



AEL5 Series Electric Linear Actuators for DN15 to DN100 Control Valves

Description

The AEL5 series electric actuators are reversible having linear output.

Available types

AEL5 actuators are available with 4 supply variants, **230 Vac**, **115 Vac**, **24 Vac** and **24 Vdc** all being suitable for a VMD (Valve Motor Drive) input power signal. At extra cost, actuators can be fitted with a positioner input card that can accept a 4 - 20 mA or 2 - 10 Vdc control signal - Please note that this option is not available for the 24 Vdc supply variant.

AEL5 actuators can be ordered with or without a potentiometer, those ordered with will be fitted with a 1 kΩ potentiometer as standard.

The potentiometer can be used in conjunction with the positioner for a 2 - 10 V or 4 - 20 mA input signal, or as feedback for VMD. Also available are auxiliary limit switches and anti-condense heater. See TI-P358-28 for further details on the accessories.

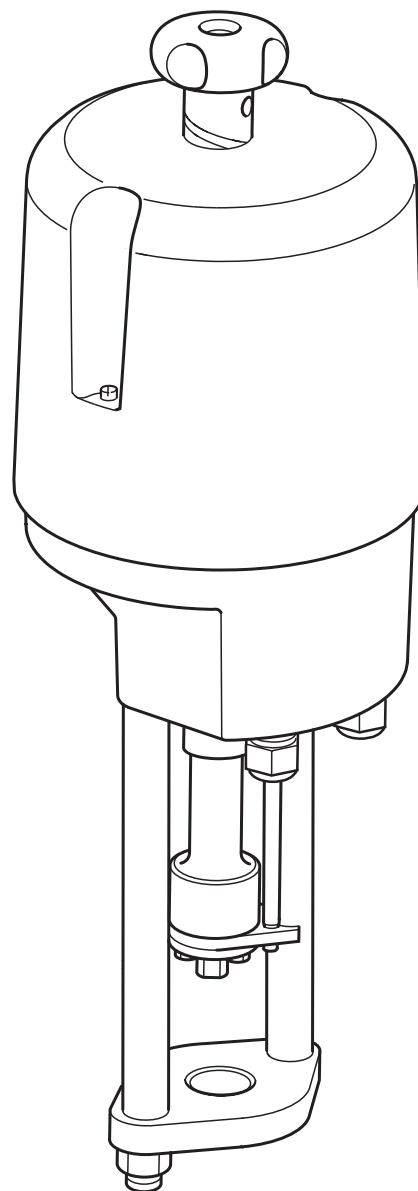
These actuators can be used with the following valves, in conjunction with an appropriate valve adaptor and mounting flange.

Valves	2-port	SPIRA-TROL or C Series
	3-port	QL33, QL43, QL63 and QL73 mixing and diverting valves

