

Product overview linear actuator ES05 / ES06

Technical data

Type	ES05-11	ES05-12	ES06-4	ES05-11/E	ES05-12/E	ES06-4/E	
Control	3-point-step control			analogue 0...10 V, 0 (4)...20 mA, 3-point-step			
Positioning force	kN	0.6	1.0	2.0	0.6	1.0	2.0
Positioning speed ¹⁾	mm/min	8	8	8	8	8	8
Power consumption (230 V)	VA	2.7	2.7	5	2.7	2.7	5
Nominal current (230 V)	mA	12	12	29	12	12	29
Type of motor ³⁾		syn	syn	syn	syn	syn	syn
Motor protection ⁴⁾		B	B	B	B	B	B
Max. stroke	mm	30		35	30		40
Supply voltages ²⁾		230 V 50/60 Hz			24 V 50/60 Hz		
Type of duty acc. to IEC 34-1		S1 – 100% c.d.f., S4 – 30% c.d.f. 1200 c/h			S1 – 100% c.d.f., S4 – 30% c.d.f. 1200 c/h		
Cable entry		1 x M16 x 1.5, 1 dummy plug M16 x 1.5		1 x M16 x 1.5, 1 dummy plug M16 x 1.5			
Electrical connection		Inside terminal board, terminal configuration according to electrical connection diagram					
Switch-off in end position		2 load-dependent switches, max. 250 V AC, rating for resistive load, max. 6 A, for inductive load, max. 5 A			load-dependent, electronic seating		
Mounting position		as desired, however downward position not possible					
Ambient temperature		0 °C to +50 °C					
Position indicator		by means of anti-rotation bar					
Manual adjustment		handwheel at stem nut		crank handle	handwheel at stem nut		crank handle
Enclosure protection acc. to EN 60529		IP 43		IP 54	IP 43		IP 54
Connection type		yoke with bottom flange (refer to dimension sheet)					
Weight	kg	1.0		2.1	1.0		2.1

1) at 60 Hz, the positioning speeds and input power increase by 20%
 2) other supply voltages on request

3) syn synchronous motor
 asyn asynchronous motor
 4) B stallproof motor
 T thermoswitch for temperature monitoring

Accessories

Accessories for actuators		
	Thrust rod with coupling flange, anti-rotation bar and threaded bush M6 / M8 / M10	KUP-GE
	Yoke material: plastic	STALA-K
	Bottom flange with central bore Ø 35mm and 4 fixing drills Ø 8.4 mm on diameter 1k Ø 50 mm	FLA4

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Description of functions

After the actuator has been put to operation it will once automatically determine the maximum stroke of the valve by approaching both end positions and storing the travel permanently. This operation can also be done by manual adjustment. After the adaptation the input and output signal of the actuator is adjusted to the valve characteristics and ready for operation. The travel is determined via hall sensors without wear. The electronics ensure that the zero point is reliably recognised, to guarantee a tight seating of the valve.

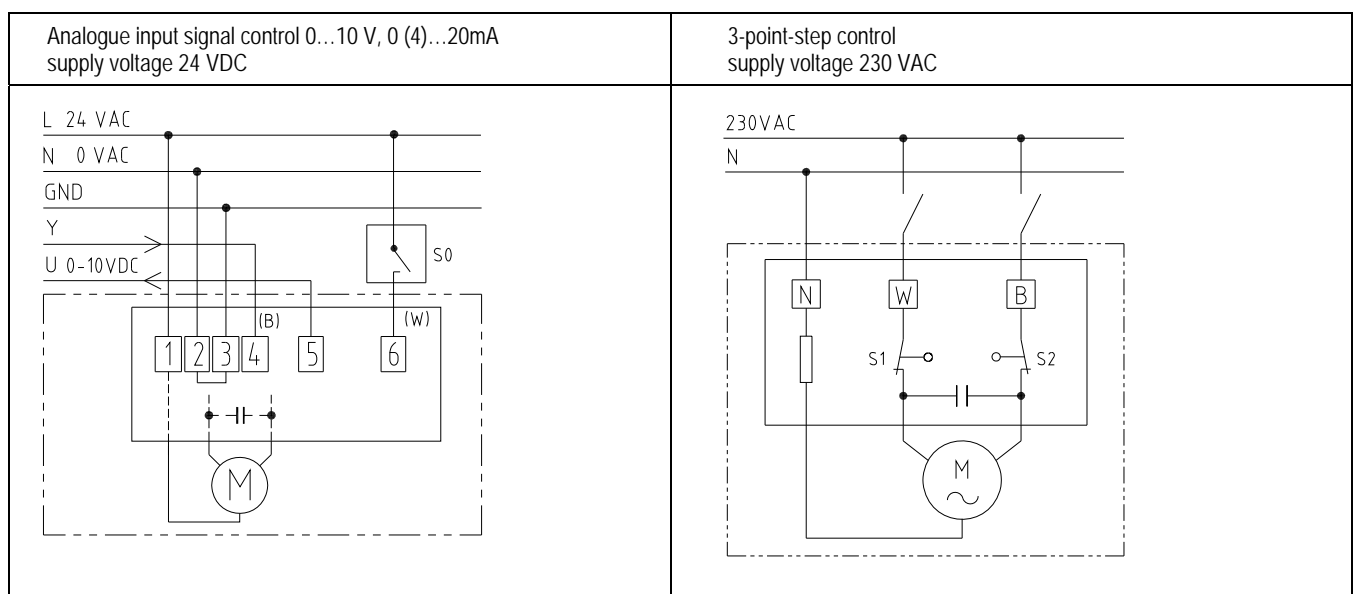
The function of the actuator can easily be set via DIP switches on the microcontroller board. The table below shows possible setting options:

S1–S4	Configuration input	Voltage input 0...10 V, 0...5 V, 5...10 V, 2...10 V Current input 0...20 mA, 0...10 mA, 10...20 mA, 4...20 mA Inverse signal
S5	Configuration output	raising / falling output signal
S6–S8	type of duty/ manual motor control	steady operation steady operation with override to 0% or 100% stroke 3-position step mode manual operation

A LED indicates the actuator status:

LED dark (longer than 5 s)	control is idle or defective
LED illuminated	motor is running
LED blinking with 0.5 Hz	motor is not running
LED blinking with 2.5 Hz	error indication or fault indication

Electrical connection



S0 switch for permanent forcing
Y input signal 0...10 V, 0 (4)...20 mA
for positioning

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Dimension sheet

ES05 with metal yoke	ES05 with plastic yoke		
		Ø D	30, 35
		S	90
		X	110, 120
		V	55

ES06-4 with metal yoke		
	Ø D	30, 35
	S	90
	X	161, 187
	V	55