



fluid under control



PNEUMATIC ACTUATORS

for ball valves, butterfly valves
plug valves, dampers





PNEUMATIC ACTUATORS

General Features

- High performance
- High cycle life (1.000.000 operation)
- High torque value
- Standard position indicator
- For quarter turn valve automation (9Nm - 5162Nm)
- One compact design for double and single acting models
- Dual piston rack and pinion
- According to international standards (NAMUR, ISO5211)
- Body: Extruded aluminium
- Piston & Caps: Die cast aluminium
- 90° turn, two external travel stop adjustment $\pm 5\%$
- 100% adjustable travel stop (on request)
- Pressure : Double acting 2.5 bar 8 bar
Single acting 4 bar 8 bar
- Temperature : Standard -20°C 80°C
On request -20°C 150°C, -30°C 80°C
- TORK Pneumatic actuators have been manufactured since 1986
- Lubrication : All moving parts are factory lubricated

Protection levels for TORK actuator



Anodized body



Epoxy coated body



Nickel coated body



100% Adjustable
on request



PTFE coated body

Design Features of TORK RA Serie Actuators

1) Actuator Body

Aluminium extruded and honed surface body. Internal and external parts corrosion protected

2) Indicator

It is standard on all actuators, it shows visual position of valve

3) Caps

Provide max. resistance against corrosive elements, same cap design for double and single types actuators

4) Travel Adjustment

Permits adjustment of $\pm 5\%$ in both directions

5) Springs

Springs provide high performance in safe emergency shutdown operation. Cartridge design & corrosion resistant

6) Bearing & Piston guides

High cycle life, wide operation temperature range, lubricating provide high performance

7) Nuts & Bolts

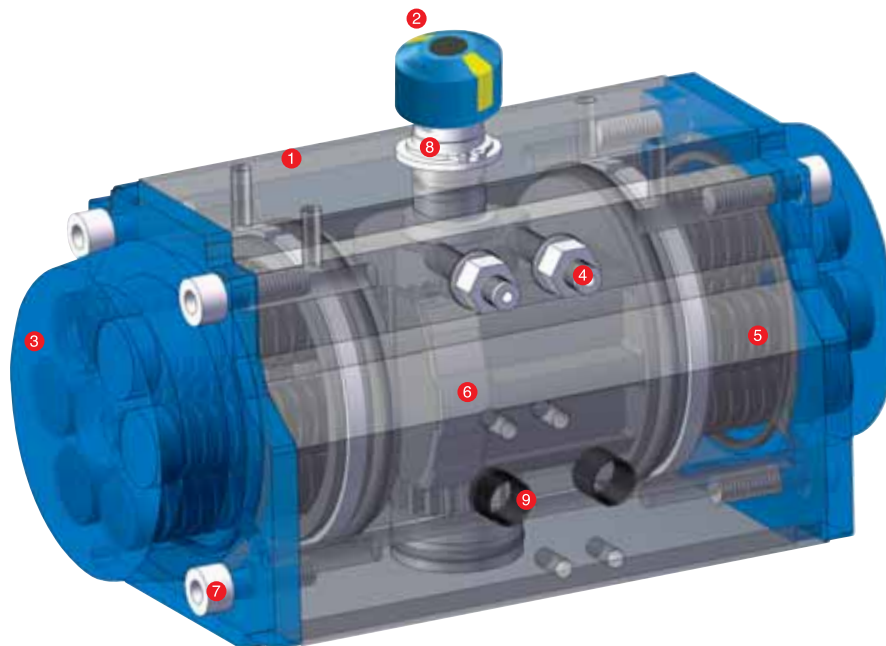
Stainless steel body. Provide long term corrosion resistance.

8) Piston rack and pinion

Provides wear resistance and protect against corrosion. Die cast pistons anodized aluminium fitted with high quality seals and guides.

9) Connections

- Solenoid valves, switch box, positioners : Namur VDI/VDE 3845
- Bottom valve connection: ISO5211, DIN3337 standard



RA ... DA Serie

Double Acting Rotary Pneumatic Actuators

Application	: Ball Valve, Butterfly Valve, Plug Valve, Dampers on-off / proportional control
Size	: RA 32 DA ... RA 350 DA
Supply Pressure Air	: 4 - 8 bar
Output Tork Value	: 9 Nm ... 5162 Nm (6 bar)
Body	: Extruded Aluminium / Cast Aluminium
Caps and Pistons	: Die cast Aluminium
Temperature	: -10 °C...80°C
Valve connection	: ISO 5211 / DIN3337 standard
Limit Switch connection	: Namur standard, VDI / VDE3845
Positioner connection	: Namur standard, VDI / VDE3845
Solenoid Valve connection	: Namur standard, VDI / VDE3845
Stroke Adjustment	: Both directions open and close positions (±5%)
Change to Single Acting	: Add springs



Double Acting Actuator

RA ... SR Serie

Single Acting Rotary Pneumatic Actuators

A single-acting rotary pneumatic actuator. It has a cylindrical body with a blue cap on top and blue end caps. The main body is silver-colored. There are two small circular ports on the front face. The actuator is shown from a three-quarter perspective.

Single Acting Actuator

Application

: Ball Valve, Butterfly Valve, Plug Valve, Dampers
on-off / proportional control

Size

: RA 40 SR ... RA 350 SR

Supply Pressure Air

: 4 - 8 bar

Output Tork Value

: 5 Nm ... 1950 Nm

Body

: Extruded Aluminium / Cast Aluminium

Caps and Pistons

: Die cast Aluminium

Temperature

: -10 °C...80°C

Valve connection

: ISO 5211 / DIN3337 standard

Limit Switch connection

: Namur standard, VDI / VDE3845

Positioner connection

: Namur standard, VDI / VDE3845

Solenoid Valve connection

: Namur standard, VDI / VDE3845

Stroke Adjustment

: Both directions open and close positions ($\pm 5\%$)

Change to Double Acting

: Without springs

Single Acting Actuator

RA ... 3P Serie

3 Position Acting Rotary Pneumatic Actuators

Application	: Ball Valve, Butterfly Valve, Plug Valve, Dampers on-off control, filling systems
Size	: RA 40 3P ... RA 120 3P
Supply Pressure Air	: 4 - 8 bar
Output Tork Value	: 18 Nm ... 330 Nm
Body	: Extruded Aluminium
Caps and Pistons	: Die cast Aluminium
Temperature	: -10 °C...80°C
Valve connection	: ISO 5211 / DIN3337 standard
Limit Switch connection	: Namur standard, VDI / VDE3845
Positioner connection	: Namur standard, VDI / VDE3845
Solenoid Valve connection	: Namur standard, VDI / VDE3845
Stroke Adjustment	: Both directions open and close positions (±5%) From caps stroke adjustment: 20°, 30°, 50°, 75°



3 - Position Actuator

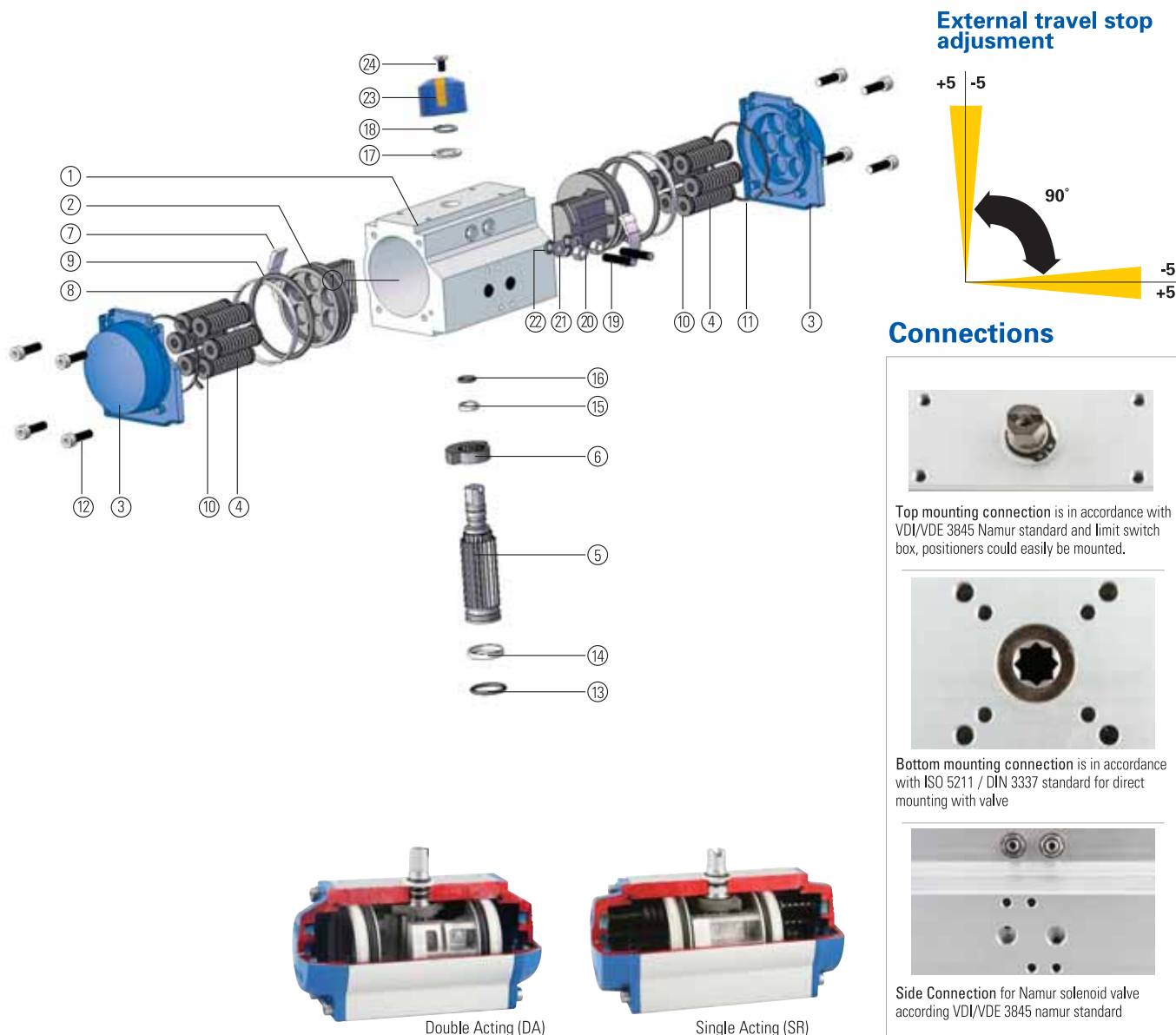
RA ... 8D Serie / RA ... 2D

120° and 180° Turn Rotary Pneumatic Actuators

	Application	: Ball Valve, Butterfly Valve, Plug Valve, Dampers on-off control, filling systems
	Size	: RA 40 8D ... RA 120 8D (180° turn) RA 40 2D ... RA 120 2D (120° turn)
	Supply Pressure Air	: 4 - 8 bar
	Output Tork Value	: 18 Nm ... 330 Nm
	Body	: Extruded Aluminium
	Caps and Pistons	: Die cast Aluminium
	Temperature	: -10 °C...80°C
	Valve connection	: ISO 5211 / DIN3337 standard
	Limit Switch connection	: Namur standard, VDI / VDE3845
	Positioner connection	: Namur standard, VDI / VDE3845
	Solenoid Valve connection	: Namur standard, VDI / VDE3845

120° and 180° Turn Actuator

RA SERIES : SPARE PARTS LIST



PART NO	UNIT / Q'TY	PART DESCRIPTION	STANDARD MATERIAL
1	1	BODY	EXTRUDED ALUMINIUM ALLOY
2	2	PISTON	DIE CAST ALUMINIUM
3	2	CAP	DIE CAST ALUMINIUM
4	min.5/max.12	SPRING	HIGH ALLOY SPING STEEL
5	1	PINION	STEEL ALLOY
6	1	CAM (STOP ARRANGEMENT)	STAINLESS STEEL
7	2	BEARING (PISTON BACK)	POLYPHTALAMIDE
8	2	BEARING (PISTON SLIDING)	POLYPHTALAMIDE
9	2	"O" RING (PISTON)	NITRILE (NBR70)
10	min.5/max.12	SPRING HOLDER	POLYPROPYLENE + GF
11	2	"O" RING (CAP)	NITRILE (NBR70)
12	8	CAP BOLT	STAINLESS STEEL
13	1	"O" RING (PINION BOTTOM)	NITRILE (NBR70)
14	1	BEARING (PINION BOTTOM)	POLYPHTALAMIDE
15	1	BEARING (PINION TOP)	POLYPHTALAMIDE
16	1	"O" RING (PINION TOP)	NITRILE (NBR70)
17	1	THRUST BEARING (PINION)	POLYPHTALAMIDE
18	1	SPRING CLIP (PINION)	STEEL ALLOY
19	2	STOP SET SCREW	STAINLESS STEEL
20	2	STOP NUT	STAINLESS STEEL
21	2	STOP SET SCREW WASHER	STAINLESS STEEL
22	2	"O" RING (STOP SET SCREW)	NITRILE (NBR70)
23	1	INDICATOR	POLYPROPYLENE + GF
24	1	INDICATOR SCREW	STAINLESS STEEL

