



- NACA...02/05 (S1) series
- NENUTEC standard damper actuators are especially designed and produced for applications in the HVAC systems.
- Our wide range of NENUTEC standard damper actuators has been developed to operate and position air dampers of different sizes.

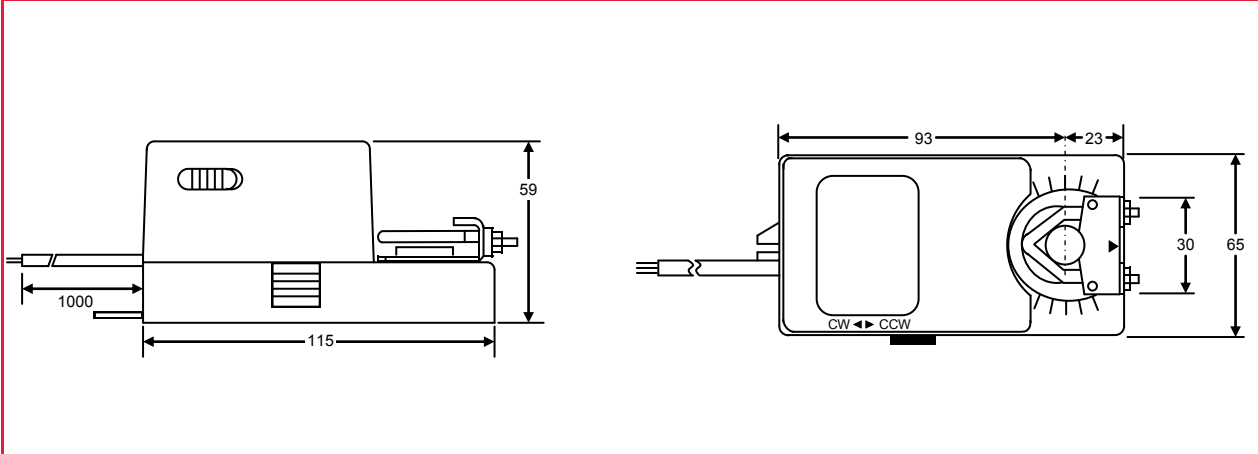
### Product Features

- Torque 2 Nm / 5 Nm
- Damper size 0.4 m<sup>2</sup> / 1.0 m<sup>2</sup>
- Power Supply AC/DC 24 V and AC 230 V
- Control 2 Point and 3 Point
- 1 adjustable auxiliary switch (SPDT)
- Shaft dimensions  
Ø 6 to 16 mm round / £ 5 to 12 mm square
- Minimum shaft length 40 mm
- Selectable direction of rotation
- Adjustable angle of rotation
- Actuator with 1000 mm cable connection
- Customer version on request

### Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switch	Model / Type
2 Nm	60...90 sec	AC/DC 24 V ± 10%	No	NACA 1-02
2 Nm	60...90 sec	AC/DC 24 V ± 10%	1 x SPDT	NACA 1-02 S1
2 Nm	60...90 sec	AC 230 V ± 10%	No	NACA 2-02
2 Nm	60...90 sec	AC 230 V ± 10%	1 x SPDT	NACA 2-02 S1
5 Nm	70...100 sec	AC/DC 24 V ± 10%	No	NACA 1-05
5 Nm	70...100 sec	AC/DC 24 V ± 10%	1 x SPDT	NACA 1-05 S1
5 Nm	70...100 sec	AC 230 V ± 10%	No	NACA 2-05
5 Nm	70...100 sec	AC 230 V ± 10%	1 x SPDT	NACA 2-05 S1

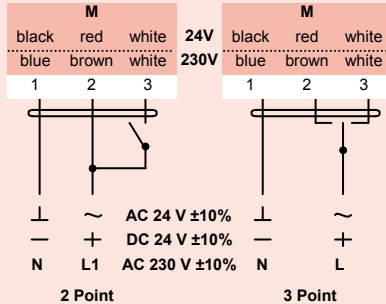
## Actuator Dimensions (mm)



## Technical Specification

	NACA 1.1... (S1)	NACA 2.2... (S1)
Torque	2 Nm / 5 Nm	
Damper Size	0.4 m <sup>2</sup> / 1.0 m <sup>2</sup>	
Shaft dimensions	Ø 6 to 16 mm round / £ 5 to 12 mm square	
Power Supply	AC/DC 24 V ± 10%	
Frequency	50...60Hz	
Control Signal	2 point and 3 point	
Power Consumption		
-Operating	2.0 W	
-At the end stops	2.0 W	
For wire sizing	4.0 VA	
Auxiliary Switches Rating (Amp and Voltage)	3 (1.5) A, AC 250 V	
Protection Class	III	IP
Angle of Rotation	90° (95° mechanical)	
Angle of Limiting	0°...90° (max. 0°...30° / 60°...90°)	
Weight	< 0.7 Kg	
Life Cycle	60,000 rotation	
Sound Level	40 dB	
IP Protection	IP54 (dust protected & protected against splash water)	
Operating Temperature	-20°...50° as per IEC 721-3-3	
Non-Operating Temperature	-30°...+60° C / IEC 721-3-2	
Ambient Humidity	5%...95% rH non condensing / EN	
Maintenance	Maintenance free	
Mode of Operation	Type I / EN 60730-1	
EMC	CE and ISO 9000 EN / EEC... Requirements	

