.7	5.4
R115	F07/F10	22*22	6.7	7.5
R125	F07/F10	22*22	8.6	9.9
R140	F10/F12	27*27	12.4	14.5
		#22*22		
R160	F10/F12	27*27	16.9	19.5
R185	F10/F12	36*36	24.2	29.0
R210	F14	36*36	32.3	37.9

#Option