Torque diagram of TORK Actuators

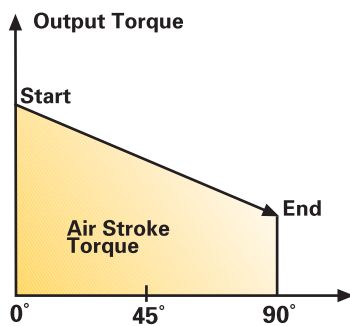


Diagram of TORK Actuator, RA... SR Serie

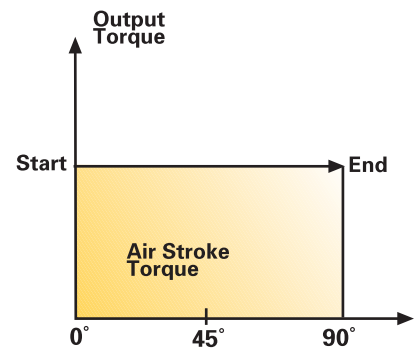
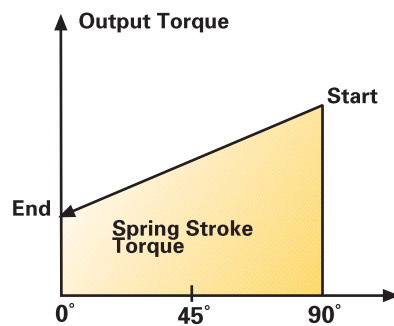
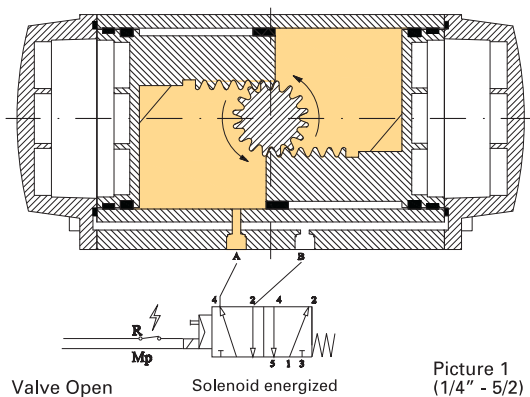
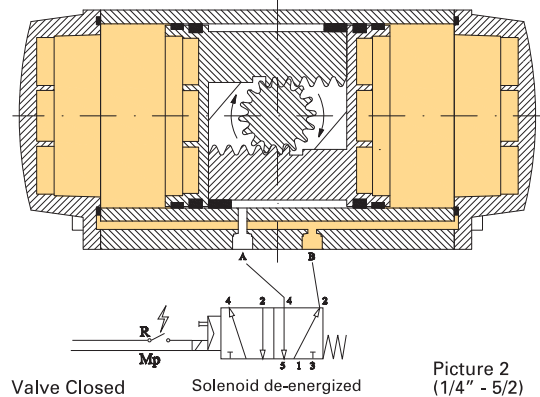


Diagram of TORK Actuator, RA... DA Serie

Operation of TORK Actuator, RA... DA Serie

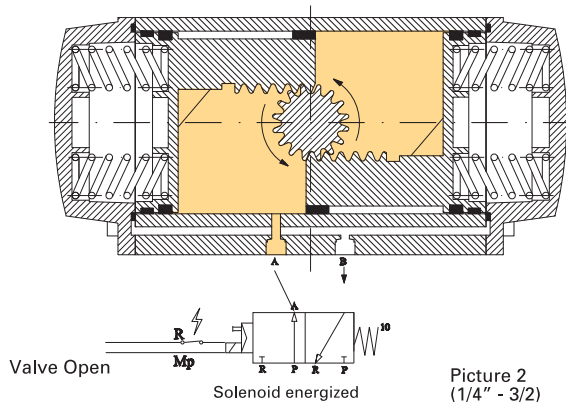


Picture 1
(1/4" - 5/2)

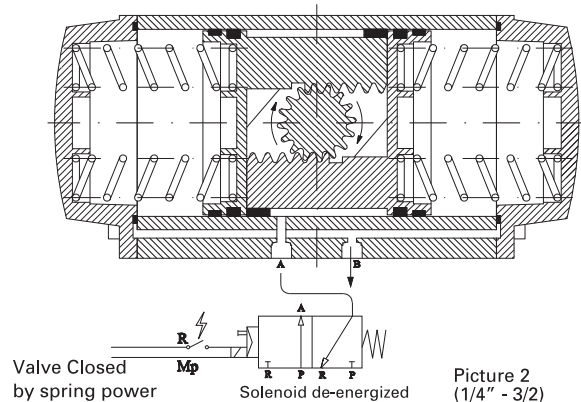


Picture 2
(1/4" - 5/2)

Operation of TORK Actuator, RA... SR Serie

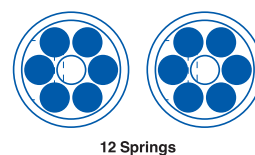
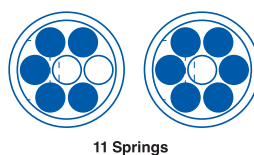
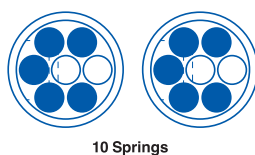
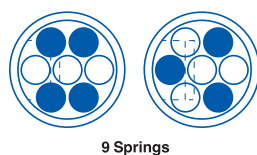
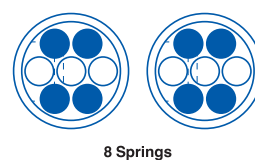
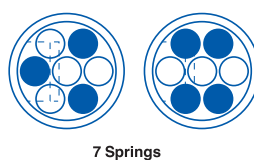
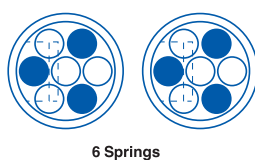
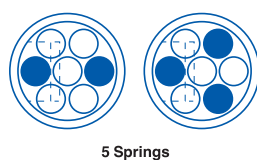


Picture 2
(1/4" - 3/2)



Picture 2
(1/4" - 3/2)

Spring arrangement of TORK Actuator, RA... SR Serie



DOUBLE ACTING TORQUE VALUE (According to supplied air pressure range)

DOUBLE ACTING TORQUE RATING (Nm)

MODEL		Operating Pressure (bar)											
		2,5 bar	3 bar	3,5 bar	4 bar	4,5 bar	5 bar	5,5 bar	6 bar	6,5 bar	7 bar	7,5 bar	8 bar
RA 32 SY	0°	2	3	4	5	6	7	8	9	10	11	12	13
	45°	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5
	90°	2	3	4	5	6	7	8	9	10	11	12	13
RA 32 DA		2	3	4	5	6	7	8	9	10	11	12	13
RA 40 DA		5,5	7,0	8,5	9,9	11,4	12,9	14,4	15,8	17,3	18,8	20,3	21,7
RA 52 DA		13,0	16,1	19,3	22,5	25,6	28,8	32,0	35,1	38,3	41,4	44,6	47,8
RA 60 DA		14,4	17,9	21,5	25,0	28,5	32,0	35,5	39,0	42,5	46,1	49,6	53,1
RA 75 DA		35,7	44,0	52,2	60,4	68,7	76,9	85,1	93,3	101,6	109,8	118,0	126,3
RA 80 DA		39,7	48,9	58,0	67,1	76,3	85,4	94,6	103,7	112,9	122,0	131,2	140,3
RA 100 DA		65,4	80,1	94,9	109,6	124,4	139,2	153,9	168,7	183,4	198,2	213,0	227,7
RA 120 DA		124,9	152,5	180,2	207,9	235,6	263,2	290,9	318,6	346,3	373,9	401,6	429,3
RA 143 DA		240,0	288,0	336,0	385,0	433,0	480,0	529,0	578,0	626,0	674,0	722,0	770,0
RA 160 DA		321,0	385,0	450,0	510,0	576,0	642,0	705,0	765,0	833,0	897,0	963,0	1024,0
RA 200 DA		628,0	752,0	878,0	1000,0	1127,0	1252,0	1377,0	1500,0	1630,0	1752,0	1880,0	2005,0
RA 350 DA		2124,0	2558,0	2992,0	3426,0	3860,0	4294,0	4728,0	5162,0	5596,0	6030,0	6464,0	6898,0

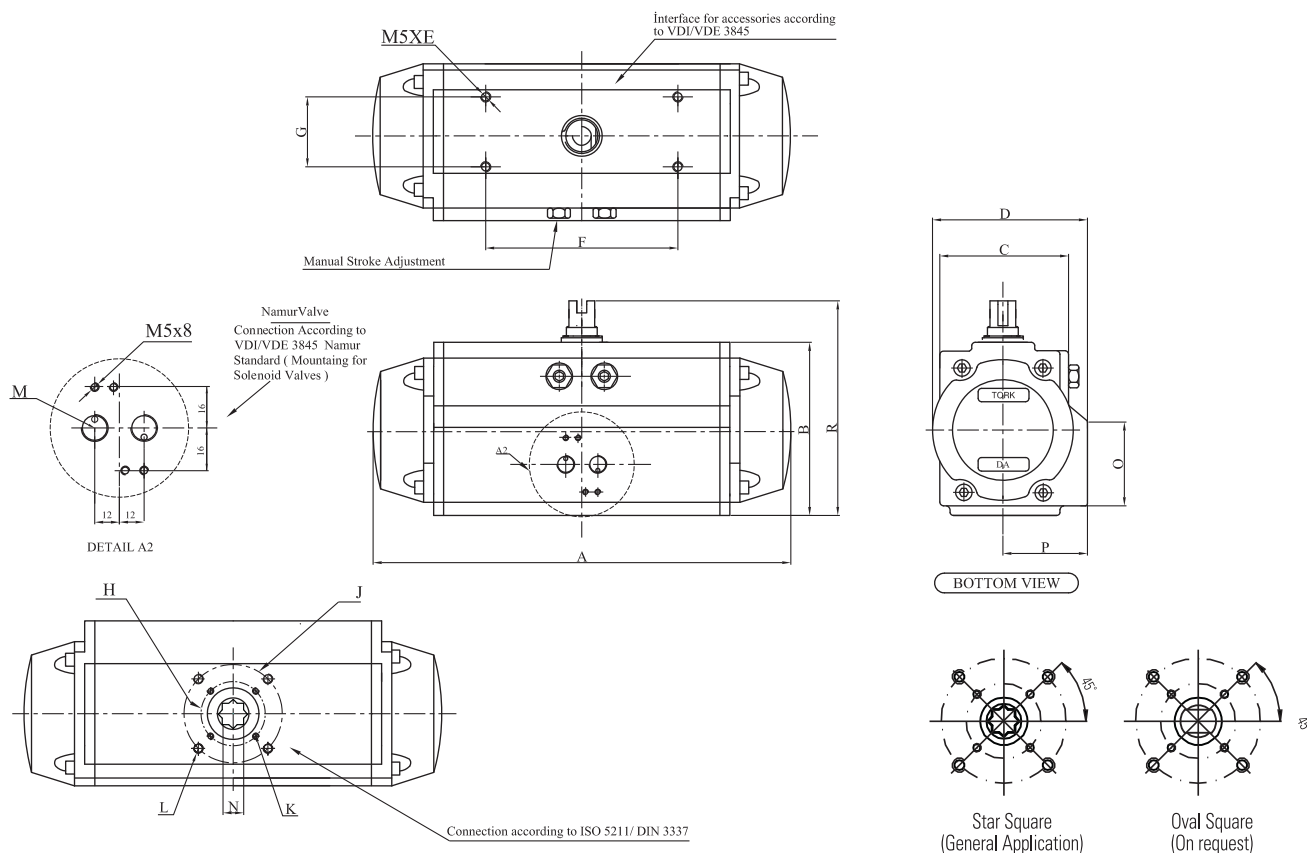
SPRING RETURN TORQUE VALUE (According to supplied air pressure range and springs quantity)

