

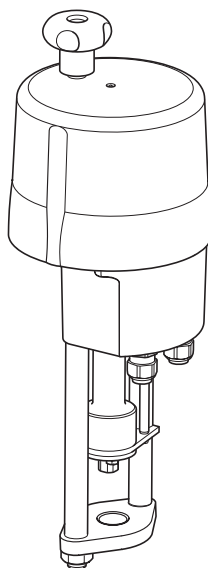


AEL6 Series

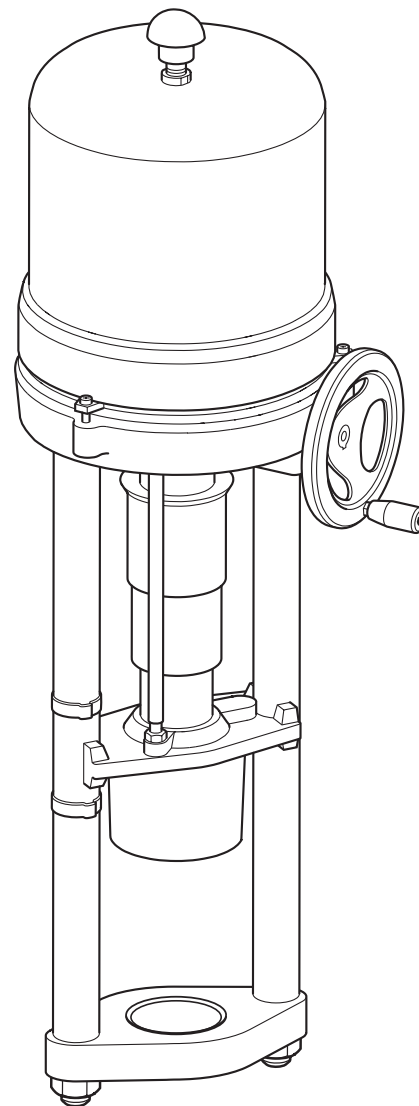
Smart Electric Actuators

for DN15 to DN100 Control Valves

AEL6221_
 AEL6321_
 AEL6323_
 AEL6421_
 AEL6422_
 AEL6532_



AEL6631_



Description

The AEL6 series electric actuators are reversible having linear output.

Available types

The actuators are available with 4 supply variants: **230 vac**, **115 vac**, **24 vac** and **24 Vdc**. The standard version is available for VMD (Valve Motor Drive), 0/4-20 mA or 0/2-10 Vdc input control signals.

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

Control valves	2-port Spira-trol™
	3-port QL43 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

