

# ACTUATOR

## AL 79

### Description

AL 79 is a pneumatic actuator for 90° operation of valves. AL 79 is available as double acting (DA) or single acting (SR). AL 79 is a rack and pinion actuator with linear transfer and come in many different sizes for optimal sizing for each valve.

**Applications:** Operation of ball valves and butterfly valves. For simple to highly demanding applications.

**Type:** AL 79 045U-DA – AL 79 801U-DA double acting  
AL 79 045U-SR – AL 79 801U-SR single acting

**Marking:** The actuator is marked AL 79.

**Connection:** Valve: ISO 521 I/DIN 3337  
Accessories: VDI/VDE 3845, NAMUR  
Solenoid valve: NAMUR VDI/VDE 3845

**Operation:** 0° - 90° (±5° adjustment in closed and open position)

**Pressure:** Max 8 bar

**Ambient temp:** -40° - +80°C

**Operating media:** Instrument air, inert gases.

### Approvals

- ATEX 94/9/CE
- SIL

### Optional

- High/low temperature
- Hand operation
- Extra surface protection
- Lockable version
- Shorter operating times
- Other pressure
- Other coating
- Stainless steel actuator
- 120° - 135° - 180° operating angle
- Size 1001

### Air consumption / Operating times

Free air at 6 bar air pressure

AL 79	Air consumption free air (NI)		Operating time seconds*
	Anti-clockwise (opens)	Clockwise (closes)	
045U	0,4	0,7	0,2
051U	0,6	1,1	0,25
101U	1,1	1,8	0,3
201U	2,2	3,4	0,4
251U	3,6	5,5	0,5
301U	5,0	7,8	0,7
351U	8,3	12,6	0,9
401U	10,8	16,4	1,2
451U	16,9	26,5	1,5
501U	22,0	34,4	1,8
551U	29,8	48,2	2,4
601U	41,6	66,2	3,5
651U	70,0	106,4	4,1
701U	101,5	149,7	4,5
751U	140,0	231,0	6,0
801U	175,0	280,0	7,0

\*Approx times without load



### Material specification

Part	Material
Cylinder	Extruded hard anodized aluminium
End plate	Aluminium epoxy coated
Pistons	Aluminium anodized
Drive shaft	ENP steel
Piston sealing	M-NBR
Corrosion protection	Anodized

