

# NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control  
5 Nm

# NENUTEC®

INNOVATIVE MEMBER OF SWISSTECH

**NENUTEC ASIA PACIFIC PTE LTD**

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## DAMPER ACTUATOR MODEL CHART

MODEL								
VOLTAGE 230VAC ~ 24VAC/DC	●	●	●	●	●	●	●	●
TORQUE (NM)	2 ; 5 ; 10 ; 20 ; 40	2 ; 5 ; 10 ; 20 ; 40	5 ; 10 ; 20	5 ; 10 ; 20	3 ; 5 ; 8	3 ; 5 ; 8	10 ; 15	5
CONTROL	2/3 pts	Modulating	2 pts	Modulating	2 pts SR	2 pts SR	3 pts	Modulating

### SPECIAL TYPE

ELECTRONIC RETURN			●	●				
SPRING RETURN					●			
FIRE & SMOKE SPRING RETURN						●		
SMOKE SAFETY							●	
NETWORKING								●

## TYPE DESIGNATION

TYPE	ACTUATOR	DESIGNATION	CONTROL	VOLTAGE	DOT	INPUT SIGNAL	HYPHENATED	TOQUE		AUXILIARY SWITCH
N	A	C	M	1	.	1	-	0	5	S1

TYPE	N = Standard Actuator
	S = Fire & Smoke
ACTUATOR	A = Standard Actuator
	E = Electronic Return
DESIGNATION	C = Standard Actuator
	S = Fast Running Actuator
	F = Spring Back Actuator
CONTROL	A = 2/3 Points
	M = Modulating
VOLTAGE	1 = 24 VAC/VDC
	2 = 230 VAC
	3 = 110/120 VAC
	4 = 48 VAC

INPUT SIGNAL (NOT APPLICABLE FOR 2/3 POINTS)	1 = 0(2)...10 VDC and 0(4)...20 mA	
	2 = 0...10 VDC only	
	3 = 0...135 Ω only	
	4 = 4...20 mA only	
TORQUE	02 = 2 Nm	03 = 3 Nm
	05 = 5 Nm	08 = 8 Nm
	10 = 10 Nm	15 = 15 Nm
	20 = 20 Nm	40 = 40 Nm
AUXILIARY SWITCH / FEEDBACK POTENTIOMETER	None = No Auxiliary or Feedback Potentiometers	
	S1 = 1 x Auxiliary Switch	
	S = 2 x Auxiliary Switches	
	P1 = 1000Ω	
	P2 = 10000Ω	
	P3 = 140Ω	

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### NECM...05 SERIES

NECM series actuators with Electronic Return® (ER) function are designed and produced for extended functionalities in HVAC systems fan coil and laboratory applications. Electronic Return® (ER) is able to manage short voltage interruptions for max. 4 seconds.



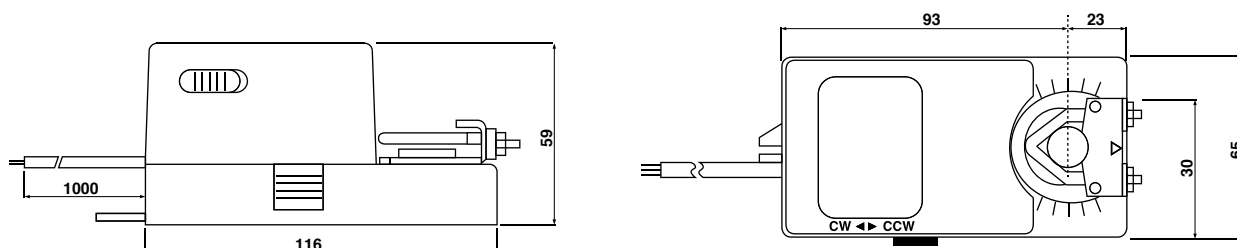
### PRODUCT FEATURE

- Torque 5 Nm
- Damper size 1.0 m<sup>2</sup>
- Power supply AC/DC 24V
- Modulating Control Signal DC 0(2)...10 V
- Shaft dimensions - Ø 10...17 mm / □ 5...12 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Manual Over-ride push button

### MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECM 1.2-05	5 Nm	AC/DC 24 V ± 10%	40...55 sec	20 sec	-

## DIMENSION (mm)



## TECHNICAL SPECIFICATION

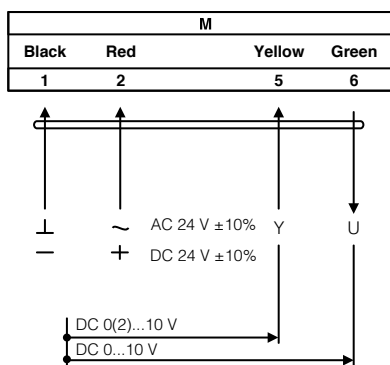
<b>MODEL NUMBER</b>	<b>NECM 1.2-05</b>
<b>TORQUE</b>	5 Nm
<b>DAMPER SIZE</b>	1.0 m <sup>2</sup>
<b>SHAFT DIMENSION</b>	Ø 10...17 mm / □ 5...12 mm
<b>POWER SUPPLY</b>	AC/DC 24 V ± 10%
<b>FREQUENCY</b>	50...60 Hz
<b>CONTROL SIGNAL (INPUT)</b>	DC 0(2)...10 V
<b>POSITION SIGNAL (OUTPUT)</b>	DC 0...10 V
<b>POWER CONSUMPTION</b>	
● OPERATING	7.2 W
● END POSITION	1.2 W
<b>FOR WIRE SIZING</b>	4.0 VA
<b>ELECTRICAL CONNECTION</b>	1 m Cable
<b>PROTECTION CLASS</b>	Class III ⚡
<b>ANGLE OF ROTATION</b>	90° (95° mechanical)
<b>WEIGHT</b>	< 0.7 Kg
<b>LIFE CYCLE</b>	60,000 Rotation
<b>SOUND LEVEL</b>	40 dB
<b>IP PROTECTION</b>	IP54
<b>OPERATING TEMPERATURE</b>	-20°...50° as per IEC 721-3-3
<b>NON-OPERATING TEMPERATURE</b>	-30°...+60° C / IEC 721-3-2
<b>AMBIENT HUMIDITY</b>	5%...95% rH non condensing / EN
<b>MAINTENANCE</b>	Maintenance Free
<b>MODE OF OPERATION</b>	Type I / EN 60730-1
<b>EMC</b>	CE & ISO 9000 to EN / EEC

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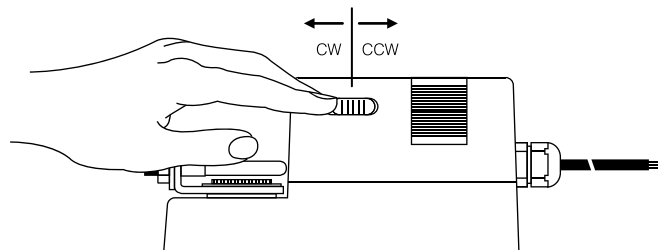
### WIRING DIAGRAM NECM...05 POWER SUPPLY AC/DC 24 V



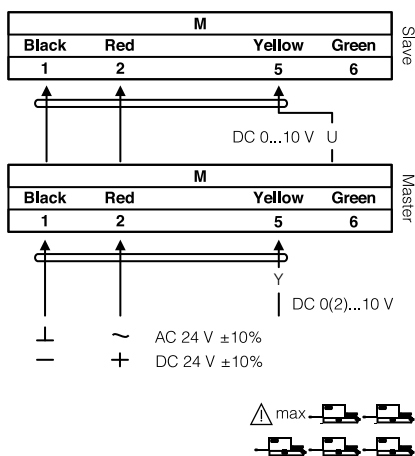
### DIRECTION OF ROTATION NECM...05

Default factory setting: CW.

Direction of rotation can be change by toggling between CW/CCW switch on the actuator's housing.



### WIRING DIAGRAM NECM...05 PARALLEL CONNECTION

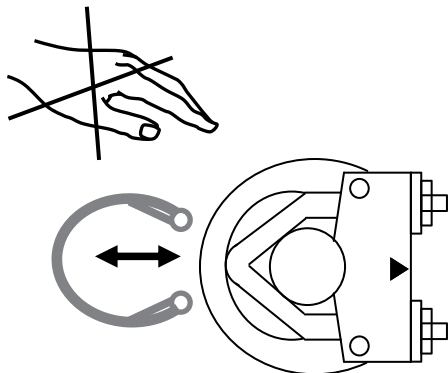


### REMARK

During parallel operation, the output signal (terminal 6, DC 0...10 V) of the master actuator must be connected to terminal 5 of the next slave actuator.

## RELEASING THE ADAPTER NECM...05

Releasing the adapter is not required.

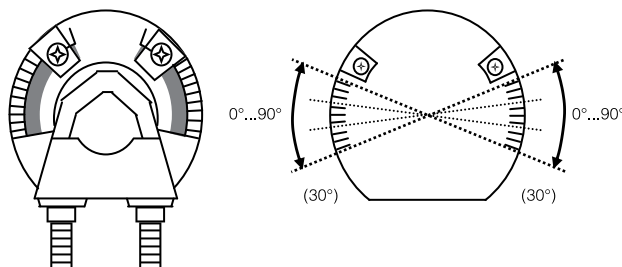


## LIMITING ANGLE OF ROTATION NECM...05

Adjustment of Mechanical Limiter

1. Loosen screw of mechanical limiter
2. Move limiter to appropriate position\*
3. Tighten screw

\*Working range of 90° can be reduced up to 30° from end position.



## IMPORTANT REMARK

For special requirement, consult your local NenuTec's representative.



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:  
AC 230 V:

Connect via safety isolating transformer.

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.)

The performance specifications are nominal and conform to acceptable industry standards. NENUTEC shall not be liable for damages resulting from misapplication or misuse of its products.