

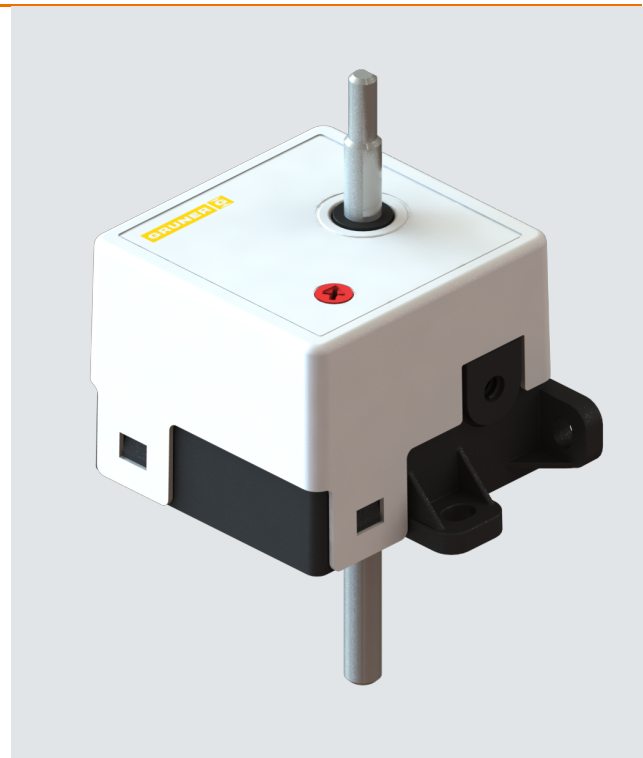
Technical data sheet

**309-230-150/SL\*\***  
**Spindle actuator**

Description

Linear spindle actuator for adjusting under floor diffusers, spin air diffusers and jet nozzles in HVAC installations

- Force 150 N
- Nominal voltage 230 VAC/DC
- Control 2-/3-point
- Stroke depending adjustable spindle
  - < 30 mm / SL3
  - < 80 mm / SL8
  - < 130 mm / SL13
  - < 200 mm / SL20
- Spindle coupling by male thread / SL.. by female thread / SL..F



Technical data

<b>Electrical data</b>	Nominal voltage	230 VAC/DC, 50/60 Hz
	Nominal voltage range	85...265 VAC/DC
	Power consumption motor (motion)	3,0 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	5,5 VA
	Control	2-/3-point
	Feedback signal	-
	Connection motor	cable 1000 mm, 3 x 0,75 mm <sup>2</sup> (halogen free)
<b>Functional data</b>	Force	150 N
	Synchronised speed	5%
	Stroke	depending adjustable spindle
	Spindle	trapezoidal screw threads (TR8-Ph3 P1,5-7H-DIN 103)
	Feed	40 mm/min (0,67 mm/s)
	Sound power level	< 35 dB(A)
	Spindle coupling	fixed by thread

## Technical data

<b>Safety</b>	Protection class	II (double insulation)
	Degree of protection	IP 54 (cable downwards)
	EMC	CE (2014/30/EU)
	LVD	CE (2014/35/EU)
	RoHS	CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage	4 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	-20°C...+50°C
	Storage temperature	-30°C...+80°C
	Ambient humidity	5...95% r.H., non condensing (EN 60730-1)
	Maintenance	maintenance free
	<b>Dimensions / Weight</b>	Dimensions
Weight		350 g

## Functionality / Properties

### Operating mode

2 point:  
Connect power supply to wire 1+2, spindle moves to direction position "0". Is also wire 3 connected to the power supply, spindle moves to direction position "1".

3 point:  
Connect power supply to wire 1+2, spindle moves to direction position "0". Is wire 1+3 connected to the power supply, spindle moves to direction position "1".

The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

### Mounting

Easily attach with mounting tabs on the device. It may no transverse forces.