SPRING RETURN TORQUE RATING (Nm)

MODEL	Yay Aaleti	Operating Pressure (bar)																								Spring Torque			
		2,5 bar		3 bar		3,5 bar		4 bar		4,5 bar		5 bar		5,5 bar		6 bar		6,5 bar		7 bar		7,5 bar		8 bar					
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0°	90°		
RA 40 SR	S05					6,1	3,7	7,6	5,2	9,1	6,6	10,6	8,1	12,0	9,6	13,5	11,1	15,0	12,5	16,5	14,0	17,9	15,5	19,4	17,0	2,9	0,4		
	S06			4,7	2,2			5,7	2,7	7,1	4,2	8,6	5,7	10,1	7,2	11,6	8,6	13,1	10,1	14,5	11,6	16,0	13,1	17,5	14,5	19,0	16,0	3,8	0,9
	S07									6,7	3,3	8,2	4,7	9,6	6,2	11,1	7,7	12,6	9,2	14,1	10,6	15,5	12,1	17,0	13,6	18,5	15,1	4,8	1,4
	S08									6,2	2,3	7,7	3,8	9,2	5,3	10,6	6,7	12,1	8,2	13,6	9,7	15,1	11,2	16,6	12,6	18,0	14,1	5,7	1,8
	S09											7,2	2,8	8,7	4,3	10,2	5,8	11,7	7,3	13,1	8,7	14,6	10,2	16,1	11,7	17,6	13,2	6,7	2,3
	S10													8,2	3,4	9,7	4,8	11,2	6,3	12,7	7,8	14,1	9,3	15,6	10,7	17,1	12,2	7,6	2,8
	S11													7,8	2,4	9,3	3,9	10,7	5,4	12,2	6,8	13,7	8,3	15,2	9,8	16,6	11,3	8,6	3,2
	S12														8,8	2,9	10,3	4,4	11,7	5,9	13,2	7,4	14,7	8,8	16,2	10,3	9,5	3,7	
RA 52 SR	S05				11,1	5,5		14,3	8,7	17,4	11,9	20,6	15,0	23,8	18,2	26,9	21,4	30,1	24,5	33,2	27,7	36,4	30,8	39,6	34,0	42,7	37,2	7,8	2,2
	S06						13,3	6,6	16,4	9,7	19,6	12,9	22,8	16,1	25,9	19,2	29,1	22,4	32,2	25,6	35,4	28,7	38,6	31,9	41,7	35,0	9,9	3,2	
	S07					12,3	4,5	15,4	7,6	18,6	10,8	21,7	13,9	24,9	17,1	28,1	20,3	31,2	23,4	34,4	26,6	37,6	29,8	40,7	32,9	12,0	4,2		
	S08							14,4	5,5	17,6	8,7	20,7	11,8	23,9	15,0	27,1	18,1	30,2	21,3	33,4	24,5	36,6	27,6	39,7	30,8	14,1	5,2		
	S09									16,6	6,5	19,7	9,7	22,9	12,9	26,1	16,0	29,2	19,2	32,4	22,4	35,5	25,5	38,7	28,7	16,3	6,2		
	S10									15,6	4,4	18,7	7,6	21,9	10,7	25,0	13,9	28,2	17,1	31,4	20,2	34,5	23,4	37,7	26,6	18,4	7,2		
	S11											17,7	5,5	20,9	8,6	24,0	11,8	27,2	14,9	30,4	18,1	33,5	21,3	36,7	24,4	20,5	8,2		
	S12													19,9	6,5	23,0	9,7	26,2	12,8	29,4	16,0	32,5	19,2	35,7	22,3	22,6	9,2		
RA SR 60	S05				12,3	6,1	15,9	9,7	19,4	13,2	22,9	16,7	26,4	20,2	29,9	23,7	33,4	27,2	36,9	30,8	40,5	34,3	44,0	37,8	47,5	41,3	8,6	2,4	
	S06					14,7	7,3	18,2	10,8	21,8	14,3	25,3	17,9	28,8	21,4	32,3	24,9	35,8	28,4	39,3	31,9	42,9	35,4	46,4	38,9	11,0	3,6		
	S07					13,6	4,9	17,1	8,5	20,6	12,0	24,2	15,5	27,7	19,0	31,2	22,5	34,7	26,0	38,2	29,6	41,7	33,1	45,2	36,6	13,3	4,7		
	S08							16,0	6,1	19,5	9,6	23,0	13,1	26,6	16,7	30,1	20,2	33,6	23,7	37,1	27,2	40,6	30,7	44,1	34,2	15,7	5,8		
	S09									18,4	7,3	21,9	10,8	25,4	14,3	29,0	17,8	32,5	21,3	36,0	24,8	39,5	28,4	43,0	31,9	18,1	6,9		
	S10									17,3	4,9	20,8	8,4	24,3	11,9	27,8	15,5	31,3	19,0	34,9	22,5	38,4	26,0	41,9	29,5	20,4	8,0		
	S11											19,7	6,1	23,2	9,6	26,7	13,1	30,2	16,6	33,7	20,1	37,3	23,6	40,8	27,2	22,8	9,2		
	S12													22,1	7,2	25,6	10,7	29,1	14,3	32,6	17,8	36,1	21,3	39,7	24,8	25,1	10,3		
RA 75 SR	S05	22,0	9,3	30,2	17,5	38,5	25,7	46,7	34,0	54,9	42,2	63,2	50,4	71,4	58,6	79,6	66,9	87,9	75,1	96,1	83,3	104,3	91,6	112,5	99,8	20,7	8,1		
	S06					35,7	20,4	44,0	28,7	52,2	36,9	60,4	45,1	68,7	53,3	76,9	61,6	85,1	69,8	93,3	78,0	101,6	86,3	109,8	94,5	26,1	10,8		
	S07					33,0	15,1	41,2	23,4	49,4	31,6	57,7	39,8	65,9	48,1	74,1	56,3	82,4	64,5	90,6	72,7	98,8	81,0	107,1	89,2	31,5	13,5		
	S08							38,5	18,1	46,7	26,3	54,9	34,5	63,2	42,8	71,4	51,0	79,6	59,2	87,9	67,4	96,1	75,7	104,3	83,9	36,9	16,2		
	S09									44,0	21,0	52,2	29,2	60,4	37,5	68,7	45,7	76,9	53,9	85,1	62,2	93,3	70,4	101,6	78,6	42,3	18,9		
	S10									41,2	15,7	49,4	23,9	57,7	32,2	65,9	40,4	74,1	48,6	82,4	56,9	90,6	65,1	98,8	73,3	47,7	21,6		
	S11											46,7	18,6	54,9	26,9	63,2	35,1	71,4	43,3	79,6	51,6	87,9	59,8	96,1	68,0	53,1	25,2		
	S12										44,0	13,3	52,2	21,6	60,4	29,8	68,6	38,0	76,9	46,3	85,1	54,5	93,3	62,7	58,5	27,9			
RA 80 SR	S05	24,5	10,3	33,6	19,4	42,8	28,6	51,9	37,7	61,0	46,9	70,2	56,0	79,3	65,2	88,5	74,3	97,6	83,4	106,8	92,6	115,9	101,7	125,1	110,9	23,0	9,0		
	S06					39,7	22,7	48,8	31,8	58,0	41,0	67,1	50,1	76,3	59,3	85,4	68,4	94,6	77,6	103,7	86,7	112,9	95,9	122,0	105,0	29,0	12,0		
	S07					36,7	16,8	45,8	26,0	54,9	35,1	64,1	44,2	73,2	53,4	82,4	62,5	91,5	71,7	100,7	80,8	109,8	90,0	119,0	99,1	35,0	15,0		
	S08							42,7	20,1	51,9	29,2	61,0	38,4	70,2	47,5	79,3	56,7	88,5	65,8	97,6	74,9	106,8	84,1	115,9	93,2	41,0	18,0		
	S09									48,8	23,3	58,0	32,5	67,1	41,6	76,3	50,8	85,4	59,9	94,6	69,1	103,7	78,2	112,9	87,3	47,0	21,0		
	S10									45,8	17,5	54,9	26,6	64,1	35,7	73,2	44,9	82,4	54,0	91,5	63,2	100,7	72,3	109,8	81,5	53,0	24,0		
	S11											51,9	20,7	61,0	29,9	70,2	39,0	79,3	48,1	88,5	57,3	97,6	66,4	106,8	75,6	59,0	28,0		
	S12										48,8	14,8	58,0	24,0	67,1	33,1	76,3	42,3	85,4	51,4	94,6	60,6	103,7	69,7	65,0	31,0			
RA 100 SR	S05	41,4	24,0	56,2	38,8	70,9	53,5	85,7	68,3	100,4	83,0	115,2	97,8	130,0	112,6	144,7	127,3	159,5	142,1	174,2	156,8	189,0	171,6	203,8	186,4	32,9	15,5		
	S06				51,4	30,5	66,1	45,2	80,9	60,0	95,7	74,8	110,4	89,5	125,2	104,3	139,9	119,1	154,7	133,8	169,5	148,6	184,2	163,3	199,0	178,1	41,2	20,3	
	S07				46,6	22,2	61,3	37,0	76,1	51,7	90,9	66,5	105,6	81,3	120,4	96,0	135,1	110,8	149,9	125,5	164,7	140,3	179,4	155,1	194,2	169,8	49,4	25,1	
	S08					56,6	28,7	71,3	43,5	86,1	58,2	100,8	73,0	115,6	87,8	130,4	102,5	145,1	117,3	159,9	132,0	174,6	146,8	189,4	161,6	57,7	29,9		
	S09					51,8	20,4	66,5	35,2	81,3	50,0	96,0	64,7	110,8	79,5	125,6	94,2	140,3	109,0	155,1	123,8	169,8	138,5	184,6	153,3	66,0	34,6		
	S10							61,7	26,9	76,5	41,7	91,3	56,5	106,0	71,2	120,8	86,0	135,5	100,7	150,3	115,5	165,1	130,3	179,8	145,0	74,2	39,4		
	S11									71,7	33,4	86,5	48,2	101,2	62,9	116,0	77,7	130,7	92,5	145,5	107,2	160,3	122,0	175,0	136,7	82,5	44,2		
	S12								66,9	25,2	81,7	39,9	96,4	54,7	111,2	69,4	126,0	84,2	140,7	99,0	155,5	117,3	170,2	128,5	90,8	49,0			
RA 120 SR	S05	83,1	55,1	110,7	82,7	138,4	110,4	166,1	138,1	193,8	165,8	221,4	193,4	249,1	221,1	276,8	248,8	304,5	276,5	332,2	304,1	359,8	331,8	387,5	359,5	56,3	28,3		
	S06	74,7	41,1	102,4	68,8	130,1	96,5	157,7	124,1	185,4	151,8	213,1	179,5	240,8	207,2	268,4	234,8	296,1	262,5	323,8	290,2	351,5	317,9	379,1	345,5	70,2	36,6		
	S07			94,0	54,8	121,7	82,5	149,4	110,2	177,1	137,9	204,7	165,5	232,4	193,2	260,1	220,9	287,8	248,6	315,4	276,2	343,1	303,9	370,8	331,6	84,2	45,0		
	S08				85,7	40,9	113,3	68,5	141,0	96,2	168,7	123,9	196,4	151,6	224,1	179,2	251,7	206,9	279,4	234,6	307,1	262,3	334,8	290,0	362,4	317,6	98,1	53,3	
	S09					105,0	54,6	132,7	82,3	160,3	109,9	188,0	137,6	215,7	165,3	243,4	193,0	271,0	220,6	298,7	248,3	326,4	276,0	354,1	303,7	112,1	61,7		
	S10						96,6	40,6	124,3	68,3	152,0	96,0	179,7	123,7	203,1	151,3	235,0	179,0	262,7	209,0	284,4	318,0	262,0	345,7	289,7	126,0	70,0		
	S11																												

