

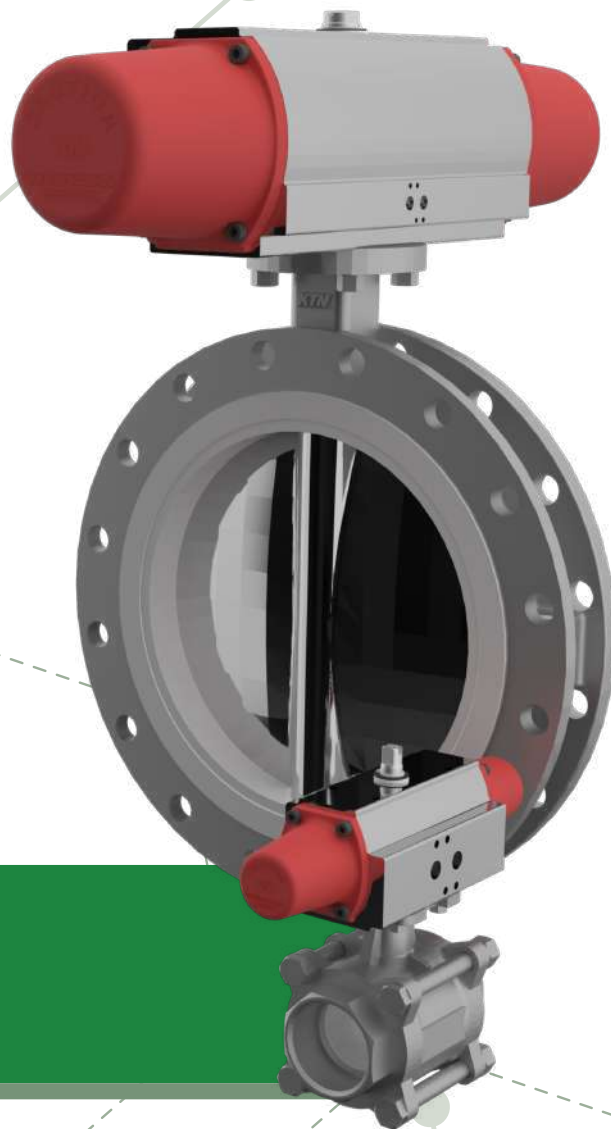


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KTN
Kara Technology News



RYE.AD/AS

SCOTCH YOKE PNEUMATIC ACTUATOR

SINGLE/DOUBLE ACTING

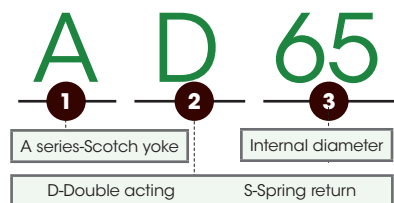


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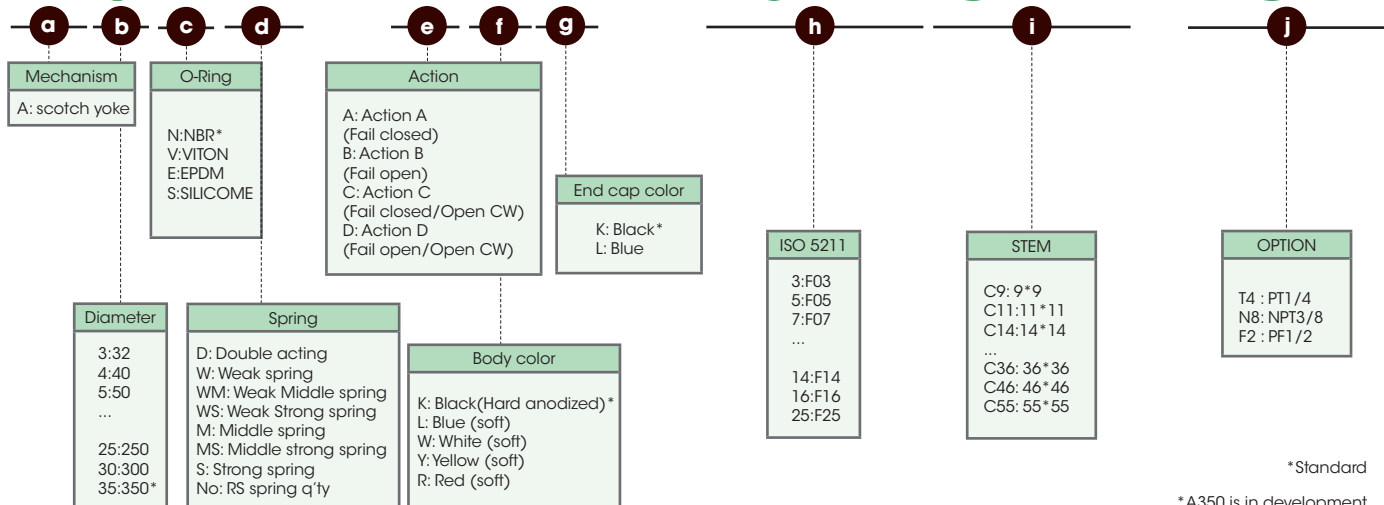
PNEUMATIC ACTUATOR:

