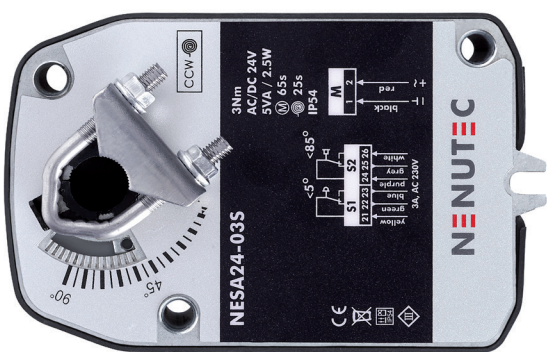




## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 3 Nm | OPEN-CLOSED CONTROL



### NESA...-03(S)

NENUTEC spring return damper actuators have been developed to operate and position air dampers of different sizes that perform safety functions. For several application as frost hygiene and smoke control in technical building installations.

- Damper size 0.5 m<sup>2</sup>
- Power supply AC/DC 24V - AC 230V
- 2 Point control
- 2 Auxiliary switches (SPDT)
- Shaft dimensions  
Ø 6 to 12 mm round / 6 to 8 mm square
- Minimum shaft length 24 mm
- Selectable direction of rotation by reversing actuator
- Adjustable angle of rotation (mechanical)
- Actuator with 1000 mm cable connection
- Customer version (on request)

Pictures might not correspond with technical data.

#### MODEL SELECTION TABLE

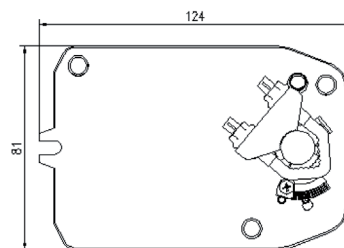
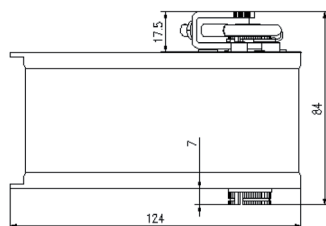
Torque	Running time (Power)	(Spring)	Power supply	Auxiliary switch	Model / Type
3 Nm	65 sec	< 25 sec	AC/DC 24 V ± 15%	No	NESA24-03
3 Nm	65 sec	< 25 sec	AC/DC 24 V ± 15%	2 x SPDT	NESA24-03S
3 Nm	65 sec	< 25 sec	AC 230 V ± 10%	No	NESA230-03
3 Nm	65 sec	< 25 sec	AC 230 V ± 10%	2 x SPDT	NESA230-03S



## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 3 Nm | OPEN-CLOSED CONTROL

### ACTUATOR DIMENSIONS (mm)



### TECHNICAL SPECIFICATIONS

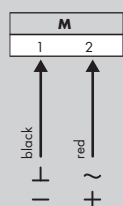
	NESA24-03(S)	NESA230-03(S)
Torque	3 Nm	3 Nm
Damper size	0.5 m <sup>2</sup>	0.5 m <sup>2</sup>
Shaft dimensions	Ø 6 to 12 mm round / 6 to 8 mm square	Ø 6 to 12 mm round / 6 to 8 mm square
Power supply	AC 24V / DC 24V ± 15%	AC 230V ± 10%
Frequency	50 - 60 Hz	50 - 60 Hz
Control signal	2 point	2 point
Power consumption		
- Operating	2.5 W	1.5 W
- End position	1.6 W	1.6 W
For wire sizing	5 VA	5 VA
Auxiliary switch rating	3A AC 230V	3A AC 230V
Parallel operation	yes (review performance data)	yes (review performance data)
Protection class	III	II
Angle of rotation	0° ... 90° (max. 95°)	0° ... 90° (max. 95°)
Angle of limiting	45° ... 90° in 5° steps	45° ... 90° in 5° steps
Weight	1.2 kg	1.2 kg
Life cycle actuator	Min. 60'000 emergency settings	Min. 60'000 emergency settings
Sound level motor and spring return	M. 45 dB (A) S. 65 dB (A)	M. 45 dB (A) S. 65 dB (A)
IP protection	IP 54 (dust protected & protected against splash water)	IP 54 (dust protected & protected against splash water)
Operating temperature	-20°...+50° C / IEC 721-3-3	-20°...+50° C / IEC 721-3-3
Non-operating temperature	-30°...+80° C / IEC 721-3-2	-30°...+80° C / IEC 721-3-2
Ambient humidity	5%...95% rH non condensing	5%...95% rH non condensing
Maintenance	Maintenance free	Maintenance free
Mode of operation	Type I / EN 60730-1	Type I / EN 60730-1
EMC	CE according to 2004/108/EC	CE according to 2004/108/EC
Low voltage directive	CE according to 2006/95/EC	CE according to 2006/95/EC
UL-Listing	UL 873	UL 873

## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 3 Nm | OPEN-CLOSED CONTROL

Wiring diagram NESA24-03(S)

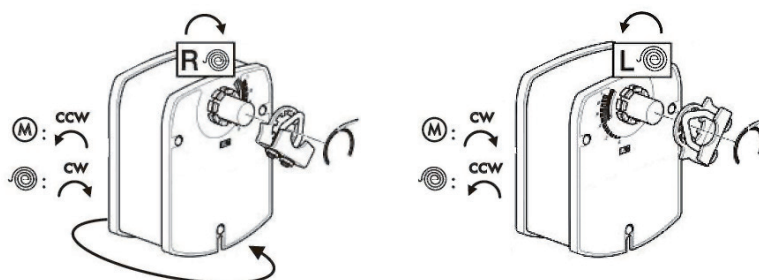
Power supply AC/DC 24V



AC 24V  $\pm 15\%$   
DC 24V  $\pm 15\%$

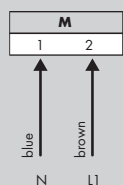
⚠ Connect via safety isolating transformer

### ■ Changing direction of rotation NESA...03(S)



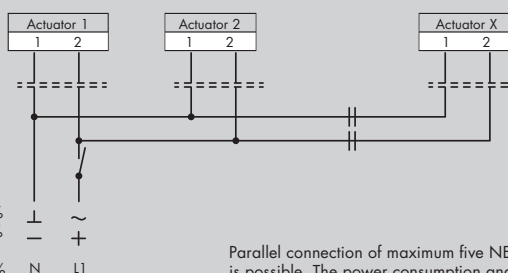
Wiring diagram NESA230-03(S)

Power supply AV 230V



AC 230V  $\pm 10\%$

Wiring diagram for parallel operation NESA...-03(S)

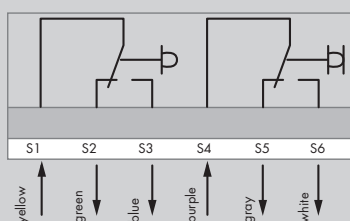


AC 24V  $\pm 15\%$   
DC 24V  $\pm 15\%$   
AC 230V  $\pm 10\%$

⚠ Connect via safety isolating transformer

Parallel connection of maximum five NESA...-03(S) actuators is possible. The power consumption and distance between master and slave must be observed.

Wiring diagram auxiliary switches  
NESA...-03S



3A, AC 230V

### ■ Auxiliary switches

The auxiliary switches for NESA-03S actuators are not adjustable.  
The switching points are fixed at 5° for switch **a** and at 85° for switch **b**.

### ■ Remark

For more details of installation and commissioning, please observe our mounting instruction manual M-NESA...-03(S)



## NENUTEC AIR - ROTARY DAMPER ACTUATOR

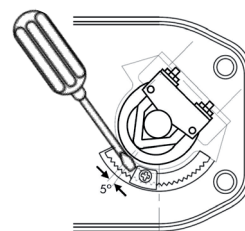
WITH SPRING RETURN SAFETY FUNCTION 3 Nm | OPEN-CLOSED CONTROL

### ■ Mechanical limiting angle of rotation NESA...-03 series

Adjustment of mechanical limiter

1. Take limiting element and screw delivered with the actuator
2. Place limiting element at appropriate position \*
3. Tighten screw

\* Working range of 90° can be reduced up to 45°.



### SAFETY NOTES

- The NE... actuators are not allowed to be used outside the specified field of application as described at the front page of this data sheet.
- Only to be installed by skill educated persons. Any legal regulations or issued by authorities must be observed during installation.
- The NE... actuator may only opened by NENUTEC manufacturer site. Device does not contain any parts that can be replaced by user.
- The electrical connection cable must not be removed from the NE... actuator.
- This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.
- AC 24V - 50/60 Hz - DC 24V: Connect via safety isolating transformer.
- AC 230V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least 3 mm contact gap).



### IMPORTANT REMARKS

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



AC/DC 24V: Connect via safety isolating transformer. AC 230V: 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).

Consult NENUTEC representatives for specific requirements and material selections for your intended application. The entire content of this technical datasheet is protected by copyright with all rights reserved ©.

The performance specifications are nominal and conform to acceptable industry standards. NENUTEC shall not be liable for damages resulting from misapplication or misuse of its products.

### CUSTOMISED VERSION

NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand on request.

Please contact us for further information.

#### NENUTEC AG

Schachenstrasse 80  
CH - 8645 Jona/SG - Switzerland  
T: +41 55 224 40 60  
info@nenutec.com  
www.nenutec.com

#### Distributor