Dimension Of Tork Actuators

90°

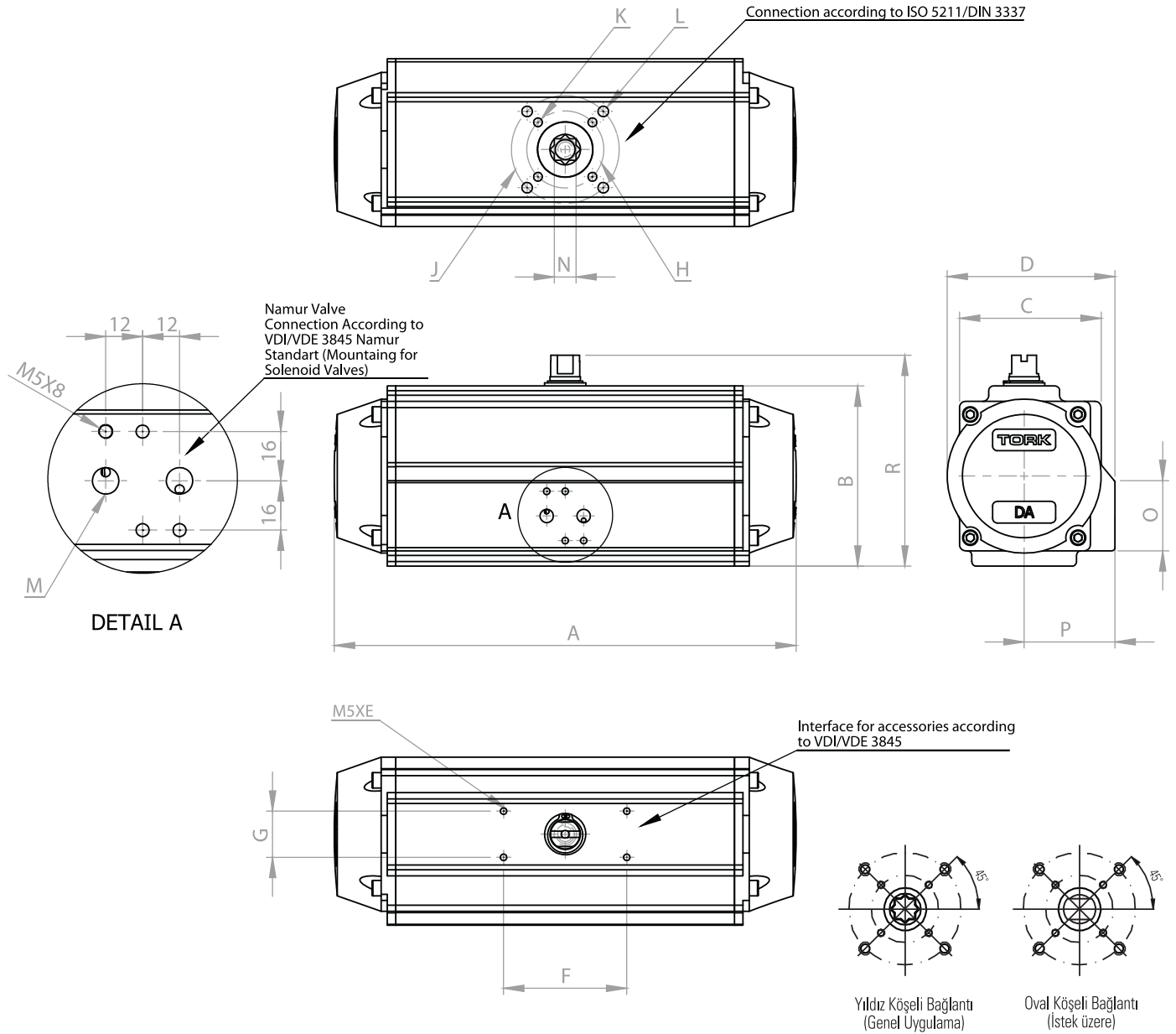


DIMENSION (mm)																	
ACTUATOR MODELS	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	ISO Flange for H
RA 32 SY	77	45	45	-	8	30	30	36	-	M5	-	1/8"	9	-	-	60	F03
RA 32 DA	98	45	45	-	8.0	50	25	36	-	M5	-	1/8"	9	-	-	76	F03
RA 40 DA/SR	137.2	70.0	52.0	70.6	8.0	80.0	30.0	36/42/50	-	M5	M6	1/8"	9/11	45.0	39.7	90.0	F03/F04
RA 52 DA/SR	172.6	85.2	62.0	82.7	8.0	80.0	30.0	42/50	70.0	M5/M6	M8	1/8"	9/11/14	47.0	47.0	105.2	F04/F05
RA 60 DA/SR	172.6	85.2	62.0	82.7	8.0	80.0	30.0	42/50	70.0	M5/M6	M8	1/8"	9/11/14	47.0	47.0	105.2	F04/F05
RA 75 DA/SR	242.0	116.9	91.8	109.2	8.0	80.0	30.0	50	70.0	M6	M8	1/8"	14	54.8	58.3	136.9	F05
RA 80 DA/SR	242.0	116.9	91.8	109.2	8.0	80.0	30.0	50	70.0	M6	M8	1/8"	14	54.8	58.3	136.9	F05
RA 100 DA/SR	282.0	130.0	95.0	121.0	8.0	80.0	30.0	70	102.0	M8	M10	1/4"	17	61.0	65.0	160.0	F07
RA 120 DA/SR	360.0	160.0	116.2	150.0	8.0	80.0	30.0	70	102.0	M8	M10	1/4"	17/22	82.0	87.2	190.0	F07
RA 143 DA	342	190	182	182	8.0	80.0	30.0	102	140	M10	M16	1/4"	22/27	91	91	210	F10
RA 160 DA	374	216	202	202	8.0	80.0	30.0	102	140	M10	M16	1/4"	22/27	101	101	236	F10
RA 200 DA	458	268	242	242	8.0	80.0	30.0	-	140/165	-	M20	1/4"	36	121	121	288	-
RA 350 DA	586.3	440	-	440	8	130	30	-	165	-	M20	1/4"	46	-	-	470	-
RA 143 SR	514	190	182	182	8.0	80.0	30.0	102	140	M10	M16	1/4"	22/27	91	91	210	F10
RA 160 SR	558	216	202	202	8.0	80.0	30.0	102	140	M10	M16	1/4"	22/27	101	101	236	F10
RA 200 SR	680	268	242	242	8.0	80.0	30.0	-	140/165	M16	M20	1/4"	36	121	121	288	-
RA 350 SR	866.5	440	-	440	8	130	30	-	165	-	M20	1/4"	46	-	-	470	-

ACTUATORS MODELS		Air Volume Opening (L)	Air Volume Closing (L)	Opening Time (Sec.)	Closing Time (Sec.)	Approximate weight (kg)
RA 32 DA	DA	0.03	0.02	0.1	0.1	0.4
	DA			0.22	0.26	0.85
RA 40 DA/SR	SR	0.09	0.16	0.26	0.34	1.02
	DA			0.27	0.33	1.70
RA 52 DA/SR	SR	0.17	0.28	0.33	0.38	1.80
	DA			0.27	0.33	1.70
RA 60 DA/SR	SR	0.17	0.28	0.33	0.38	1.80
	DA			0.39	0.48	3.80
RA 75 DA/SR	SR	0.50	0.79	0.48	0.57	4.40
	DA			0.39	0.48	3.80
RA 80 DA/SR	SR	0.50	0.79	0.48	0.57	4.40
	DA			0.52	0.63	4.90
RA 100 DA/SR	SR	0.73	1.15	0.63	0.95	6.10
	DA			0.95	1.15	9.60
RA 120 DA/SR	SR	1.61	2.45	1.15	1.47	11.40
	DA			2.40	2.20	13.00
RA 143 DA	DA	2.85	1.95	2.60	2.30	19.10
	DA			6.41	3.20	33.40
RA 160 DA	DA	6.41	5.50	5.20	4.90	125.00
	DA			25	19.40	125.00
RA 143 SR	SR	2.85	0	3.20	3.00	17.60
	SR			3.20	3.00	17.60
RA 160 SR	SR	3.25	0	3.80	3.50	26.80
	SR			6.41	4.40	45.90
RA 200 SR	SR	6.41	0	4.80	4.40	45.90
	SR			25	5.30	155

Dimension Of Tork Actuators

180°



DIMENSION (mm)

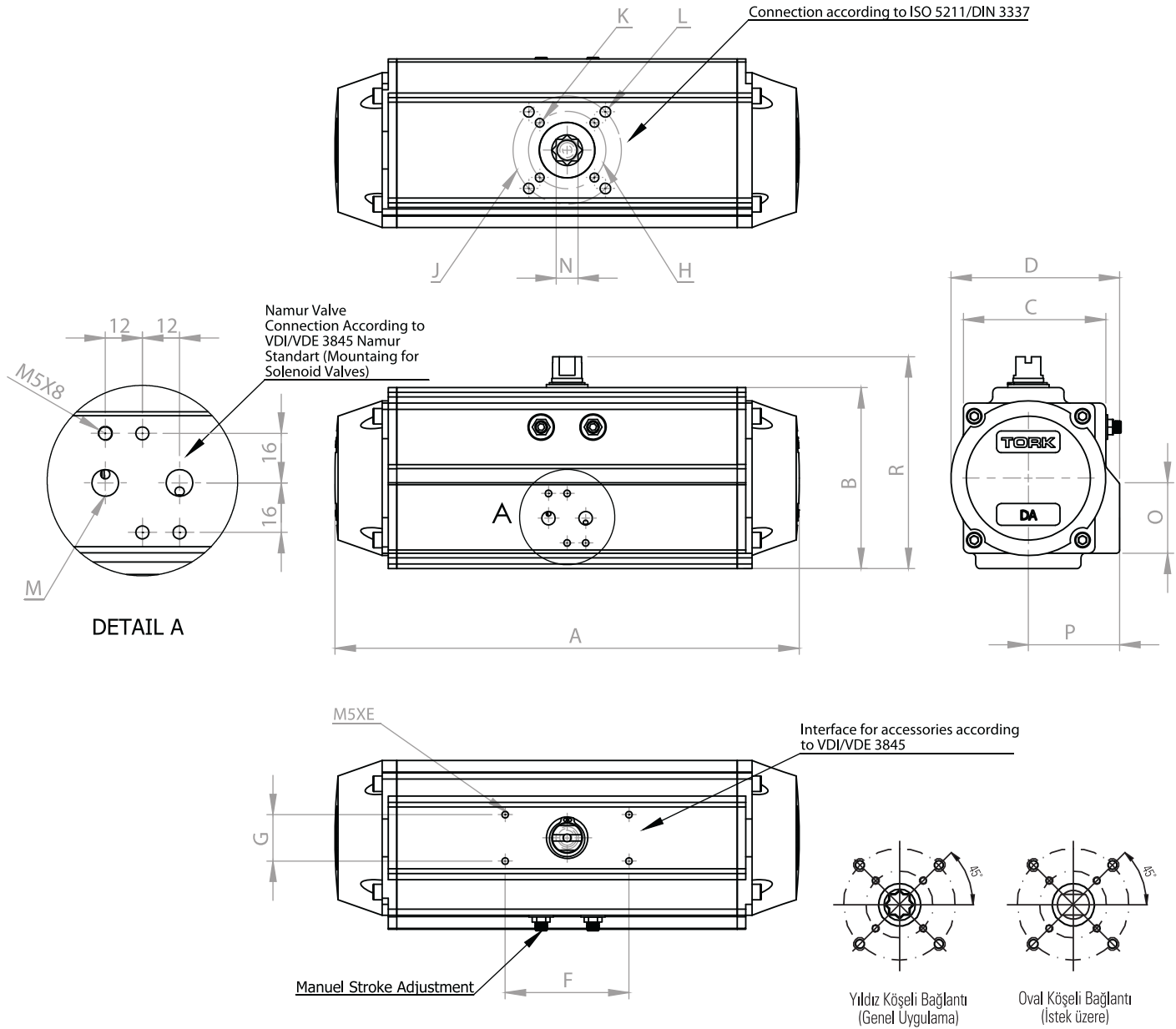
ACTUATOR MODELS	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	ISO Flans H için	ISO Flans J için
RA 40.8D	178,2	70	52	70.6	8	80	30	36/42/50	-	M5	M6	1/8"	9/11	45	40	90	F03/F04	F05
RA 60.8D	241,6	85.2	62	82.7	8	80	30	42/50	70	M5/M6	M8	1/8"	9/11/14	47	47	10	F04/F05	F07
RA 80.8D	333	117	91.8	109	8	80	30	50	70	M6	M8	1/8"	14	55	58	137	F05	F07
RA 100.8D	402	130	95	121	8	80	30	70	102	M8	M10	1/4"	17	61	65	160	F07	F10
RA 120.8D	481	160	116.2	150	8	80	30	70	102	M8	M10	1/4"	17/22	82	87.2	190	F07	F10

TORQUE RATING (N.m.)