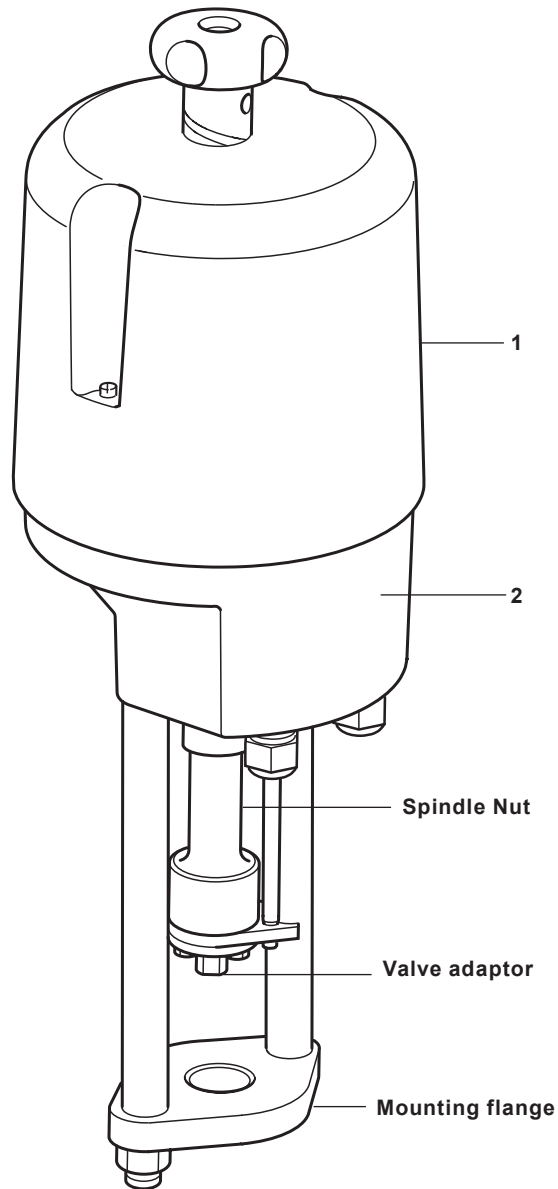
Note: A mounting flange and valve adaptor is required to mount the actuator to a valve. See the associated tables below:

Mounting flange selection

Valve type and size	Actuator		
	AEL51_ AEL52_ AEL53_ AEL54_ AEL55_	AEL56_	
KE and KEA LE and LEA QL DN15 to DN50	EL5970		
LE and LEA DN65 to DN100	EL5971		
KE and KEA QL DN65 to DN100	EL5971	EL5972	
JE and JEA	DN15 to DN50	EL5971 J	
	DN65 to DN100	EL5972 J	EL5972



Materials



No.	Part		Material
1	Case	1 to 8 kN	Polycarbonate
		14 to 25 kN	Die-cast aluminium
2	Housing		Die-cast aluminium
3	Spindle Nut	Actuator	Spindle Nut Material
		AEL6221_	POM-C
		AEL6321_	POM-C
		AEL6323_	POM-C
		AEL6421_	Bronze and Aluminium
		AEL6422_	Bronze and Aluminium
		AEL6532_	Bronze and Aluminium
AEL6631_	Bronze and Aluminium-Zinc alloy		

Valve adaptor selection

Valve type and size		Valve stem	AEL51_	AEL52_	AEL53_	AEL54_	AEL55_	AEL56_
KE and KEA LE and LEA QL	DN15 to DN50	M8 thread	AEL6911	AEL6911	AEL6911	AEL6911	AEL6911	
	DN65 to DN100	M12 thread	Integrated	Integrated	Integrated	Integrated	Integrated	EL5945
JE and JEA	DN15 to DN50	M8 thread	AEL6911 J	AEL6911 J	AEL6911 J	AEL6911 J	AEL6911 J	
	DN65 to DN100	M12 thread	AEL6912 J	AEL6912 J	AEL6912 J	AEL6912 J	AEL6912 J	EL5945

Technical data

Actuator type	AEL51_	AEL52_	AEL53_	AEL54_	AEL55_	AEL56_
Supply voltage	230 Vac, 115 Vac, 24 Vac, (24 Vdc) ±10%					
Supply frequency	50 Hz/60 Hz/(continuous)					
Maximal power consumption VA Note: power consumption is relative to 50/60 Hz/ (continuous) respectively	25.5/25.9 / (41)	37/40 / (24)	44/47 / (41)	72/68 / (41)	53/55 / (93)	100/86 / (NA)
Stroke mm	50	50	50	50	65	100
Actuator speed mm/s Note: Speed is relative to 50/60 Hz/ (continuous) respectively	0.25/0.3 / (1)	0.5/0.6 / (0.5)	0.5/0.6 / (1)	0.65/0.78/(0.5)	0.45/0.54/(0.5)	1/1.2 / (1)
Enclosure rating	IP65 (for outdoor installations provide adequate shelter)					
Actuator trust kN	1	2	4.5	8	14	25
Ambient limits	-20°C to 60°C (Caution: -20°C to 50°C with positioner card fitted)					
Motor	Synchronous motor for 1 to 14 kN, Asynchronous motor for 25 kN (Alternative current) or Brushed direct current motor (Direct current)					
Terminations	1.5 mm ²					
Manual override	Handwheel					
Conduit entries	2 x M20 x 1.5 (for 1 to 14 kN) and 3 x M20 x 1.5 (for 25 kN)					
Positioner power consumption VA	1					

