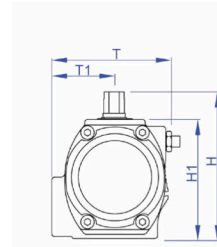
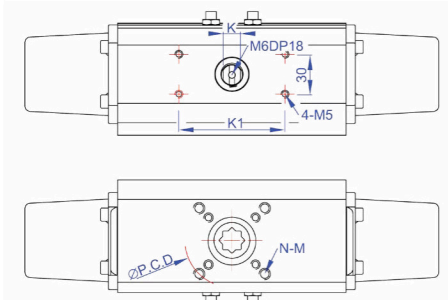
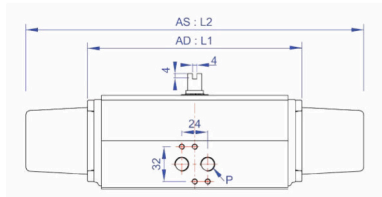


A series (AD/AS) Scotch yoke

► Dimension table



P	
A50~A210	PT1/4
A250/A300	PT1/4
	#PT3/8
	#PT1/2

MOUNT IMAGE



unit : mm

MODEL	K1	ISO	P.C.D(ø)	N-G	K	L1	L2	T	T1	H	H1	CH	DTH	AD Wt(Kg)	AS Wt(Kg)
A50	80	F03/F05/ F07	36/50/70	4-M5/M6/M8	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	13	202	314	89	46	107	87	14*14	17	2.3	3.0
												#11.7*ø17	17		
												#9.7*ø15	14		
A80	80	F07	70	4-M8	13	262	430	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	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	19	390	606	151	71.5	174	154	22*22	26	11.3	17.6
A140	80	F10/F12	102/125	4-M10/M12	24	431	682	164	77	192	172	27*27	30	16.4	23.9
												#22*22			
A160	80	F14	140	4-M16	24	506	781	188	89	216	196	36*36	30	23.7	36.6
		#F10/F12	#102/125	#4-M10/M12								#27*27			
*A185	80/130	F14	140	4-M16	30	578	894	217	102	254	224	36*36	30	38.1	62.6
A210	130	F16	165	4-M20	36	605	982	231	115	284	254	46*46	60	45.5	77.2
		#F14										#36*36	50		
A250	130	F16	165	4-M20	36	755	1108	301	152	335	305	46*46	60	65.8	119.6
*A300	130	F16/F25	165/254	4-M20/8-M16	36	900	1344	360	170	408	378	55*55	60	78.0	145.0

*Model with '#' is optional.

Model with '' are being developed. Data can be changed.

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

•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.