ACTUATOR MODELS	AIR SUPPLY PRESSURE (bar)											
	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
RA 40.8D	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24
RA 60.8D	14	18	22	26	30	34	38	42	46	50	54	58
RA 80.8D	26	38	50	62	74	86	98	110	122	134	146	158
RA 100.8D	73	88	103	118	133	148	163	178	193	208	223	238
RA 120.8D	137.5	165	192.5	220	247.5	275	302.5	330	357.5	385	412.5	440

Dimension Of Tork Actuators

120°



DIMENSION (mm)

ACTUATOR MODELS	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	ISO Flans H için	ISO Flans J için
RA 40.2D	143.7	70	52	70.6	8	80	30	36/42/50	-	M5	M6	1/8"	9/11	45	40	90	F03/F04	F05
RA 60.2D	197.6	85.2	62	82.7	8	80	30	42/50	70	M5/M6	M8	1/8"	9/11/14	47	47	105	F04/F05	F07
RA 80.2D	275	117	91.8	109	8	80	30	50	70	M6	M8	1/8"	14	55	58	137	F05	F07
RA 100.2D	329	130	95	121	8	80	30	70	102	M8	M10	1/4"	17	61	65	160	F07	F10
RA 120.2D	400	160	116.2	150	8	80	30	70	102	M8	M10	1/4"	17/22	82	87.2	190	F07	F10

TORQUE RATING (N.m.)

ACTUATOR MODELS	AIR SUPPLY PRESSURE (bar)											
	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
RA 40.2D	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24
RA 60.2D	14	18	22	26	30	34	38	42	46	50	54	58
RA 80.2D	26	38	50	62	74	86	98	110	122	134	146	158
RA 100.2D	73	88	103	118	133	148	163	178	193	208	223	238
RA 120.2D	137.5	165	192.5	220	247.5	275	302.5	330	357.5	385	412.5	440



The standard rotary pneumatic actuators are operated from "0" up to certain angle. These angles are called starting and ending angles. Standard rotary actuators are available as 0-90°, 0-120°, and 0-180°. 3 position actuators are like standard actuators but they have a middle position except the starting and ending angles.

TORK 3 position actuators are produced as 90° in 40, 60, 80, 100 and 120 sizes. The middle position can be regulated between 30-60° but on customers request it can be designed as desired. As special designed, the production of 120° and 180°, 3 position rotary actuator is possible.

In most of the different filling facilities, firstly valve is switched to fully-open position in order to fill a tank or depot. In order to prevent the overflow during filling, valve is put down at the end of filling process and after controlled filling, valve is switched to fully-closed position. In order to realise the process in this way, 3 position actuator is used. For this actuator, if open command issued, valve is switched to fully open position, if half open command issued, valve is switched to 30-60°, if close command issued, valve is switched to fully closed position.

Operating of 3 Position Actuator:

In order to operate the 3 position actuator, can be benefited from the 3/2 solenoid valve.

a) Mounting: For triple 3/2 solenoid valve; the valve with number 1 should be connected to A port, the valve with number 2 to B port and the valve with number 3 to C port.

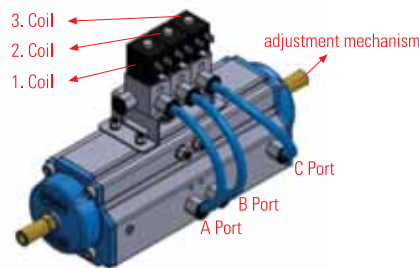
b) Operating:

1) Pressure air is given to air input port.

2) The coil with number 1 is powered. In this way, the actuator turns 90° and switches to fully open position.

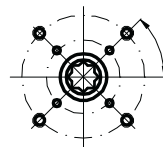
3.) The coil with number 3 is powered and the power of coil with number 1 is shut off. In this way actuator is half closed. Half closed position can be regulated between 30-60°.

4) The coil with number 2 is powered and the power of coil with number 3 is shut off. In this way actuator is fully closed.



3 pcs 1/8" - 3/2 namur solenoid valve is controlled

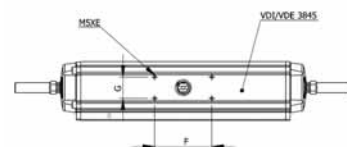
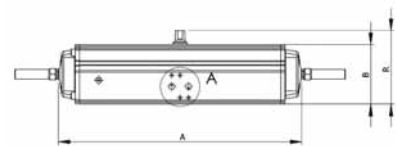
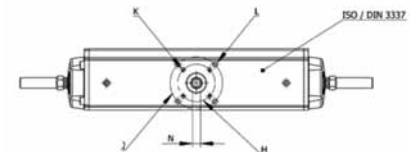
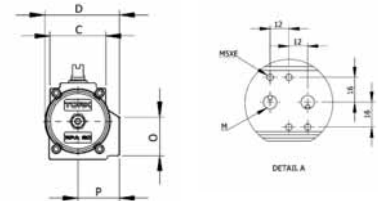
BOTTOM VIEW



Star Square
(General Application)

APPLICATION

- Generally used in filling systems
- With Ball Valves
- With Butterfly Valves



Application

3-Position Actuator Types, dimension and output torques

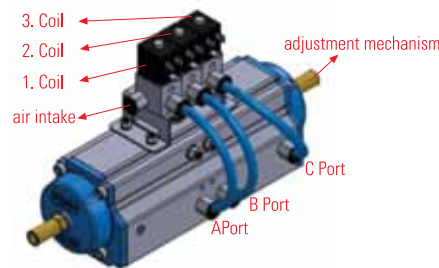
Type Order Number	P: 6 bar Tork	Dimension (mm)																ISO 5211 Flange
RA	Nm	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	
RA 40.3P	15,8	213	70	52	70,6	8	80	30	36/42/50	-	M5	M6	1/8"	9/11	45	40	90	F03 / F04 / F005
RA 60.3P	39	263	85,2	62	82,7	8	80	30	42/50	70	M5/M6	M8	1/8"	9/11/14	47	47	105	F04 / F05 / F07
RA 80.3P	94,6	346	116,9	91,8	109,2	8	80	30	50	70	M6	M8	1/8"	14	54,8	58,3	136,9	F05 / F07
RA 100.3P	168,7	40,7	130	95	121	8	80	30	70	102	M8	M10	1/4"	17	61	65	160	F07
RA 120.3P	318,6	472,2	160	116,2	150	8	80	30	70	102	M8	M10	1/4"	17/22	82	87,2	190	F07



3 position actuators such as normal actuators take a middle positions is not only the starting and ending points. As they are manufactured as a standard intermediate position 90°. On request adjustable of different degrees.

Principle of operation 3 position actuators:
Used triple 3/2 way valve for actuator to operate. 1 no valve is connected to A port, 2 no valve is connected to B port and 3 no valve is connected C port. Starting the process:

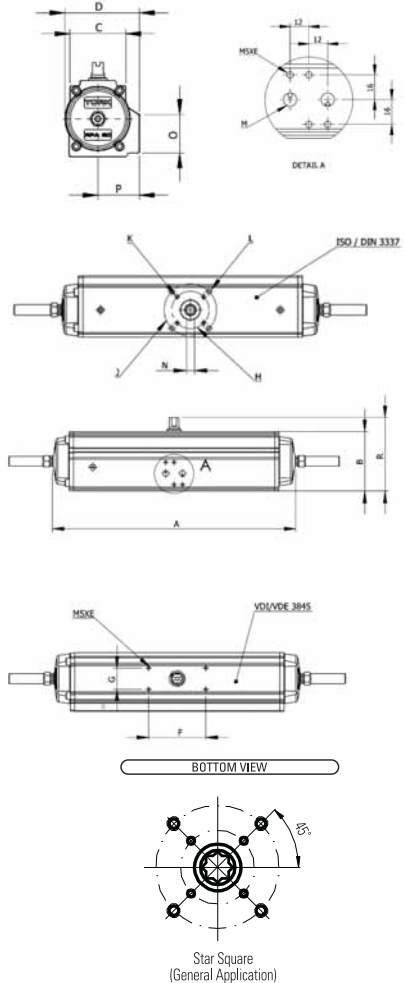
- 1- Compressed air is given the air inlet port
- 2- 1 no coil is energized. In this way actuator is rotated 180°, it means the valve opens full position.
- 3- 3 no coil is energized, 1 no coil is de-energized. So the actuator is semi-closing becomes
- 4- 2 no coil is energized, 3 no coil is the de-energized. So the actuator is fully closing



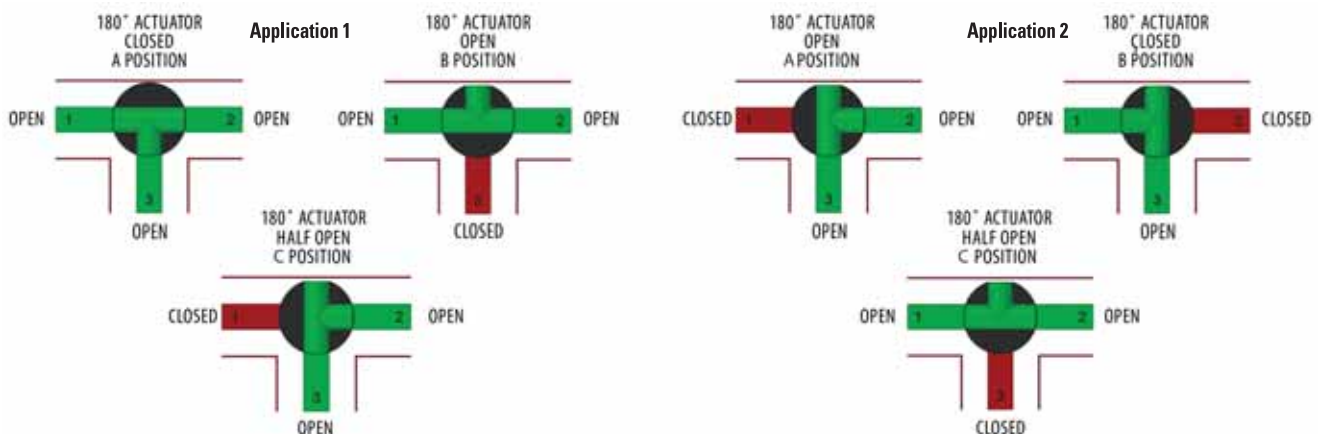
3 pcs 1/8" - 3/2 namur solenoid valve is controlled

APPLICATION

- Generally used in filling systems
- With Ball Valves



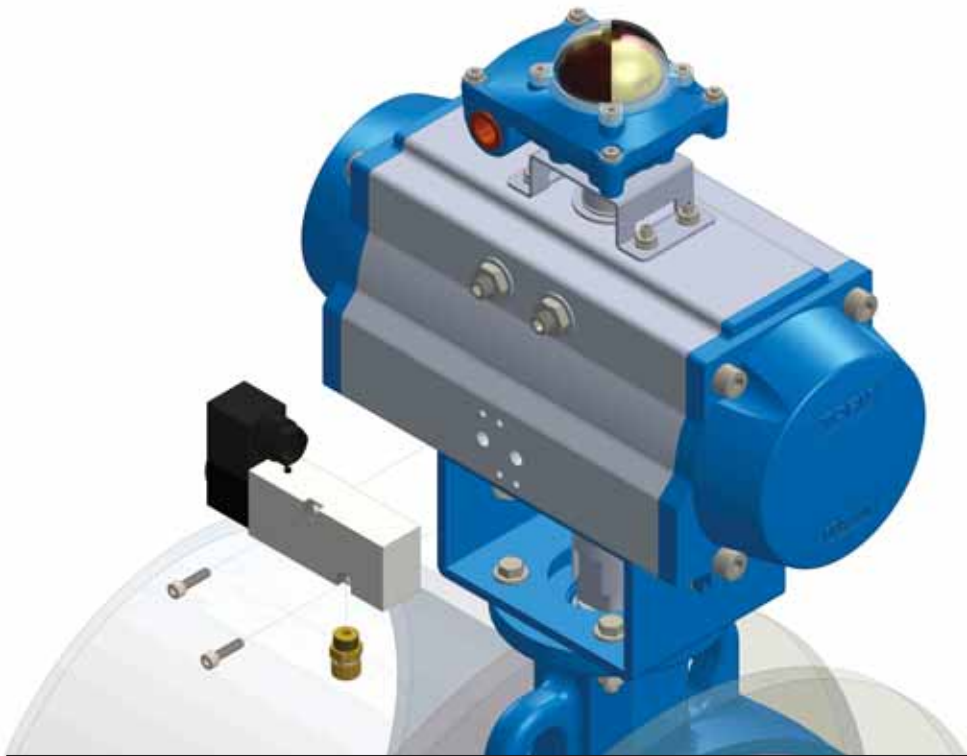
3 way ball valve applications:



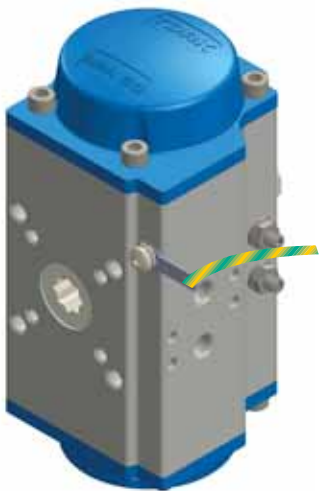
3-Position Actuator Types, dimension and output torques

Type Order Number	P: 6 bar Torque	Dimension (mm)															ISO 5211 Flange
RA	Nm	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R
RA 40.8P	15,8	263	70	52	70,6	8	80	30	36/42/50	-	M5	M6	1/8"	9/11	45	40	90
RA 60.8P	39	347	85,2	62	82,7	8	80	30	42/50	70	M5/M6	M8	1/8"	9/11/14	47	47	105
RA 80.8P	94,6	458,5	116,9	91,8	109,2	8	80	30	50	70	M6	M8	1/8"	14	54,8	58,3	136,9

RX ... DA Series / RX ...SR Series



- TORK RX series pneumatic actuators, produced properly to ATEX 94/9/EC Directive, can be used in hazardous areas and potentially explosive areas.
- These actuators have IP67 protection class.
- Atex certificated actuator torque values and dimensions are same as with standart TORK actuators.



