NENUTEC®

INNOVATIVE MEMBER OF SWISTEC

ELECTRONIC RETURN

ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL

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

NECA...05 (S1) SERIES

NECA series actuators with Electronic Return® (ER) function are designed and produced for extended functionalities in HVAC systems fan coil and laboratory applications.

Electronic Return® (ER) is able to manage short voltage interruptions for max. 4 seconds. In case of longer voltage interruption actuator will move the damper or valve to a predefined emergency position (EPS).

- Torque 5 Nm.
- For damper size ca. 1.0 m^2.
- Power supply 24 $V_{AC\,/\,DC}$ and 230 V_{AC}
- 2-point control.
- Manual over-ride push button.
- Shaft dimension: Ø 10...17 mm / square □ 5…12 mm.
- Minimum shaft length 40 mm.
- Selectable direction of rotation by switch.
- Adjustable angle of rotation.
- Actuator available with 1 m connection cable.
- Optional 1 adjustable SPDT auxiliary switch.
- Customised versions and functions (on request).

MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switches	Model/type
5 Nm	50...55 s	35 s	24 $V_{AC/DC}$ ± 10%	No	NECA 1-05
5 Nm	50...55 s	35 s	24 $V_{AC/DC}$ ± 10%	1 x SPDT (adjustable)	NECA 1-05S1
5 Nm	50...55 s	35 s	230 V_{AC} ± 10%	No	NECA 2-05
5 Nm	50...55 s	35 s	230 V_{AC} ± 10%	1 x SPDT (adjustable)	NECA 2-05S1

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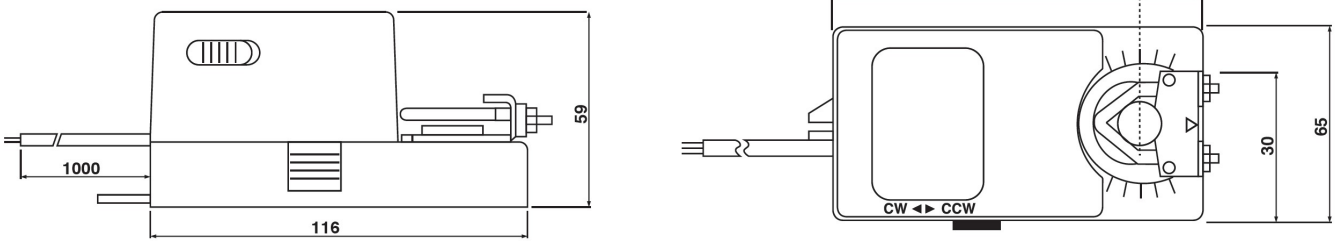
ACTUATOR DIMENSIONS [mm]



TECHNICAL SPECIFICATION

	NECA 1-20 (S1)	NECA 2-20 (S1)
Torque	5 Nm	5 Nm
Damper size	1.0 m^2	1.0 m^2
Shaft dimensions	Ø 10...17 mm / square 5...12 mm	Ø 10...17 mm / square 5...12 mm
Power supply	24 $V_{AC/DC}$ ± 10%	230 V_{AC} ± 10%
Frequency	50...60 Hz	50...60 Hz
Control signal (input)	2-point control	2 point control
Power consumption		
– Operating	8.7 W	8.7 W
– At end position	1.2 W	1.2 W
Rated power	14.0 VA	14.0 VA
Auxiliary switch rating	3(1.5) A/ 250 V_{AC}	3(1.5) A/ 250V_{AC}
Protection class	III	II
Electrical wiring	1 m Cable	1 m Cable
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Weight	<0.55 kg	<0.55kg
Durability	60,000 rotations	60,000 rotations
Sound level	< 42 dB	< 42 dB
Protection degree	IP54	IP54
Working temperature range	-20°C...50°C as per IEC 721-3-3	-20°C...50°C as per IEC 721-3-3
Storage temperature	-30°C...+60°C / IEC 721-3-2	-30°C...+60°C / IEC 721-3-2
Humidity	5...95% rH (non condensing) / EN	5...95% rH (non condensing) / EN
Maintenance	Maintenance free	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE & ISO 9000 to EN / EEC	CE & ISO 9000 to EN / EEC

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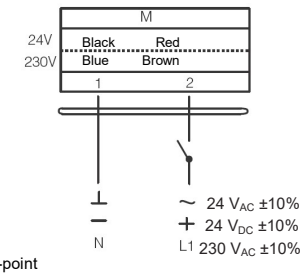
Wiring diagram NECA…05 (S1)
Power supply 24 $V_{AC/DC}$ / 230 V_{AC}