- 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



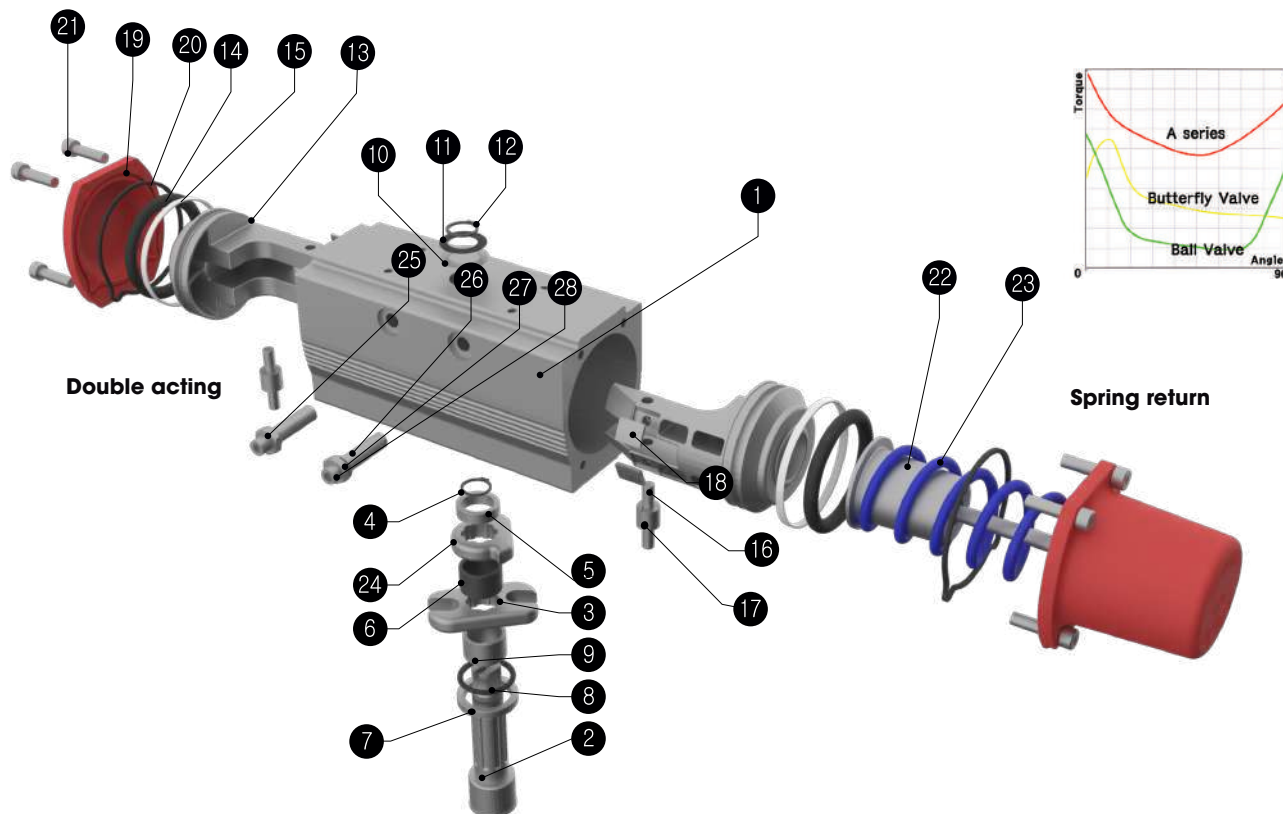
AD	50/65/80/100/125/140/160/185/210/250/300
AS	50/65/80/100/125/140/160/185/210/250/300

