



## NENUTEC AIR - ROTARY DAMPER ACTUATOR

STANDARD 2 Nm | 5 Nm | 2 POINT AND 3 POINT CONTROL



### NEAA...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.

- Damper size 0.4 m<sup>2</sup> / 1.0 m<sup>2</sup>
- Power supply AC/DC 24V and AC 230V
- Control 2 point and 3 point
- 1 adjustable auxiliary switch (SPDT)
- Digital greentech technology 
- 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
- Customer version (on request)



Pictures might not correspond with technical data.

### MODEL SELECTION TABLE

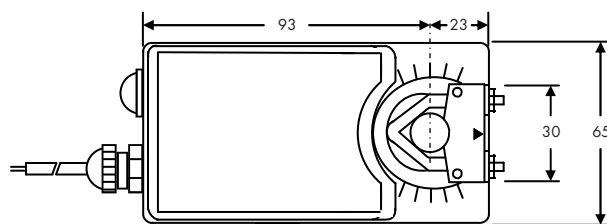
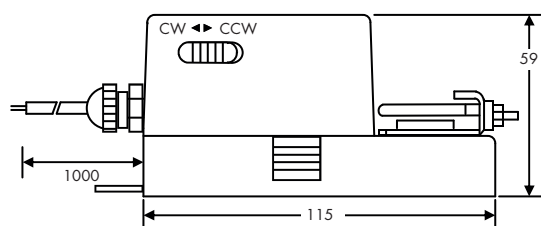
| Torque | Running time | Power supply     | Auxiliary switch | Model / Type  |
|--------|--------------|------------------|------------------|---------------|
| 2 Nm   | 60...90 sec  | AC/DC 24 V ± 15% | No               | NEAA24-02     |
| 2 Nm   | 60...90 sec  | AC/DC 24 V ± 15% | 1 x SPDT         | NEAA24-02 S1  |
| 2 Nm   | 60...90 sec  | AC 230 V ± 10%   | No               | NEAA230-02    |
| 2 Nm   | 60...90 sec  | AC 230 V ± 10%   | 1 x SPDT         | NEAA230-02 S1 |
| 5 Nm   | 70...100 sec | AC/DC 24 V ± 15% | No               | NEAA24-05     |
| 5 Nm   | 70...100 sec | AC/DC 24 V ± 15% | 1 x SPDT         | NEAA24-05 S1  |
| 5 Nm   | 70...100 sec | AC 230 V ± 10%   | No               | NEAA230-05    |
| 5 Nm   | 70...100 sec | AC 230 V ± 10%   | 1 x SPDT         | NEAA230-05 S1 |



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### ACTUATOR DIMENSIONS (mm)



### TECHNICAL SPECIFICATIONS

|                           | NEAA24...(S1)                                           | NEAA230...(S1)                                          |
|---------------------------|---------------------------------------------------------|---------------------------------------------------------|
| Torque                    | 2 Nm / 5 Nm                                             | 2 Nm / 5 Nm                                             |
| Damper size               | 0.4 m <sup>2</sup> / 1.0 m <sup>2</sup>                 | 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                  | Ø 6 to 16 mm round / 5 to 12 mm square                  |
| Power supply              | AC/DC 24V ± 15%                                         | AC 230V ± 10%                                           |
| Frequency                 | 50 - 60 Hz                                              | 50 - 60 Hz                                              |
| Control signal            | 2 point and 3 point                                     | 2 point and 3 point                                     |
| Power consumption         |                                                         |                                                         |
| - Operating               | 1.2 W                                                   | 1.2 W                                                   |
| - End position            | 1.2 W                                                   | 1.2 W                                                   |
| For wire sizing           | 2.0 VA                                                  | 2.0 VA                                                  |
| Auxiliary switch rating   | 3 (1.5) A, AC 250 V                                     | 3 (1.5) A, AC 250 V                                     |
| Protection class          | III                                                     | II                                                      |
| Angle of rotation         | 0°...90° (95° mechanical)                               | 0°...90° (95° mechanical)                               |
| Angle of limiting         | 0°...90° (max. 0°...30° / 60°...90°)                    | 0°...90° (max. 0°...30° / 60°...90°)                    |
| Weight                    | < 0.7 kg                                                | < 0.8 kg                                                |
| Life cycle                | 60'000 rotation                                         | 60'000 rotation                                         |
| Sound level               | 42 dB (A)                                               | 42 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                         |