RX... DA Double Acting Atex Certificated Pneumatic Actuators

Model No	RX 32 DA	RX 40 DA	RX 60 DA	RX 80 DA	RX 100 DA	RX 120 DA	RX 143 DA	RX 160 DA	RX 200 DA	RX 350 DA
Operating Pressure (bar)	2,5 8									
Operating Fluid	Compressed air									
Ambient Temperature (°C)	-20 °C 80 °C									
ATEX Category	II 2GD c T4									

RX... DA Spring Return Atex Certificated Pneumatic Actuators

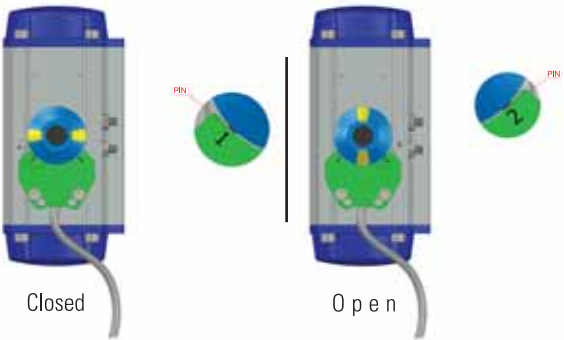
Model No	RX 40 SR	RX 60 SR	RX 80 SR	RX 100 SR	RX 120 SR	RX 143 SR	RX 160 SR	RX 200 SR	RX 350 SR
Operating Pressure (bar)	4 8								
Operating Fluid	Compressed air								
Ambient Temperature (°C)	-20 °C 80 °C								
ATEX Category	II 2GD c T4								

Proximity Actuator Sensors are suitable to control Actuators open or close position. A proximity sensor is able to detect the presence of nearby objects without any physical contact. A proximity sensor often emits an field and looks for changes in the or return signal. The object being sensed is often referred to as the proximity sensor's target. Proximity sensor feed by a voltage between 10-30V DC (+ & - connections) and the other two connection (I & II connections) are for output. The output connections show the actuator position (open or close) logically by the help of indicator pins position. The sensors operating current is 0 ... 200 mA.

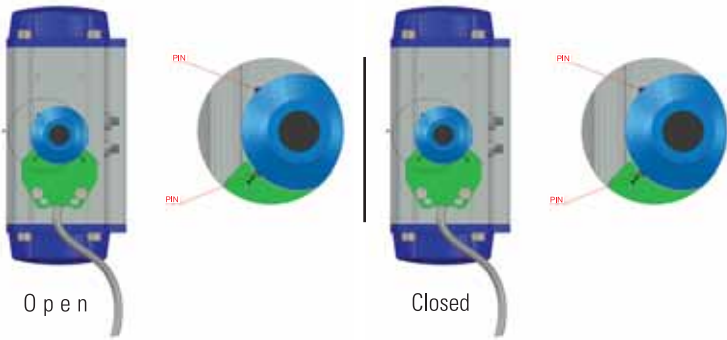
Proximity sensors can have a high reliability and long functional life because of the absence of mechanical parts and lack of physical contact between sensor and the sensed object.



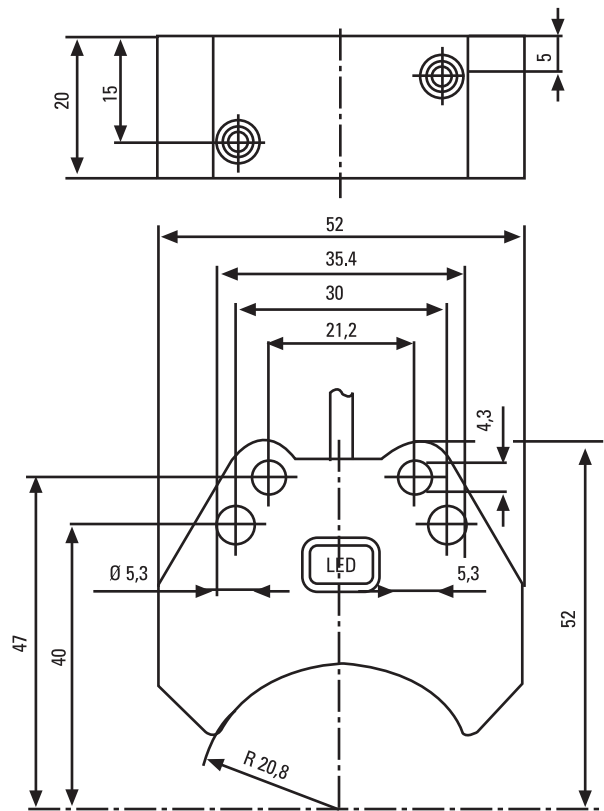
90 ° Return Pneumatic Actuator



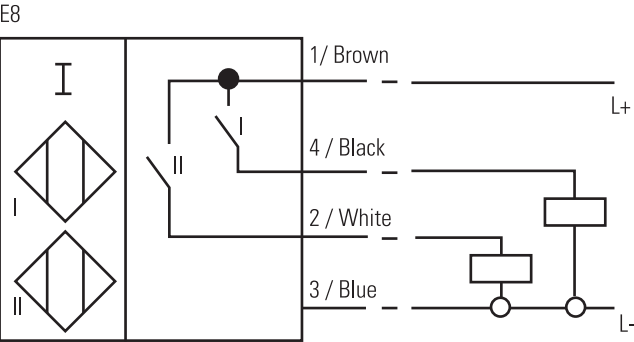
180 ° Return Pneumatic Actuator



Proximity Sensor Technical Specifications



Sensor Connections



Model No	LS 80 Series
Switching Element Function	PNP Dual NO
Rated Operating Distance	3 mm
Operating Voltage	10 ... 30 V DC
Switching Frequency	0 ... 500 Hz
Operating Current	0 ... 200 mA
Ambient Temperature	-20 °C +70 °C
Connection Type	PVC Cable, 2 m
Protection Degree	IP67



5/2 way



3/2 way

5/2 way

5/2 way (Exproof/Atex)



5/2 way



Panel mounting

APPLICATION

- Pneumatic Rotary actuator
- 5/2 way for Double Acting actuator
- 3/2 way for Single Acting actuator

Namur Selenoid Valve Type

Type Order Number	Valve Position, Way, Namur standard	Standard Coil (IP 65)	On request Ex-proof Coil (EExmd II T4)	Coil Voltage	Manuel Lock	Weight (g)
TORK-NM52.W1S	1/4" - 5/2 Single coil	C20		220 V AC	Standard	0.25
TORK-NM52.W2S	1/4" - 5/2 Double coil			110 V AC		
TORK-NM32.W1S	1/4" - 3/2 Single coil			24 V AC		
TORK-ExNM52.W1S	1/4" - 5/2 Single coil		C21	12 V AC		0.3
TORK-ExNM52.W2S	1/4" - 5/2 Double coil			24 V DC		
TORK-ExNM32.W1S	1/4" - 3/2 Single coil			12 V DC		0.25

Specify coil type and voltage with order Protection class: IP 65 (Standard), ATEX Ex: EExmd II T4 (On request).
For other types solenoid valves; contact us.

MOUNTING KITS

Mounting kits are used to connect actuators with valves
(if valve isn't according to ISO 5211 standard, it needs a mounting kit.)

- 1- Brackets: Cast aluminium body epoxy coated
- 2- Brackets: Steel / stainless steel body
- 3- Coupling: Steel / stainless steel body



Parts of mounting kits

FILTER REGULATOR

Filter + regulator + lubricator

Type	Features	Size
FR+LM142008RPESA	Automatic drain	1/4"
FR+CM122008RPESA	Automatic drain	1/2"
TORK-FR100	Automatic drain	1/4"

Type	Features	Size
MRR1812R	Micro regulator	1/8"
MRR1412R	Micro regulator	1/4"
RG93	High accuracy regulator	1/4"





LS10

- On-off valve position indicator
- Compact, small body
- Protection class: IP 67 waterproof
- Small body, Aluminium die cast
- Bolts on visual position indicator
- Body is composed of Aluminium die cast and powder coating

- Dual cable entries: NPT
- Easy mounting bracket Namur standard, stainless steel shaft and bracket
- LS30.2M and LS20 exproof



LS20



LSV70

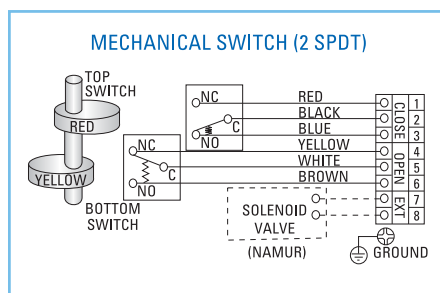


LS30



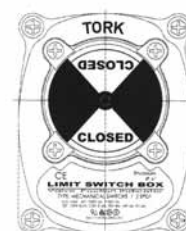
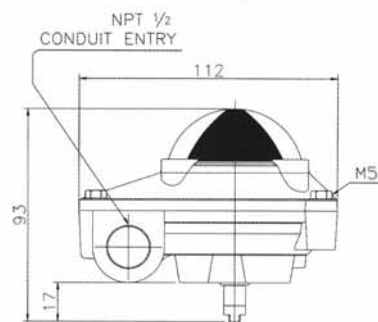
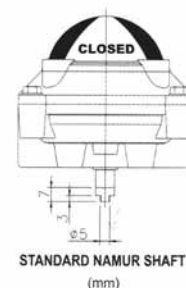
LS80

Application
(Proximity Limit Switch Box)



APPLICATION

- Pneumatic rotary actuator
- Actuated ball valves and butterfly valves
- Dampers
- Position of actuated valve is shown by switch box indicator



LS10

Application
(LS10, limit switch box)

Limit Switch Box Types for Order

Type Order N.	Features	Position Indicator	Bracket	Body	Weight (kg)
LS10.2M	2 pcs. mechanical limit switch 250 V AC / 3A, IP 65	Closed : Red Open: Yellow	Stainless Steel Namur Standard	Aluminium die cast -20 ÷ 80°C	1
LS10.2P	2 pcs. proximity switches, 2 pcs. cable entires holes				1
LS20.2M	2 pcs. SPDT mechanical limit switch, Protection Class: IP 67, Ex-proof, Ex d IIC T6				1.2
LS20.2P	2 pcs. SPDT proximity switches, Protection Class: IP 67 , Ex-proof, Ex d IIC T6				1.2
LS30.2M	2 pcs. mechanical limit switch 250 V AC / 3A, IP 67 E EXd IIC T6, E EXia IIC T6, IP 67, IP 68 (Option)				1.75
LS30.2P	2 pcs. proximity switches, 2 pcs. cable entires holes E EXd IIC T6, E EXia IIC T6, IP 67, IP 68 (Option)				1.75
LS80.2P	Magnetic Switch box, 2 pcs. proximity switches, 1 pcs. cable entires holes				
LS70.2M	with pneumatic namur valve switch box, IP 67, 2 pcs. mechanical limit switch E EXd IIB T6				