A series (AD/AS) Scotch yoke

► AD series Torque table

unit : Nm

Model	Angle	Supply Air											
		3Bar		4Bar		5Bar		6Bar		7Bar		8Bar	
		Close	Open	Close	Open	Close	Open	Close	Open	Close	Open	Close	Open
AD50	0°	29.0	21.0	37.0	28.0	38.0	37.0	42.0	41.0	46.5	45.4	50.4	49.2
	45°	15.0	16.0	20.0	21.0	25.0	26.0	30.0	31.0	33.2	34.4	36.0	37.2
	90°	25.0	25.0	33.0	38.0	39.0	40.0	50.0	52.0	55.4	57.6	60.0	62.4
AD65	0°	63.0	59.0	85.0	78.0	105.0	95.0	131.0	116.0	145.2	128.6	157.2	139.2
	45°	33.0	38.0	45.0	49.0	57.0	63.0	68.0	73.0	75.4	80.9	81.6	87.6
	90°	54.0	52.0	72.0	71.0	88.0	93.0	107.0	107.0	118.6	118.6	128.4	128.4
AD80	0°	121.0	105.0	162.0	143.0	209.0	183.0	261.0	210.0	289.3	232.7	313.2	252.0
	45°	65.0	69.0	84.0	92.0	112.0	121.0	130.0	144.0	144.1	159.6	156.0	172.8
	90°	97.0	101.0	130.0	133.0	171.0	156.0	198.0	209.0	219.4	231.6	237.6	250.8
AD100	0°	194.0	186.0	265.0	247.0	332.0	292.0	393.0	368.0	435.5	407.8	471.6	441.6
	45°	110.0	127.0	147.0	165.0	185.0	196.0	237.0	250.0	262.7	277.1	284.4	300.0
	90°	173.0	179.0	231.0	237.0	297.0	301.0	348.0	363.0	385.7	402.3	417.6	435.6
AD125	0°	428.0	432.0	576.0	551.0	725.0	678.0	886.9	793.9	983.0	880.0	1,064.3	952.7
	45°	255.0	273.0	339.0	360.0	425.0	443.0	513.0	531.0	568.5	588.5	615.6	637.2
	90°	385.0	375.0	510.0	491.0	635.0	613.0	750.0	732.0	831.2	811.2	899.9	878.3
AD140	0°	623.0	576.0	829.9	753.9	1,104.9	922.9	1,310.9	1,096.9	1,452.9	1,215.8	1,573.1	1,316.3
	45°	333.0	331.0	450.0	455.0	579.0	582.0	691.0	668.0	765.8	740.3	829.1	801.5
	90°	520.0	523.0	689.0	720.0	862.9	879.9	1,054.9	969.9	1,169.2	1,075.0	1,265.9	1,163.9
AD160	0°	952.9	812.9	1,146.9	1,061.9	1,484.9	1,311.9	1,799.9	1,599.9	1,994.9	1,773.2	2,159.9	1,919.9
	45°	540.0	569.0	730.0	757.9	919.9	948.9	1,109.9	1,132.9	1,230.2	1,255.7	1,331.9	1,359.5
	90°	879.9	978.9	1,169.9	1,319.9	1,447.9	1,634.9	1,749.9	2,026.9	1,939.5	2,246.4	2,099.9	2,432.2
AD185	0°	1,528.8	1,304.2	1,840.0	1,703.6	2,382.2	2,104.7	2,887.5	2,566.7	3,200.4	2,844.8	3,465.1	3,080.0
	45°	830.2	874.8	1,122.3	1,165.3	1,414.4	1,458.9	1,706.5	1,741.8	1,891.3	1,930.5	2,047.7	2,090.2
	90°	1,294.0	1,439.6	1,720.5	1,941.1	2,129.3	2,404.3	2,573.4	2,980.7	2,852.2	3,303.6	3,088.1	3,576.9
AD210	0°	1,979.9	1,909.9	2,799.8	2,599.8	3,299.8	3,199.8	3,919.7	3,819.7	4,344.4	4,233.6	4,703.7	4,583.7
	45°	1,099.9	1,149.9	1,459.9	1,499.9	1,919.9	1,949.9	2,299.8	2,399.8	2,549.0	2,659.8	2,759.8	2,879.8
	90°	1,669.9	1,719.9	2,149.9	2,299.8	2,799.8	2,899.8	3,349.8	3,449.8	3,712.7	3,823.5	4,019.7	4,139.7
AD250	0°	4,100.0	3,000.0	5,500.0	3,950.0	7,100.0	4,850.0	8,480.0	5,750.0	9,398.7	6,372.9	10,176.0	6,900.0
	45°	1,880.0	1,850.0	2,550.0	2,500.0	3,200.0	3,150.0	3,800.0	3,760.0	4,211.7	4,167.3	4,560.0	4,512.0
	90°	3,100.0	3,400.0	4,180.0	4,580.0	5,240.0	5,850.0	6,180.0	7,050.0	6,849.5	7,813.8	7,416.0	8,460.0
AD300	0°	7,211.0	5,049.0	9,615.0	6,732.0	12,019.0	8,416.0	14,422.0	10,099.0	15,984.4	11,193.1	17,306.4	12,118.8
	45°	2,970.0	2,970.0	3,960.0	3,960.0	4,950.0	4,950.0	5,940.0	5,940.0	6,583.5	6,583.5	7,128.0	7,128.0
	90°	5,049.0	7,211.0	6,732.0	9,415.0	8,416.0	12,019.0	10,099.0	14,422.0	11,193.1	15,984.4	12,118.8	17,306.4

