

Rotary Damper Actuator Modulating Control



- NENUTEC is proud to offer the 08, 16 and 24 Nm damper actuator of the NACM... 08/16/24 (S) Series designed specifically applications into the HVAC market.
- NENUTEC high quality damper actuators have been designed for use with medium or large size air damper, butterfly valve, characterized ball valve and globe valve with the use of special adapter.

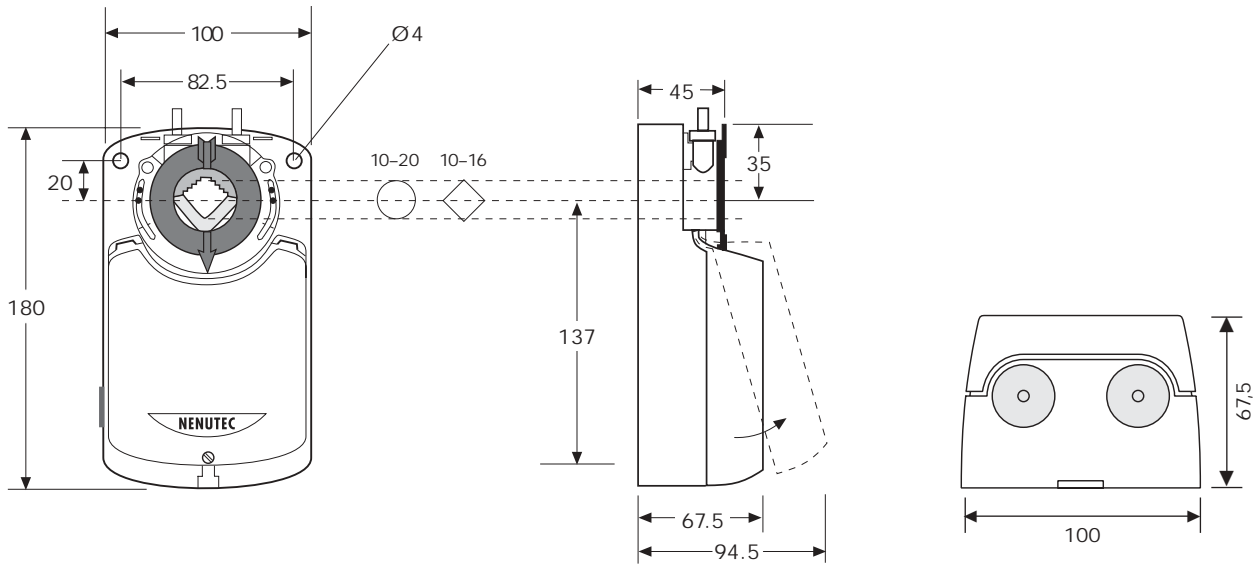
Product Features

- DC 0(2)...10 V and 0(4)...20 mA control
- Shaft dimension \varnothing 10...20 mm / 10...16 mm \square square
- Universal Spindle Clamp for easy direct mounting
- Anti-rotation bracket provided for stability
- Manual over ride by push button when required
- Adjustable angle of rotation
- Selectable direction of rotation
- DC 0(2)...10 V input signal 0(4)...20 mA
- DC 0...10 V output signal
- Parallel connection up to 5 actuators
- 2 adjustable SPDT auxiliary switches when requested
- Power saving at end stops
- Actuators available with 1 m cable on request
- Customised version available, on request

Model Selection Table

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

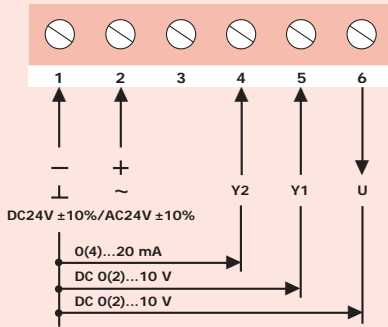
Actuator Dimensions (mm)