### Wiring Diagram NACA 1/2...(S1) Power Supply AC/DC 24 V - AC 230 V

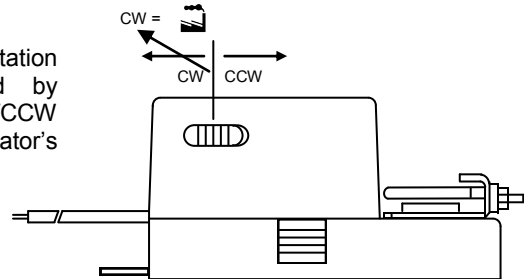


Connect via safety isolating transformer

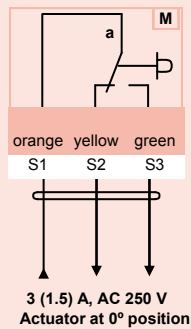
### Changing Direction of Rotation NACA 1/2...(S1)

Factory-set CW!

The direction of rotation can be changed by pushing the CW/CCW switch on the actuator's housing.



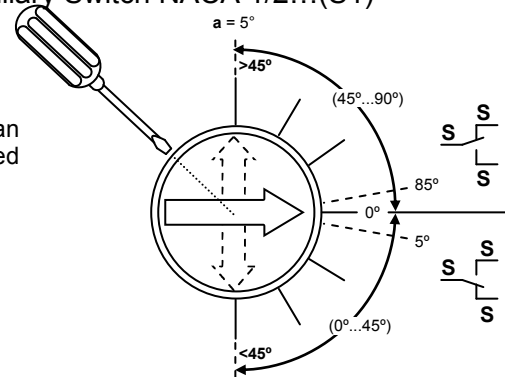
### Wiring Diagram NACA 1/2...(S1) Auxiliary Switch



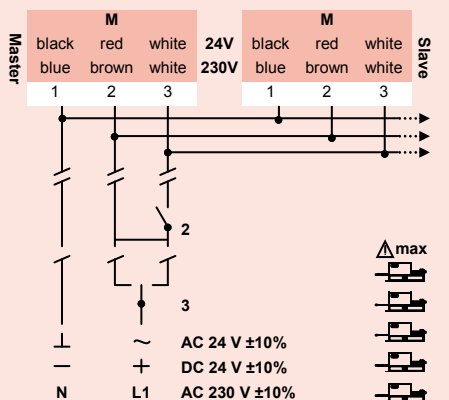
### Adjustment of Auxiliary Switch NACA 1/2...(S1)

Switch a factory-set at 5°

The auxiliary switch can be optimally adjusted between 0°...90°.



### Wiring Diagram NACA 1/2...(S1) Parallel Connection

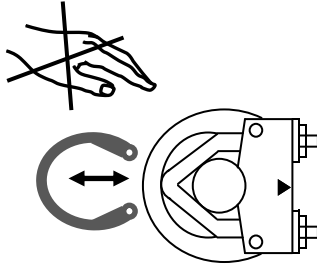


### Remark

Parallel connection of several NACA...(S1) actuators is possible. The power consumption must be observed.

### Releasing the Adapter NACA 1/2...(S1)

Releasing the adapter is not required and not necessary.

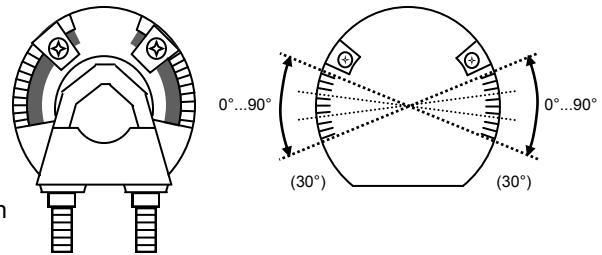


### Limiting Angle of Rotation NACA 1/2...(S1)

Adjustment of Mechanical Limiter

1. Loosen screw of mechanical limiter
2. Move limiter to appropriate position \*
3. Tighten screw

\* Working range of 90° can be reduced up to 30° from each end position.



### OEM Customised Version on Request

TELIMA/NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand. Please contact us for further information.

### Important Remark

Consult NENUTEC representatives for specific requirements and material selections for your intended application.



This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.



AC / DC 24 V: Connect via safety isolating transformer.  
AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3 mm contact gap).

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