► AS series Torque table

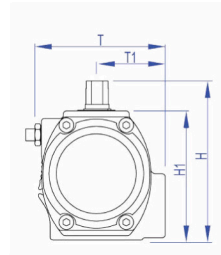
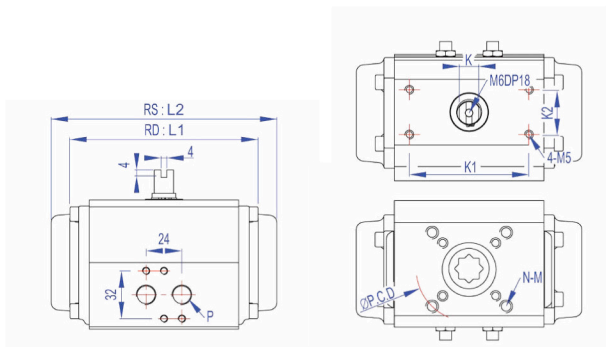
unit : Nm

Model	Angle	Spring torque: Weak		Spring torque: Middle		Spring torque: Strong	
		Spring to Close	Air to Open:3Bar	Spring to Close	Air to Open:4.5Bar	Spring to Close	Air to Open:6Bar
AS50	0°	10.0	20.0	14.0	26.0	17.0	34.0
	45°	9.0	9.0	12.0	12.0	15.0	15.0
	90°	20.0	10.0	26.0	14.0	34.0	17.0
AS65	0°	22.0	39.0	35.0	54.0	48.0	70.0
	45°	18.0	18.0	23.0	28.0	37.0	32.0
	90°	39.0	22.0	54.0	35.0	70.0	48.0
AS80	0°	40.0	70.0	60.0	100.0	80.0	130.0
	45°	30.0	30.0	50.0	50.0	70.0	70.0
	90°	70.0	40.0	100.0	60.0	130.0	80.0
AS100	0°	70.0	140.0	100.0	190.0	130.0	240.0
	45°	50.0	50.0	80.0	80.0	110.0	110.0
	90°	140.0	70.0	190.0	100.0	240.0	130.0
AS125	0°	175.0	251.0	243.0	403.0	358.0	520.0
	45°	105.0	125.0	177.0	182.0	215.0	254.0
	90°	215.0	168.0	395.0	210.0	441.0	341.0
AS140	0°	200.0	370.0	371.0	576.0	480.0	726.0
	45°	170.0	170.0	236.0	265.0	330.0	360.0
	90°	370.0	200.0	447.0	366.0	680.0	430.0
AS160	0°	400.0	540.0	550.0	750.0	769.9	1,149.9
	45°	290.0	290.0	420.0	420.0	560.0	560.0
	90°	540.0	400.0	750.0	550.0	1,149.9	769.9
AS185	0°	641.7	866.3	882.3	1,203.1	1,235.2	1,844.8
	45°	445.8	445.8	645.7	645.7	860.9	860.9
	90°	794.1	588.2	1,102.9	808.8	1,691.1	1,132.3
AS210	0°	840.0	910.0	1,250.0	1,510.0	1,750.0	2,160.0
	45°	500.0	430.0	740.0	780.0	1,040.0	1,130.0
	90°	1,000.0	500.0	1,500.0	920.0	2,140.0	1,370.0
AS250	0°	1,540.0	1,900.0	2,120.0	2,760.0	3,060.0	3,660.0
	45°	920.0	950.0	1,320.0	1,370.0	1,830.0	1,900.0
	90°	1,800.0	1,400.0	2,470.0	2,200.0	3,550.0	2,760.0
AS300	0°	2,870.0	4,283.0	4,308.0	6,421.0	5,740.0	8,566.0
	45°	1,447.0	1,523.0	2,172.0	2,283.0	2,894.0	3,046.0
	90°	2,928.0	2,180.0	4,396.0	3,266.0	5,857.0	4,359.0

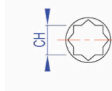
•You may select spring types from strong/middle/weak; if unspecified in P/O, the standard type (as shown in the blue box) is provided.

