

## NACM ...20 Nm Damper Actuator Modulating Control



- NENUTEC is proud to offer the 20 Nm damper actuator of the NACM... 20 (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

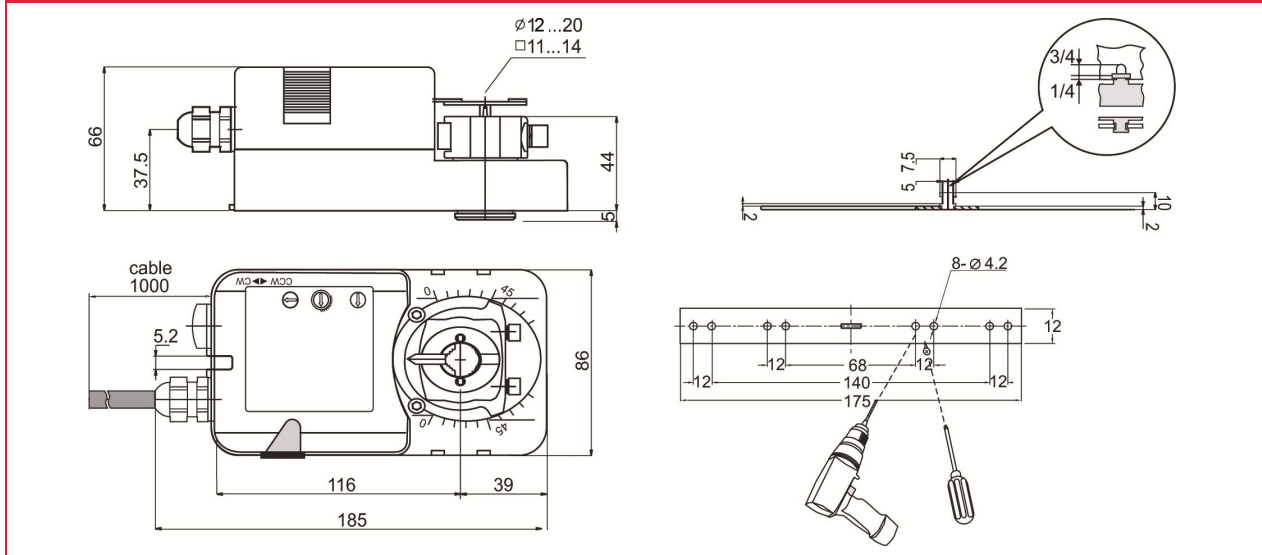
### Product Features

- For Air control dampers up to approx. 4 m<sup>2</sup>
- Torque 20 Nm
- Nominal Voltage AC/DC 24V and AC 230V
- Universal Adapter Ø12...20 mm / 11...14 mm
- Manual Over-ride Push button when required.
- Selectable Direction of rotation CW/CCW
- 2 Adjustable SDPT Auxiliary switch when requested
- Actuator available with 1m Cable connection

### Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model/Type
20 Nm	70...120 sec	AC/DC 24V	No	NACM 1.1-20
			2 x SPDT	NACM 1.1-20S
20 Nm	70...120 sec	AC/DC 230V	No	NACM 2.2-20
			2 x SPDT	NACM 2.2-20S

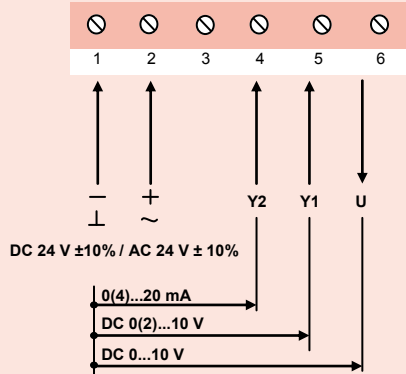
## Actuator Dimensions (mm)



## Technical Specification

	NACM 1.1...20 (S)	NACM 2.2...20 (S)
Torque		20 Nm
Damper Size		4.0 m <sup>2</sup>
Power Supply	AC/DC 24 V	AC 230V ±10%
Frequency		50...60Hz
Power Consumption		
-Operating		8.0 W
-At the end stops		2.0 W
For wire sizing		8.0 VA
Auxiliary Switches Rating (Amp and Voltage)	3 (1.5) A / 230 V (for 24 V and 230 V)	
Protection Class	II (for 24 V and 230 V)	
Input Controls Signal 4/5	0(4)...20mA or DC 0(2)...10V	DC 0(2)...10V
Input Controls Signal 6		DC 0(2)...10V
Angle of Rotation		90° (95° mechanical)
Angle of Limiting		5°...85° in 5° step
Weight		1.2 Kg
Life Cycle		60,000 rotation
Sound Level		Below 45 dB
IP Protection		IP54
Ambient Temperature	-20°...50° as per IEC 721-3-3	
Ambient Humidity	5...95% RH	
Inventory Temperature	+70° as per 721-3-2	
Maintenance	Maintenance free	
Certification	CE and ISO 9000 EN / EEC... Requirements	

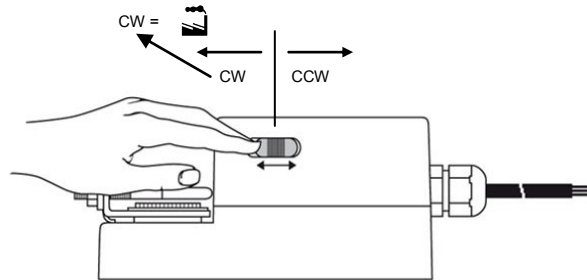
**Wiring Diagram NACM1.1....(S)**  
**Power Supply AC/DC 24V**



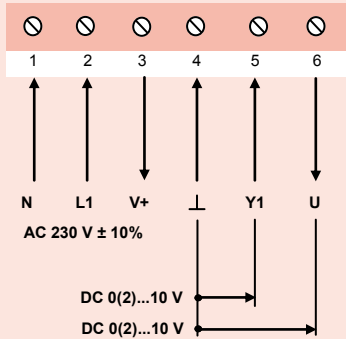
**Changing Direction of Rotation NACA 1/2...(S1)**

Factory-set CW!