A6ND - AKK - 1012C27 - OP



KTN RYE | GENERAL CHARACTERISTICS

ALUMINUM SCOTCH YOKE PNEUMATIC ACTUATOR



NO./NAME	QTY	MATERIALS	NO./NAME	QTY	MATERIALS
1. Body	1	Aluminum Alloy	15. Piston Guide-ring	2	Engineering Plastic
2. Shaft	1	Steel Alloy/Nickel Plated	16. Piston Pin	2	Steel Alloy
3. Crank	1	Steel Alloy	17. Piston Roller	2	Steel Alloy
4-1 Bushing(Top)	1	Steel Alloy	18. Piston Pad	4	Engineering Plastic
4-2 Bushing(Top)	1	Copper Alloy	19. Cover	2	Aluminum Alloy
5. Body O-ring(TOP)	1	NBR	20. Cover O-ring(Inside)	2	NBR
6. Shaft Roller(Top)	1	Engineering Plastic	21. Cover Bolt	8	Stainless Steel
7. Bushing(Bottom)	1	Copper Alloy	22. Spring Cap	2	AS50-AS160:Eng plstc
8. Body O-ring	1	NBR			AS210-AS250: Aluminum
9. Shaft Roller(Bottom)	1	Engineering Plastic			AS300: Cast iron
10. Body Washer(Middle)	1	Engineering Plastic	23. Spring	2-4	Steel Alloy
11. Body Washer (Top& Bottom)	2	Steel Alloy	24. Stopper	1	Steel Alloy
12. Body Snap-ring	1	Steel Alloy	25. Adjust Washer	2	Stainless Steel
13. Piston	2	Engineering Plastic/ Aluminum Alloy	26. Adjust Nut	2	Stainless Steel
			27. Adjust O-ring	2	NBR
14. Piston O-ring	2	NBR	28. Adjust Bolt	2	Stainless Steel
					A250-A300:Steel A

OPERATING MECHANISM

DOUBLE ACTING	Action "A"		
SPRING RETURN	Action "A" (Fail Close)		
SPRING RETURN	Action "B" (Fail Open)		

SELECTION GUIDE

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

※A350 is in development

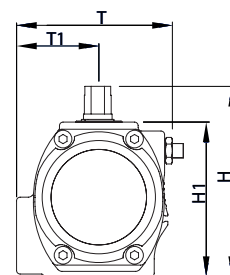
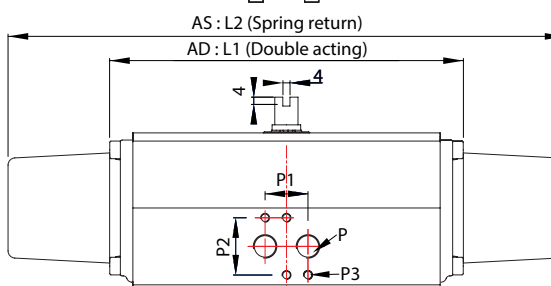
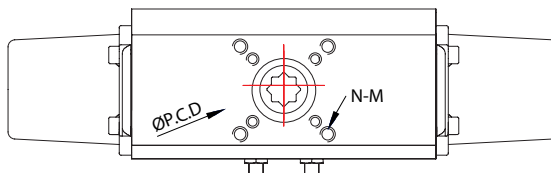
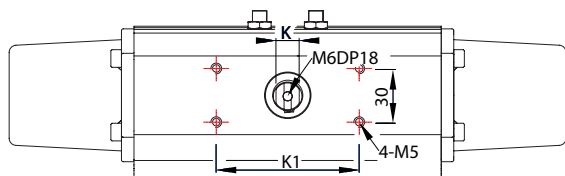
•Based on 10K/#150

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

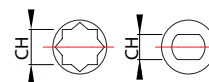
•The data is not legally effective and therefore should not be used as legal ground.