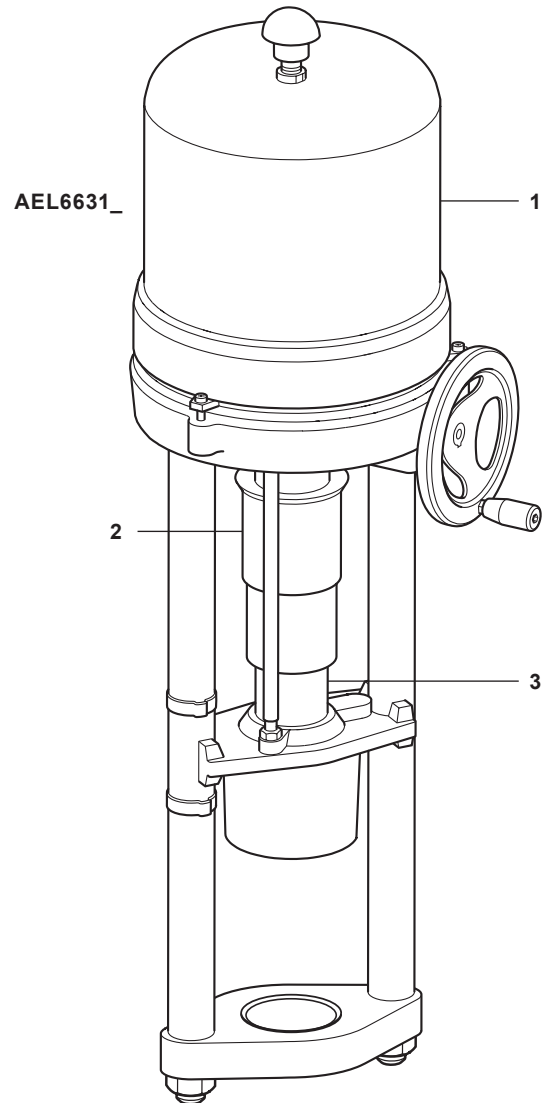
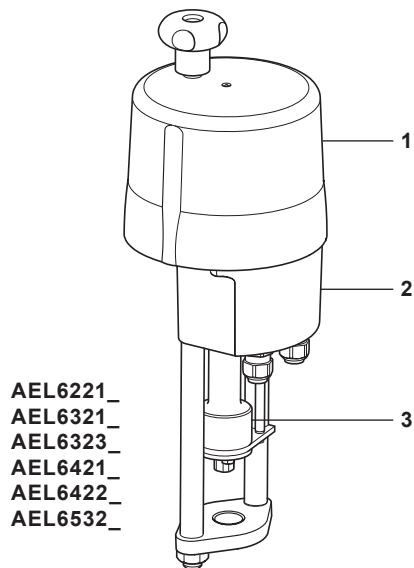
Valve type and size		Actuator	
		AEL62_ AEL63_ AEL64_ AEL65_	AEL66_
KE and KEA LE and LEA QL	DN15 to DN50	EL5970	
	DN65 to DN100	EL5971	
KE and KEA QL	DN65 to DN100	EL5971	EL5972
JE and JEA	DN15 to DN50	EL5971J	
	DN65 to DN100	EL5972J	EL5972

Valve adaptor selection

Valve type and size		Valve stem	AEL62_	AEL63_	AEL64_	AEL65_	AEL66_
KE and KEA LE and LEA QL	DN15 to DN50	M8 thread	AEL6911	AEL6911	AEL6911	AEL6911	
	DN65 to DN100	M12 thread	Integrated	Integrated	Integrated	Integrated	EL5945
JE and JEA	DN15 to DN50	M8 thread	AEL6911J	AEL6911J	AEL6911J	AEL6911J	
	DN65 to DN100	M12 thread	EL6912J	EL6912J	EL6912J	EL6912J	EL5945

Materials

No.	Part	Material
1	Case	2.3 to 8 kN Polycarbonate
		14 to 25 kN Die-cast aluminium
2	Housing	Die-cast aluminium
Actuator Spindle nut material		
	AEL6221_	POM-C
	AEL6321_	POM-C
	AEL6323_	POM-C
3	AEL6421_	Bronze and Aluminium
	AEL6422_	Bronze and Aluminium
	AEL6532_	Bronze and Aluminium
	AEL6631_	Bronze and Aluminium-Zinc alloy