Technical Specification

	NACM1.1...(S)	NACM2.2...(S)
Torque	8 Nm / 16 Nm / 24 Nm	8 Nm / 16 Nm / 24 Nm
Damper Size	1.5 m ² / 3.0 m ² / 4.5 m ²	1.5 m ² / 3.0 m ² / 4.5 m ²
Power Supply	AC/DC 24 V	AC 230 V ±10%
Frequency	50-60 Hz	50-60 Hz
Power Consumption		
- Operating	4.0 W	4.8 W
- At the end stops	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	II	II
Control Signal Y1	DC 0(2)...10 V	DC 0(2)...10 V
Control Signal Y2	0(4)...20 mA	
Control Signal U	DC 0(2)...10 V	DC 0(2)...10 V
Angle of rotation	90° (93° mechanical)	90° (93° mechanical)
Angle Limiting	5°...85° in 5° step	5°...85° in 5° step
Weight	1.2 Kg	1.2 Kg
Life Cycle	60,000 rotation	60,000 rotation
Sound Level	Below 45 dB	Below 45 dB
IP Protection	IP54	IP54
Ambient Temperature	-20°...+50°C / IEC 721-3-3	-20°...+50°C / IEC 721-3-3
Inventory Temperature	-30°...+60°C / IEC 721-3-2	-30°...+60°C / IEC 721-3-2
Ambient Humidity	5...95% rH non condensing	5...95% rH non condensing
Maintenance	maintenance free	maintenance free
Impact	Typ I / EN 60730-1	Typ I / EN 60730-1
Standardize	89/336/CE	89/336/CE

Wiring diagram NACM1.1...(S) Power supply AC/DC 24 V



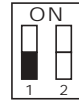
Adjusting the controls signals NACM 1.1...(S)

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

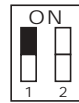
The control signal can be changed to DC 2...10 V and 4...20 mA by moving microswitch 1 to the ON position.

Microswitch d

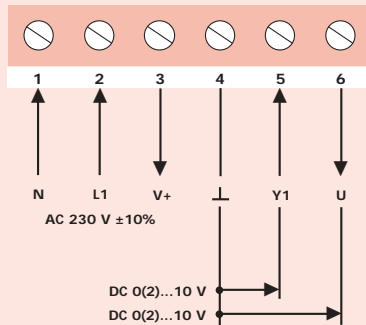
DC 0...10 V
0...20 mA



DC 2...10 V
4...20 mA



Wiring diagram NACM2.2...(S) Power supply AC 230 V



Changing direction of rotation NACM...S

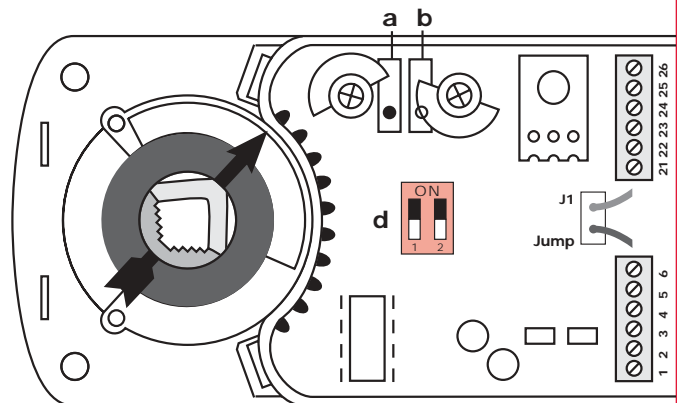
Microswitch d



cw

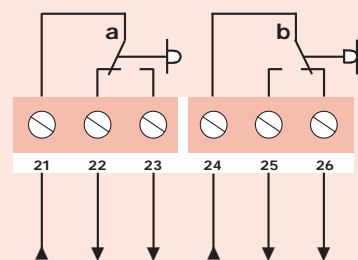


ccw



Jumper J1 must never be reversed otherwise the motor will not function correctly.

Auxiliary switches (S)



3 (1.5) Amp AC 230 V
Actuator at 0° position

Auxiliary switch adjustment NACM...S

Factory setting

Switch a at 10°
Switch b at 80°

The switching position can be manually changed to any required position by turning the ratchet.

