

Technical data Linear actuators for open-close and modulating duty

Type	Stroke	Operating force	Modulating force ¹⁾	Positioning speed ²⁾		Motor protection ³⁾	Valve attachment	Trapezoidal thread	Weight
	Max. [mm]	Max. [kN]	Max. [kN]	Min. [mm/s]	Max. [mm/s]		Standard EN ISO 5210		approx. [kg]
SDL 05-11	15	1.0	1.0	0.02	0.12	E	F05	10 x 1	4
SDL 11-10	35	1.0	1.0	0.1	0.5	E	F05	10 x 2	4
SDL 11-11	35	2.0	2.0	0.06	0.3	E	F05	10 x 2	4
SDL 50-10	55	6.0	5.0	0.2	0.5	E	F05	14 x 3	14
SDL 50-20	55	6.0	4.0	0.4	2.0	E	F05	14 x 3	14
SDL 50-30	55	4.0	2.5	1.2	5.0	E	F05	14 x 3	14
SDL 100-20	85	6.0	6.0	0.3	1.5	E	F07	20 x 5	15
SDL 100-30	85	15	10	0.3	1.5	E	F07	20 x 5	15

General information

Linear actuators for modulating and open-close automation

Notes on table

1) Modulating force	Maximum permissible operating force in modulating duty
2) Positioning speed	Maximum positioning speed and operating force cannot occur simultaneously.
3) Motor protection	E = electronic cut-out

Features and functions of actuator

Type of duty	Modulating duty:	Intermittent duty S4 - 30 %, with maximum number of starts of 1,200 starts per hour Higher loads on request							
	Open-close duty:	Short-time duty S2 - 15 min, class A							
Motor	Step motor (SDL 05, SDL 11, SDL 50-10), brushless DC Motor (SDL 50-20/30, SDL 100-20/30)								
Mains voltage, mains frequency	Standard voltages:								
	1-phase AC current Voltages/frequencies <table><tr><td>Volt</td><td>100 – 240</td><td>100 – 240</td></tr><tr><td>Hz</td><td>50</td><td>60</td></tr></table>			Volt	100 – 240	100 – 240	Hz	50	60
	Volt	100 – 240	100 – 240						
	Hz	50	60						
	Options:								
	DC current Voltages <table><tr><td>Volt</td><td>24</td></tr></table>			Volt	24				
	Volt	24							
	3-phase AC current: 380 V / 400 V auf Anfrage								
	Permissible variation of mains voltage: ±10 %								
	Permissible variation of mains frequency: ±5 %								
Further supply voltages on request									
Motor protection	Electronic cut-out								
Self-locking	Yes								
Cable entry	3 blanking plugs M20 x 1.5								
Manual operation	Handwheel								
Electrical connection	SDL 50, 100:	Spring-loaded terminal rail in separate terminal compartment, cross section max. 4 mm²							
	SDL 05, 11:	Internal spring loaded terminal rail, Cross sections: max 1.5 mm2 supply, max 1.3 mm2 signal							
End position seating	Electronic selection of torque or travel for both directions								

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Features and functions of actuator controls		
Control	- Analogue signals; position 0/4 – 20 mA input impedance 50 Ohm, 0 – 10 V input impedance > 100 kOhm - Control inputs up to 3 x 24 V DC, galvanically isolated from mains supply Operating points: I > 10 mA for Ri = 1,500 Ohm, IF = 1.7 V for OPEN, CLOSE, MODE	
Position feedback signal	- Analogue signals: 0 – 10 V or 0/4 – 20 mA (load max. 500 Ohm). Position via contactless sensor - Binary output: 1 x 24 V DC for collective fault, as an option up to 4 x 24 V DC, I_{max} 50mA, galvanically isolated from the mains supply, OPEN, CLOSED, intermediate position, collective fault	
Display (option)	SDL 50, 100:	Display with 2x16 LCD blue
Local controls (option, for weather-proof)	SDL 50, 100:	4 operating elements arranged around the display. - Running OPEN/CLOSE - Change-over between LOCAL/REMOTE - Programming: Torque, speed, setting end positions OPEN/CLOSED, type of seating, operating parameters, configuration parameters
Configuration	- Setting via DIP switches on the board within the actuator: - Control type: Analogue/3-point - Selection: rising/falling signal (clockwise/counterclockwise closing) - Selection: 0/4 – 20 mA - Sensor selection: Standard high resolution - Operation and setting via 4 push buttons on the board within the actuator - Running OPEN/CLOSE - Setting end positions OPEN/CLOSED (in combination with DIP switches S1.1) - Change-over between LOCAL/REMOTE - Programming: Torque, speed, type of seating, operating parameters, configuration parameters - Setting via remote (removing/fitting a jumper on the terminal rail) - Initialisation/zero point reset	

Version with I/O board (option)	
When using the I/O board (option), other binary inputs and outputs will be replaced.	
Control	Control inputs: up to 3 x 90 V – 260 V AC/DC for OPEN, CLOSE, MODE
Position feedback signal	Binary outputs: up to 4 x 24 V – 240 V AC/DC, max. 1 A for OPEN, CLOSED, intermediate position, collective fault

Service conditions		
Positioning accuracy	< 0.5 %	
Mounting position	Any position, but not suspended downward	
Installation altitude	≤ 2,000 m above sea level > 2,000 m above sea level on request	
Ambient temperature	–20 °C to +55 °C (SDL 50-20/30, SDL 100-20/30) –20 °C to +60 °C (SDL 05, SDL 11, SDL 50-10)	
Humidity	Up to 100 % relative humidity (heater option required in case of moisture)	
Enclosure protection according to EN 60529	IP67	
Pollution degree according to IEC 60664-1	Pollution degree 4 (when closed), pollution degree 2 (internal)	
Corrosion protection	Standard:	C2 according to EN ISO 12944-2
	Option:	C3/C4 according to EN ISO 12944-2
Coating	Powder coating	
Colour	Standard:	AUMA silver-grey (similar to RAL 7037)
	Option:	Available colours on request

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Lifetime	AUMA linear actuators meet or even exceed the lifetime requirements of EN 15714-2. Detailed information can be provided on request.
Further information	
Inspection certificate	On request
EU Directives	Electromagnetic Compatibility (EMC): (2014/30/EU) Low Voltage Directive: (2014/35/EU) Machinery Directive: (2006/42/EC)
Reference documents	Dimensions Linear actuators SDL 05 – SDL 100 Electrical data Linear actuators SDL 05 – SDL 100 / SDG 40