DIMENSION TABLE

MODEL	P	P1	P2	P3
A50~A210	PT1/4	24	32	M5
A250/A300	PT1/4	24	32	M5
	#PT3/8	40	45	M6
	#PT1/2	40	45	M6



MOUNT IMAG

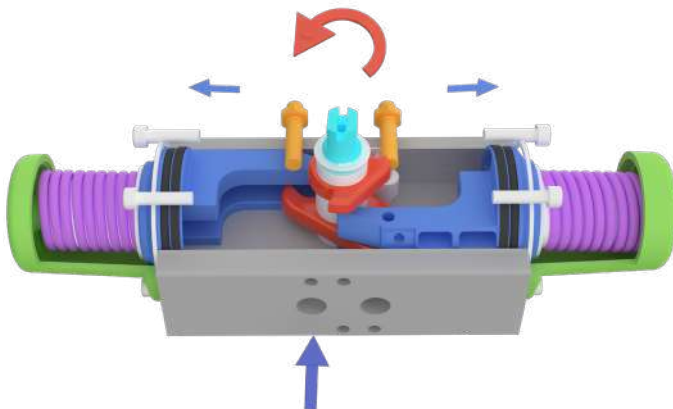


※Unit:mm

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		
												#9.7*Ø15	14		
A80	80	F07	70	4-M8 (15)	13	253	421	101	49.5	126	106	17*17	19	3.9	5.3
												#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	408	378	55*55	60	165.0	275.5

#Option

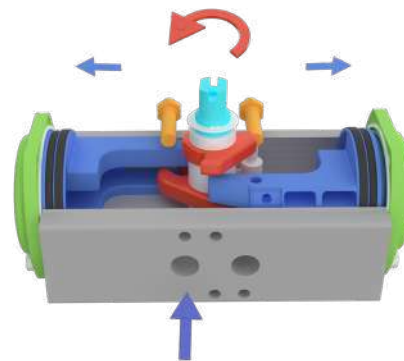
MECHANICAL PRINCIPLE



Port A (Air Inlet port):

Working Process: When compressed air is supplied to Port A, it pushes the piston in the actuator in one direction, causing the actuator rod to extend. The pressure from the compressed air entering Port A forces the piston to move away from this port, thereby extending the actuator.

Exhaust Process: Simultaneously, the air in the opposite side of the piston (in Port B) is expelled through the exhaust or exhaust port. This allows the piston to move smoothly while Port A is pressurized.



Port B (Air Exhaust port):

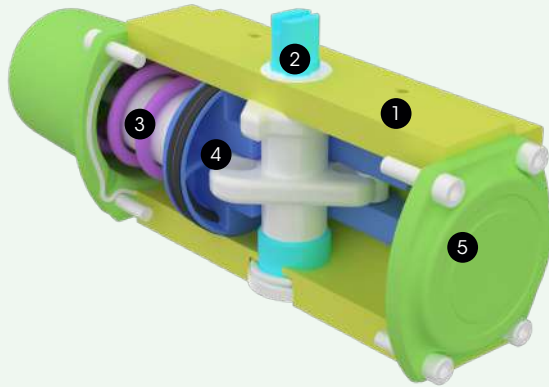
Working Process: When compressed air is supplied to Port B, the piston is pushed in the opposite direction, causing the actuator rod to retract. The pressure from the compressed air entering Port B forces the piston to move toward this port, thereby retracting the actuator.

Exhaust Process: The air that was previously in Port A is released through the exhaust port, allowing the piston to return smoothly as Port B is pressurized.

KTN RYE | GENERAL CHARACTERISTICS

ALUMINUM SCOTCH YOKE PNEUMATIC ACTUATOR

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1 BODY

The hard anodized body, with a thicker film than competitors, offers superior resistance to corrosion and scratches, while internal roughness is minimized using diamond tools to reduce sealing friction; Teflon-coated metal bushings at the top and bottom provide excellent wear resistance and stability across temperature changes, unlike some competitors who use plastic bushings; the special grease for pneumatic actuators has high extreme pressure properties and does not scatter or volatilize, and various coating options include epoxy (powder/liquid), polyester, urethane, Teflon, and electroless nickel.

