

- 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.

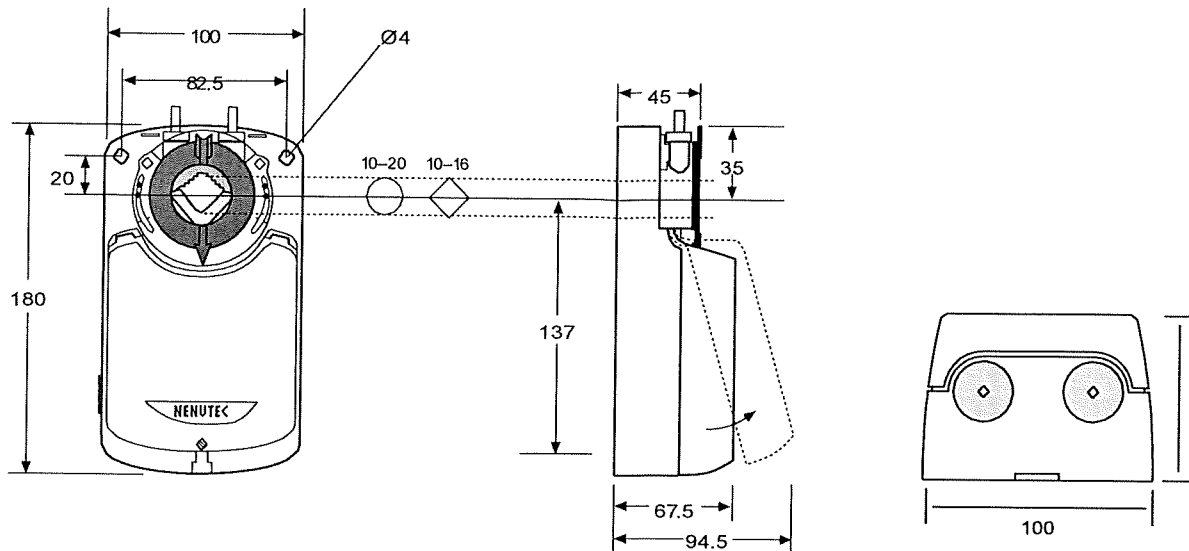
Product Features

- DC 0(2)...10 V and 0(4)...20 mA control
- Shaft dimension Ø 10...20 mm / 10...16 mm 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	55 sec	AC/DC 24 V	No	NACM 1.1-08
			2 x SPDT	NACM 1.1-08S
		AC 230 V ±10%	No	NACM 2.2-08
			2 x SPDT	NACM 2.2-08S
16 Nm	100 sec	AC/DC 24 V	No	NACM 1.1-16
			2 x SPDT	NACM 1.1-16S
		AC 230 V ±10%	No	NACM 2.2-16
			2 x SPDT	NACM 2.2-16S
24 Nm	160 sec	AC/DC 24 V	No	NACM 1.1-24
			2 x SPDT	NACM 1.1-24S
		AC 230 V ±10%	No	NACM 2.2-24
			2 x SPDT	NACM 2.2-24S

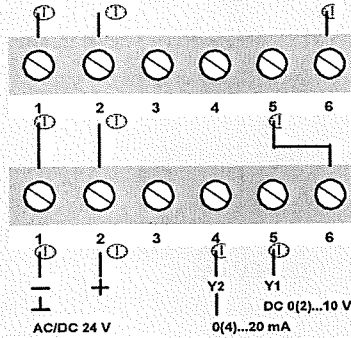
Actuator Dimensions (mm)



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	1.3 Kg	1.3 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

Parallel connection

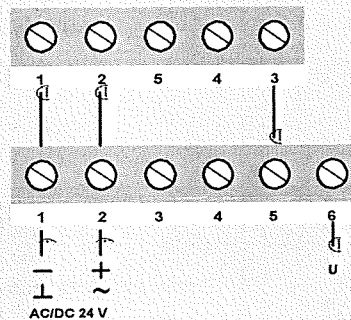


When NACM...(S) actuators are to be operated in parallel, the output signal $U = DC 0(2)...10 V$ (Terminal 6) of the master actuator must be connected to Terminal 5 of the next slave actuator, etc.

