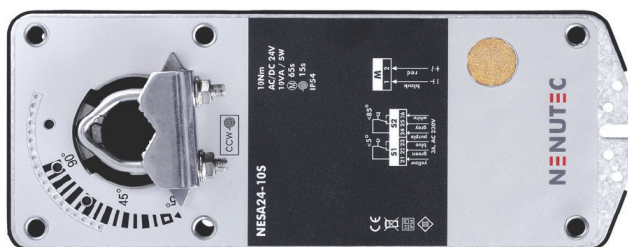


## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 10 Nm | MODULATED CONTROL



### NESM24.2-10(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 2 m<sup>2</sup>
- Power supply 24 V<sub>AC/DC</sub>
- Control 0...10 V<sub>DC</sub>
- 2 auxiliary switches (SPDT)
- Shaft dimensions Ø 13 to 19 mm round / 8 to 12 mm square
- Minimum shaft length 40 mm.
- Minimum shaft length 24 mm.
- Adjustable angle of rotation (mechanical end stop).
- Actuator with 1000 mm connection cable.
- Customised versions and functions (on request).

The appearance of the product may differ from the illustration. Technical specifications are subject to change.

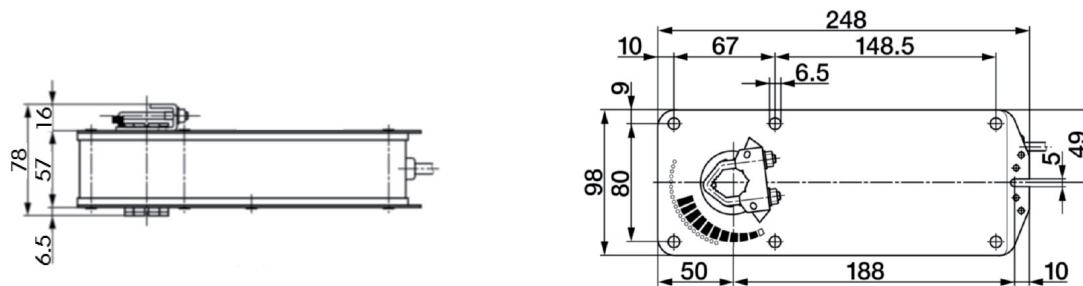
#### MODEL SELECTION TABLE

Torque	Running time		Power supply	Auxiliary switches	Model/type
	(motor)	(spring return)			
10 Nm	120 s	15 s	24 V <sub>AC/DC</sub> ±15%	—	NESM24.2-10
10 Nm	120 s	15 s	24 V <sub>AC/DC</sub> ±15%	2 x SPDT	NESM24.2-10S

## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 10 Nm | MODULATED CONTROL

### ACTUATOR DIMENSIONS [mm]



### TECHNICAL SPECIFICATION

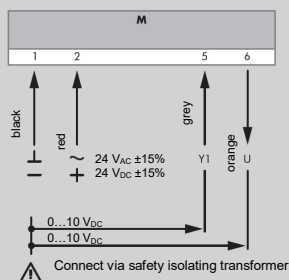
#### NESM24.2-10(S)

Torque	10 Nm
Damper size	2 m <sup>2</sup>
Shaft dimensions	Ø 13 to 19 mm round / 8 to 12 mm square
Power supply	24 V <sub>AC</sub> / 24 V <sub>DC</sub> ± 15%
Frequency	50 -60 Hz
Control signal Y (input)	0...10 V <sub>DC</sub>
Feedback position U (output)	0...10 V <sub>DC</sub>
Power consumption	
– Operating	2.4 W
– End position	0.5 W
Rated power	10 VA
Auxiliary switch rating	3 A 230 V <sub>AC</sub>
	yes (review performance data)
Protection class	III
Angle of rotation	0° ... 90° (max. 95°)
Limiting angle of rotation	45° ... 90° in 5° steps
Weight	1 kg
Life cycle	Min. 60,000 emergency settings
Sound pressure level	Motor 45 dB (A) / spring return 65 dB (A)
Protection degree	IP 54 (dust protected & protected against splash water)
Working temperature range	-20°...+50°C / IEC 721-3-3
Storage temperature	-30°...+80°C / IEC 721-3-2
Ambient humidity	5...95% rH (non condensing)
Maintenance	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE according to 2004/108/EC
Low voltage directive	CE in accordance with 2006/95/EC
UL-Listing	UL 873

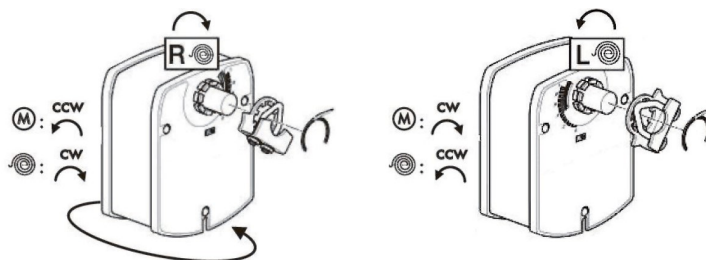
## NENUTEC AIR - ROTARY DAMPER ACTUATOR

WITH SPRING RETURN SAFETY FUNCTION 10 Nm | MODULATED CONTROL

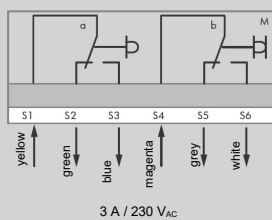
Wiring diagram NESM24.2-10(S)  
Power supply 24 V<sub>AC</sub> / DC



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



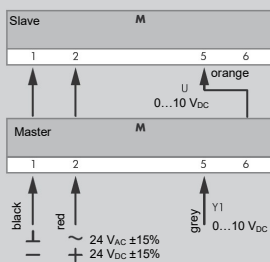
Wiring diagram auxiliary switches  
NESM...-10S



### ■ Auxiliary switches

The auxiliary switches for NESM-10S actuators are not adjustable.  
The switching points are fixed at 5° for switch **a** and at 85° for switch **b**.

Wiring diagram NESM24.2-10(S)  
Parallel connection



### ■ Note

Parallel connection of maximum five NESM-10(S) actuators is possible. The power consumption and distance between master and slave must be observed.  
For more details of installation and commissioning, please observe our mounting instruction manual M-NESM-10(S).

## NENUTEC AIR - ROTARY DAMPER ACTUATOR

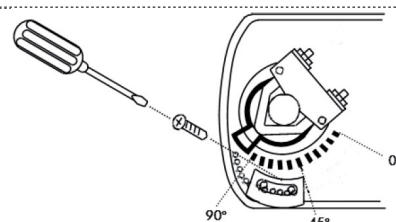
WITH SPRING RETURN SAFETY FUNCTION 10 Nm | MODULATED CONTROL

### ■ Mechanical limiting angle of rotation NESM...-10 series

Adjustment of mechanical limiter.

1. Take limiting element and screw delivered with the actuator
2. Place limiting element at appropriate position.\*
3. Tighten the 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.
- Installation works may be performed only by trained and qualified personnel. Local regulations, codes and standards must be observed during installation.
- The NE... actuator may only be 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 waste. Please consider the local valid legislation.
- 24 V<sub>AC</sub> 50/60 Hz, 24 V<sub>DC</sub>: Connect via safety isolating transformer.
- 230 V<sub>AC</sub>: 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.)



### IMPORTANT REMARKS

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

24 V<sub>AC/DC</sub>: Connect via safety isolating transformer. 230 V<sub>AC</sub>: 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. All rights are 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.

For further information please contact us or our local representative.

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