Technical data

Actuator type	AEL6221_	AEL6321_	AEL6323_	AEL6421_	AEL6422_	AEL6532_	AEL6631_
Supply voltage	230 vac, 115 vac, 24 vac, 24 Vdc						
Supply frequency	50 Hz/60 Hz/continuous						
Maximal power consumption VA Note: power consumption is relative to 50/60 Hz/continuous respectively	13	19	57	25	72	65	88
Current consumed by the actuator	1 Amp - 24 vac/dc 0.25 Amp - 110 vac 0.15 Amp - 220 vac		3 Amp - 24 vac/dc 0.6 Amp - 110 vac 0.3 Amp - 220 vac		4 Amp - 24 vac/dc 0.8 Amp - 110 vac 0.4 Amp - 220 vac		5 Amp - 24 vac/dc 1 Amp - 110 vac 0.5 Amp - 220 vac
Current which is necessary for the power supply		1 Amp - 24 vac/dc 0.25 Amp - 110 vac 0.15 Amp - 220 vac		1 Amp - 24 vac/dc 0.3 Amp - 110 vac 0.2 Amp - 220 vac		3 Amp - 24 vac/dc 0.7 Amp - 110 vac 0.35 Amp - 220 vac	
Stroke mm	50	50	50	50	50	65	95*
Actuator speed mm/s Note: Speed is relative to 50/60 Hz/ continuous respectively	0.9	0.9	4.5	0.7	1.7	1.3	0.4
Enclosure rating	IP65 (for outdoor installations adequate shelter)						
Actuator trust kN	2.3	4.5	4.5	8	8	14	25
Ambient limits	-20 °C to 60 °C						
Analog position set valve input	Adjustable: 0/4 - 20 mA or 0/2 - 10 Vdc						
Positioner function	Dead-band adjustable between 0.5 - 5% of set value range, maximum resolution 0.1 mA or 0.05 V at 50 mm stroke						
Active valve position feedback	Adjustable: 0/4 - 20 mA or 0/2 - 10 Vdc						
Automatic commissioning	Drives to torque dependant stop(s) and moves through the whole valve travel. Autoscale of set value and feedback in accordance to valve travel						
Characteristic curve correction	Up to 16 interpolation points, input inaccuracy 1%						
Torque increase	Adjustable up to 150% torque for up to 2.5s to break away a valve in the end position						
Status indication	2 LEDs under actuator cover						
Internal fault monitoring	Torque, position set value, active position value, position, temperature of electronic board						
Diagnostics function	Stores cumulated operation data (motor and total running time, number of motor starts) and data sets of current values (set value, feedback value, torque, temperature)						

*Notes:

- 115 vac and 230 vac models of the AEL6631_ have a stroke limited to 95 mm.
- 24 vac and 24 Vdc models of the AEL6631_ are capable of up to 100 mm stroke.

Optional extras:

- Additional position switches - AEL6951 (NC) and AEL6952 (NO)
- Local control - (non retrofitable for the AEL66_) - AEL6955 (2.3 to 14 kN) and AEL6956 (25 kN)
- Fault indicator relay - AEL6973 (non retrofitable)
- Communication software including data cable - AEL6957
- Space heater - AEL6953 (24 vac) and AEL6954 (115 vac and 230 vac)

Approvals

This equipment is CE marked and conforms to the following:

- EEC regulation 89/336-EEC for Electromagnetical compatibility and 72/23-EEC for low voltage directive.
- EN 61000-2-2/2001 and EN 61000-6-4 for EMC, and 61010-1/1995 for safety.

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

		Standard Cage (S)																													
		DN15 to DN25 (1/2" to 1")																													
Actuator 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					
AEL62	2300	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	103.4	103.4	25	25	16
AEL63	4500	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	103.4	103.4	25	25	16

		Standard Cage (S)												Low Noise Cage - P1 2,5-4-6,3-10 (2.9-4.6-7.3-12)																	
		DN15 to DN25 (1/2" to 1")																													
Actuator 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					
AEL62	2300	103.4	103.4	25	15.4	16	94.4	79.5	19.8	4.9	16	73.1	61.3	14.2	2.4	16	58	48.5	10.3	0.7	16	46	38.3	7.3	16	46	38.3	7.3	16	16	
AEL63	4500	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	102.9	95.1	25	25	16	102.9	95.1	25	25	16

* Not to be used with 316L plug and stem

Maximum differential pressures for Class V1 shut-off - Metal Seated (T&S) Spira-trol - FLOW UNDER
(continued)