For alternative speed versions please contact Spirax Sarco

Approvals

This equipment is CE marked and conforms to the following:

- EN 50081-1 and EN 50082-2 (EMC)
- EN 61010-1/A2 (Safety), following the provisions of directives 89/336/EEC amended by 92/31/EEC and 93/68/EEC (EMC) and 72/73/EEC amended by 93/68/EEC (LVD).

DN32 to DN50 (1¼" to 2")

Cage type		Standard Cage (S)																													
		DN32 to DN50 (1¼" to 2")																													
Actuator type	Valve size	4.0 (4.6)						6.3 (7.3)						10 (12)						16 (18)						17.5 - 18 (20.2-21)					
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D					
AEL51	1000	60.6	34.9			49.5	32.3	17.3		25.8	18.6	9.1		14.5	14.6	6.7		11.2	10.3	4.2											
AEL52	2000	103.4	103.4	17.8		16	82	67.1	7.4	16	50.5	40.9	2.7	16	40.9	33	1.4	16	30.7	24.6	0.1										
AEL53	4500	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	98.8	25	16	81.6	75.5	25	25	16	16	16	16	16				
AEL54*	8000	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	25	16	103.4	103.4	25	16				
AEL55*	14000	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	25	16	103.4	103.4	25	16				

Cage type		Standard Cage (S)																									
		DN32 to DN50 (1¼" to 2")																									
Actuator type	Valve size	25 (29)						31-36 (36-42)						46-50 (53-58)						All Kvs							
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	
AEL51	1000	4	0.7			2.8	2.7			1.5	1.2			0.4	1.2												
AEL52	2000	15	11.7			13.6	11.5	8.8		10.3	7.5	5.6		6.7	7.5	5.6											
AEL53	4500	42.6	39.3	25	22.8	16	33.5	30.9	20.3	17.7	16	23.2	21.3	13.8	11.9	16	23.2	21.3	13.8	11.9	16	16	16	16	16	16	16
AEL54*	8000	81.1	77.8	25	25	16	64.4	61.7	25	25	16	45.2	43.3	25	25	16	45.2	43.3	25	25	16	16	16	16	16	16	16
AEL55*	14000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	83	81.1	25	25	16	83	81.1	25	25	16	16	16	16	16	16	16

* Not to be used with 316L plug and stem

DN65 to DN100 (2½" to 4")

Standard Cage (S)																								
Actuator type	Cage type	DN65 to DN100 (2½" to 4")																						
		16 (18)						25 (29)						36 (42)						63-90 (73-104)				
	Valve size	Kvs (Cv)	Actuator thrust (N)	P	H	B	C	D	N-P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	
AEL51		1000	9.3						2.2					0.9										
AEL52		2000	29.7	19.3					11	6.6				7.2	4				3.2	1.4				
AEL53		4500	80.6	70.2	25	25	16	16	33.1	28.6	14.6	10.1	10.1	22.9	19.7	9.7	6.5	6.5	12.1	10.2	4.6	2.8	2.8	2.8
AEL54		8000	103.4	103.4	25	25	16	16	64	59.5	25	25	16	44.9	41.7	25	25	16	24.4	22.6	17	15.2	15.2	15.2
AEL55*		14000	103.4	103.4	25	25	16	16	103.4	103.4	25	25	16	82.6	79.4	25	25	16	45.7	43.8	25	25	16	16
AEL56*		25000	103.4	103.4	25	25	16	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	84.6	82.8	25	25	16	16