The direction of rotation can be changed by pushing the CW/CCW switch on the actuator's housing.



**Wiring Diagram NACM2.2....(S)**  
**Power Supply AC 230V**

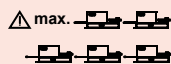
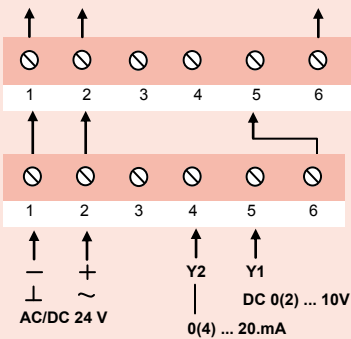


**Adjusting control signals NACM1.1... (S)**

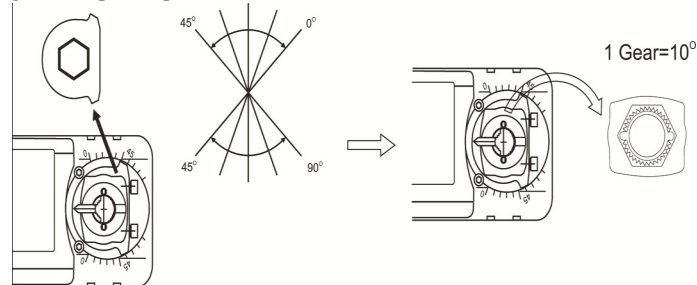
Control Signal5 DC 0...10V  
 Input Resistance Ri 100 k Ohm  
**Factory default setting**

Control Signal 5 DC 2...10V  
 Input Resistance Ri 500 Ohm  
**On Request**

**Parallel connection**



**Adjusting Angle of Rotation**

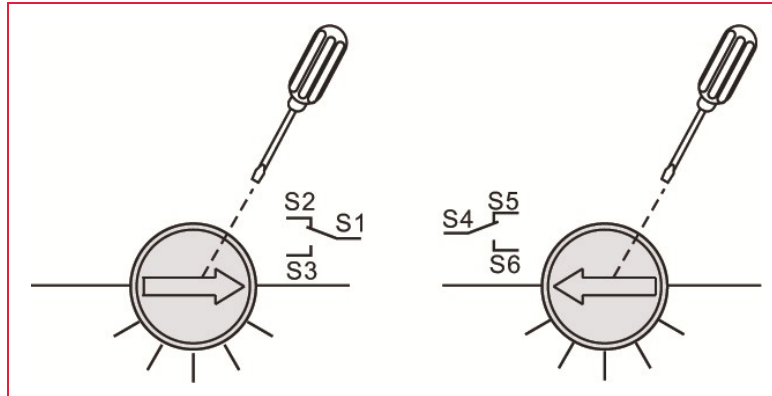
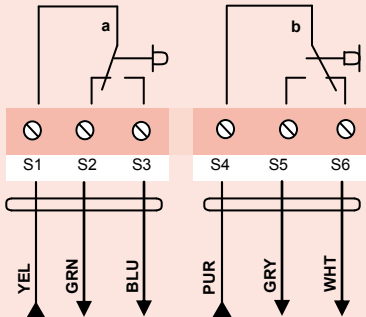


**Remarks**

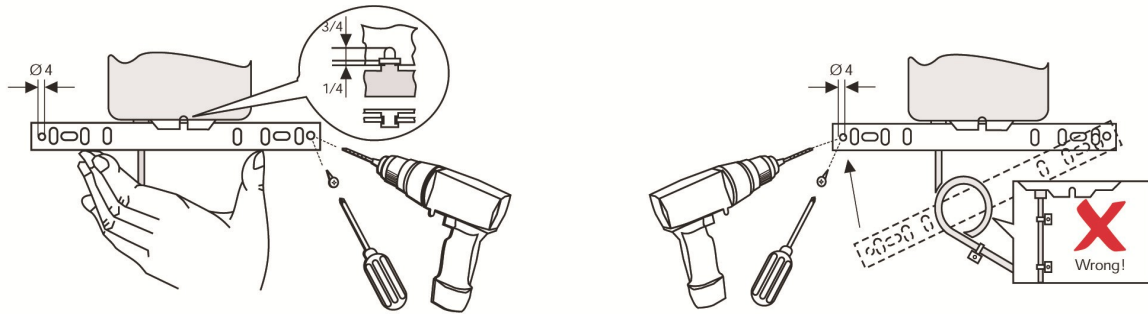
When NACM... (S1) actuators operate in parallel, the output signal U = DC 0...10 V (terminal 6) of the master actuator must be connected to terminal 5 of the next slave actuator.

The power consumption must be observed.

### Auxiliary Switches



### Installation / Mounting Instruction



### OEM Customised Version on Request

TELIMA/NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand. Please contact us for further information.

### Important Remark

Consult NENUTEC representatives for specific requirements and material selections for your intended application.



This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.



AC / DC 24 V: Connect via safety isolating transformer.  
 AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3 mm contact gap).

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