**DN32 to DN50
(1¼" to 2")**

Actuator Type		Standard Cage (S)																															
		DN32 to DN50 (1¼" to 2")																															
		4.0 (4.6)						6.3 (7.3)						10 (12)						16 (18)						17.5 - 18 (20.2-21)							
Cage Type	Valve size	Kvs (Cv)	Actuator thrust (N)	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					
AEL62		2300	103.4	103.4	82	22.3	7.4	16	60	50.5	12.3	2.7	16	48.8	40.9	9.3	1.4	16	36.8	30.7	6.3		16										
AEL63		4500	103.4	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	98.8	25	25	16	81.6	75.5	25	25	16										
AEL64*		8000	103.4	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										
AEL65*		14000	103.4	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										

Actuator Type		Standard Cage (S)																																			
		DN32 to DN50 (1¼" to 2")																																			
		25 (29)						31-36 (36-42)						46-50 (53-58)						Low Noise Cage (P1-P2-P3-A1-A2)																	
Cage Type	Valve size	Kvs (Cv)	Actuator thrust (N)	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	H	B	C	D				
AEL62		2300	18.3	15	14.1	11.5	0.9	16	9.4	7.5			13	8.6	9.4	7.5			8.6	9.4	7.5																
AEL63		4500	42.6	39.3	33.5	30.9	20.3	16	23.2	21.3	13.8	11.9	16	23.2	21.3	13.8	11.9	16	23.2	21.3	13.8	11.9	16														
AEL64*		8000	81.1	77.8	64.4	61.7	25	16	45.2	43.3	25	25	16	45.2	43.3	25	25	16	45.2	43.3	25	25	16														
AEL65*		14000	103.4	103.4	103.4	25	25	16	83	81.1	25	25	16	83	81.1	25	25	16	83	81.1	25	25	16														

* Not to be used with 316L plug and stem

DN65 to DN100 (2½" to 4")

Cage Type		Standard Cage (S)																								
		DN65 to DN100 (2½" to 4")																								
Actuator Type	Valve size	16 (18)						25 (29)						36 (42)						63-90 (73-104)						
		P	H	B	C	D	N-P	H	B	C	D	P	H	B	C	D	P	H	B	C	D	P	H	B	C	D
AEL62	2300	35.8	25.4				13.7	9.2																		
AEL63	4500	80.6	70.2	25	25	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					
AEL64	8000	103.4	103.4	25	25	16	64	59.5	25	25	16	44.9	41.7	25	25	16	24.4	22.6	17	15.2	15.2					
AEL65*	14000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	82.6	79.4	25	25	16	45.7	43.8	25	25	16					
AEL66*	25000	103.4	103.4	25	25	16	103.4	103.4	25	25	16	103.4	103.4	25	25	16	84.6	82.8	25	25	16					

Cage Type		Standard Cage (S)																								
		Low Noise Cage (P1-A1-P2-A2-P3)																								
Actuator Type	Valve size	DN65 to DN100 (2½" to 4")												DN100												
		100-115-117 (116-133-135)						160-180 (185-208)						All Kvs						All Kvs						
Actuator thrust (N)	Kvs (Cv)	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
		AEL62	2300	2.2	1				0.9	0.2																
AEL63	4500	7.2	6	2.4	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					
AEL64	8000	15.1	13.9	10.3	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					
AEL65*	14000	28.7	27.5	23.9	22.8	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					
AEL66*	25000	53.6	52.4	25	25	16	33	32.2	25	25	16	53.6	52.4	25	25	16	33	32.2	25	25	16					

* Not to be used with 316L plug and stem

Maximum differential pressures for Class V1 shut-off - Soft Seated (P&C) Spira-trol - FLOW UNDER

Standard Cage (S)																					
DN15 to DN25 (½" to 1")																					
Cage Type	Valve size																				
Actuator Type	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	
AEL62	19	19	19	19	16	19	19	19	19	16	19	19	19	19	16	19	19	19	19	16	16
AEL63	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	16*

Standard Cage (S)																					
DN15 to DN25 (½" to 1")																					
Cage Type	Valve size																				
Actuator Type	4.0 (4.6)			4.9-6.3 (5.7-7.3)			7.2 (8.3)			10 (12)			11 (12.7)			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	
AEL62	19	19	19	19	16	19	19	19	19	16	19	19	19	19	16	19	19	19	19	16	16
AEL63	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	19*	19*	19*	19*	16*	16*

DN15 to DN25
(½" to 1")

Note* Actuator Thrust must be set to 50% of maximum.