Standard Cage (S)																								
Actuator type	Cage type	Low Noise Cage (P1-A1-P2-A2-P3)																						
		DN65 to DN100 (2½" to 4")						DN65-80						DN100										
	Valve size	Kvs (Cv)	Actuator thrust (N)	100-115-117 (116-133-135)						160-180 (185-208)						All Kvs								
				P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	
AEL51		1000																						
AEL52		2000	1.5	0.4					0.5						1.5	0.4			0.5					
AEL53		4500	7.2	6	2.4	1.3	1.3	1.3	4	3.3	1.1	0.3	0.3	7.2	6	2.4	1.3	1.3	4	3.3	1.1	0.3	0.3	0.3
AEL54		8000	15.1	13.9	10.3	9.2	9.2	9.2	9	8.2	6	5.3	5.3	15.1	13.9	10.3	9.2	9.2	9	8.2	6	5.3	5.3	5.3
AEL55*		14000	28.7	27.5	23.9	22.8	16	16	17.4	16.7	14.5	13.8	13.8	28.7	27.5	23.9	22.8	16	17.4	16.7	14.5	13.8	13.8	13.8
AEL56*		25000	53.6	52.4	25	25	16	16	33	32.2	25	25	16	53.6	52.4	25	25	16	33	32.2	25	25	16	16

* Not to be used with 316L plug and stem

DN15 to DN25 (1/2" to 1")

Standard Cage (S)																											
DN15 to DN25 (1/2" to 1")																											
Actuator type	Cage type	Valve size	0.1-0.7 (0.12-0.23)					0.5 (0.58)					1 (1.2)					1.6 (1.8)					2.5 (2.9)				
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
AEL51	1000	19	19	19	19	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	
	2000	19	19	19	19	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	
AEL52																											

Standard Cage (S)																											
DN15 to DN25 (1/2" to 1")																											
Actuator type	Cage type	Valve size	4 (4.6)					7.2 (8.3)					10 (12)					11 (12.7)					Low Noise Cage (P1-A1) 2, 5-4-6, 3-10 (2.9-4.6-7.3-12)				
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
AEL51	1000	19	19	19	19	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	
	2000	19	19	19	19	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	19	19	19	16	16	
AEL52																											

** Not to be used with 316L plug and stem

DN32 to DN50 (1¼" to 2")

		Standard Cage (S)																														
		DN32 to DN50 (1¼" to 2")																														
Actuator type	Cage type	Valve size	4.0 (4.6)						6.3 (7.3)						10 (12)						16 (18)						17.5 - 18 (20.2-21)					
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D					
AEL51	1000	19	19	19	19	16	19	19	19	16	19	15.1	19	19	16	19	12.1	19	15.1	19	16	19	9			12.5						
	2000	19	19	19	2	16	19	19	14.9	16	19	8.7	19	19	16	19	6.9	19	19	16	19	19	4.9			16						

		Standard Cage (S)																								
		DN32 to DN50 (1¼" to 2")																								
Actuator type	Cage type	Valve size	25 (29)						31-36 (36-42)						46-50 (53-58)						Low Noise Cage (P1-P2-P3-A1-A2) All Kvs					
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C
AEL51	1000	7.6	4.3			6.1	5.8	3.2		4.7	3.9	2		3.1	3.9	2		3.1	3.9	2		3.1				3.1
	2000	18.6	15.3	2.1		16	14.6	12	1.4	13.5	10.2	8.3	0.7	9.4	10.2	8.3	0.7	9.4	10.2	8.3	0.7	9.4				9.4

* Not to be used with 316L plug and stem

DN15 to DN25 (1/2" to 1")

