

MODEL	CONTROL SIGNAL	POWER SUPPLY	MICRO AUX	TORQUE [Nm]	IP
MDS406R	On/Off	24 Vac/dc ±10%	No	6	54
MDS406RM			1 x SPDT		
MDS206R		230 Vac ±10%	No	10	
MDS206RM			1 x SPDT		
MDS410R		24 Vac/dc ±10%	No	10	
MDS410RM			1 x SPDT		
MDS210R		230 Vac ±10%	No	10	
MDS210RM			1 x SPDT		



APPLICATION AND USE

MDS.06R(M) and MDS.10R(M) rotary actuators with electronic return function are designed for the direct operation of dampers up to 1,5 m² (6 Nm) and up to 2 m² (10 Nm).

All models are equipped with an electronic return function in case of power supply loss and are used in applications where it is necessary to ensure a fixed position of the damper in emergency and/or power-off conditions.

TECHNICAL CHARACTERISTICS

DESCRIPTION	MDS406R(M)	MDS206R(M)	MDS410R(M)	MDS210R(M)
Torque:	6 Nm		10 Nm	
Max damper size:	1,5 m ²		2 m ²	
Shaft:	Ø 10 to 20 mm / □ 5 to 14 mm			
Minimum shaft length:	40 mm			
Power supply:	24 Vac/dc ± 10%	230 Vac ± 10%	24 Vac/dc ± 10%	230 Vac ± 10%
Frequency:	50 ... 60 Hz			
Control signal:	On - Off			
Operating power consumption:	7,2 W			
End position power consumption:	1,2 W			
Power consumption for wire sizing:	10 VA			
Auxiliary switch rating:	3 (1,5) A 250 Vac			
Electrical connection:	Cable 1000 mm (supplied)			
Maximum connection length:	12 m			
Max. number of actuators in parallel:	5			
Running time:	60 ... 80 sec			
Running time in emergency return:	40 sec			
Protection class:	III	II	III	II
Angle of rotation:	0° ... 90° (95° mechanical)			
Weight:	1,8 kg			
Life cycle actuator:	60000 rotation			
Motor sound level:	< 45 dB (A)			
IP protection:	IP54			
Operating temperature:	-20° ... +50° C / IEC 721-3-3			

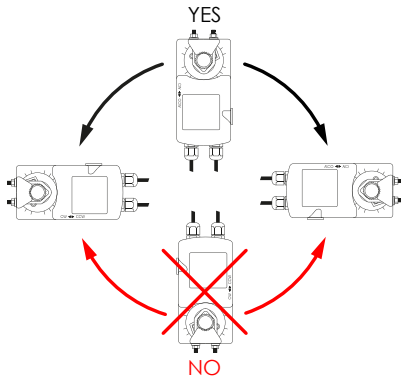


DESCRIPTION	MDS406R(M)	MDS206R(M)	MDS410R(M)	MDS210R(M)
Non-operating temperature:	-30° ... +60° C / IEC 721-3-2			
Ambient humidity:	5% ... 95% rH non condensing			
Maintenance:	Maintenance free			
Mode of operation:	Type I / EN 60730-1			
Compliance:	EMC: EN 55015:2013+A1:2015; EN 61547: 2009; EN 61000-3-2:2014; EN 61000-3-3:2013. LVD (only for 230 Vac power supply models): EN 60730-2-14:2019, EN 60730-1:2016+A2:2019			

INSTALLATION AND MOUNTING

The actuator is fitted directly to the damper and the calmp tightened securely to the damper shaft. A universal anti-rotation bar is supplied with each actuator and must be fitted to prevent rotation during operation.

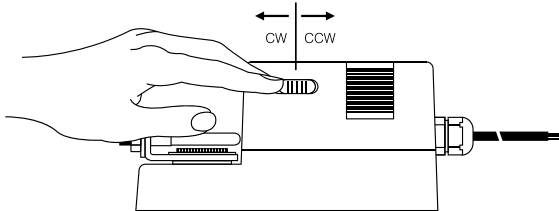
Mounting position



Changing direction of rotation

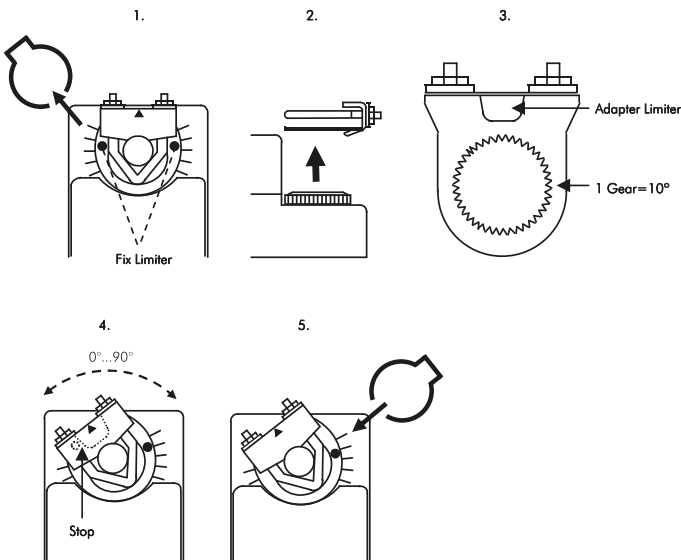
Default factory setting: CW.