### Spindle mounting

If spindle is not mounted:

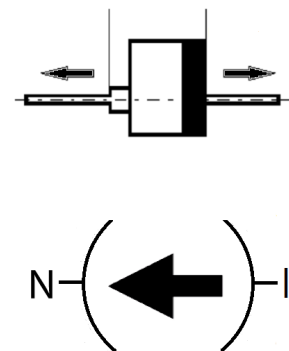
Screw and lock two nuts on the threaded rod. At least 2 mm distance between the nut and the end of the spindle. Mode switch on "N". The spindle mount on end position side "1" and through connecting the supply voltage. The actuator pulls now the spindle to direction position "0". Meanwhile mount and lock two nuts on the other side. As soon as the actuator reach end position "1", it stops.

### Mode switch

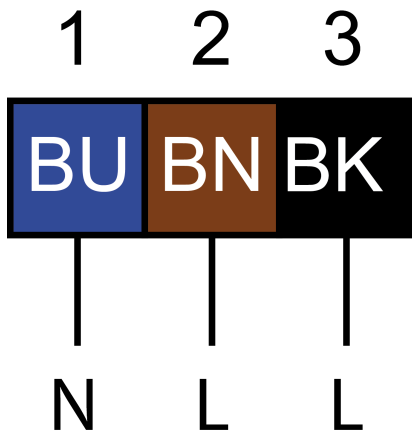
Mode switch with two positions at the housing:

N: normal  
I: invers

Position "0"      Position "1"