		Standard Cage (S)																				
		DN15 to DN25 (1/2" to 1")																				
Actuator type	Cage type	Valve size	Kvs (Cv)	0.01-0.07 (0.012-0.081)			0.1-0.2 (0.12-0.23)			0.5 (0.58)			1.0 (1.2)			1.6 (1.8)			2.5 (2.9)			
				N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C
AEL51			1000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL52			2000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL53			4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

		Standard Cage (S)																				
		DN15 to DN25 (1/2" to 1")																				
Actuator type	Cage type	Valve size	Kvs (Cv)	4.0 (4.6)			4.9-6.3 (5.7-7.3)			7.2 (8.3)			10 (12)			11 (12.7)			Low Noise Cage (P1) 2.5-4-6-3-10 (2.9-4.6-7.3-12)			
				N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C
AEL51			1000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL52			2000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL53			4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

* Not to be used with 316L plug and stem

DN32 to DN50 (1¼" to 2")

Cage type		Standard Cage (S)																													
		DN32 to DN50 (1¼" to 2")																													
Actuator type	Valve size	4.0 (4.6)						6.3 (7.3)						10 (12)						16 (18)						17.5 - 18 (20.2-21)					
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D					
AEL51	1000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
AEL52	2000	7	7	7	6.9	7	7	7	3.7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
AEL53	4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					

Cage type		Standard Cage (S)																								
		DN32 to DN50 (1¼" to 2")																								
Actuator type	Valve size	25 (29)						31-36 (36-42)						46-50 (53-58)						Low Noise Cage (P1-P2-P3-A1-A2) All Kvs						
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
AEL51	1000	7	6	7	7	7	7	7	4.8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL52	2000	7	7	3.8	0.5	7	7	7	3	0.4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL53	4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

* Not to be used with 316L plug and stem

Maximum differential pressures for Class VI shut-off - Soft Seated (G&K) Spira-trol - FLOW UNDER
(continued)

**DN65 to DN100
(2½" to 4")**

Actuator type	Cage type	Standard Cage (S)												Low Noise Cage (P1-A1-P2-A2-P3)																					
		DN65 to DN100 (2½" to 4")												DN65-80			DN100																		
		16 (18)			25 (29)			36 (42)			63-90 (73-104)			100-115-117 (116-133-135)			160-180 (185-208)			All Kvs			All Kvs												
Actuator thrust (N)	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D					
AEL51	1000	7	6.1	7	2.5	7	4.9	1.7	7	2.7	0.9	7	1.7	0.5	7	1	0.3	7	1.7	0.5	7	1	0.3	7	1.7	0.5	7	1	0.3	7	1	0.3	7	1	0.3
AEL52	2000	7	7	7	7	7	7	7	6.2	4.4	7	3.9	2.8	7	2.4	1.7	7	3.9	2.8	7	2.4	1.7	7	3.9	2.8	7	2.4	1.7	7	3.9	2.8	7	2.4	1.7	
AEL53	4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL54	8000	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

* Not to be used with 316L plug and stem

DN15-25 (1/2"-1")

		Standard Cage (S)																									
		DN15-25 (1/2"-1")																									
Actuator type	Cage type	Valve size	0.01-0.07 (0.012-0.081)				0.1-0.2 (0.12-0.23)				0.5 (0.58)				1.0 (1.2)				1.6 (1.8)				2.5 (2.9)				
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
AEL51	1000	103.4	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	
			103.4	103.4	25	16	103.4	103.4	25	8.1	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16
			103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16
AEL52	2000	103.4	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	
			103.4	103.4	25	16	103.4	103.4	25	8.1	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16
			103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16
AEL53	4500	103.4	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	
			103.4	103.4	25	16	103.4	103.4	25	8.1	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16
			103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16

