



## **AIR FLOW CONTROL DAMPER ACTUATORS**

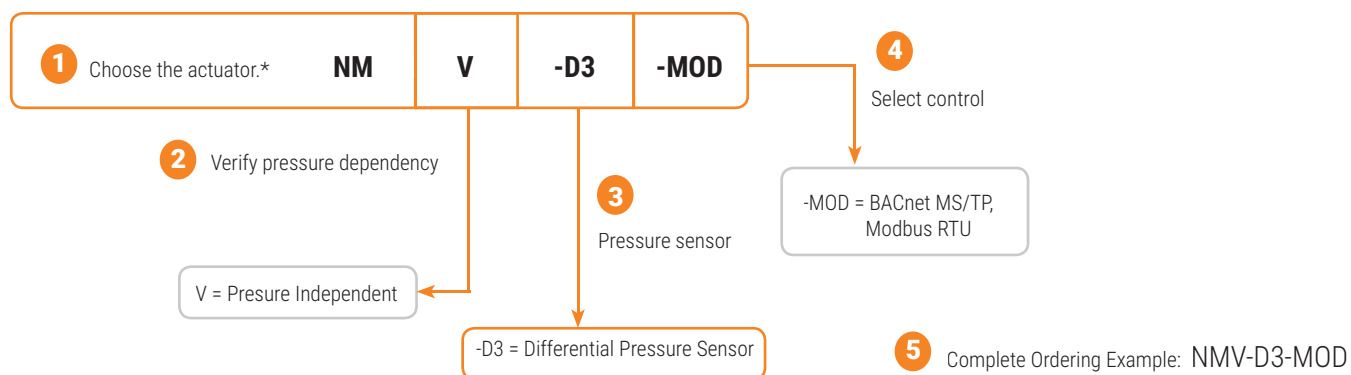
### **Actuators Designed for Zone Comfort**

- Integrated pressure sensor for standalone air flow control for rotary, linear, and induct applications.
- Fast commissioning and adjustment on select devices via NFC (Near Field Communication).
- Available control types are compatible with industry standards such as analog, BACnet, and Modbus.

## Air Flow Control Damper Actuator Nomenclature

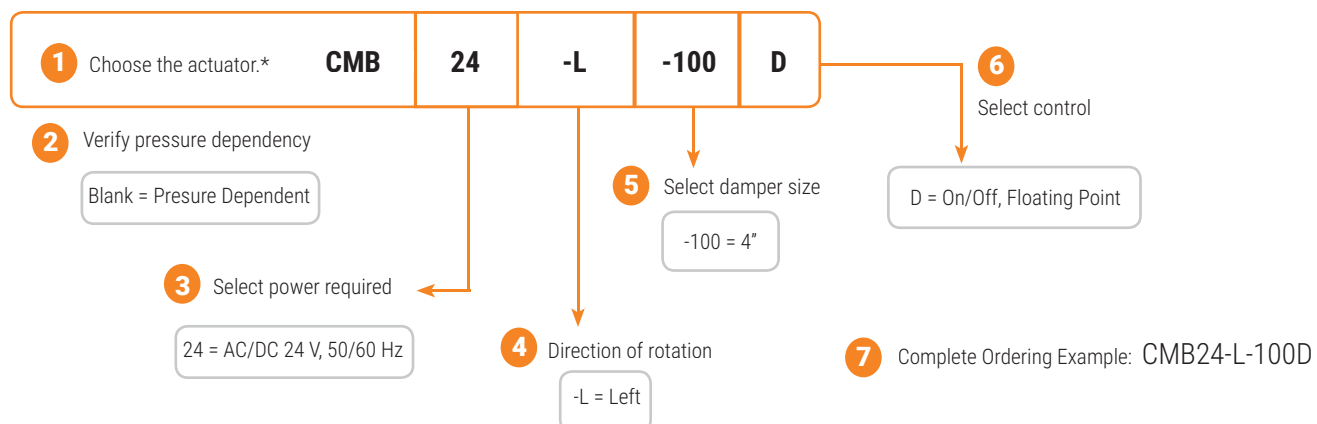
NM	V	-D3	-MOD
<b>Torque Rating</b> Non Fail-Safe Rotary NM = 90 in-lb LM = 45 in-lb  Non Fail-Safe Linear LH = 34 lbf	<b>Pressure Dependency</b> V = Pressure Independent	<b>Pressure Sensor</b> -D3 = D3 Differential Pressure Sensor	<b>Control</b> -MOD = BACnet MS/TP, Modbus RTU -MP = Multi Point -MFT = Multi-Function Technology