Note:

Up to 5 actuators can be operated in parallel.

Position transmitter NPG



NACM1.1(S) actuators can also be controlled by means of a NENUTEC position type NPG.... transmitter with a control signal of DC 0...10 V.

Note:

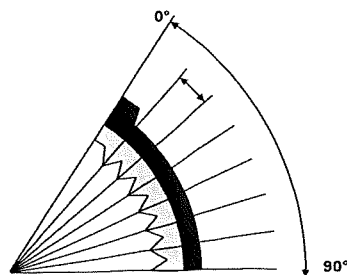
Up to 5 actuators can be operated in parallel.

Important Remark

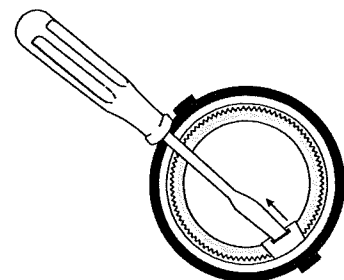
The NENUTEC NACA/NACM... actuator series can be equipped with a variety of NENUTEC products, Characterized Ball Valves the NVCB... series, the NVMB... Butterfly Valves series and Globe Valves.

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

Angle-of-rotation limiting



Releasing the adapter



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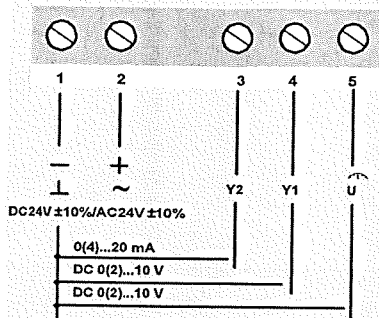
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Wiring diagram NACM1.1...(S) Power supply AC/DC 24 V



Adjusting the controls signals NACM1.1...(S)

No 1: Mode of feedback



OFF: voltage signal 0(2)-10V feedback;

ON: current signal 0(4)-10mA feedback.

No 2: Control of starting signal



OFF: 0-10V or 0-20mA;

ON: 2-10V or 4-20mA.

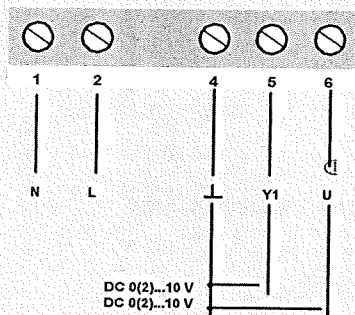
No 3: Mode of control signal



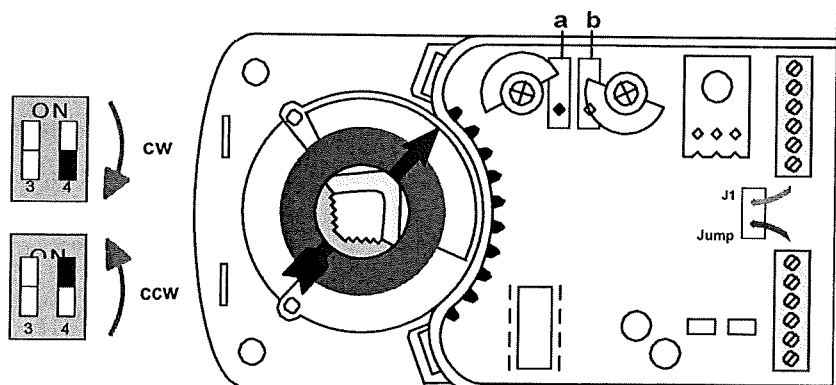
OFF: voltage signal 0(2)-10V input;

ON: current signal 0(4)-20mA input.

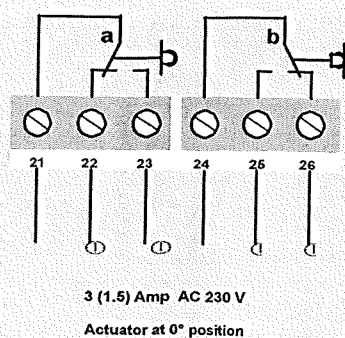
Wiring diagram NACM2.2...(S) Power supply AC 230 V



Changing direction of rotation NACM...S



Auxiliary switches (S)



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.

