











# Actuators for ventilation dampers

Rotary actuators in ventilation are mainly used in air dampers, including fire dampers. In the case of fire protection solutions, the actuator is tested together with the damper for compliance with the harmonized standard and is a part of the damper. This means that another model cannot be used, replaced on site or retrofitted.

In the case of regulating dampers, the choice of actuator is less restricted, of course it must have the proper torque, site-specific voltage (230V or 24V) and / or project-required control (e.g., modbus protocol).

Selection of an actuator for ventilation dampers:

Torque	Max damper size		Alnor	Belimo	Siemens	
	m <sup>2</sup>	∅				
<b>Rotary actuators, with return spring:</b>						
4 Nm	0,8		500	DM-FL-05-24 DM-FL-05-230	LF24 LF230	GPC1xx.1A GPC3xx.1A
5 Nm	1,0		560	DM-FL-05-24 DM-FL-05-230		
10 Nm	2,0		710		NF24A NFA	GMA1xx.1E GMA3xx.1E
20 Nm	4,0				SF24A SFA	GCA1xx.1E GCA3xx.1E
<b>Rotary actuators, without return springj:</b>						
2 Nm	0,4		355		CM24 CM230	GSD1xx.1A GSD3xx.1A
5 Nm	1,0		560		LM24A LM230A LMC24A LMC230A	GDB1xx.1E GDB3xx.1E
6 Nm	1,2		560	DM-ML-06-24 DM-ML-06-230		
8 Nm	1,5		630	DM-ML-08-24 DM-ML-08-230		
10 Nm	2,0		710		NM24A NM230A	GLB1xx.1E GLB3xx.1E
20 Nm	4,0				SM24A SM230A	GBB1xx.1E GBB3xx.1E
<b>Additional options:</b>						
				S - auxiliary output	S - auxiliary output control	
				RS - modulating control	SR - modulating control	
					L / R - direction of rotation (for CM series)	
					C = fast (np. LMC)	

**Auxiliary output (S)** - means an auxiliary contact that can e.g. indicate the damper position after connecting it to the building's BMS control panel.

**ON / OFF or 3-point** - depending on the electrical connection, available positions are closed, open or 50% open (3-point connection). Standard option for DM-ML-08-24.

**Modulating control** – control system using an external 0..10V (or 0..20mA) signal, which enables a modulating (percentage) damper setting, e.g. a 2V signal means 20% open. This is the principle of operation of actuators in VAV regulators, i.e. variable flow. Examples = DM-ML-06-230-RS or LM24A-SR.

# DM-FL-05



## Description

The DM-FL-05 24 V AC/D and 230 V actuators enable remote operation of ventilation dampers.

The DM-FL-05 actuators are intended for single-blade and multi-blade square dampers with a cross-sectional surface area up to 1.0m<sup>2</sup> and round ventilation dampers up to 355 mm in diameter.

The actuators are installed on dedicated actuator mounts integrated with the DATML, DASML, DATM and similar ventilation dampers from Alnor.

The DM-FL-05 actuators enable remote opening and closing of the air flow through the ventilation ducts.

The DM-FL-05 actuators have return springs.

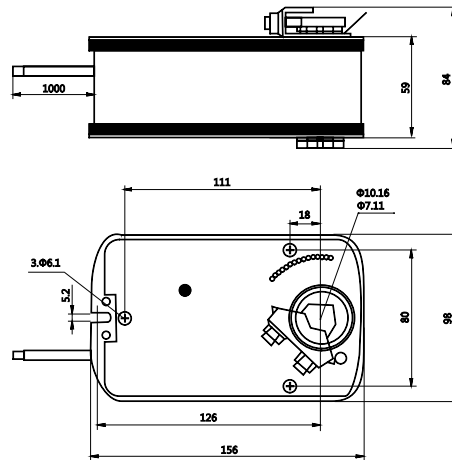
Depending on the actuator installation method, the return spring can either open or close the damper if there is a power failure.

### Product code example

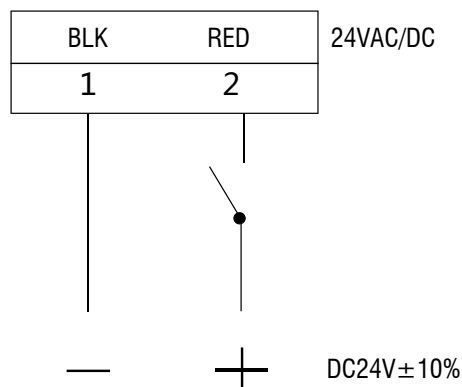
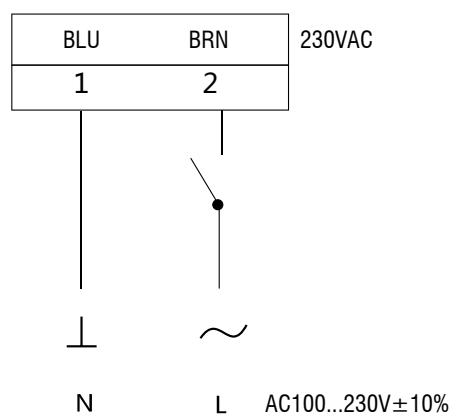
Product code: **DM-FL-05 - 230**

type	
voltage	

## Dimensions



## Ventilation damper actuators

**DM-FL-05****Technical specifications****DM-FL-05-24****DM-FL-05-230**

	<b>DM-FL-05-24</b>	<b>DM-FL-05-230</b>
Power supply	AC 24 V 50/60 Hz DC 24 V	AC 230 V 50/60 Hz
Power input	7.2 W	4.6 W
Wiring size selection	4.4 VA	4.4 VA
Core size	max. 0.5mm <sup>2</sup>	max. 0.5mm <sup>2</sup>
Torque	5 Nm	5 Nm
Sense of rotation	selectable	selectable
Angle of rotation	0 to 90° (max. 95°)	0 to 90° (max. 95°)
Turning time	50 to 70 s	50 to 70 s
Sound level	45 dB (A)	45 dB (A)
Position indicator	mechanical	mechanical
Protection rating	IP54	IP54
Ambient temperature	-20 to + 50°C	-20 to + 50°C
Max. humidity	95% RH, w/o condensation, as per EN 60730-1	95% RH, w/o condensation, as per EN 60730-1
Overload protection	automatic reset	automatic reset