2 STEM

Due to the polished friction surface of the shaft, the grinding stem experiences extremely low wear, resulting in a long lifespan, while machining surface tolerances are managed with a dedicated jig.

3 SPRING

The powder-coated spring is resistant to corrosion and has a long service life. (Powder coating is limited to SCOTCK YOKE only.) For AS50-AS100, three types of springs (W, M, S) are available, while for AS125-AS300, six types (W, WM, WS, M, MS, S) are available, allowing for selection based on the site's pressure, ensuring competitive pricing.

4 PISTON

The cast piston minimizes metal-to-metal contact with a guide ring and pad, and tightly controls tolerances to prevent leaks caused by O-ring wear.

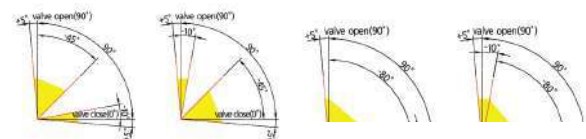
The snap rings on both sides of the piston pin prevent the pin from coming out.

5 END CAP

The cast aluminum end cap undergoes a powder coating surface treatment, providing long-lasting color, resistance to discoloration, and consistent thickness. Additionally, the 4-axis screw is stabilized corrosion resistance. Additionally, the 4-axis screw is stabilized by simultaneously tightening four bolts using an electric driver and servo motor, ensuring no distortion of the sealing.

6 STOPPER

The stopper bolt, located on the opposite side of the air port, avoids interference from solenoid valves, regulators, etc., making it convenient to use. The angle adjustment range is as follows: STD 90°-5°+10° (both open and close), Center stopper 90°-5°+45° (both open and close), and End cap stopper 90°-5°+90°.



AD Series 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 Series 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

KTN RYE | GENERAL CHARACTERISTICS

ALUMINUM SCOTCH YOKE PNEUMATIC ACTUATOR

※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°	649.8	964.5	1,141.4	1,289.4	1,596.7	1,896.4	2,194.4	343.5
		45°	307.2	475.7	560.5	647.0	812.8	983.1	1,167.5	202.0
		90°	452.5	749.5	900.3	1,066.0	1,338.8	1,642.3	1,967.2	379.8
	WM	0°	601.4	915.2	1,055.8	1,202.9	1,576.2	1,864.8	2,090.1	422.7
		45°	284.0	450.6	534.4	621.0	784.8	952.4	1,120.0	244.9
		90°	391.0	683.4	848.1	1,002.7	1,336.0	1,589.2	1,830.3	463.6
	WS	0°	418.0	703.8	863.0	993.4	1,382.5	1,655.3	1,875.0	559.5
		45°	151.8	326.8	405.9	494.4	672.2	839.8	1,015.7	332.4
		90°	142.4	462.7	618.2	760.6	1,053.9	1,366.7	1,689.8	662.9
	M	0°	528.8	841.6	982.2	1,152.6	1,509.2	1,878.8	2,143.2	472.9
		45°	230.9	404.1	489.7	571.6	745.7	918.0	1,081.8	277.4
		90°	296.1	600.5	756.9	896.6	1,189.8	1,458.9	1,726.1	525.1
	MS	0°	355.6	656.4	824.9	978.5	1,323.9	1,631.1	1,862.9	654.5
		45°	109.9	283.0	366.8	459.0	629.4	805.3	969.2	388.2
		90°	133.1	365.9	490.6	632.1	955.2	1,258.7	1,525.0	767.1
	S*	0°	210.4	509.3	655.4	797.9	1,136.8	1,418.8	1,716.8	842.6
		45°	-	191.8	277.4	367.7	533.5	703.8	864.0	498.1
		90°	-	161.1	323.1	463.6	749.5	1,064.1	1,328.5	952.4
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

KTN RYE | GENERAL CHARACTERISTICS

ALUMINUM SCOTCH YOKE PNEUMATIC ACTUATOR

※Unit : Nm

Model	Spring type	Angle	Air (to Open)							Spring to Close
			3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar	
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	6,751.1	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

* Standard