M: Mechanical limit switch P: Proximity limit switch



> Input signal : 4-20mA

TORK-EP.R
Electro Pneumatic
Rotary Type Positioner

- For Rotary Actuator, easy maintenance
- Simple SPAN and Zero adjustments, precise calibration
- Simple conversion to direct acting, reverse acting
- Air Consumption: 5 LPM (sup. 1.4 kgf/cm³)
- Linearity : With in $\pm 1.5\%$ F.S (Full scale)
- Sensitivity : With in $\pm 0.5\%$ F.S (Full scale)
- Repeatability : With in $\pm 0.5\%$ F.S (Full scale)
- Body Material: Aluminium Die cast corrosion-resistant coating
- Protection Class : IP 66 weatherproof
- Options: Flame proof Exmd II B T5, ATEX Exmd II C T5
- Intrinsic safety (Exia II B T6)
- Position Feedback (optional) : Position transmitter 4-20 mA output signal (only for weatherproof) Two SPDT Limit switches
- Certified for EMC (Kn046 / E04) in conformance with EN 6100 6.2.2 by RNTUV

> Input signal: 3 - 15 psi (0.2 - 1.0 bar)

TORK-PP.R
Pneumatic Pneumatic
Rotary Type Positioner



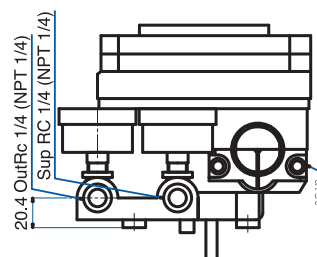
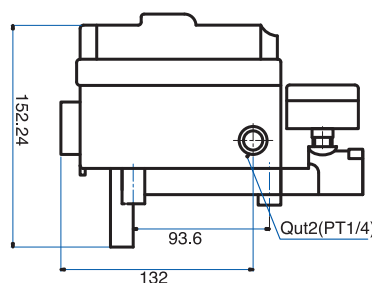
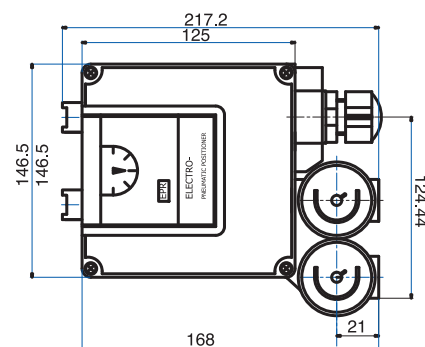
TORK-SS2R Smart Positioner
HART Communication



TORK-EPR Electromechanic
Positioner (Rotary)
TORK-EPL Electromechanic
Positioner (Lineer)

APPLICATION

- Positioners are used on pneumatic actuated valves for proportional control



Electro-Pneumatic Positioner

Type Order Number	Input Signal and Air Supply	Protection Class	Bracket	Body	Air Consumption	Weight
TORK-EP / SS	mA / bar	I/P 66	Namur		LPM	(kg)
TORK-EP.R Rotary	4-20 mA / max. 7 bar	I/P 66	80x30	Aluminium die cast	5LPM (1.4 Kg / cm ²)	2.9
TORK-EP.L Lineer	4-20 mA / max. 7 bar	I/P 66	80x30	Aluminium die cast	5LPM (1.4 Kg / cm ²)	2.9
TORK-SS.2R Rotary	4-20 mA / max. 7 bar	I/P 66	80x30	Aluminium die cast	2LPM (1.4 Kg / cm ²)	2.5
TORK-SS.2L Lineer	4-20 mA / max. 7 bar	I/P 66	80x30	Aluminium die cast	2LPM (1.4 Kg / cm ²)	2.5

Pneumatic -Pneumatic Positioner

Type Order Number	Input Signal and Air Supply	Repeatability	Bracket	Body	Air Consumption	Weight
TORK-PP	mA / bar	%F.S	Namur		LPM	(kg)
TORK-PP.R Rotary	3-15 psi / max. 7 bar	With in $\pm 05\%$ F.S	80x30	Aluminium die cast	5LPM (1.4 Kg / cm ²)	2.1
TORK-PP.L Lineer	3-15 psi / max. 7 bar	With in $\pm 05\%$ F.S	80x30	Aluminium die cast	5LPM (1.4 Kg / cm ²)	2.1



APPLICATION

TORK-MOR Series gear operators offer a simple and reliable method of local manual operation, as emergency control on air failure or as a local control in the event of controller malfunction. As such, when the hand wheel is clutched in, the valve is under local manual control and remote control is "locked out".

Type Order Number	Torque Value	Body	Ambient Temp.	Weight
TORK-MOR	Nm		°C	(kg)
TORK-MOR 100	100	Cast iron	-20/80	1.5
TORK-MOR 450	450			4.4
TORK-MOR 750	750			10.2
TORK-MOR 1500	1500			36
TORK-MOR 3500	3500			38

ELECTRO PNEUMATIC TRANSDUCERS

- Small size, light weight
- Low air consumption
- Mounts at any angle
- Low supply pressure sensitivity
- Low cost
- CE approval

The type TORK-1000 transducer is a electro-pneumatic device that reduces a supply pressure to a regulated output pressure directly proportional to an electrical input signal.

TORK-100 accepts a wide range of supply pressure valve ranging from a minimum of 3 psi (0.2 bar) above the maximum output up to 100 psi (6.9 bar)

Transducer I/P and E/P

Type Order Number	Input signal	Output Signal	Air Supply	Linearity	Supply Pressure Sensitivity	Hysteresis	Air Consumption	Weight
TORK-1000	mA / V	psi	bar				kgf/cm ³	(kg)
TORK-1000 I/P	4-20 mA	3-15 psi	7	<1.0 %	± 0.15% of Span per 1.5 bar	<1% of span	<1% of span	0.75
TORK-1000 E/P	0-5V							0.75



4 - 20

POSITION TRANSMITTER

- Power supply range : 12 V ... 30 V DC
- Output Signal : 4-20 mA
- Span : Adjustable from 10° ... 100° of angular rotation
- Null : 4 mA position may be set at any angular rotation
- Repeatability : ± 0.25 % F.S [(Full scale)]
- Linearity : ± 1.0 % F.S
- Hysteresis : 1.0 % F.S
- Explosion proof : Exd II B T6 (on request)

- Protection : IP 66 (Standard)
- Operating temperature : -20°C ... 70°C
- Conduit connection : 2.G 1/2 or NPT 1/2
- Measuring position feedback
- Note that the input signal should be provided for measurement of output signal.
- 1- With a mA loop calibrator select measurement mode and connect + and -
- 2- With a multimeter tester (mA)

APPLICATION

TORK-PT.R rotary types are the 2-wire devices that generate 4-20 mA output signal with position feedback from the control valve.

Type Order Number	Output Signal	Power Supply	Repeatability	Body	Protection	Weight
TORK-PT.R	mA		F.S.			(kg)
TORK-PT.R Rotary	4-20 mA	12 ... 30 V DC	0.25% F.S.	Aluminium die cast	IP 66	2.3



Actuated Ball Valves, 2/2 Way, AISI 316 Body

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, Namur solenoid valve, manual override
Type No : PAV 903 DA, PAV 903 SR,
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 Stainless steel, 2/2 way, screwed connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : 1/2" ... 2"



PAV 903 DA (Double Acting)
PAV 903 SR (Single Acting)

Actuated Ball Valves, 3/2 Way, AISI 316 Body



PAV 904 DA (Double Acting)
PAV 904 SR (Single Acting)

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, Namur solenoid valve, manual override
Type No : PAV 904 DA, PAV 904 SR
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 Stainless steel, 3/2 way, screwed connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : 1/2" ... 2"

Actuated Ball Valves, 2/2 Way, Brass Body

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, namur solenoid valve, manual override
Type No : PAV 901 DA, PAV 901 SR, 2/2 way
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: Brass, 2/2 way, screwed connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...130°C
Size : 1/2" ... 2"



PAV 901 DA (Double Acting)
PAV 901 SR (Single Acting)

Actuated Ball Valves, 3/2 Way, Brass Body



PAV 902 DA (Double Acting)
PAV 902 SR (Single Acting)

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, namur solenoid valve, manual override
Type No : PAV 902 DA, PAV 902 SR, 3/2 way
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: Brass, 3/2 way, screwed connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...130°C
Size : 1/2" ... 2"

Actuated Ball Valves, 2/2 and 3/2 Way, Flanged Connection, Stainless Steel

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, namur solenoid valve, manual override
Type No : PAV 905 DA, PAV 905 SR
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 and Cast iron, 2/2 or 3/2 way, flanged connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : NW15 ... NW200 Flange



PAV 905 DA / PAV 905 SR

Actuated Naturalgas Ball Valves, 2/2 Way, Flanged Connection



PAV 912 DA (Double Acting)
PAV 912 SR (Single Acting)

Application : Liquid, gas, air, water, hot water, steam
 Natural gas, LPG Gas
On Request : Limit switch box, positioner, namur solenoid valve, manual override
Type No : PAV 912 DA, PAV 912 SR
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 and Cast iron, 2/2 or 3/2 way, flanged connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : NW15 ... NW200 Flange

Actuated Naturalgas Plug Valves, 2/2 Way, Flanged Connection

Application : Liquid, gas, air, water, hot water, steam
 Natural gas, LPG Gas
On Request : Limit switch box, positioner, namur solenoid valve, manual override
Type No : PAV 915 DA, PAV 915 SR
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 and Cast iron, 2/2 or 3/2 way, flanged connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : NW15 ... NW200 Flange



PAV 915 DA (Double Acting)

Actuated Ball Valves, 2/2 Way, Monoblock



PAV 909 DA (Double Acting)
PAV 909 SR (Single Acting)

Application : Liquid, gas, air, water, hot water, steam
 Natural gas, LPG Gas
On Request : Limit switch box, positioner, Namur solenoid valve, manual override
Type No : PAV 909 DA, PAV 909 SR
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: AISI 316 and Cast iron, 2/2 way wafer type, flanged connection and ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : NW15 ... NW100 Flange

Actuated Ball Valves, , 2/2 Way, Monoblock, Cast Iron Body



PAV 910 DA (Double Acting)
PAV 910 SR (Single Acting)

- Application** : Liquid, gas, air, water, hot water, steam
Natural gas, LPG Gas
- On Request** : Limit switch box, positioner, Namur solenoid valve, manual override
- Type No** : PAV 910 DA, PAV 910 SR
- Actuator** : RA...DA/SR rotary pneumatic actuator
Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Ball Valve** : Body: Cast iron, 2/2 way
wafer type, flanged connection
and ISO5211 standard actuator
- Pressure** : PN40, PN16
- Temperature** : -30..180°C
- Size** : NW15 ... NW100 Flange

Actuated Ball Valve, 2/2 and 3/2 Way, PVC Body

- Application** : Liquids, acid, water
- On Request** : Limit switch box, positioner, Namur solenoid valve, manual override
- Type No** : PAV 913 DA, PAV 913 SR
- Actuator** : RA...DA/SR rotary pneumatic actuator
Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Ball Valve** : Body: PP, 2/2 or 3/2 way
screwed or welding connection
and ISO5211 standard actuator
- Pressure** : PN40, PN16
- Temperature** : -10..80°C
- Size** : NW15 ... NW100



PAV 913 SR / PAV 913 DA

Actuated Ball Valve, Flanged / Screwed Connection 2/2 Way, Cast Iron Body



PAV 907F.15 DA
PAV 907F.15 SR
2/2 Way

- Application** : Liquid, gas, air, water, hot water, steam
Natural gas, LPG Gas
- On Request** : Limit switch box, positioner, Namur solenoid valve, manual override
- Type No** : **Flanged** PAV 907F DA, PAV 907F SR,
Screwed PAV 907S DA, PAV 907S SR,
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Ball Valve** : Body: AISI 316 and Cast iron,
2/2 way, screwed / flanged connection
and ISO5211 standard actuator
- Pressure** : PN40, PN16
- Temperature** : -30..180°C
- Size** : NW15 ... NW200 Flange

