

- NENUTEC is proud to offer the 32 Nm damper actuator of the NACM... 32 (S) Series designed specifically application into the HVAC market.
- NENUTEC high quality damper actuators have been designed for use with air damper, butterfly valve, characterized ball valve and globe valve with the use of special adapter

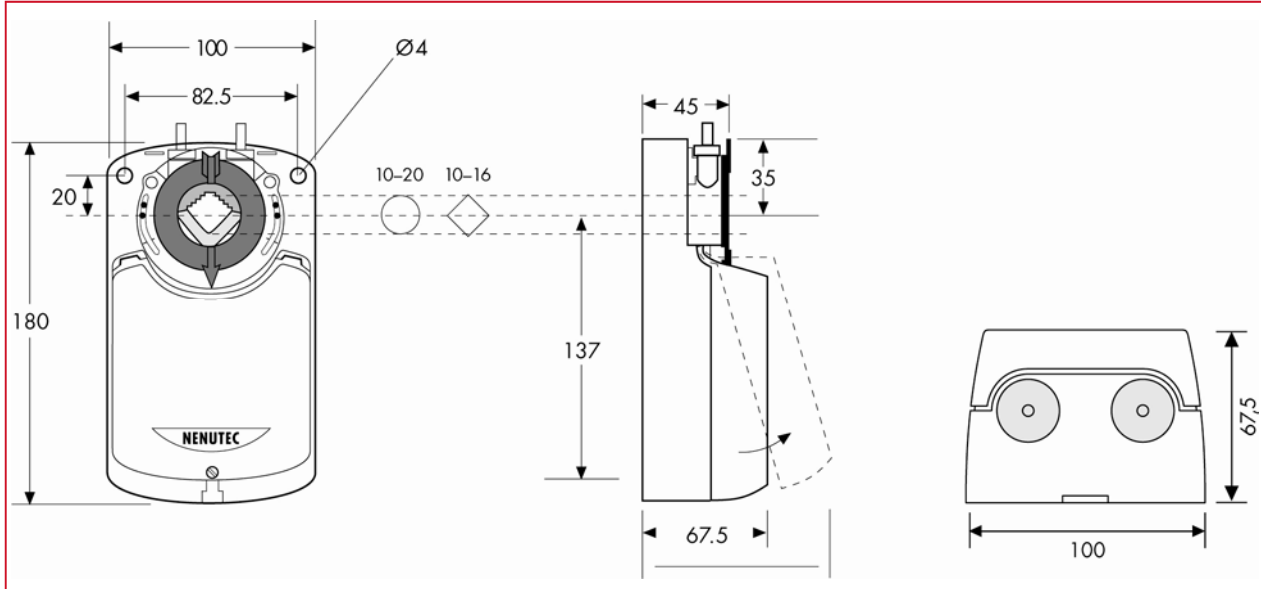
Product Features

- 0(2)...10VDC and 0(4)...20 mA control
- Universal Spindle Clamp for easy direct mounting
- Shaft dimension Ø10...20 mm /10...16 mm square
- Anti-rotation bracket provided for stability
- Manual over ride by push button when required
- Adjustable angle of rotation
- Selectable direction of rotation
- Parallel connection up to 10 actuators
- 2 adjustable SPDT auxiliary switches when requested
- Power saving at end stops
- Actuators available with 1m cable on request
- Customised version available, on request

Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model/Type
32 Nm	140...160 sec	AC/DC 24V	No	NACM 1.1-32
			2 x SPDT	NACM 1.1-32S
32 Nm	140...160 sec	AC 230V ±10%	No	NACM 2.2-32
			2 x SPDT	NACM 2.2-32S

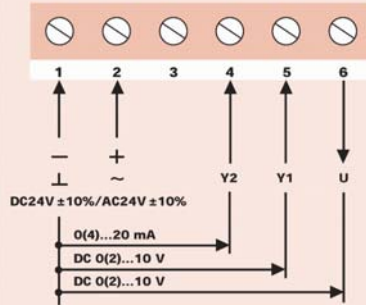
Actuator Dimensions (mm)



Technical Specification

	NACM 1.1-32 (S)	NACM 2.2-32 (S)
Torque	32 Nm	32 Nm
Damper Size	6 m ²	6 m ²
Power Supply	AC/DC 24 V	AC 230V
Frequency	50...60Hz	50...60Hz
Power Consumption		
-Operating	4.0 W	4.8 W
-At the end stops	0.7 W	1.2 W
For wire sizing	6.5 VA	6.5 VA
Auxiliary Switches Rating (Amp and Voltage)	3 A / 230 V (for 24 V and 230 V)	3 A / 230 V (for 24 V and 230 V)
Protection Class	II (for 24 V and 230 V)	II (for 24 V and 230 V)
Controls Signal Y1	0(2)...10 VDC	0(2)...10 VDC
Controls Signal Y2	0(4)...20 mA	
Controls Signal U	0(2)...10 VDC	0(2)...10 VDC
Angle of Rotation	90° (93° mechanical)	90° (93° mechanical)
Angle of 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	IP 44 or IP55 cable glands	IP 44 or IP55 cable glands
Ambient Temperature	-20°...50° as per IEC 721-3-3	-20°...50° as per IEC 721-3-3
Ambient Humidity	5...95% RH	5...95% RH
Inventory Temperature	+70° as per 721-3-2	+70° as per 721-3-2
Maintenance	Maintenance free	Maintenance free
Certification	CE and ISO 9000 EN... Requirements	CE and ISO 9000 EN... Requirements

