



## Application

The -HM series of actuators are intended for retrofit of Belimo LM24-M and LM24-10P-M actuators used in OEM VAV controllers that have reached the end of their service life. These actuators are specifically designed as a drop-in replacement without any alteration to the existing VAV system.

## Operation

The actuator is mounted in the same location as the current actuator and mates directly to the damper shaft by means of the standard universal clamp. The existing 5 pin Molex connector plugs directly into the replacement actuator and 24 VAC/DC power is applied via a separate plenum rated power cable.

The -HM series utilize Belimo brushless Halomo motor technology. This motor drive technology monitors and controls the actuator position based on an input signal from the VAV controller. When reaching an end position, the actuator automatically stops and reports this condition to the VAV controller. Power consumption is reduced when in holding mode.

## Models

LMB24-HM

LMB24-10P-HM

Technical Data	LMB24-HM (10P-HM)
Power supply	24 VAC +/- 20% 50/60 Hz 24 VDC +/- 10%
Power consumption	1.5 W (0.2 W)
Transformer sizing	2 VA (Class 2 power source)
Electrical connection	5 pin male Molex connector (control signal) 18 GA, 2 conductor plenum rated cable for power
Overload protection	electronic throughout 0 to 95° rotation
Angle of rotation	max. 95°, adjustable with mechanical stop
Torque	45 in-lb
Position indication	reflective visual indicator (snap-on)
Manual override	external push button
Running time	95 seconds, constant independent of load
Humidity	5 to 95% RH non-condensing (EN 60730-1)
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA 1/ IP20
Housing material	UL54-5VA
Agency listings	cULus
Noise level	<35dB(A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	1.1 lbs [0.5 kg]
Feedback	
LMB24-10P-HM	10 kΩ, 1W potentiometer

## Accessories

Tool-03	#10 Torx driver
Tool-06	8mm & 10mm wrench

**NOTE:** When using LMB24-HM (10P-HM) actuators, only use accessories listed on this page.

## Wiring Directions

1. Disconnect all wires including power to VAV controller.
2. Remove VAV controller from ductwork.
3. Disconnect 5 pin Molex connector from actuator.
4. Using Belimo Tool-03, remove three screws from back of VAV controller housing and remove old actuator.
5. Place VAV controller housing on flat surface.
6. Place rear (Cable end) of new actuator into the housing actuator tray (see picture below) and press down on clamp side of actuator until unit "clicks" into place.
7. Connect 5 pin Molex connector to new actuator.
8. Reinstall OEM VAV controller on ductwork.
9. Reconnect all wires to VAV controller.
10. Connect 24V to actuator cable.



## Wiring Diagram

### ✂️ INSTALLATION NOTES

- 1 Provide overload protection and disconnect as required.
- 3 Actuators may also be powered by 24 VDC.

**⚠️ WARNING Live Electrical Components!** During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

