

NACM – STANDARD DAMPER ACTUATOR

20 Nm | MODULATING CONTROL



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

NACM...20 (S) SERIES

NACM standard damper actuators are specially 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.

- Torque: 20 Nm
- Damper size 4.0 m²
- Power supply 24 V_{AC/DC} and 230 V_{AC}
- Control signal 0(2)...10 V_{DC} / 0(4)...20 mA
- Shaft dimensions – Ø 12...20 mm / square 11...14 mm
- Minimum shaft length 45 mm
- Adjustable angle of rotation
- Direction of rotation selectable by switch
- Actuator with 1 m connection cable
- Optional 2 adjustable SPDT auxiliary switches
- Manual over ride by push button when required

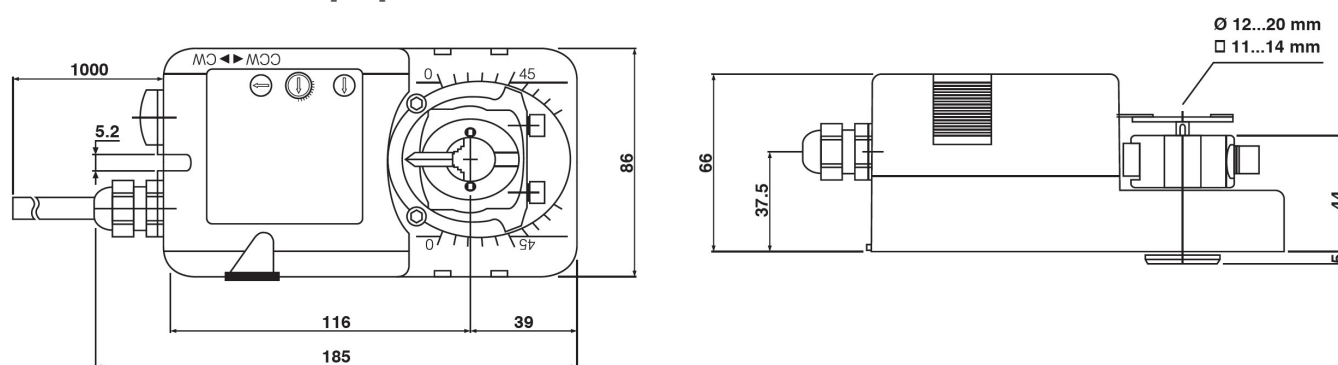
MODEL SELECTION TABLE

Model/type	Torque	Power supply	Running time	Auxiliary switch
NACM 1-20	20 Nm	24 V _{AC/DC} ± 10%	100...150 s	-
NACM 1-20S	20 Nm	24 V _{AC/DC} ± 10%	100...150 s	2 x SPDT (adjustable)
NACM 2-20	20 Nm	230 V _{AC} ± 10%	100...150 s	-
NACM 2-20S	20 Nm	230 V _{AC} ± 10%	100...150 s	2 x SPDT (adjustable)

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ACTUATOR DIMENSIONS [mm]



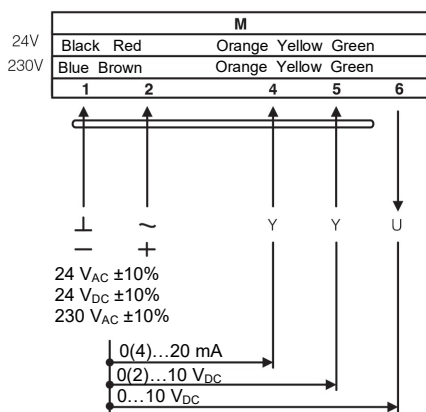
TECHNICAL SPECIFICATION

	NACM 1-20 (S)	NACM 2-20 (S)
Torque	20 Nm	20 Nm
Damper size	4.0 m ²	4.0 m ²
Shaft dimensions	Ø 12...20 mm / □ 11...14 mm	Ø 12...20 mm / □ 11...14 mm
Power supply	24 V _{AC/DC} ± 10%	230 V _{AC} ± 10%
Frequency	50...60Hz	50...60Hz
Control signal (Input)	0(2)...10 V _{DC} / 0(4)...20 mA	0(2)...10 V _{DC} / 0(4)...20 mA
Position signal (output)	0...10 V _{DC}	0...10 V _{DC}
Power consumption		
• In operation	8.0 W	8.0 W
• End position	2.0 W	2.0 W
Rated power	8.0 VA	8.0 VA
Electrical connections	1 m Cable	1 m Cable
Auxiliary switch rating	3 (1.5) A / 250 V _{AC}	3 (1.5) A / 250 V _{AC}
Protection class	Class III ⚡	Class II ⚡
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Weight	<1.2 kg	<1.2 kg
Durability	60,000 rotations	60,000 rotations
Sound level	45 dB	45 dB
IP protection class	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
Ambient 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, UL 873 & ISO 9000 EN / EEC	CE, UL 873 & ISO 9000 EN / EEC