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



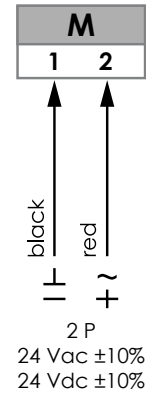
Mechanical limiting angle of rotation

The rotation of the actuator can be mechanically limited by adjusting as follow:

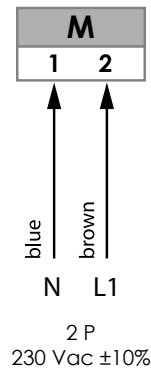


WIRING CONNECTION

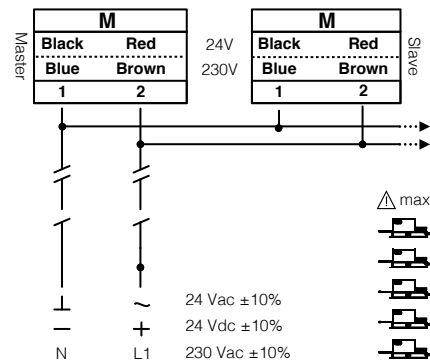
Connection for 24 Vac/dc models



Connection for 230 Vac models

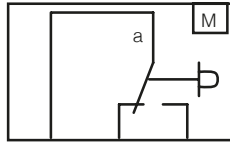


Parallel connection



Parallel connection of maximum five MDS actuators is possible. The power consumption must be observed.

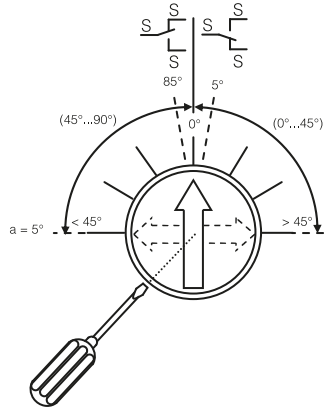
Auxiliary switch connection



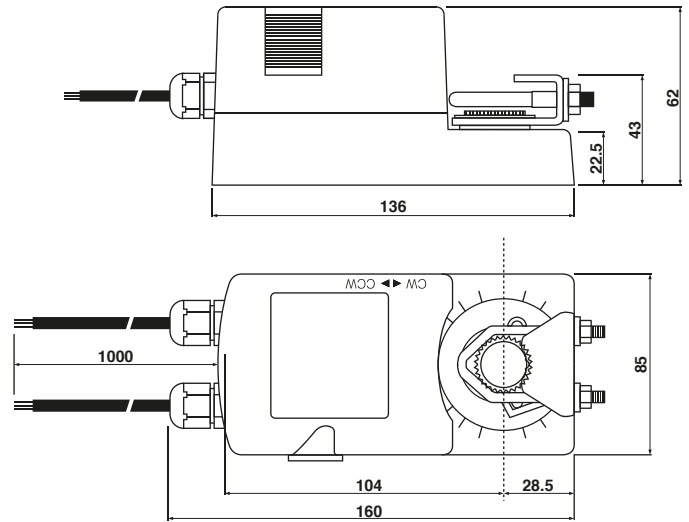
Orange Yellow Green
S1 S2 S3

3 (1.5) A, 250 Vac
Actuator at 0° position

Switch **a** factory-set at 5°. The auxiliary switch can be optimally adjusted between 0°...90°.



DIMENSIONS [mm]



⚠ SAFETY NOTES

24 Vac/dc: connect via safety isolating transformer.

230 Vac: to isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least 3 mm contact gap).

LEDS FUNCTIONALITY

WORKING MODE	LEDs STATUS			DESCRIPTION
	RED	ORANGE	GREEN	
SUPERCAPS PHASE CHARGE	ON	OFF	OFF	SUPERCAPS IN CHARGING
	ON	ON	OFF	SUPERCAP ALMOST CHARGED
	ON	ON	ON	SUPERCAP CHARGED
WORKING MODE	ON	OFF	2 BLINKING	CLOCKWISE DIRECTION MOVEMENT
	ON	OFF	3 BLINKING	COUNTERCLOCKWISE DIRECTION MOVEMENT
EMERGENCY RETURN MODE	OFF	OFF	ON	CHARGE SUPERCAPS > 99%
	OFF	ON	OFF	CHARGE SUPERCAPS > 66%
	ON	OFF	OFF	CHARGE SUPERCAPS > 33%

The performances stated in this sheet can be modified without any prior notice