



NENUTEC AIR - ROTARY DAMPER ACTUATOR


STANDARD 8 Nm | 16 Nm | 24 Nm | 32 Nm | MODULATING CONTROL

NEAM...08/16/24/32 (S) 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. Angular positioning of modulating actuators can be controlled by all trade mark controllers.



Pictures might not correspond with technical data.

- Damper size 1.5 m² / 3.0 m² / 4.5 m² / 6.0 m²
- Power supply AC/DC 24V and AC 230V
- Control DC 0(2)...10 V and 0(4)...20 mA
- 2 adjustable auxiliary switches (SPDT)
- Digital greentech technology 
- Shaft dimensions
Ø 10 to 20 mm round / 10 to 16 mm square
minimum shaft length 50 mm
- Selectable direction of rotation
- Adjustable angle of rotation
- Customer version (on request)

MODEL SELECTION TABLE

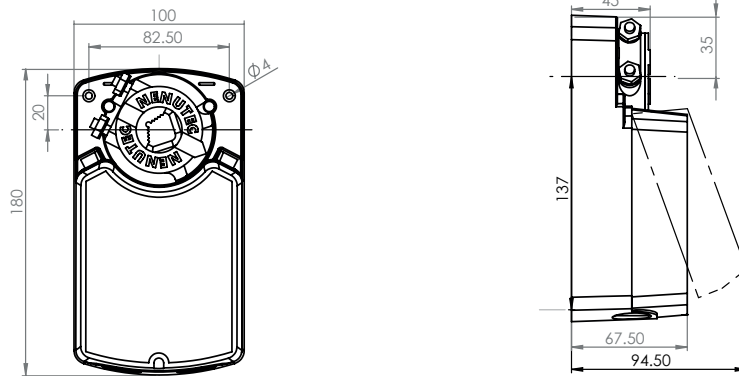
Torque	Running time	Power supply	Auxiliary Switches	Model / Type
8 Nm	40 sec	AC/DC 24 V ± 15%	No	NEAM24.1-08
8 Nm	40 sec	AC/DC 24 V ± 15%	2 x SPDT	NEAM24.1-08S
8 Nm	40 sec	AC 230V ± 10%	No	NEAM230.1-08
8 Nm	40 sec	AC 230V ± 10%	2 x SPDT	NEAM230.1-08S
16 Nm	90 sec	AC/DC 24 V ± 15%	No	NEAM24.1-16
16 Nm	90 sec	AC/DC 24 V ± 15%	2 x SPDT	NEAM24.1-16S
16 Nm	90 sec	AC 230V ± 10%	No	NEAM230.1-16
16 Nm	90 sec	AC 230V ± 10%	2 x SPDT	NEAM230.1-16S
24 Nm	140 sec	AC/DC 24 V ± 15%	No	NEAM24.1-24
24 Nm	140 sec	AC/DC 24 V ± 15%	2 x SPDT	NEAM24.1-24S
24 Nm	140 sec	AC 230V ± 10%	No	NEAM230.1-24
24 Nm	140 sec	AC 230V ± 10%	2 x SPDT	NEAM230.1-24S
32 Nm	190 sec	AC/DC 24 V ± 15%	No	NEAM24.1-32
32 Nm	190 sec	AC/DC 24 V ± 15%	2 x SPDT	NEAM24.1-32S
32 Nm	190 sec	AC 230V ± 10%	No	NEAM230.1-32
32 Nm	190 sec	AC 230V ± 10%	2 x SPDT	NEAM230.1-32S



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ACTUATOR DIMENSIONS (mm)



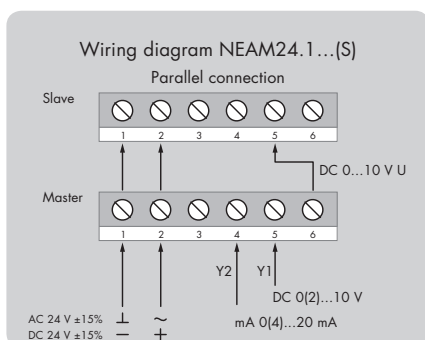
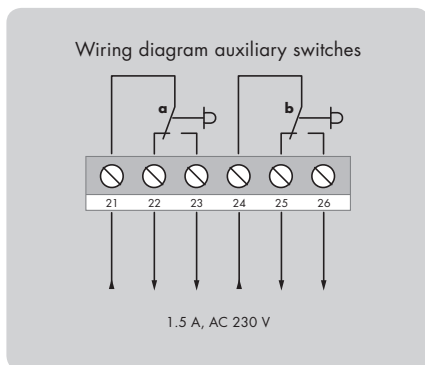
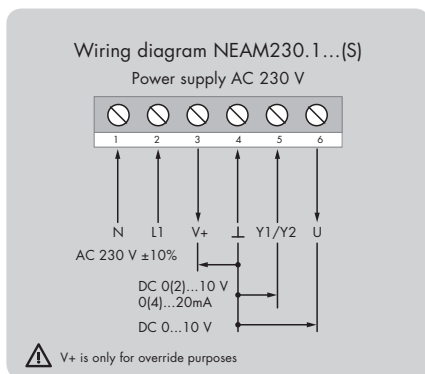
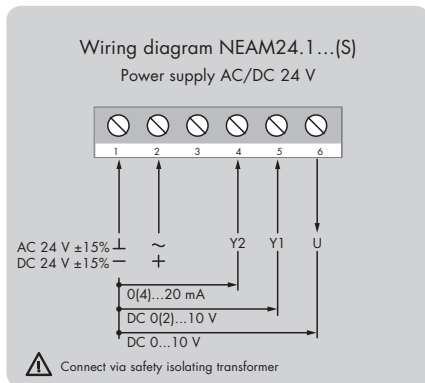
TECHNICAL SPECIFICATIONS