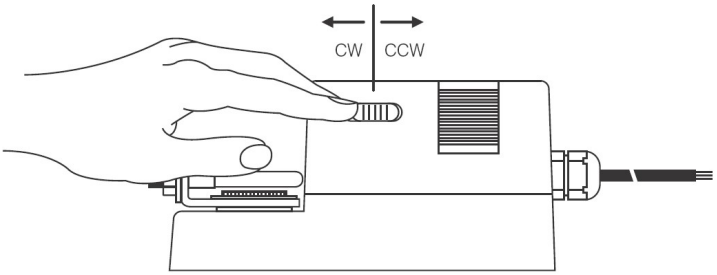


2-point

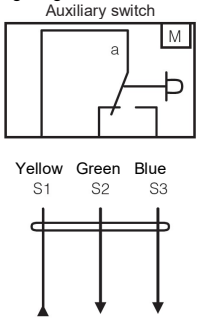
⚠ Connect via safety isolating transformer.

■ Changing direction of rotation NECA ...05 (S1)

Direction of rotation can be changed by toggling the CW/CCW switch on the actuator housing.



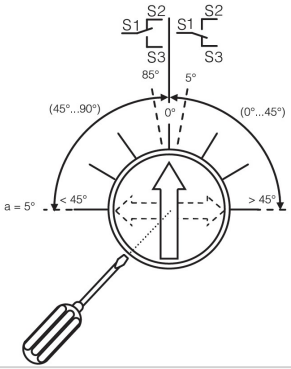
Wiring diagram NECA…05 (S1)
Auxiliary switch



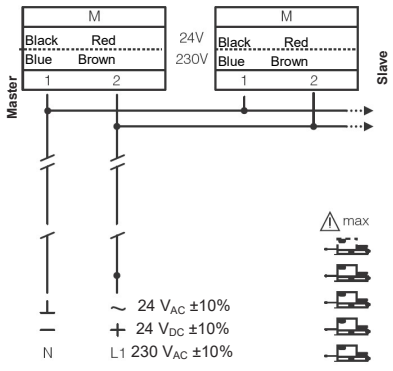
3 (1.5) A / 250 V_{AC}
Actuator at 0° position

■ Auxiliary switch NECA ...05 (S1)

Switch **a** factory-set at 5°. The auxiliary switch can be adjusted in the range 0°...90°.



Wiring diagram NECA…05 (S1)
Parallel connection



■ Note

Parallel connection of maximum five NECA...05 (S1) actuators is possible.
Power consumption must be observed!

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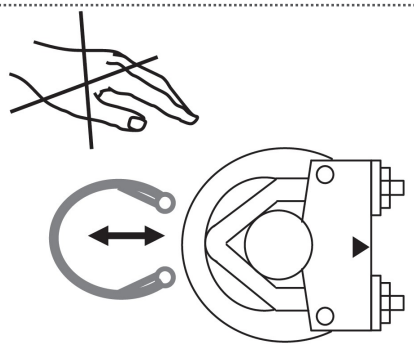
Releasing the adapter NECA...05 (S1)

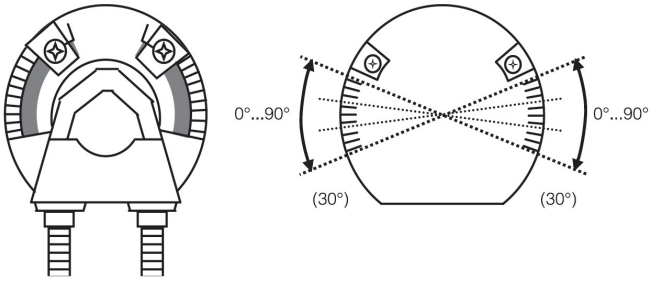
Releasing the adapter is not required.



LIMITING ANGLE OF ROTATION NECA...05 (S1)

Adjustment of mechanical limiter.
1. Loosen the screw of mechanical limiter.
2. Move limiter to appropriate position.
3. Tighten the screw.

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



IMPORTANT REMARKS

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

24 $V_{AC/DC}$: Connect via safety isolating transformer.

230 V_{AC}: 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.

IMPORTANT REMARK

The NENUTEC NECA... actuator series can be equipped with a variety of NENUTEC products as characterized 2-way and 3-way ball valves of NVCB series.

Contact NENUTEC representatives or factory for the specific requirements and material selection for your intended application

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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