Maximum differential pressures for Class V1 shut-off - Soft Seated (P&C) Spira-trol - FLOW UNDER
(continued)

**DN32 to DN50
(1¼" to 2")**

Standard Cage (S)																
Cage Type	DN32 to DN50 (1¼" to 2")															
Valve size	4.0 (4.6)				6.3 (7.3)				10 (12)				16 (18)			
Actuator Type	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	
AEL62	19	19	19	19	16	19	19	19	14.9	16	19	19	18.3	8.7	16	16
AEL63*	19*	19*	19*	19*	16*	19*	19*	19*	12.4	16*	19*	19*	16.7*	7.1*	16*	16*

Standard Cage (S)																									
Cage Type	DN32 to DN50 (1¼" to 2")																								
Valve size	17.5 - 18 (20.2-21)				25 (29)				31-36 (36-42)				46-50 (53-58)												
Actuator Type	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D					
AEL62	19	19	11.1	4.9	16	19	18.6	5.4	2.1	16	17.3	14.6	4.1	1.4	16	12.1	10.2	2.6	0.7	11.2	12.1	10.2	2.6	0.7	11.2
AEL63*	19*	19*	10*	3.9*	16*	19*	18*	4.8*	1.5*	16*	16.9*	14.2*	3.6*	1*	15.7*	11.7*	9.9*	2.3*	0.4*	10.9*	11.7*	9.9*	2.3*	0.4*	10.9

* Actuator thrust must be set to 50% of maximum

DN65 to DN100 (2½" to 4")

Standard Cage (S)																																							
Cage Type	DN65 to DN100 (2½" to 4")																																						
	16 (18)				25 (29)				36 (42)				63-90 (73-104)					100-115-117 (116-133-135)																					
Valve size	P			H			P			H			P			H			P			H			P			H											
Kvs (Cv)	19			16.9			12.4			11.7			8.5			6.3			4.5			3.8			2.6			3.8			2.6								
Actuator thrust (N)	19*			16.4*			11.9*			11.4*			8.2*			14.1			12.2			4.8			4.8			16.7			15.5			11.9			10.8		
AEL62	19			16.9			12.4			11.7			8.5			6.3			4.5			3.8			2.6			3.8			2.6			3.8			2.6		
AEL63	19*			16.4*			11.9*			11.4*			8.2*			14.1			12.2			4.8			4.8			16.7			15.5			11.9			10.8		
AEL64																																							
AEL65																																							

Standard Cage (S)														Low Noise Cage (P1-A1-P2-A2-P3)																												
Cage Type	DN65 to DN100 (2½" to 4")													DN65-80													DN100															
	DN65 to DN100 (2½" to 4")				160-180 (185-208)				All Kvs				All Kvs				All Kvs				All Kvs				All Kvs				All Kvs				All Kvs									
Valve size	P			H			P			H			P			H			P			H			P			H			P			H			P			H		
Kvs (Cv)	2.2			1.5			4.6			2.3			1.6			1.6			3.8			2.6			2.2			1.5			4.6			2.3			1.6					
Actuator thrust (N)	2.2			1.5			4.6			2.3			1.6			1.6			3.8			2.6			2.2			1.5			4.6			2.3			1.6					
AEL62	2.2			1.5			4.6			2.3			1.6			1.6			3.8			2.6			2.2			1.5			4.6			2.3			1.6					
AEL63	5.3			4.6			9.5			7.3			6.6			6.6			16.7			15.5			10.2			9.5			7.3			6.6			6.6					
AEL64	10.2			9.5			18			15.7			15			15			18.7			18			18.7			18			15.7			15			15					
AEL65	18.7			18			15.7			15			15			15			18.7			18			18.7			18			15.7			15			15					