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

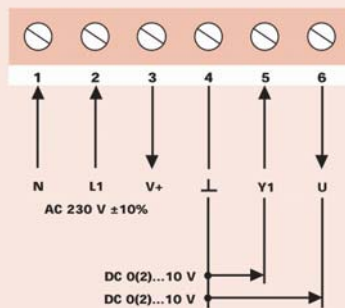
DC 0...10 V
0...20 mA



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

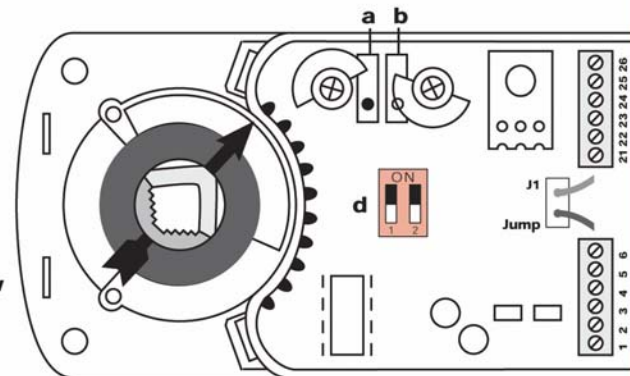
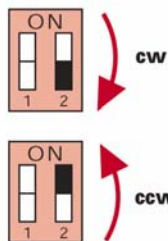


Wiring diagram NACM2.2...(S) Power supply AC 230 V



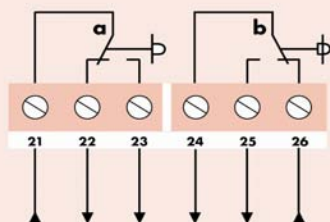
Changing direction of rotation NACM...S

Microswitch d



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

Auxiliary switches (S)



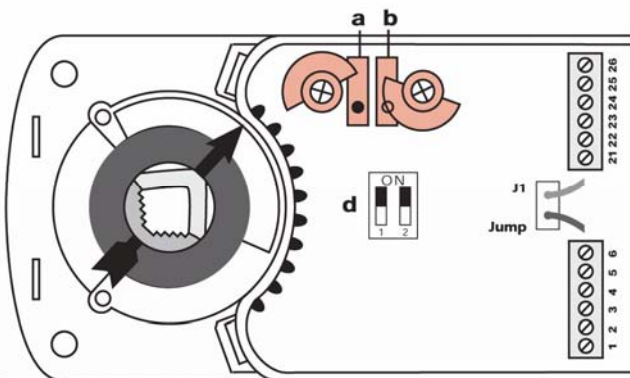
3 (1.5) Amp 230 V
Actuator at 0° position

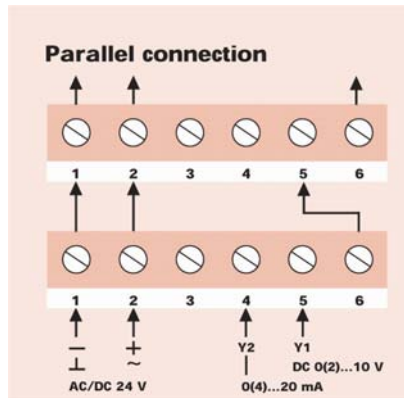
Auxiliary switch adjustment NACM...S

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.



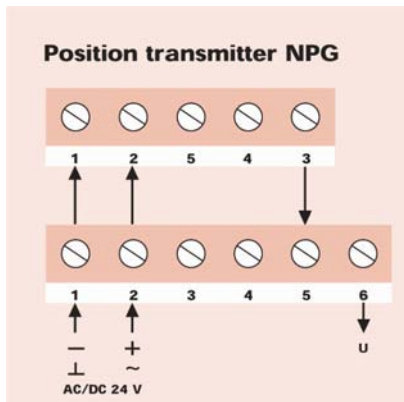


Parallel Connection

When NACM...(S) actuators are to be operated in parallel
The output signal $U = 0(2)...10$ VDC (Terminal 6) of the Master Actuator must be connected to Terminal 5 of the Slave actuator in a chain.

Notes:

Up to 10 actuators can be operated in parallel



NACM 1.1...(S) actuators can also be controlled by
Means of a NENUTEC position transmitter NPG...
With a control signal of $0...10$ VDC

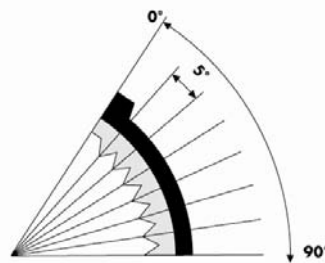
Notes:

Up to 10 actuators can be operated in parallel

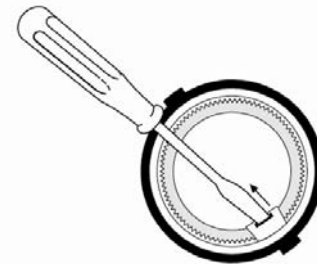
Important Remark

NENUTEC NACA/NACM actuator series can be equipped with a variety of NENUTEC products, Characterized Ball Valves NVCB...series, butterfly valves and Globe Valves.
Contact NENUTEC representatives or factory for the specific requirements and material selection for your intended application

Angle-of-rotation limiting



Releasing the adapter



TELIMA AG

Headquarter:

Schachenstrasse 80
CH-8645 Jona / Switzerland
Phone +41 55 212 40 60
Fax +41 55 212 40 69
Email: info@telima.ch
Http://www.nenutec.com



Asia Pacific / Middle East

NENUTEC ASIA PACIFIC PTE LTD
32 Upper Serangoon View
#15-42 Singapore 534 209
Tel: (65) 6489 1815
Fax: (65) 6489 1816
Email: info@nenutecap.com
Http://www.nenutecap.com