

NEW GENERATION AFB, AFX -MFT SPRING RETURN ACTUATORS

Belimo's new AFB and AFX Series sets a new standard for direct-coupled spring return actuators in the HVAC market. A compact size, low power consumption and 35% increase in minimum torque output sets the new AFB and AFX apart from other market solutions. More torque combined with faster running times for both motor drive and spring return widen the application fields giving customers a cost effective solution with high quality.



APPLICATIONS

- Control Dampers up to 45 sq ft
- Make Up Air Units
- Control Valves
- Retrofit & Replacement
- Tandem mount applications for higher torque

CUSTOMERS

- Control Contractors
- Controls OEMs
- Damper OEMs

PRODUCT RANGE & TECHNICAL SPECIFICATIONS

| Product Range | | AFB24-MFT(-S) AFX24-MFT(-S) | AFB24-MFT95 AFX24-MFT95 |
|---|---------------|---|----------------------------|
| Power Supply | | 24VAC ±20% 50/60 Hz, 24 VDC, +20/-10% | |
| Transformer Sizing* | | 10 VA | |
| Power Consumption* (Running / Holding) | | 7.5 W / 3 W | |
| Angle of Rotation | | Max. 95°, can be limited with built-in mechanical stop Electronically variable with MFT only | |
| Torque / Force | | 180 in-lb (20 Nm) | |
| Running Time | Motor | 150 sec (default), 70 to 220 sec with MFT | |
| | Spring Return | 20 sec @ -4°F to 122°F [-20°C to 50°C]; <60 sec @ -22°F [-30°C] | |
| Auxiliary Switches (-S models) | | Two SPDT 3A (0.5A inductive) @ 250V UL approved, one set at + 10°, one adjustable 10 to 90° | None |
| Noise Level | | Spring return: 57 dB(A) typical, 62dB(A) max | |
| Operating Temperature | | -22°F to 122°F (-30 to 50°C) | |
| Agency Listing | | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC & 2006/95/EC | |
| Design Life | | 60,000 full cycles (motor and spring driving full 95° rotation) over the complete operating temperature and voltage range; 500,000 partial cycles (repositions) | |

* Programmed for 70 sec motor run time. At 150 sec motor run time, transformer sizing is 8.5 VA and power consumption is 6 W / 3 W.



FEATURES & BENEFITS

- 180 in-lb (20 Nm) min. torque. 35% more than original AF.
- 360 in-lb (40 Nm) combined minimum torque for two actuators mounted in tandem. 432 in-lb (48 Nm) for three.
- AFB24-MFT95, AFX24-MFT95 for Honeywell 0-135 ohm control, replaces today's AF24-MFT95 US.
- New smaller housing for tight spaces, plus reduced shaft-center to edge distance: 1.25" compared to 1.97" with today's AF.
- Improved motor run times:

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|--------------|-----------------|--------------------|
| | AFB, AFX | Original AF |
| -MFT: | 70 to 220 sec | 75 to 300 sec |
- Same fast spring return time:

| | |
|---------------------|--|
| AFB, AFX: | <20 sec @ -4°F to 122°F [-20°C to 50°C]; <60 sec @ -22°F [-30°C] |
| Original AF: | <20 sec |
- Manual override is standard on all models. Provides same benefits as today's AF series; faster installation and easier maintenance of equipment with lock-in-place switch.
- 3, 10 and 16 ft cable options just like non-spring return actuator (X models only)
- Built-in mechanical limit stop, a separate accessory no longer needed.

PRODUCT COMPARISON