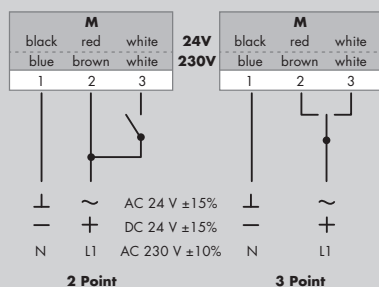


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Wiring diagram NEAA 24/230...(S1)

Power supply AC/DC 24 V - AC230 V

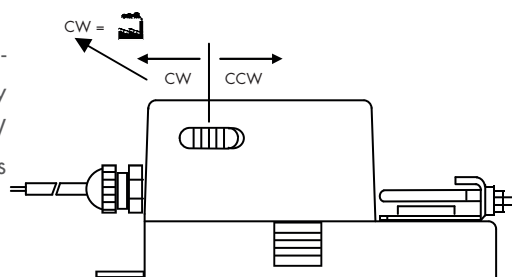


⚠ Connect via safety isolating transformer

### ■ Changing direction of rotation NEAA24/230...(S1)

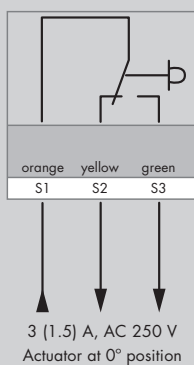
Factory-set CW!

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



Wiring diagram NEAA 24/230...(S1)

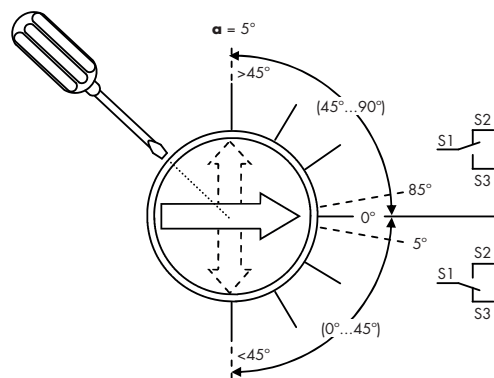
Auxiliary switch



### ■ Adjustment of auxiliary switch NEAA24/230...(S1)

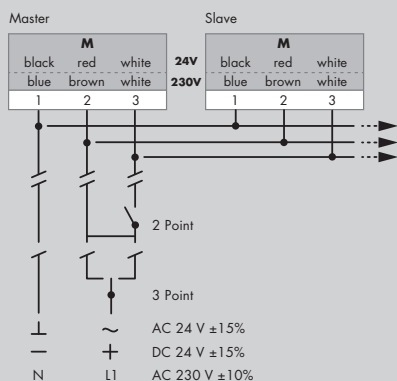
Switch **a** factory-set at 5°

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



Wiring diagram NEAA 24/230...(S1)

Parallel connection



### ■ Remark

Parallel connection of maximum five NEAA...(S1) 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-NEAA02-05.



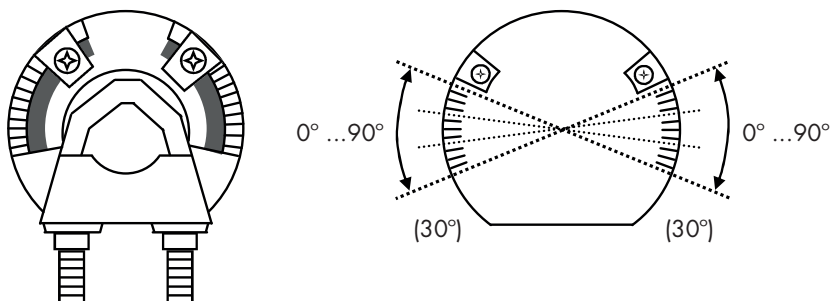
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### ■ Limiting angle of rotation NEAA24/230...(S1)

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.



### 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.

Please contact us for further information.

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Distributor

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