		Standard Cage (S)												Low Noise Cage (P1-A1)													
		DN15-25 (1/2"-1")												2,5-4-6,3-10 (2.9-4.6-7.3-12)													
Actuator type	Cage type	Valve size	4.0 (4.6)				4.9-6.3 (5.7-7.3)				7.2 (8.3)				10 (12)				11 (12.7)								
			N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
AEL51	1000	46.2	19.7	19.7	16	19.8	4.8	13.3	13.1	1.4	8	8.6	4.5	5.2	1.9	5.2	1.9	5.2	1.9	5.2	1.9	5.2	1.9	5.2	1.9	5.2	1.9
			103.4	103.4	2	16	69.5	54.6	16	52.4	40.7	16	40.5	30.9	16	31.1	23.3	16	31.1	23.3	16	31.1	23.3	16	31.1	23.3	16
			103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4
AEL52	2000	103.4	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	
			103.4	103.4	25	16	103.4	103.4	25	8.1	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16
			103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16
AEL53	4500	103.4	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	103.4	103.4	16	
			103.4	103.4	25	16	103.4	103.4	25	8.1	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16	103.4	103.4	25	16
			103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16

* Not to be used with 316L plug and stem

Maximum differential pressures for Class IV shut-off - Hard Facing (W) Spira-trol - FLOW UNDER
(continued)

**DN32 to 50
(1¼" to 2")**

Cage type		Standard Cage (S)																													
		DN32-50 (1¼" to 2")																													
Actuator type	Valve size	4.0 (4.6)						6.3 (7.3)						10 (12)						16 (18)						17.5 - 18 (20.2-21)					
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P				
AEL51	1000	44.2	18.5			16	19.8	4.8		13.3	8.6			4.5	5.5			2.1	2.3												
AEL52	2000	103.4	103.4	1.4		16	69.5	54.6		16	40.5	30.9		16	31.8	23.9		16	22.7	16.6							16				
AEL53	4500	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	97.6	89.7	25	25	16	73.6	67.5	25	25	16	16				
AEL54*	8000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	16				
AEL55*	14000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	16				

Cage type		Standard Cage (S)																									
		DN32-50 (1¼" to 2")																									
Actuator type	Valve size	25 (29)						31-36 (36-42)						46-50 (53-58)						All Kvs							
		N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P
AEL51	1000																										
AEL52	2000	9.2	5.9			7.7	6.2	3.6			5.1	3.1	1.2	-6.4	-8.3	2.2	3.1	1.2									2.2
AEL53	4500	36.7	33.4	20.2	16.9	16	28.3	25.6	15	12.4	16	18.8	16.9	9.3	7.5	16	18.8	16.9	9.3	7.5	16	16	18.8	16.9	9.3	7.5	16
AEL54*	8000	75.2	71.9	25	25	16	59.1	56.5	25	25	16	40.8	38.9	25	25	16	40.8	38.9	25	25	16	40.8	38.9	25	25	16	16
AEL55*	14000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	78.5	76.6	25	25	16	78.5	76.6	25	25	16	78.5	76.6	25	25	16	16

* Not to be used with 316L plug and stem

DN65 to 100 (2½" to 4")

Actuator type		Standard Cage (S)																														
		DN65-100 (2½" to 4")																														
		16 (18)						25 (29)						36 (42)						63-90 (73-104)												
Cage type	Valve size	Kvs (Cv)		Actuator thrust (N)		P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D							
AEL51		1000	1.3																													
AEL52		2000	21.7	11.3		5.8	1.3																									
AEL53		4500	72.6	62.2	25	27.8	23.3	9.3	4.8	4.8	16	18.5	15.3	5.3	2.1	2.1	8.7	6.9	1.3													
AEL54		8000	103.4	103.4	25	58.7	54.2	25	25	16	16	40.5	37.3	25	24.1	16	21.1	19.3	13.7	11.9	11.9											
AEL55*		14000	103.4	103.4	25	103.4	103.4	25	25	16	16	78.2	75	25	25	16	42.3	40.5	25	25	16	16										
AEL56*		25000	103.4	103.4	25	103.4	103.4	25	25	16	16	103.4	103.4	25	25	16	81.2	79.4	25	25	16	16										