Actuated Ball Valve, Flanged / Screwed Connection 3/2 Way, Cast Iron Body

- Application** : Liquid, gas, air, water, hot water, steam
Natural gas, LPG Gas
- On Request** : Limit switch box, positioner, Namur solenoid valve, manual override
- Type No** : **Flanged** PAV 908F DA, PAV 908F SR
Screwed PAV 908S DA, PAV 908S SR
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Ball Valve** : Body: AISI 316 and Cast iron, 2/2 or
3/2 way, screwed / flanged connection
and ISO5211 standard actuator
- Pressure** : PN40, PN16
- Temperature** : -30..180°C
- Size** : NW15 ... NW200 Flange



PAV 908F.15 DA
PAV 908F.15 SR
3/2 Way

Actuated Valves, 2/2 Way for Food Industry

Application	: Liquid, Food industry, Hygienic Natural gas, LPG Gas
On Request	: Limit switch box, positioner, namur solenoid valve, manual override
Type No	: PAV 813 DA, PAV 813 SR
Actuator	: RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air	: 4-6 bar. Stroke adjustment
Ball Valve	: Body: AISI 316 and Cast iron, 2/2 way, and ISO5211 standard actuator
Pressure	: PN16 / PN10
Temperature	: -30...130°C
Size	: NW15 ... NW100



PAV 813 DA (Double acting)
PAV 813 SR (Single acting)

Actuated Butterfly Valves, Wafer Types



PAV 800 DA Serie
PAV 800 SR Serie

Application	: Liquid, gas, air, water, hot water, steam Natural gas, LPG Gas
On Request	: Limit switch box, positioner, Namur solenoid valve, manual override
Type No	: PAV 800 DA, PAV 800 SR,
Actuator	: RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air	: 4-6 bar. Stroke adjustment
Butterfly Valve	: Body: GG25 Epoxy or Rilsan coated, Disc: AISI 316 Butterfly type KVV121, ISO5211 standard actuator
Pressure	: PN10, PN16
Temperature	: -30...130°C, Seal: EPDM
Size	: NW50 ... NW600

Actuated Butterfly Valves, Lug Types

Application	: Liquid, gas, air, water, hot water, steam Natural gas, LPG Gas
On Request	: Limit switch box, positioner, Namur solenoid valve, manual override
Type No	: PAV 801 DA, PAV 801 SR
Actuator	: RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air	: 4-6 bar. Stroke adjustment
Butterfly Valve	: Body: GG25 Epoxy or Rilsan coated, Disc: AISI 316 Butterfly type KVL 141, ISO5211 standard actuator
Pressure	: PN10, PN16
Temperature	: -30...130°C, Seal: EPDM
Size	: NW50 ... NW600



PAV 801 DA Serie
PAV 801 SR Serie

Actuated Butterfly Valves, Wafer Types



PAV 802 DA Serie

Application	: Liquid, gas, air, water, hot water, steam Natural gas, LPG Gas
On Request	: Limit switch box, positioner, Namur solenoid valve, manual override
Type No	: PAV 802 DA, PAV 802 SR,
Actuator	: RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air	: 4-6 bar. Stroke adjustment
Butterfly Valve	: Body: GG25 Epoxy or Rilsan coated, Disc: AISI 316 Butterfly type KVV 1140 and, ISO5211 standard actuator
Pressure	: PN10, PN16
Temperature	: -30...130°C, Seal: EPDM or Viton or PTFE or Silicon
Size	: NW25 ... NW800 Flange

Actuated Butterfly Valves, Lug Types



PAV 803 DA Serie

- Application** : Liquid, gas, air, water, hot water, steam
Natural gas, LPG Gas
- On Request** : Limit switch box, positioner, Namur
solenoid valve, manual override
- Type No** : PAV 803 DA, PAV 803 SR,
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Butterfly Valve** : Body: GG25 Epoxy or Rilsan coated, Disc: AISI 316
Butterfly type KVL 1120 and,
ISO5211 standard actuator
- Pressure** : PN10, PN16
- Temperature** : -30...130°C, Seal: EPDM or Viton or PTFE or Silicon
- Size** : NW25 ... NW800 Flange

Actuated Butterfly Valves, Lug Types

- Application** : Liquids
- On Request** : Limit switch box, positioner, Namur
solenoid valve, manual override
- Type No** : PAV 804 DA, PAV 804 SR
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Butterfly Valve** : Body: GG25 Epoxy / PP, Disc: AISI 316
ISO5211 standard actuator
- Pressure** : PN10, PN16
- Temperature** : -30..130°C, Seal: EPDM
- Size** : NW25 ... NW800 Flange



PVC Body butterfly valve



PAV 804 DA

Actuated Butterfly Valves, Wafer / Lug Types - Teflon Seated



PAV 805 DA Serie (Double)

- Application** : Liquid, gas, air, water, hot water, steam
- On Request** : Limit switch box, positioner, Namur
solenoid valve, manual override
- Type No** : PAV 805 DA, PAV 805 SR,
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Butterfly Valve** : Body: GG25 Rilsan coated or AISI316, Disc: AISI 316
ISO5211 standard actuator
- Pressure** : PN10, PN16
- Temperature** : -30..180°C, Seal: PTFE
- Size** : NW50 ... NW300 Flange

Actuated Butterfly Valves, Stainless Steel, Wafer / Lug Types - Teflon Seated

- Application** : Liquid, gas, air, water, hot water, steam
- On Request** : Limit switch box, positioner, Namur
solenoid valve, manual override
- Type No** : PAV 806 DA, PAV 806 SR
- Actuator** : RA...DA/SR rotary pneumatic actuator Double / Single
- Supply Air** : 4-6 bar. Stroke adjustment
- Butterfly Valve** : Body: GG25 Rilsan coated or AISI316, Disc: AISI 316
ISO5211 standard actuator
- Pressure** : PN10, PN16
- Temperature** : -30..180°C, Seal: PTFE
- Size** : NW50 ... NW300 Flange



PAV 806 DA Serie (Double)

Actuated Ball Valve, 2/2 ve 3/2 Way, PVC Body



RAV 812 DA
RAV 812 SR

Application : Liquids, acid, water
On Request : Limit switch box, positioner, Namur solenoid valve, manual override
Type No : PAV 812 DA, PAV 812 SR
Actuator : RA...DA/SR rotary pneumatic actuator
Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Ball Valve : Body: PP, 2/2 or 3/2 way
screwed or welding connection
and ISO5211 standard actuator
Pressure : PN6, PN10
Temperature : -10...80°C
Size : NW15 ... NW100

Actuated Butterfly Valves, Wafer Flanged Types

Application : Liquid, gas, air, water, hot water, steam
On Request : Limit switch box, positioner, Namur solenoid valve, manual override
Type No : PAV 810 DA, PAV 810 SR,
Actuator : RA...DA/SR rotary pneumatic actuator Double / Single
Supply Air : 4-6 bar. Stroke adjustment
Butterfly Valve : Body: GG25 Epoxy or Rilsan coated, Disc: AISI 316
Butterfly type KVL 1150, KVL 1160, KVL 1170
ISO5211 standard actuator
Pressure : PN10, PN16
Temperature : -30...130°C, Seal: EPDM or Viton or PTFE or Silicon
Size : NW350 ... NW900 Flange



PAV 810 DA (Double Acting)

Ball Valve, Stainless Steel, Screwed Connection; Manual and ISO5211 Flanged type



TORK-KV 903



TORK-KV 903K



TORK-KV 904



TORK-KV 904 K

Bal Valve : Body: AISI 316 Stainless steel, 2/2 or 3/2way,
screwed connection, ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...180°C
Size : 1/2" 2" screwed
Control : Manual override
ISO5211 Flanged actuator control

TORK-KV903, 2/2 way screwed connection, ISO5211 Flanged
TORK-KV903K, 2/2 way screwed connection, manual override
TORK-KV904, 3/2 way screwed connection, ISO5211 Flanged
TORK-KV904K, 3/2 way screwed connection, manual override

Ball Valve, Brass Body, Screwed Connection; Manual and ISO5211 Flanged type

Bal Valve : Body: Brass, 2/2 or 3/2 way,
screwed connection, ISO5211 standard actuator
Pressure : PN40, PN16
Temperature : -30...130°C
Size : 1/2" 2" screwed
Control : Manual override
ISO5211 Flanged actuator control

TORK-KV901, 2/2 way screwed connection, ISO5211 Flanged
TORK-KV901K, 2/2 way screwed connection, manual override
TORK-KV902, 3/2 way screwed connection, ISO5211 Flanged
TORK-KV902K, 3/2 way screwed connection, manual override



TORK-KV 901 Serie



TORK-KV 901K Serie



TORK-KV 902 Serie



TORK-KV 902K Serie

Butterfly Valve Wafer Type

Butterfly Valve	: Body: GG25 Epoxy or rilsan coated stainless steel ve ISO5211 standard actuator flange connection or interconnection
Body Type	: Wafer type
Disc	: Stainless steel, on request:GG25 epoxy coated,
Rubber diaphragm	: EPDM (-30...130°C), on request: Viton, PTFE, Silicon
Pressure	: PN6, on request:PN10,PN16
Temperature	: -30...130°C
Size	: NW25"NW600"
Seal Option	: EPDM TORK-KV.W121 serie wafer type EPDM,PTFE,VITON,NITRIL TORK-KV.W1120 serie wafer type



Butterfly Valve Lug Type

	Butterfly Valve	: Body: GG25 Epoxy or rilsan coated stainless steel ve ISO5211 standard actuator flange connection or interconnection
	Body Type	: LUG type
	Disc	: Stainless steel, on request:GG25 epoxy coated,
	Rubber diaphragm	: EPDM (-30...130°C), on request: Viton, PTFE, Silicon
	Pressure	: PN6, on request:PN10,PN16
	Temperature	: -30...130°C
	Size	: NW25"NW600"
	Seal Option	: EPDM TORK-KV.L141 serie lug type EPDM,PTFE,VITON,NITRIL TORK-KV.L 1150 serie lug type

Ball Valve, Monoblock, Cast Iron and Stainless Steel Body

TORK-KV 909 Stainless Monoblock Ball Valve
TORK-KV 910 Cast Iron Monoblock Ball Valve
TORK-KV 903F Stainless Steel Flanged Monoblock Ball Valve
TORK-KV 910F Flanged Monoblock Ball Valve

Body	: Cast iron / Stainless steel
Sphere	: Stainless steel
Pressure	: PN16, PN40, PN63
Way	: 2/2, 3/2
On request	: Steam jacketed type
Size	: NW15 ... NW100
Temperature	: -20 °C ... 180°C



PVC Ball Valve and Hygiene Valve



TORK-PKV 913 PVC Ball Valve
TORK-HSV Stainless Steel Hygiene Valve
TORK-DKV 812 Diaphragm Valve
TORK-PKV 812 PVC Butterfly Valve

Size	: NW15 ... NW100
Temperature	: -20 °C...80°C
Pressure	: PN10, PN 16
Application	: Liquids, aggressive fluid types, food industry, particle fluid types

Why hydraulic actuator?

- > Small size
- > High torque value



Model SA-H

APPLICATION

- Ball valves
- Butterfly valves
- Dampers
- Other hydraulic systems

Working pressure : 100 bar/210 bar
 Working temperature : -10°C ... +75°C
 Valve mounting standard : DIN ISO 5211
 Turned angle : 90° ±1°

On request : • Mechanic limit switch
 • Proximity limit switch
 • Spring return pneumatic actuator

Hydraulic cctuators and output torque

Actuator Type	100 bar control pressure, output torque value (Nm)	210 bar control pressure, output torque value (Nm)
SA - H 30	30 Nm	63 Nm
SA - H 42	90 Nm	200 Nm
SA - H 55	210 Nm	441 Nm
SA - H 63	300 Nm	630 Nm
SA - H 80	700 Nm	1512 Nm
SA - H 100	1450 Nm	3087 Nm
SA - H 125	2100 Nm	4620 Nm
SA - H 140	3000 Nm	6300 Nm



Application

Butterfly valve recommended at 100 bar for hydraulic actuators

Valve size NW	25 32 40	50 65 100 125	150 200	250	300 350 400	500	600
Actuator type	SA-H 30	SA-H 42	SA-H 55	SA-H 63	SA-H 80	SA-H 100	SA-H 125

Butterfly valve recommended at 220 bar for hydraulic actuators

Valve size NW	25, 32, 40, 50, 65, 80	100, 125, 150, 200	250	300	350, 400, 500	600
Actuator type	SA-H 30	SA-H 42	SA-H 55	SA-H 63	SA-H 80	SA-H 100

Contact us for different applications.





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