* Actuator thrust must be set to 50% of maximum

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

Standard Cage (S)																				
DN15 to DN25 (1/2" to 1")																				
Cage Type	Standard Cage (S)																			
Valve size	DN15 to DN25 (1/2" to 1")																			
Actuator Type	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
AEL62	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL63	7	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")																				
Cage Type	Standard Cage (S)																			
Valve size	DN15 to DN25 (1/2" to 1")																			
Actuator Type	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	D
AEL62	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL63	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

DN32 to DN50 (1¼" to 2")

		Standard Cage (S)																			
		DN32 to DN50 (1¼" to 2")																			
Cage Type	Valve size	4.0 (4.6)			6.3 (7.3)			10 (12)			16 (18)			17.5 - 18 (20.2-21)							
Actuator Type	Kvs (Cv)	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
		Actuator thrust (N)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL62	2300	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL63	4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

		Standard Cage (S)																			
		DN32 to DN50 (1¼" to 2")																			
Cage Type	Valve size	25 (29)			31-36 (36-42)			46-50 (53-58)			All Kvs										
Actuator Type	Kvs (Cv)	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D	N-P	H	B	C	D
		Actuator thrust (N)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL62	2300	7	7	3.8	5.6	3	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL63	4500	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

DN65 to DN100 (2½" to 4")

Cage Type		Standard Cage (S)																							
		DN65 to DN100 (2½" to 4")																							
		16 (18)						25 (29)						36 (42)						63-90 (73-104)					
Actuator 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		
				AEL62	2300	7	7	0.2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
AEL63	4500	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	5.8	
AEL64	8000	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)																										
		DN65 to DN100 (2½" to 4")																										
		100-115-117 (116-133-135)						160-180 (185-208)						DN65-80 All Kvs						DN100 All Kvs								
Actuator 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
				AEL62	2300	4.6	3.4	2.8	2.1	2.8	2.1	2.8	2.8	2.1	2.8	2.1	2.8	4.6	3.4	2.8	2.1	2.8	2.8	2.1	2.8	2.1	2.8	2.1
AEL63	4500	7	7	4.8	3.7	3.7	3.7	3.7	5.9	5.2	3	2.2	2.2	7	7	4.8	3.7	3.7	3.7	5.9	5.2	3	2.2	2.2	7	7		
AEL64	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		

* 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	0.01-0.07 (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					
AEL62	2300	103.4	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
			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
AEL63	4500	103.4	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
			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)																											
DN15 to DN25 (1/2" to 1")																											
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)			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					
AEL62	2300	103.4	103.4	103.4	25	2	16	84.4	69.5	9.8	16	52.4	5.3	16	50	40.5	2.3	16	38.8	31.1	16	38.8	31.1	16	38.8	31.1	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
AEL63	4500	103.4	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
			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

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			
AEL62	2300	103.4	103.4	25	1.4	16	84.4	69.5	9.8	16	50	40.5	2.3	16	39.7	31.8	22.7	28.8	16
AEL63	4500	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	25	16	97.6	89.7	73.6	16
AEL64*	8000	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	25	16	103.4	103.4	103.4	16
AEL65*	14000	103.4	103.4	25	25	16	103.4	103.4	25	16	103.4	103.4	25	25	16	103.4	103.4	103.4	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				
AEL62	2300	12.5	9.2	11	8.9	6.2	7.7	4.9	3.1	4.1	4.9	3.1	4.1	4.9	3.1	4.1	4.1	4.1	4.1	
AEL63	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
AEL64*	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
AEL65*	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

* Not to be used with 316L plug and stem

DN65 to DN100 (2½" to 4")