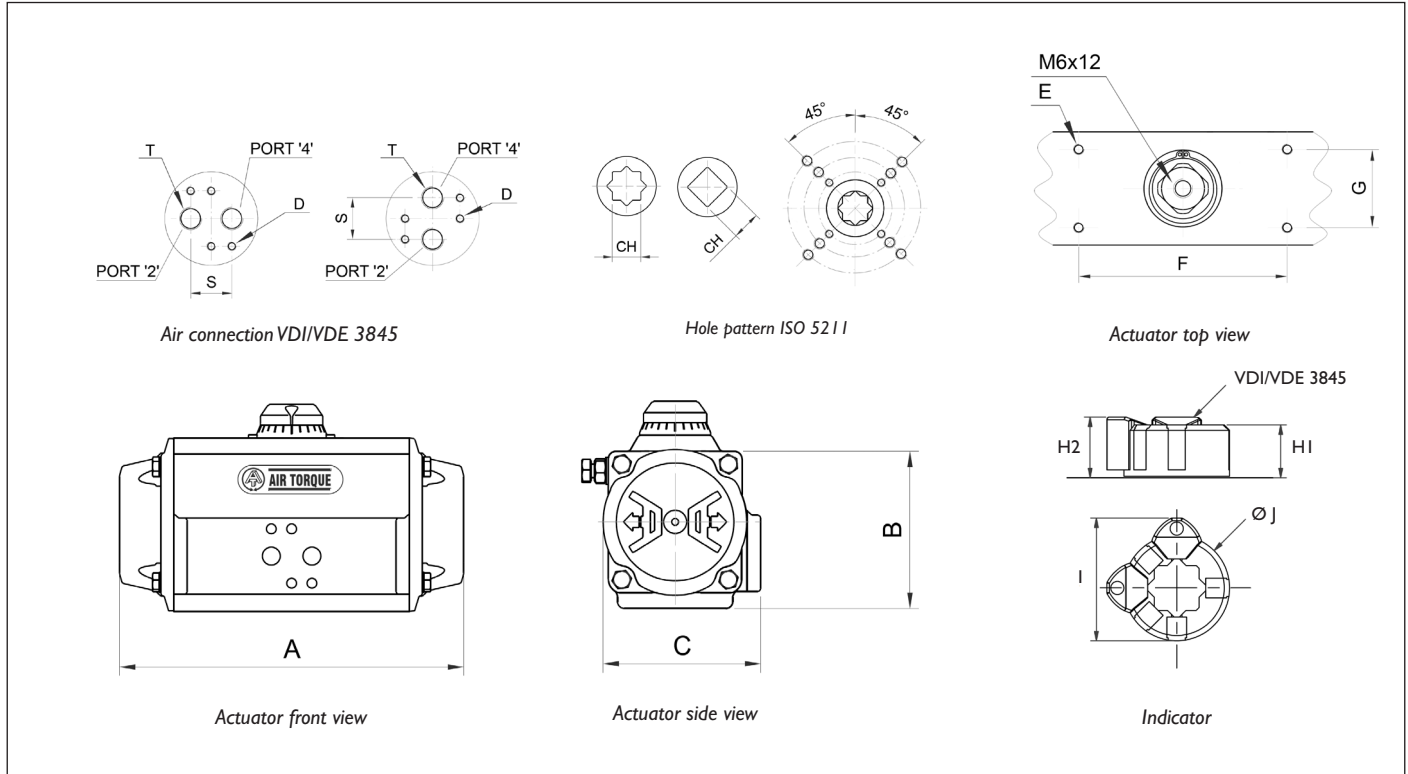
### Torque - Nm

Values given at 6 bar air pressure 0° = Closed. 90° = Open.

AL 79	DA	SR - Air opens		SR - Spring closes	
		0°	90°	90°	0°
045U	14,4	9,4	4,8	9,6	5,0
051U	19,9	12,0	7,2	12,8	7,9
101U	35,2	21,9	14,9	20,2	13,3
201U	69,8	43,3	28,3	41,5	26,5
251U	109,8	65,8	40,5	69,3	44,0
301U	160	99	65,0	94,5	60,8
351U	258	159	101	157	98,4
401U	332	206	135	198	126
451U	522	324	213	309	198
501U	681	411	282	399	269
551U	919	540	351	568	379
601U	1276	766	520	756	510
651U	2144	1279	894	1251	865
701U	3112	1803	1190	1922	1309
751U	4308	2553	1688	2620	1754
801U	5405	3198	2434	2971	2207

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## Dimensions



AL 79	A	B	C	D	E	F	G	S	T	ISO	CH	Weight, kg		Indicator			
												DA	SR	H1	H2	I	Ø J
045U	118	66	62	M5x8	M5x8	80	30	24	1/8"	F04	9*	0,75	0,9	20	25	46,5	50
051U	137	69	72	M5x8	M5x8	80	30		1/8"	F03	9	1,0	1,1	20	25	46,5	50
051U	137	69	72	M5x8	M5x8	80	30		1/8"	F04	11*	1,0	1,1	20	25	46,5	50
101U	153,5	85	84,5	M5x8	M5x8	80	30		1/8"	F05/F07	14*	1,6	1,7	20	25	46,5	50
201U	203,5	102	93	M5x8	M5x8	80	30		1/8"	F05/F07	14*	2,7	3,1	20	25	46,5	50
251U	241	115	103	M5x8	M5x8	80	30		1/8"	F05/F07	17*	3,7	4,3	20	25	46,5	50
301U	259	127	118,5	M5x8	M5x8	80	30		1/4"	F05/F07	17*	5,2	6,1	20	25	46,5	50
351U	304	145	137	M5x8	M5x8	80	30		1/4"	F07/F10	22*	8,0	9,3	30	30	75	65
401U	333	157	147	M5x8	M5x8	80	30		1/4"	F07/F10	22*	9,8	11,7	30	30	75	65
451U	394,5	177	166	M5x8	M5x8	80	30		1/4"	F10/F12	22	14,2	17,4	30	30	75	65
501U	422,5	196	181	M5x8	M5x8	80	30		1/4"	F10/F12	22	18,1	22,3	30	30	75	65
551U	474	220,5	200	M5x8	M5x8	130	30		1/4"	F10/F12	27*	24,3	32,7	50	50	125	115
601U	528	245	218	M5x8	M5x8	130	30		1/4"	F12	27*	34,1	41,9	50	50	125	115
651U	605	298,5	258	M6x10	M5x8	130	30		3/8"	F14	36*	52,7	67,3	50	50	125	115
701U	710	330	319	M6x10	M5x8	130	30	1/2"	F14	36*	74	93	50	50	125	115	
751U	812	383	371	M6x10	M5x8	130	30	1/2"	F16	46*	123	155	50	50	125	115	
801U	876	410	418	M6x10	M5x8	130	30	1/2"	F25	55*	127	169	50	50	125	115	

\* To valve / bracket with double square (star)

## Installation

Actuator to be installed on valves with 90° operation, either for direct mounting on the valve or with bracket and adaptor.



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