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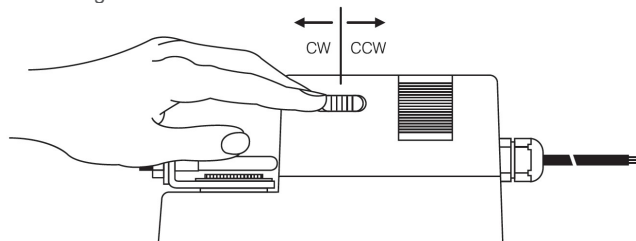
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WIRING DIAGRAM NACM...20 (S) POWER SUPPLY 24 V_{AC/DC} / 230 V_{AC}

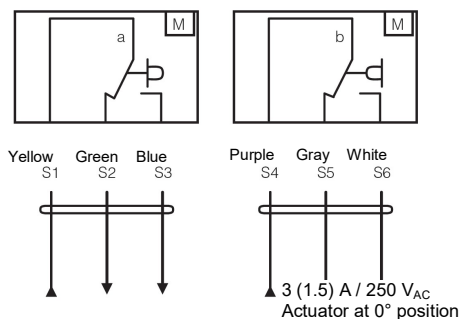


Changing direction of rotation NACM...20 (S)

Factory setting: clockwise (CW). Direction of rotation can be changed by toggling between CW/CCW switch on the actuator housing.

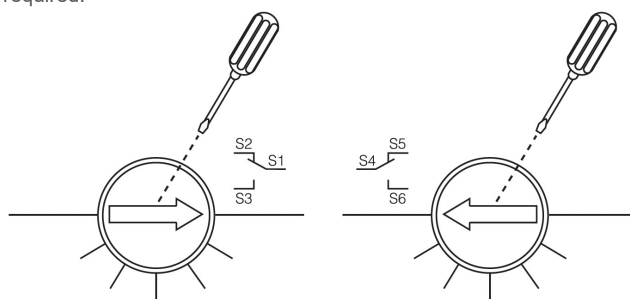


WIRING DIAGRAM NACM...20 (S) AUXILIARY SWITCHES

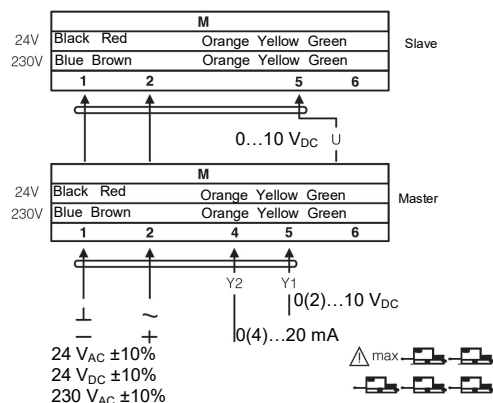


AUXILIARY SWITCHES NACM...20 (S)

Auxiliary switch settings are by factory 5° for switch a and 85° for switch b. The auxiliary switches can be adjusted between 0°...90° as required.



WIRING DIAGRAM NACM...20 (S) PARALLEL CONNECTION



REMARK

Parallel connection of maximum 5 NACM...20 (S) actuators is possible. Power consumption must be observed!

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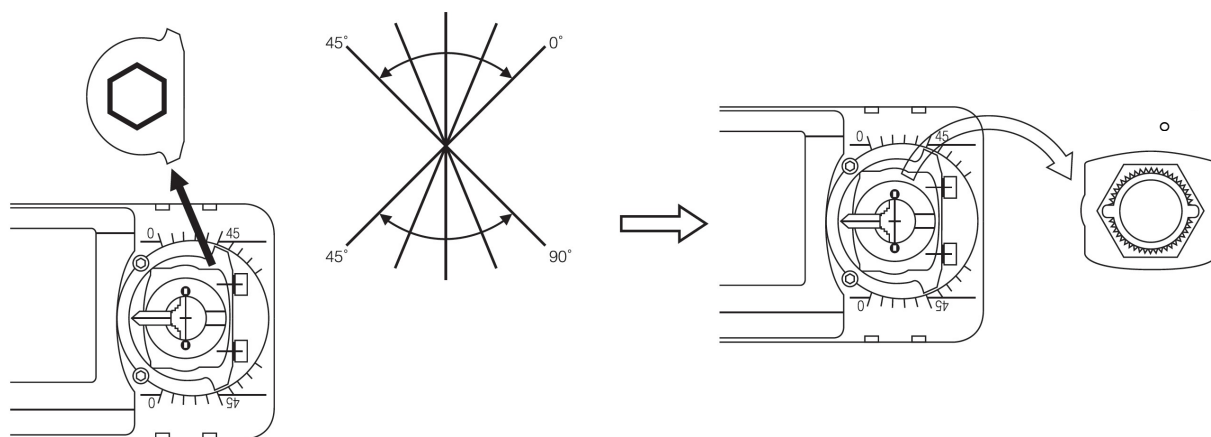
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■ Adjusting control signals NACM...20 (S)

Control signal (terminal 5)	0...10 V _{DC}
Input resistance	Ri 100 kOhm
Factory default setting	
Control signal 5 (terminal 5)	2...10 V _{DC}
Input resistance	Ri 500 kOhm

On request

■ Limiting angle of rotation NACM...20 (S)



⚠ 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 3mm 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. Nenuotec 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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