Cage Type		Standard Cage (S)																							
		DN65-100 (2½" to 4")																							
		16 (18)						25 (29)						36 (42)						63-90 (73-104)					
Actuator 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		
AEL62	2300	27.8	17.4	8.4	3.9				4.6																
AEL63	4500	72.6	62.2	27.8	23.3	9.3	4.8	4.8	18.5	15.3	5.3	2.1	2.1	8.7	6.9	1.3									
AEL64	8000	103.4	103.4	58.7	54.2	25	25	16	40.5	37.3	25	24.1	16	21.1	19.3	13.7	11.9								
AEL65*	14000	103.4	103.4	103.4	103.4	25	25	16	78.2	75	25	25	16	42.3	40.5	25	25	16							
AEL66*	25000	103.4	103.4	103.4	103.4	25	25	16	103.4	103.4	25	25	16	81.2	79.4	25	25	16							

Cage Type		Standard Cage (S)																							
		DN65 to DN100 (2½" to 4")																							
		100-115-117 (116-133-135)						160-180 (185-208)						All Kvs						All Kvs					
Actuator 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		
AEL62	2300																								
AEL63	4500	4.5	3.4	1.9	1.2				4.5	3.4				1.9	1.2										
AEL64	8000	12.4	11.3	6.9	6.1	3.9	3.2	3.2	12.4	11.3	7.7	6.5	6.5	6.9	6.1	3.9	3.2	3.2							
AEL65*	14000	26	24.9	15.3	14.6	12.4	11.6	11.6	26	24.9	21.3	20.1	16	15.3	14.6	12.4	11.6	11.6	16	15.3	14.6	12.4	11.6	11.6	
AEL66*	25000	50.9	49.8	30.8	30.1	25	25	16	50.9	49.8	25	25	16	30.8	30.1	25	25	16	30.8	30.1	25	25	16	16	

* Not to be used with 316L plug and stem

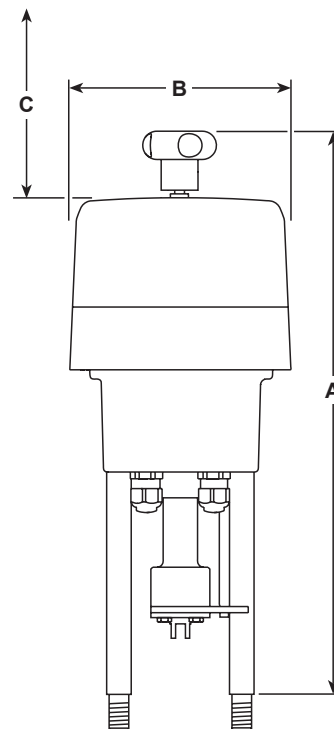
Maximum differential pressures for Class IV shut-off – QL 3-port valves with PTFE or Graphite stem seal

Valve size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100									
Kv	4.0	6.3	10	16	25	36	63	100	160									
Valve travel	20 mm						30 mm											
Actuator	Maximum differential pressure bar																	
	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite	PTFE	graphite
AEL6221-	40.0	39.6	40.0	39.6	32.1	23.2	19.5	14.0	12.3	8.8	7.4	5.2	3.7	2.3	2.3	1.3	1.1	0.6
AEL6321- *	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	29.2	25.7	17.9	15.7	10.3	8.9	7.0	6.0	3.7	3.2
AEL6323- *	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	29.2	25.7	17.9	15.7	10.3	8.9	7.0	6.0	3.7	3.2
AEL6421- *									40.0	40.0	32.6	30.3	19.6	18.2	13.5	12.5	7.4	6.9
AEL6422- *									40.0	40.0	32.6	30.3	19.6	18.2	13.5	12.5	7.4	6.9
AEL6532-											40.0	40.0	30.2	28.8	20.9	20.0	11.6	11.1
AEL6631-													40.0	40.0	40.0	40.0	25.3	24.7

* **Please note** that although the AEL6321- and the AEL6323- have the same maximum differential pressure values, they have different operating speeds. The same applies to the AEL6421- and the AEL6422-. **Please refer** to the technical data table on page 1 for full details.