### Ordering Example



CMB		24	-L	100	D
<b>Torque Rating</b> Non Fail-Safe In Duct CMB = 18 in-lb	<b>Pressure Dependency</b> Blank = Pressure Dependent V = Pressure Independent	<b>Power Required</b> Blank = AC/DC 24 V, 50/60 Hz 24 = AC/DC 24 V, 50/60 Hz	<b>Direction of Rotation</b> Blank = Selectable -L = Left	<b>Damper Size</b> 100 = 4" 125 = 5" 150 = 6"	<b>Control</b> D = On/Off, Floating Point -MFT = Multi-Function Technology

### Ordering Example



\*All functions and packaging are not available with all versions.

# NMV, LMV, LHV, CMB, CMBV Air Flow Control Damper Actuator Product Range



5-year warranty



		Power Supply	Power Consumption		Running Time	Application			Operation and Servicing			Housing Type	Cabling	Drive Type	Control Input			Position Feedback	Sensor Integration (Select 1 of 3)			List Price				
		AC 24 V ± 20%, 50/60 Hz VDC ± 10%	VA Rating	Wattage Running (Holding)	Motor Drive (Default)	CAV (0...3000 fpm)	VAV (0...3000 fpm)	Open Loop (0...3000 fpm)	NFC interface for Android	NFC for iPhone via Zip-BT-NFC*	PC-Tool	ZTH	NEMA 2	Conduit Connector Available**	Rotary "M", Linear "L"	Integrated Damper Blade	On/Off, Floating Point	2...10 V or 4...20 mA (w/500 Ω Resistor)	BACnet: MS/TP or Modbus RTU	MP Bus	2...10 V (Default) Adjustable with MFT	Optional Accessories: Aux. Switch (STA, SZA), Potentiometer (P.A GR)	Passive (Pt1000, 10K-2, etc.)	Active (0...10 V) e.g. temperature, humidity, etc.	Contact Closure (switching capacity 16 mA @ 24 V), e.g. switches, occupancy switches	
NMV Series 90 in-lb [10 Nm]	NMV-D3-MP	•	5	3	150	•	•	•	•	•	•	•		M	No	•	•	•	•	•	•	•	•	•	•	\$611
	NMV-D3-MOD	•	5	3	150	•	•	•		•	•	•		M	No	•	•	•	•	•	•	•	•	•	•	\$761
	NMV-D3-MFT	•	5	3	150	•	•	•			•	•	•	•	M	No	•	•	•	•	•	•	•	•	•	\$636
LMV Series 45 in-lb [5 Nm]	LMV-D3-MP	•	3.5	2	150	•	•	•	•	•	•	•		M	No	•	•	•	•	•	•	•	•	•	•	\$530
	LMV-D3-MOD	•	4	2	150	•	•	•		•	•	•		M	No	•	•	•	•	•	•	•	•	•	•	\$676
	LMV-D3-MFT	•	3.5	2	150	•	•	•			•	•	•	•	M	No	•	•	•	•	•	•	•	•	•	\$551
LHV Series 34 lbf [150 N]	LHV-D3-MP-100	•	4.5	2.5	150	•	•	•	•	•	•	•		L (4")	No	•	•	•	•	•	•	•	•	•	•	\$596
	LHV-D3-MP-200	•	4.5	2.5	150	•	•	•	•	•	•	•		L (8")	No	•	•	•	•	•	•	•	•	•	•	\$627
	LHV-D3-MP-300	•	4.5	2.5	150	•	•	•	•	•	•	•		L (12")	No	•	•	•	•	•	•	•	•	•	•	\$654
CMB Series 18 in-lb [2 Nm]	CMB24-L-100D	•	1	0.5	58	•	•	•			•	•		M	Yes 4"	•										\$221
	CMB24-L-125D	•	1	0.5	58	•	•	•			•	•		M	Yes 5"	•										\$225
	CMB24-L-150D	•	1	0.5	58	•	•	•			•	•		M	Yes 6"	•										\$229
CMBV Series 18 in-lb [2 Nm]	CMBV-100-MFT	•	2.5	1	70	•	•	•			•	•		M	Yes 4"	•	•	•								\$536
	CMBV-125-MFT	•	2.5	1	70	•	•	•			•	•		M	Yes 5"	•	•	•								\$540
	CMBV-150-MFT	•	2.5	1	70	•	•	•			•	•		M	Yes 6"	•	•	•								\$544

See page 1-14 for additional generic product series specifications. Visit [www.belimo.us](http://www.belimo.us) for detailed product specifications and downloadable data sheets.