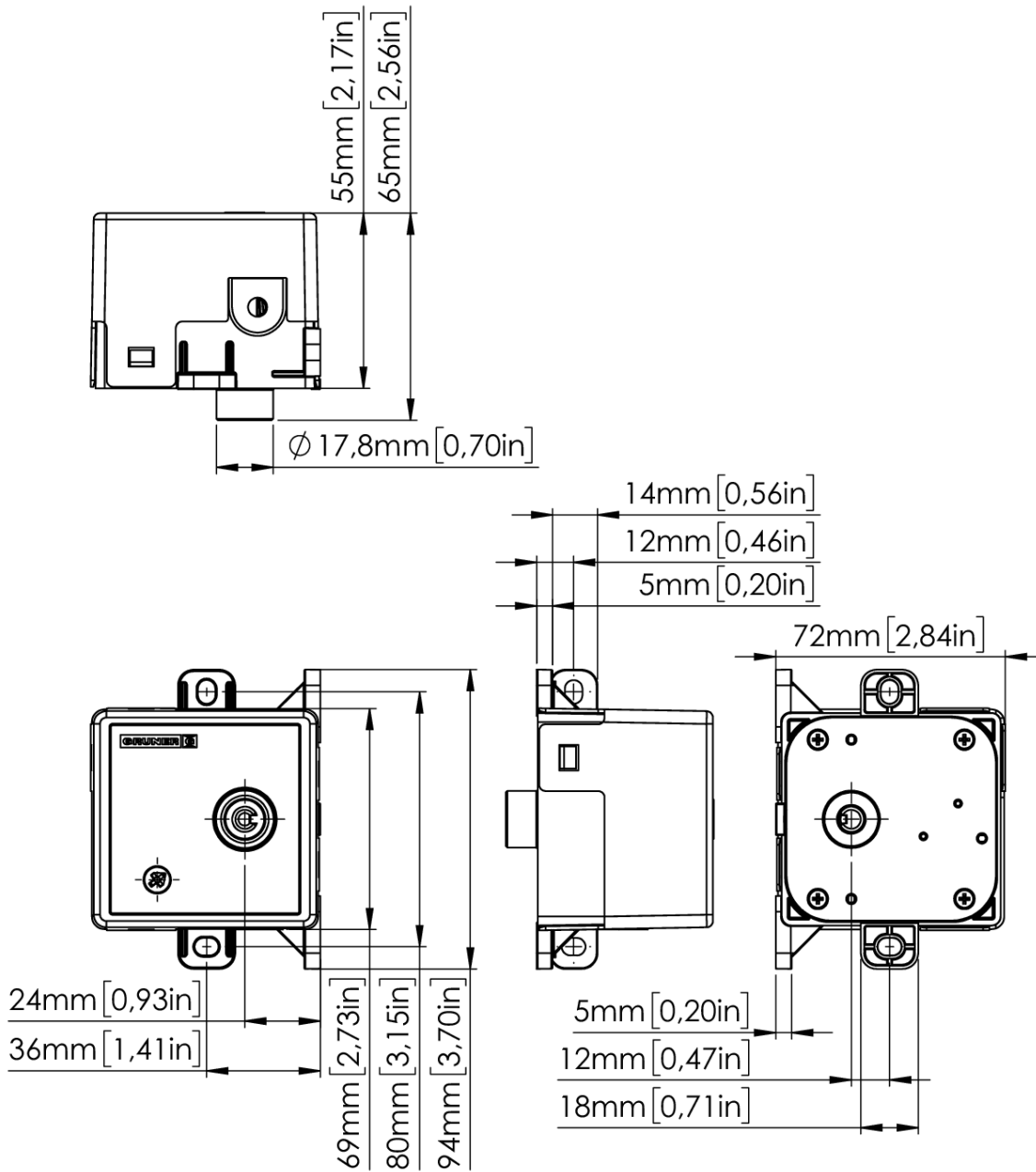


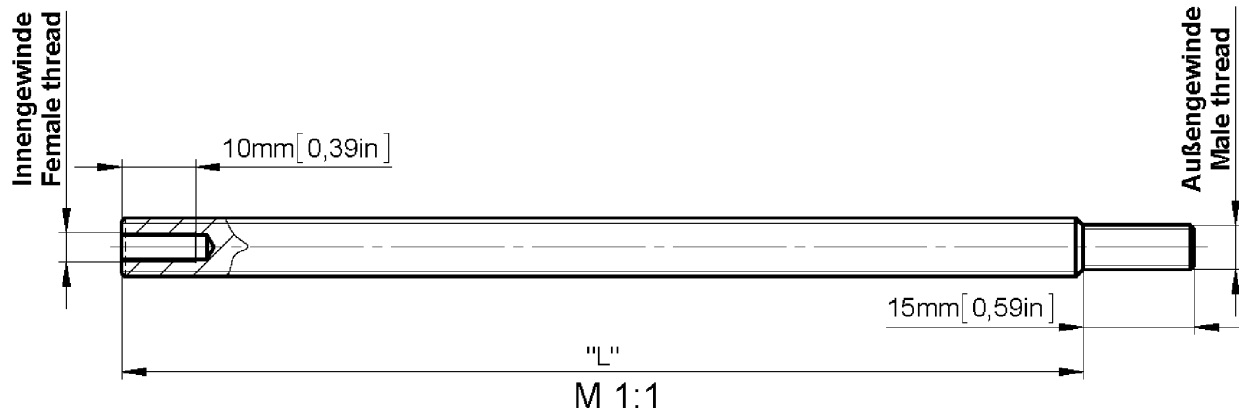
## Connector / Security Note

**Safety remarks**

- Connect via safety isolation transformer!
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The device may only be opened at the manufacturer's site.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the lift and thrust force, the specifications supplied by the manufacturer's for under floor diffusers (cross-section, design, installation site), and the air flow conditions must be observed.

Technical Drawing





Länge/ Length „L“	Hub*/ Stroke length*	Aussengew./ male thread	Innengew./ female thread
130 mm	30 mm (/SL3)	M6	–
180 mm	80 mm (/SL8)	M6	–
230 mm	130 mm (/SL13)	M6	–
300 mm	200 mm (/SL20)	M6	–
375 mm	280 mm (/SL28)	M6	–
130 mm	30 mm (/SL3F)	M6	M4
180 mm	80 mm (/SL8F)	M6	M4
230 mm	130 mm (/SL13F)	M6	M4
300 mm	200 mm (/SL20F)	M6	M4

\* mit 4x Muttern / with 4x nuts