R series (RD/RS) Rack pinion

► Dimension table



MOUNT IMAGE



P		
R32,R40	PT1/8	
R50~R210	PT1/4	
	K1	K2
R32	25.5	25.5
R40	50	25
R50~R160	80	30
R210	130	30

unit : mm

MODEL	ISO	P.C.D(Ø)	N-G	K	L1	L2	T	T1	H	H1	CH	DTH	RD Wt(Kg)	RS Wt(Kg)
@RD32	F03	36	4-M5	7	66	-	45	25	55	45	9*9	9	0.3	-
@R40	F03/F05	36/50	4-M5/M6	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	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	13	131	154	89	46	106.5	86.5	14*14	16	1.4	1.5
R80	F07	70	4-M8	19	189	220	101	49.5	126	106	17*17	19	2.9	3.3
R90	F07	70	4-M8	19	188	223	104	54.5	136	116	17*17	19	3.4	3.8
R100	F07/F10	70/102	4-M8/M10	19	229	256	132	61.5	148	128	22*22	26	4.7	5.4
											#17*17	19		
*R115	F07/F10	70/102	4-M8/M10	19	264	302	137	67.5	163	143	22*22	26	7.3	8.4
R125	F07/F10	70/102	4-M8/M10	19	299	330	151	71.5	174	154	22*22	26	8.6	9.9
R140	F10/F12	102/125	4-M10/M12	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	24	364	416	188	103.5	216	196	27*27	30	16.9	19.5
*R185	F10/F12	102/125	4-M10/M12	30	431	445	217	102	254	224	27*27	30	27.1	31.6
R210	F14	140	4-M16	36	444	527	231	115	284	254	36*36	30	32.3	37.9

•Model with '@' is compact type. They don't have angle stopper.

•Model with '#' is optional.

•Model with '*' are being developed. Data can be changed.

► RD series Torque table

unit : Nm

MODEL	SUPPLY AIR						
	3Bar	4Bar	4.5Bar	5Bar	6Bar	7Bar	8Bar
RD32	3.2	4.5	5.3	6.0	7.3	8.5	9.7
RD40	5.0	7.0	8.0	9.0	11.0	12.8	14.7
RD50	10.3	13.7	15.5	17.1	20.6	24.0	27.4
RD65	19.1	25.4	28.6	31.8	38.2	44.6	50.0
RD80	39.3	52.2	58.8	65.3	78.4	91.5	104.7
RD90	57.8	77.1	86.8	96.4	115.7	134.9	153.8
RD100	84.4	112.5	126.5	140.6	168.7	196.8	220.4
RD115	133.9	178.5	200.7	223.1	267.7	312.4	349.8
RD125	171.2	228.4	256.9	285.4	342.5	399.5	456.6
RD140	243.3	324.4	365.0	405.5	486.6	567.7	648.8
RD160	350.7	467.6	526.0	584.4	701.3	818.2	935.2
RD185	556.6	742.1	834.8	927.5	1,113.0	1,298.5	1,484.2
RD210	725.4	967.2	1,088.1	1,209.0	1,450.8	1,692.6	1,934.4

► Selection guide

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		RD65	RS65	
1-1/4"	32A			RS80	
1-1/2"	40A		RD80	RD50	RS50
2"	50A			RD65	RS100
2-1/2"	65A	RD90	RD80	RS115	RS80
3"	80A	RD100/RD115		RS125	RS90
4"	100A	RD115/RD125	RD90	RS140	RS100
5"	125A	RD140		RS160	RS115
6"	150A	RD160	RD100	RS185	RS125
8"	200A	RD185	RD125	RS210	RS140
10"	250A	RD210	RD140		RS160
12"	300A		RD160		RS185
14"	350A		RD185		RS210
16"	400A		RD210		

•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.