	NEAM24.1...(S)	NEAM230.1...(S)
Torque	8 Nm / 16 Nm / 24 Nm / 32 Nm	8 Nm / 16 Nm / 24 Nm / 32 Nm
Damper size	1.5 m ² / 3.0 m ² / 4.5 m ² / 6.0 m ²	1.5 m ² / 3.0 m ² / 4.5 m ² / 6.0 m ²
Shaft dimensions	∅ 10 to 20 mm round / 10 to 16 mm square	∅ 10 to 20 mm round / 10 to 16 mm square
Power supply	AC/DC 24V ± 15%	AC 230V ± 10%
Frequency	50 - 60 Hz	50 - 60 Hz
Control signal (Input)	DC 0(2)...10 V or 0(4)...20 mA	DC 0(2)...10 V or 0(4)...20 mA
Position signal (Output)	DC 0...10 V	DC 0...10 V
Power consumption		
- Operating	2.5 W	2.5 W
- End position	0.2 W	0.2 W
For wire sizing	6.5 VA	6.5 VA
Auxiliary switch rating	1.5 A, AC 230 V	1.5 A, AC 230 V
Protection class	III ⚡	II ☐
Angle of rotation	0°...90° (93° mechanical)	0°...90° (93° mechanical)
Angle of limiting	0°...90° in 5° steps	0°...90° in 5° steps
Weight	1.2 kg - 1.4 kg	1.3 kg - 1.5 kg
Life cycle	60'000 rotation	60'000 rotation
Sound level	45 dB (A)	45 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 / EN 60730-1	5%...95% rH non condensing / EN 60730-1
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



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■ Changing direction of rotation NEAM24.1/230.1...(S)

Factory setting CW!

The direction of rotation can be changed by pushing micro switch SW1 for **1-2** seconds.

The green LED indicates the selected rotation direction with pulses.

0,25 s 3,25 s 0,25 s 2,75 s

■ Spezifikation Steuersignale

Control signal Y1 DC 0(2)... 10 V	Control signal Y2 0(4)...20 mA	Position signal U DC 0...10 V
Input resistance Ri 100 Ω	Input resistance Ri 500 Ω	Load resistance Ri > 50 Ω

■ Adjustment of control signal NEAM 24.1/230.1...(S)

Factory setting: 0-10 V / 0-20 mA

The control signal can be adjusted by pushing micro switch SW2 for **1-2** seconds.

The red LED indicates the selected input range with pulses.

for 0-10V / 0-20 mA **for 2-10V / 4-20 mA**

0,25 s 2,75 s 0,25 s

■ Changing control signal

To change the control signal for the NEAM230.1...(S) between **mA** and **V**. Choose the correct jumper position. Factory setting: Position A (V).

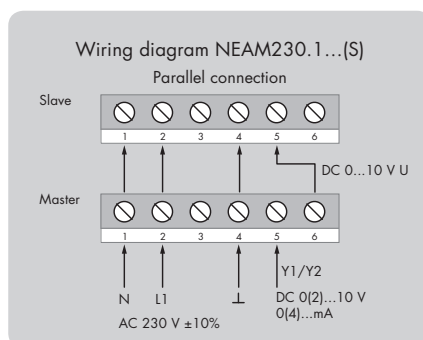
- Jumper position A: **V** input Y1
- Jumper position B: **mA** input Y2

(type NEAM230.1...(S))

■ Adjustment auxiliary switches

Switch **a** factory-set at 10°
Switch **b** factory-set at 80°

The auxiliary switches can be optimally adjusted between 0°...90°.
(type NEAM24.1/230.1...(S))



■ Remark

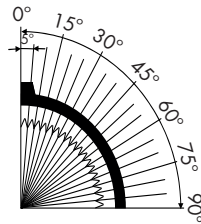
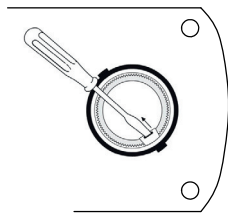
Parallel connection of maximum five NEAM...(S) actuators is possible. The power consumption and distance between master and slave must be observed.



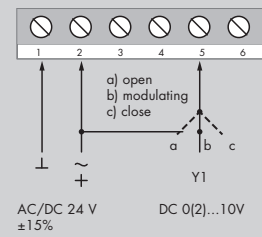
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Limiting angle of rotation NEAM24.1/230.1...(S)



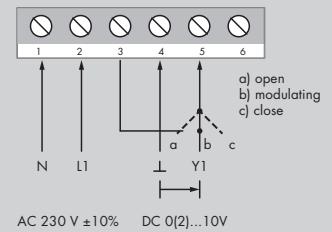
Wiring diagram NEAM24.1...(S)
Override control



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.
- AC 24V - 50/60 Hz - DC 24V: Connect via safety isolating transformer.
- The NE... actuator may only opened by NENUTEC manufacturer site.
- 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).

Wiring diagram NEAM230.1...(S)
Override control



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 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).

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.

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