Constant/variable flow dampers

DAU, DA2EU, DAVU

Assembly

In order to fulfil the requirements for air-tightness class D, the devices must be installed as per ‘Assembly Instruction Lindab Safe’.

The devices must be installed with the air flow in the direction of the arrow.

The devices allow 50 mm duct insulation without the scale or any motor being hidden.

Pressure range

50–1000 Pa over the unit.

Interference sensitivity

In order to achieve stated precision for the set flow, a straight duct of at least 3×d before and 1.5×d after the devices is required. A assembly close to a source of interference (bend, saddle, etc.) reduces control accuracy and the flow can deviate from the set value.

Installation position

The unit can be installed vertically, horizontally and rotated to the most suitable position without affecting the accuracy.

Systematic error

Control accuracy

The devices are calibrated within their entire operating range at the factory. This means the devices keep the flow constant to within approx. ±5 to ±10 % of the set flow. Larger deviations occur at lower flows, especially with small sizes.

Maintenance

The devices normally don't require any maintenance, but should be protected from contaminated air wherever possible.

CE marking

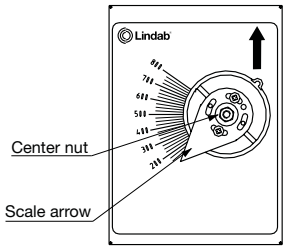
Our dampers with electrical actuator are regarded as a component in the duct system and does not need to be CE marked separately.

Their electrical actuators on the other hand are part of the electrical system and are CE marked. Declaration of compliance with the essential requirements can be found at www.belimo.ch .

Constant/variable flow dampers

DAU

The flow is adjusted by loosening the central nut and using the knob to turn the scale arrow so that it points to the desired flow on the scale. The nut is then locked.

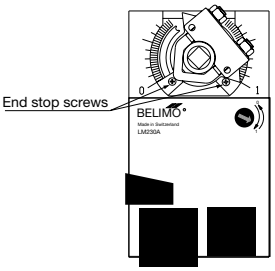


DA2EU

Setting of flows

The two flows are set by moving the end stops. At delivery the stops are set at largest possible distance. If you want to limit the flow span proceed in the following way:

1. The one flow is set by turning the spindle so that the scale arrow points at the desired flow and thereafter move one of the end stops close up to the clamp's one heel and lock the stop there.
2. The other flow is set by turning the spindle so that the scale arrow points at this flow and thereafter move the other end stop close up to the clamp's other heel and lock this stop there.



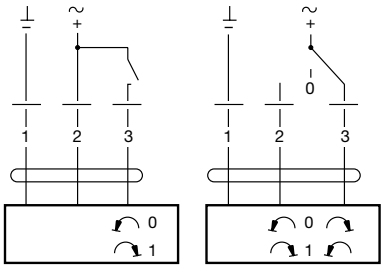
Choice of flows

The one flow is chosen by feeding an operating voltage. This voltage, 24 or 230 V, turns the motor to one of the stops.

The other flow is chosen by breaking the operating voltage. The motor then goes to the other stop.

Technical data for the motors

	LM 24 A	LM 230 A
Power supply	AC 19,2–28,8 V, 50/60 Hz DC 19,2–28,8 V	AC 65–265 V, 50/60 Hz
Power consumption	1 W	1,5 W
For wire sizing	2 VA	4 VA
Connection	Cable 1 m, 3×0,75 mm2	Cable 1 m, 3×0,75 mm2
Operating angle	Max. 95°, adjustable 0–100%	Max. 95°, adjustable 0–100%
Torque at rated voltage	Min. 5 Nm	Min. 5 Nm
Direction of rotation	Switch selectable 0 ↶ or 1 ↷	Switch selectable 0 ↶ or 1 ↷
Position indication	Mechanical	Mechanical
Running time for 95°	150 s	150 s
Sound power level	Max. 35 dB (A)	Max. 35 dB (A)
Protection class	III Safety extra-low voltage	II Safety insulated
Protection type	IP 54	IP 54
Ambient temperature range	-30 to +50°C	-30 to +50°C
Ambient moisture	95 % RH	95 % RH

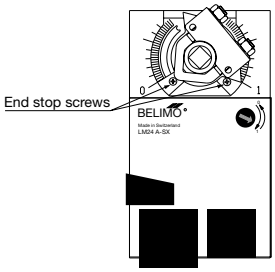


Constant/variable flow dampers

DAVU

Setting of flow limits

The two flow limits are set by moving the end stops. At delivery the stops are set at largest possible distance. If you want to limit the flow span proceed in the following way:



1. The one flow limit is set by turning the spindle so that the scale arrow points at the desired flow and thereafter move one of the end stops close up to the clamp's one heel and lock the stop there.
2. The other flow limit is set by turning the spindle so that the scale arrow points at this flow and thereafter move the other end stop close up to the clamp's other heel and lock this stop there.
3. The motor shall then be adapted so that the regulating span 2–10 V adapts to the thus set flow span. This is done by a push on the "gear disengagement" button. The motor then automatically performs a stroke between the flow limits.

Choice of flow

The flow is chosen by feeding a control signal. This signal, 2–10 V, sets the motor in a proportional position between the flow limits.

Technical data for the motor

	LM 24 A-SX
Power supply	AC 19,2–28,8 V, 50/60 Hz DC 21,6–28,8 V
Power consumption	2 W
For wire sizing	4 VA
Connection	Cable 1 m, 4×0,75 mm²
Operating angle	Max. 95°, adjustable 0–100 %
Torque at nominal voltage	Min. 5 Nm
Direction of rotation	Switch selectable 0/1
Position at Y=0 V	Switch selectable 0 ↶ or 1 ↷
Position indication	Mechanical
Running time for 90°	150 s
Sound power level	35 dB (A)
Protection class	III Safety extra-low voltage
Protection type	IP 54
Ambient temperature range	-30 to +50 °C
Ambient humidity	95 % RH