Actuator type		Standard Cage (S)																								Low Noise Cage (P1-A1-P2-A2-P3)											
		DN65-100 (2½" to 4")																								DN65-80						DN100					
		100-115-117 (116-133-135)						160-180 (185-208)						All Kvs						All Kvs						All Kvs											
Cage type	Valve size	Kvs (Cv)		Actuator thrust (N)		P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D		
AEL51		1000																																			
AEL52		2000																																			
AEL53		4500	4.5	3.4		1.9	1.2				4.5	3.4																									
AEL54		8000	12.4	11.3	7.7	6.9	6.1	3.9	3.2	3.2	12.4	11.3	7.7	6.5	6.5	6.5	6.9	6.1	3.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2			
AEL55*		14000	26	24.9	21.3	15.3	14.6	12.4	11.6	11.6	26	24.9	21.3	20.1	16	16	15.3	14.6	12.4	11.6	11.6	16	16	16	16	16	16	16	16	16	16	16	16	16			
AEL56*		25000	50.9	49.8	25	30.8	30.1	25	25	16	50.9	49.8	25	25	16	16	30.8	30.1	25	25	16	30.8	30.1	25	25	16	16	16	16	16	16	16	16	16			

* Not to be used with 316L plug and stem

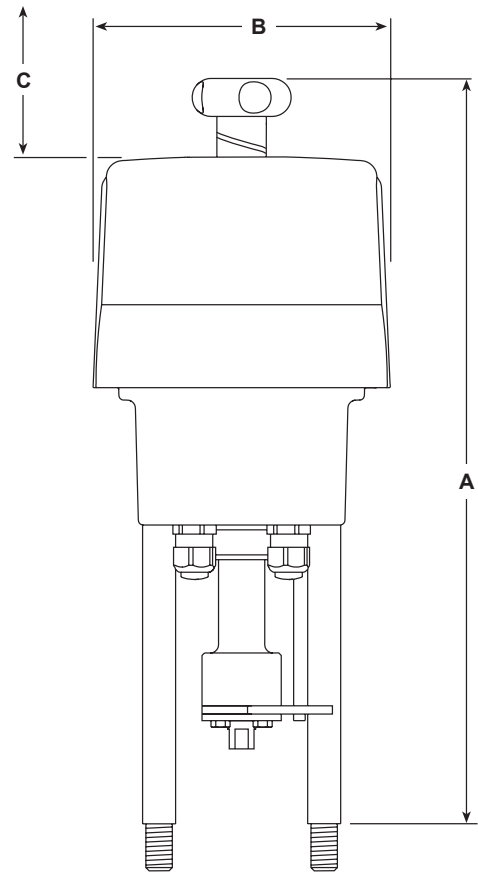
Maximum differential pressures for modulating duties only - QL 3-port valves

