



**NACM 08/16/24 (S)**

## **Технические характеристики**

**По вопросам продаж и поддержки обращайтесь:**

Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Нижний Новгород (831)429-08-12	Смоленск (4812)29-41-54
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Ижевск (3412)26-03-58	Мурманск (8152)59-64-93	Санкт-Петербург (812)309-46-40	Череповец (8202)49-02-64
Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Саратов (845)249-38-78	Ярославль (4852)69-52-93

сайт: [www.nenutec.nt-rt.ru](http://www.nenutec.nt-rt.ru) || эл. почта: [nct@nt-rt.ru](mailto:nct@nt-rt.ru)



The technical specifications might not be congruent.

- NACM...08/16/24 (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 the NPG-1 positioner.

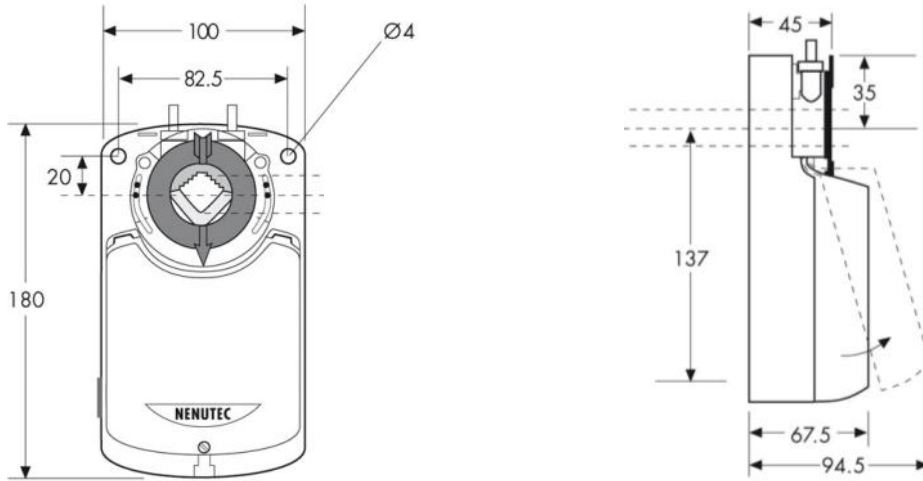
### Product Features

- Torque 8 Nm / 16 Nm / 24 Nm
- Damper size 1.5 m<sup>2</sup> / 3.0 m<sup>2</sup> / 4.5 m<sup>2</sup>
- Power Supply AC/DC 24 V and AC 230 V
- Control Modulating DC 0(2)...10 V and 0(4)...20 mA
- 2 adjustable auxiliary switches (SPDT)
- Shaft dimensions
  - 10 to 20 mm round / □ 10 to 16 mm square
- Minimum shaft length 50 mm
- Selectable direction of rotation
- Adjustable angle of rotation
- Actuator with cable connection on request
- Customer version on request

### Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model / Type
8 Nm	35...45 sec	AC/DC 24 V ± 10%	No	NACM 1.1-08
8 Nm	35...45 sec	AC/DC 24 V ± 10%	2 x SPDT	NACM 1.1-08 S
8 Nm	35...45 sec	AC 230 V ± 10%	No	NACM 2.2-08
8 Nm	35...45 sec	AC 230 V ± 10%	2 x SPDT	NACM 2.2-08 S
16 Nm	80...110 sec	AC/DC 24 V ± 10%	No	NACM 1.1-16
16 Nm	80...110 sec	AC/DC 24 V ± 10%	2 x SPDT	NACM 1.1-16 S
16 Nm	80...110 sec	AC 230 V ± 10%	No	NACM 2.2-16
16 Nm	80...110 sec	AC 230 V ± 10%	2 x SPDT	NACM 2.2-16 S
24 Nm	125...160 sec	AC/DC 24 V ± 10%	No	NACM 1.1-24
24 Nm	125...160 sec	AC/DC 24 V ± 10%	2 x SPDT	NACM 1.1-24 S
24 Nm	125...160 sec	AC 230 V ± 10%	No	NACM 2.2-24
24 Nm	125...160 sec	AC 230 V ± 10%	2 x SPDT	NACM 2.2-24 S

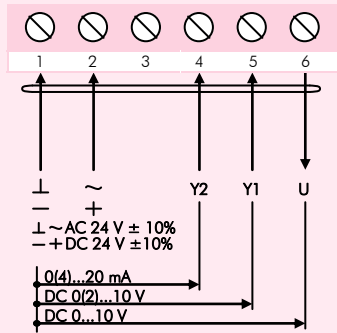
### Actuator Dimensions (mm)



