

MDS.06R(M) - MDS.10R(M)



Damper Actuator with Emergency Electronic Return - 6/10 Nm - On/Off

MODEL	CONTROL SIGNAL	POWER SUPPLY	MICRO AUX	TORQUE [Nm]	IP
MDS406R	On/Off	24 V AC/DC ±10%	No	6	54
MDS406RM			1x SPDT		
MDS206R		230 V AC ±10%	No	10	
MDS206RM			1x SPDT		
MDS410R		24 V AC/DC ±10%	No	10	
MDS410RM			1x SPDT		
MDS210R		230 V AC ±10%	No	10	
MDS210RM			1x 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			
Min. shaft length	40 mm			
Power supply	24 V AC/DC ±10%	230 V AC ±10%	24 V AC/DC ±10%	230 V AC ±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 V AC			
Electrical connection	Cable 1000 mm (supplied)			
Max. 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° to 90° (95° mechanical)			
Weight	1,8 kg			
Life cycle actuator	60000 rotation			
Motor sound level	< 45 dB (A)			
IP protection	IP 54			

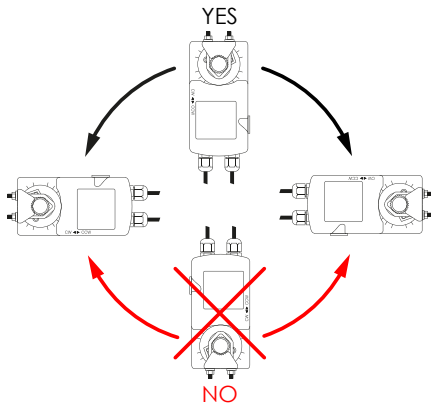
The performances stated in this sheet can be modified without any prior notice.

DESCRIPTION	MDS406R(M)	MDS206R(M)	MDS410R(M)	MDS210R(M)
Operating temperature	-20° to +50°C / IEC 721-3-3			
Non-operating temperature	-30° to +60°C / IEC 721-3-2			
Ambient humidity	5% to 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 V AC power supply models): EN 60730-2-14:2019, EN 60730-1:2016+A2:2019			

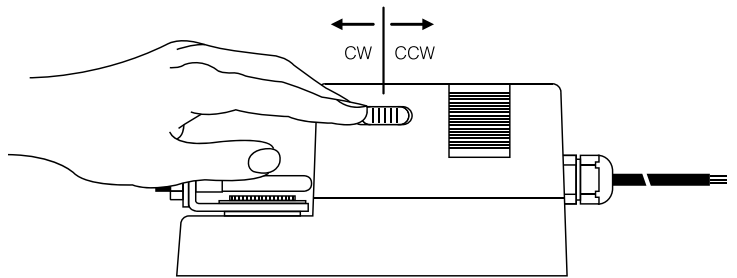
INSTALLATION AND MOUNTING

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.