\*Zip-BT-NFC is not included in the purchase of this actuator. Please refer to page 4-1 for more information.


\*\*Conduit connector not included in the purchase of this actuator. Please refer to page 4-11 for more information.


# NMV, LMV, LHV, CMB, CMBV Series

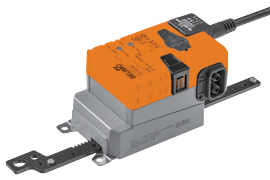
## Direct Coupled, Air Flow Control Damper Actuators



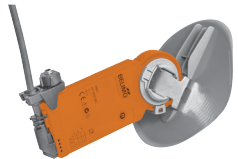
### Actuator Specifications

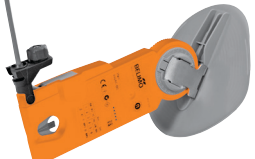
<b>NMV Series</b> 90 in-lb [10 Nm]			
		Angle of rotation ♦	95° (adjustable mechanical or electronically limited)
		Fits shaft diameter	5/16...1.05"
		Position indication	reflective visual indicator (snap-on)
		Operation and service devices	NFC for Android, NFC for iPhone via Zip-BT-NFC, PC Tool, ZTH
		VAV - Variable volumetric flow	V'min ... V'max 2...10 V / 0...10 V / adjustable division / bus operation
		CAV - Constant volumetric flow	CLOSED / V'min / (V'mid) / V'max / OPEN controlled by switch
		Manual override	external push-button
		Direction of rotation	adjustable via operation and service devices
		Runtime	150 seconds
		Overload protection	electronic throughout rotation
		Housing	NEMA 2/IP 54
		Agency listings	cULus according to UL 60730-1A/-2-14, UL 2043

<b>LMV Series</b> 45 in-lb [5 Nm]			
		Angle of rotation ♦	95° (adjustable mechanical or electronically limited)
		Fits shaft diameter	¼...¾"
		Position indication	reflective visual indicator (snap-on)
		Operation and service devices	NFC for Android, NFC for iPhone via Zip-BT-NFC, PC Tool, ZTH
		VAV - Variable volumetric flow	V'min ... V'max 2...10 V / 0...10 V / adjustable division / bus operation
		CAV - Constant volumetric flow	CLOSED / V'min / (V'mid) / V'max / OPEN controlled by switch
		Manual override	external push-button
		Direction of rotation	adjustable via operation and service devices
		Runtime	150 seconds
		Overload protection	electronic throughout rotation
		Housing	NEMA 2/IP 54
		Agency listings	cULus according to UL 60730-1A/-2-14, UL 2043

<b>LHV Series</b> 38 lbf [150 N]			
		Stroke	4", 8", or 12" (adjustable mechanical or electronically limited)
		Direction of stroke	external switch
		Position indication	reflective visual indicator (snap-on)
		Operation and service devices	NFC for Android, NFC for iPhone via Zip-BT-NFC, PC Tool, ZTH
		VAV - Variable volumetric flow	V'min ... V'max 2...10 V / 0...10 V / adjustable division / bus operation
		CAV - Constant volumetric flow	CLOSED / V'min / (V'mid) / V'max / OPEN controlled by switch
		Manual override	external push-button
		Overload protection	electronic throughout rotation
		Housing	NEMA 2/IP 54
		Agency Listings	cULus according to UL 60730-1A/-2-14, UL 2043

♦ Variable with MFT.

<b>CMB Series</b> 18 in-lb [2 Nm]			
		Angle of rotation	70° (electronically limited)
		Operation and service devices	PC Tool, ZTH
		VAV - Variable volumetric flow	V'min ... V'max 2...10 V / 0...10 V / adjustable division / bus operation
		CAV - Constant volumetric flow	CLOSED / V'min / (V'mid) / V'max / OPEN controlled by switch
		Damper blade sizes	4", 5", 6"
		Housing	NEMA 2/IP 54
		Agency listings	cULus according to UL 60730-1A

<b>CMBV Series</b> 18 in-lb [2 Nm]			
		Angle of rotation	70° (electronically limited)
		Operation and service devices	PC Tool, ZTH
		VAV - Variable volumetric flow	V'min ... V'max 2...10 V / 0...10 V / adjustable division / bus operation
		CAV - Constant volumetric flow	CLOSED / V'min / (V'mid) / V'max / OPEN controlled by switch
		Damper blade sizes	4", 5", 6"
		Housing	NEMA 2/IP 54
		Agency listings	cULus according to UL 60730-1A/-2-14, UL 2043

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