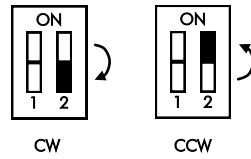
### Technical Specifications

	NACM 1.1...(S)	NACM 2.2...(S)
Torque	8 Nm / 16 Nm / 24 Nm	8 Nm / 16 Nm / 24 Nm
Damper Size	1.5 m <sup>2</sup> / 3.0 m <sup>2</sup> / 4.5 m <sup>2</sup>	1.5 m <sup>2</sup> / 3.0 m <sup>2</sup> / 4.5 m <sup>2</sup>
Shaft dimensions	Ø 10 to 20 mm round / □ 10 to 16 mm square	Ø 10 to 20 mm round / □ 10 to 16 mm square
Power Supply	AC/DC 24 V ± 10%	AC 230 V ± 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
Position Signal (Output)	DC 0...10 V	DC 0...10 V
Power Consumption		
- Operating	4.0 W	4.8 W
- End Position	0.7 W	1.0 W
For Wire Sizing	6.5 VA	7.5 VA
Auxiliary Switch Rating	3 (1.5) A, AC 230 V	3 (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°...+60° C / IEC 721-3-2	-30°...+60° 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 89 / 336 / EEC	CE according to 89 / 336 / EEC

### Wiring Diagram NACM 1.1...(S) Power Supply AC/DC 24 V

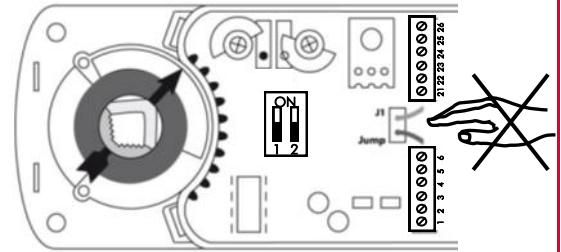


### Changing Direction of Rotation NACM 1.1/2.2...(S)

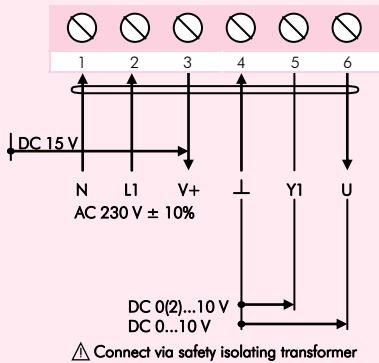


Factory-set CW!

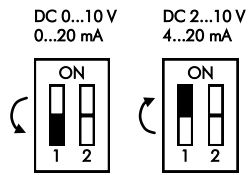
The direction of rotation can be changed by moving the CW/CCW micro switch number 2. Plug J1/Jump must never be reversed.



### Wiring Diagram NACM 2.2...(S) Power Supply AC 230 V



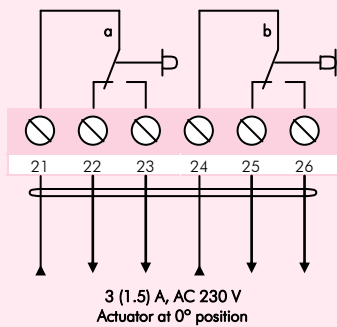
### Adjustment of Control Signal NACM 1.1/2.2...(S)



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

The control signal can be changed to DC 2...10 V and 4...20 mA by moving micro switch 1 to the ON position.

### Wiring Diagram NACM 1.1/2.2...(S) Auxiliary Switches

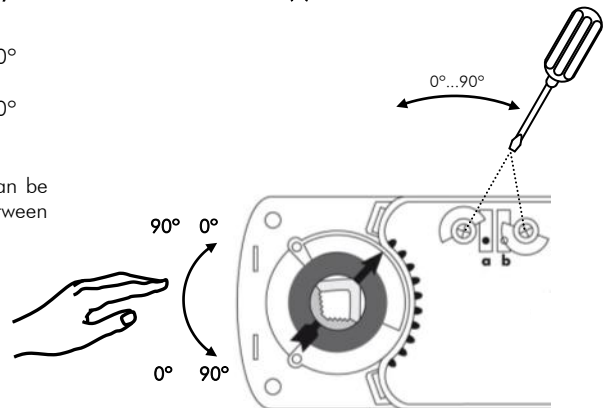


### Adjustment of Auxiliary Switches NACM 1.1/2.2...(S)

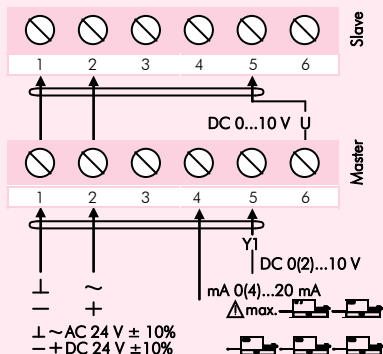
Switch **a** factory-set at 10°

Switch **b** factory-set at 80°

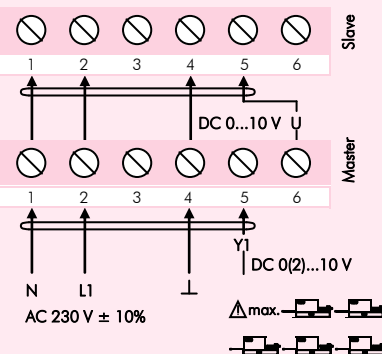
The auxiliary switches can be optimally adjusted between 0°...90°.



### Wiring Diagram NACM 1.1...(S) Parallel Connection



### Wiring Diagram NACM 2.2...(S) Parallel Connection



### Remark:

When NACM...(S) actuators operate in parallel, the output signal U = DC 0...10 V (terminal 6) of the master actuator must be connected to terminal 5 of the next slave actuator.

The power consumption must be observed.



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