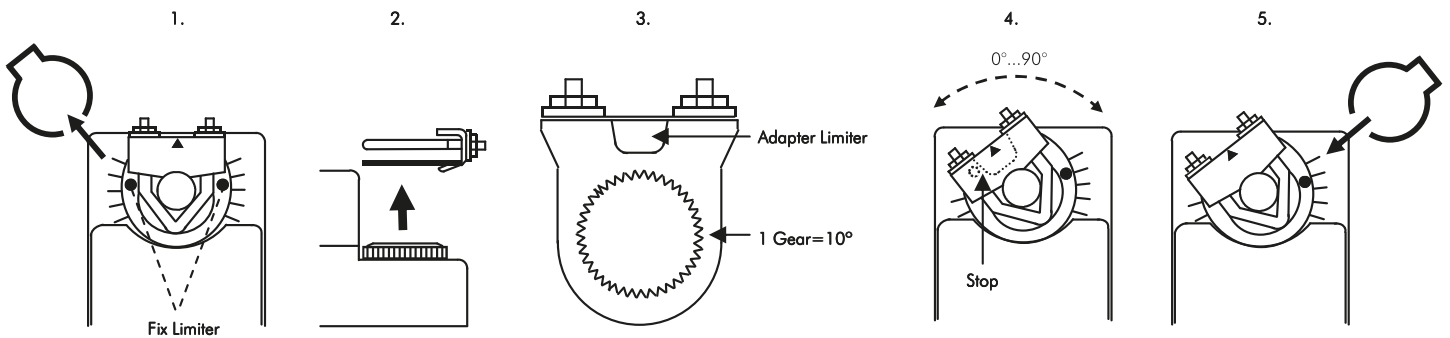
Mounting position



Changing direction of rotation

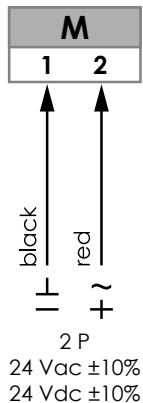


Mechanical limiting angle of rotation

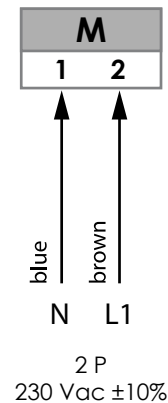


WIRING CONNECTIONS

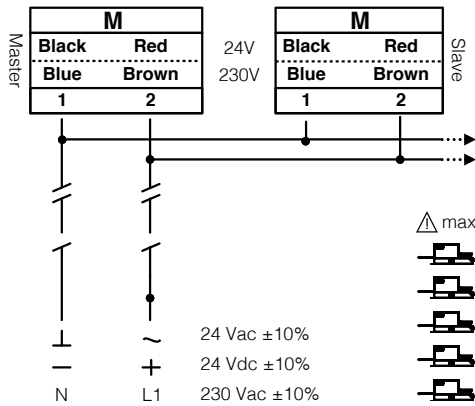
Connection for 24 V AC/DC models



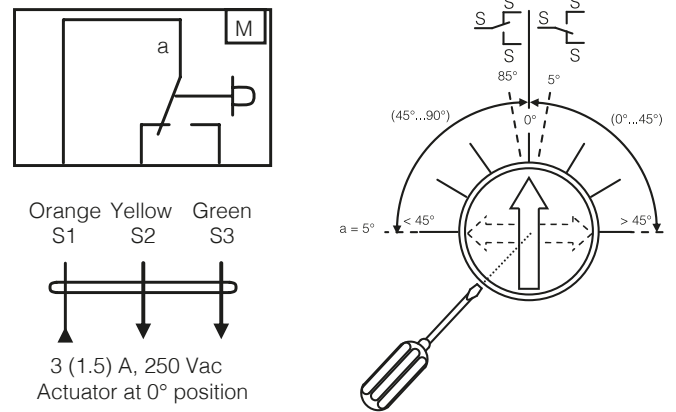
Connection for 230 V AC models



Parallel connection



Auxiliary switch connection



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

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

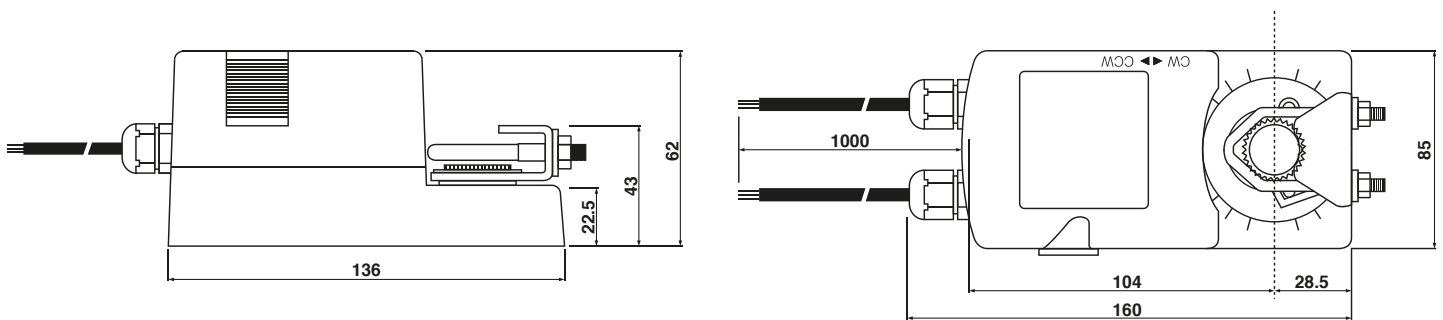


SAFETY NOTES

24 V AC/DC: connect via safety isolating transformer.

230 V AC: 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).

DIMENSIONS [mm]



LEDS FUNCTIONALITY

WORKING MODE	LEDS STATUS			DESCRIPTION
	RED	ORANGE	GREEN	
Supercaps phase charge	On	Off	Off	Supercaps in charging
	On	On	Off	Supercaps almost charged
	On	On	On	Supercaps 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%