Dimensions/weights (approximately) in mm and kg

Model	A	B	C	Weight
AEL6221-	459	177	150	7
AEL6231-	459	177	150	7
AEL6323-	459	177	150	7
AEL6421-	490	177	150	10
AEL6422-	490	177	150	10
AEL6532-	557	180	172	12
AEL6631-	760	226	277	20h

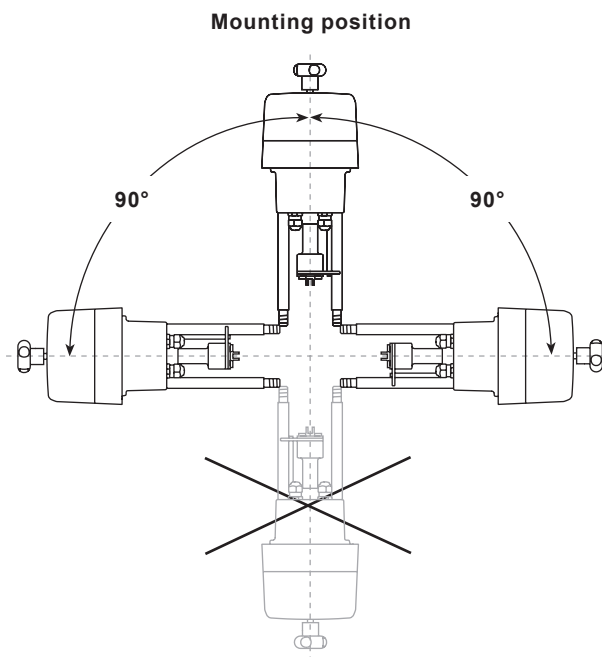


Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions that are supplied with the product.

Installation and wiring note:

The valve should be installed in a horizontal pipeline. 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 at more than 90° from the vertical position or in a wet environment.



AEL6 series actuators - Product nomenclature and selection example:

Product	A = Actuator	A
Type	E = Electric	E
Movement	L = Linear	L
Series	6	6
	2 = 2.3 3 = 4.5 4 = 8 5 = 14 6 = 25	2
Thrust (kN)		
	2 = 50 3 = 65 (AEL65 only), 95/100 (AEL66 only)	2
Stroke (mm)		
	1 = 0 - 1.0 (AEL62_, AEL63_, AEL64 and AEL66_ series only) 2 = 1.1 - 2.0 (AEL64_ and AEL65_ series only) 3 = 2.1 - 4.5 (AEL63_ series only)	1
Maximum speed (mm/s)		
	1 = 230 vac 2 = 115 vac 3 = 24 vac and 24 Vdc	1
Supply voltage		
	F = 24 V VMD, 0/2 - 10 Vdc and 0/4 - 20 mA (supply voltage 3 only) G = 115 V VMD, 0/2 - 10 Vdc and 0/4 - 20 mA (supply voltage 2 only) H = 24 V VMD, 0/2 - 10 Vdc and 0/4 - 20 mA (supply voltage 2 only) J = 230 V VMD, 0/2 - 10 Vdc and 0/4 - 20 mA (supply voltage 1 only) K = 24 V VMD, 0/2 - 10 Vdc and 0/4 - 20 mA (supply voltage 1 only)	J
Control signal		
	X = No mechanical/electrical fail safe device S = Super capacitor fail safe (non retrofittable)	S
Failure mode		

How to order/selection example:

Example : A 230 vac fail safe electric actuator to suit a DN25 control valve with PTFE stem seals, to have class IV shut-off against a 10 bar differential pressure. There is no requirement for high actuating speed, the control signal is 230 V VMD.

Selection:

1 off Spirax Sarco AEL62211JS electric actuator.