with PTFE or Graphite stem seal

Valve size		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100									
K _v		4.0	6.3	10	16	25	36	63	100	160									
Valve travel		20 mm						30 mm											
Actuator	Voltage	Maximum differential pressure bar																	
		PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite	PTFE	Graphite
AEL51211	230	26.6	12	26.6	12	15.3	6.4	9.2	3.7	5.6	2	3.2	1	1.1		0.4		0.1	
AEL51212	115	26.6	12	26.6	12	15.3	6.4	9.2	3.7	5.6	2	3.2	1	1.1		0.4		0.1	
AEL51213	24	26.6	12	26.6	12	15.3	6.4	9.2	3.7	5.6	2	3.2	1	1.1		0.4		0.1	
AEL52211	230	40	39.6	40	39.6	32.1	23.2	19.5	14	12.3	8.8	7.4	5.2	3.7	2.3	2.3	1.3	1.1	0.6
AEL52212	115	40	39.6	40	39.6	32.1	23.2	19.5	14	12.3	8.8	7.4	5.2	3.7	2.3	2.3	1.3	1.1	0.6
AEL52213	24	40	39.6	40	39.6	32.1	23.2	19.5	14	12.3	8.8	7.4	5.2	3.7	2.3	2.3	1.3	1.1	0.6
AEL53211	230	40		40		40		40		29.2	25.7	17.9	15.7	10.3	8.9	7	6	3.7	3.2
AEL53212	115	40		40		40		40		29.2	25.7	17.9	15.7	10.3	8.9	7	6	3.7	3.2
AEL53213	24	40		40		40		40		29.2	25.7	17.9	15.7	10.3	8.9	7	6	3.7	3.2
AEL54211	230									40	32.6	30.3	19.6	18.2	13.5	12.5	7.4	6.9	
AEL54212	115									40	32.6	30.3	19.6	18.2	13.5	12.5	7.4	6.9	
AEL54213	24									40	32.6	30.3	19.6	18.2	13.5	12.5	7.4	6.9	
AEL55311	230										40	30.2	28.8	20.9	20	11.6	11.1		
AEL55312	115										40	30.2	28.8	20.9	20	11.6	11.1		
AEL55313	24										40	30.2	28.8	20.9	20	11.6	11.1		
AEL56411	230											40	40	25.3	24.7				
AEL56412	115											40	40	25.3	24.7				
AEL56413	24											40	40	25.3	24.7				

Dimensions/weights (approximately) in mm and kg

Model	A	B	C	Weight
AEL51_	460	177	138	4.5
AEL52_	460	177	138	4.8
AEL53_	460	177	138	5.2
AEL54_	506	177	150	7.0
AEL55_	569	225	231	10.0
AEL56_	807	227	280	20.0



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P358-26) supplied with the product.

Installation and wiring note:

The valve should be installed in the horizontal line. The position of the actuator will depend on the type of valve to which it is fitted and the temperature of the media. However, it is not recommended that the actuators be fitted directly below the valve or in a wet environment.

Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

Selection example

Control valve	DN20 KE43 PTSUSS.2 K _v 6.3 flanged PN40
Maximum DP	20 bar
Electrical supply	230 Vac
Control signal	4 - 20 mA
Actuator selected	AEL51211
Positioner required	AEL5961
Valve adaptor	AEL6911
Mounting flange	EL5970

How to order

Product	A = Actuator	A
Type	E = Electric	E
Movement	L = Linear	L
Series	5	5
Thrust (kN)	1 = 1 kN	1
	2 = 2 kN	
	3 = 4.5 kN	
	4 = 8 kN	
	5 = 14 kN	
	6 = 25 kN	
Stroke (mm)	2 = 50 mm (AEL51_, AEL52_, AEL53_ and AEL54_ series only)	2
	3 = 65 mm (AEL55_ series only)	
	4 = 100 mm (AEL56_ series only)	
Maximum speed (mm/s)	1 = 0 - 1.0 mm/s	1
Supply voltage	1 = 230 Vac	1
	2 = 115 Vac	
	3 = 24 Vac	
	4 = 24 Vdc (not available for AEL56_)	
Control signal*	F = Integral 24 V VMD (only for actuators with 24 V supply voltage)	J
	G = Integral 115 V VMD (only for actuators with 115 V supply voltage)	
	J = Integral 230 V VMD (only for actuators with 230 V supply voltage)	
Failure mode	X = No mechanical/electrical fail safe device	X
Potentiometer	A = With 1 kΩ potentiometer	A
	S = Without	

* For 0/2 - 10 Vdc and 0/4 - 20 mA modulating control signal the appropriate positioner card must be ordered at time of order.

How to order example

1 off Spirax Sarco AEL51211JXA electric linear actuator for use with a DN100 SPIRA-TROL two-port KE43 control valve.