

AM24-MFT95 US



Proportional damper actuator, non-spring return, 24 V for use with Honeywell® electronic Series 90, or a 0 to 135Ω input



- Torque min. 160 in-lb
- Control 0 to 135Ω
- Feedback 2 to 10 VDC (DEFAULT)

Application

For proportional modulation of dampers in HVAC systems. The AM24-MFT95 US is a non-spring return type actuator. When supply power is removed the actuator will maintain its last position.

Default/Configuration

The default parameters for 0 to 135Ω input applications of the AM24-MFT95 US actuator are assigned during manufacturing. If necessary, custom versions of the actuators can be ordered. However the control input cannot be modified via MFT-Handy tool or PC-software. The parameters noted in the Technical Data table are variable.

These parameters can be changed by three means:

- Pre-set configurations from Belimo
- Custom configurations from Belimo
- Configurations set by the customer using the MFT-Handy® or the MFT-Actuate™ PC software application.

Operation

The AM24-MFT95 US actuator provides 95° of rotation and is provided with a position indicator. The actuator will synchronize it's mechanical stop or the damper or valves mechanical stop and use this point for its zero position during normal control operations.

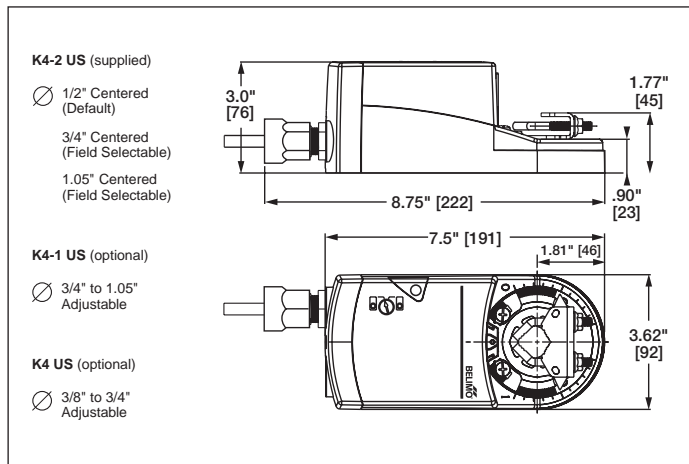
The actuator uses a brushless DC motor which is controlled by an Application Specific Integrated Circuit (ASIC) and a micro-processor. The microprocessor provides the intelligence to the ASIC to provide a constant rotation rate and to know the actuator's exact position. The ASIC monitors and controls the brushless DC motor's rotation and provides a Digital Rotation Sensing (DRS) function to prevent damage to the actuator in a stall condition. The position feedback signal is generated with out the need for mechanical feedback potentiometers using DRS. The actuator may be stalled anywhere in its normal rotation without the need of mechanical end switches.

The AM24-MFT95 US is mounted directly to control shafts up to 1.05" diameter by means of its universal clamp and anti-rotation bracket. A crankarm and several mounting brackets are available for damper applications where the actuator cannot be direct coupled to the damper shaft. The actuator provides constant torque to the application with and without power applied to the actuator. The AM24-MFT95 US actuator is shipped in a Mid position, compression against seats or gaskets for tight shut-off is accomplished manually.

Technical Data	AM24-MFT95 US
Power supply	24 VAC, ± 20%, 50/60 Hz 24 VDC, ±10%
Power consumption	2.5 W running; 1.2 W holding
Transformer sizing	5 VA (Class 2 power source)
Electrical connection	3 ft, 18 GA, appliance cable, 1/2" conduit connector
Overload protection	electronic throughout 0 to 95° rotation
Operating range WRB (Not selectable via MFT)	0 to 135Ω Honeywell electronic series 90, or a 0 to 135 Ω input
Feedback output U*	2 to 10 VDC, 0.5 mA max
Torque*	min 160 in-lb (18 Nm)
Direction of rotation*	reversible with switch CW/CCW CW=CW with decrease in signal CCW=CCW with a decrease in signal
Angle of rotation*	0 to 95°, adjust with mechanical stops
Running time*	150 seconds constant
Angle of Rotation Adaptation*	Off (Default)
Override control*	Min. (Min Position) = 0% ZS (Mid. Position) = 50% Max. (Max. Position) = 100%
Manual override	Manual push button
Position indication	clip on indicator
Humidity	5 to 95% RH, non-condensing
Ambient temperature	-22 to +122° F (-30 to +50° C)
Storage temperature	-40 to +176° F (-40 to +80° C)
Housing	NEMA 2, IP54 (with cable entry down)
Housing material	UL 94-5V (flammability rating)
Noise level	less than 45 dB (A)
Agency listings	UL 873 listed, CE, CSA C22.2 No. 24 certified
Quality standard	ISO 9001
Servicing	maintenance free
Weight	2.8 lbs. (1.3kg.)

* Variable when configured with MFT options

Dimensions [All numbers in brackets are in millimeters.]

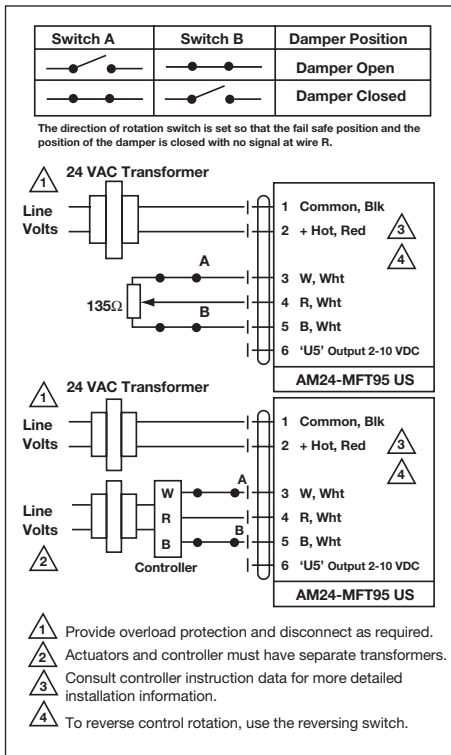


G20492-IG-Subject to change. © Belimo Aircontrols (USA), Inc.

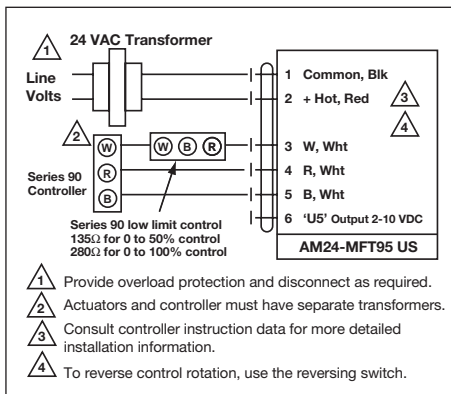
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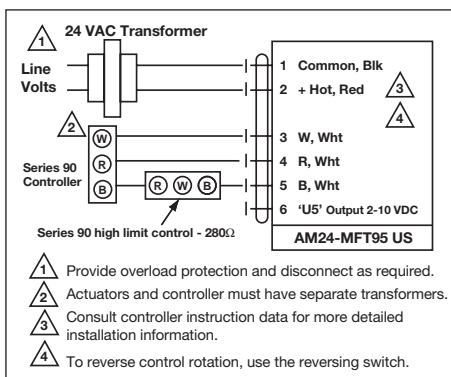
Proportional Potentiometric Control



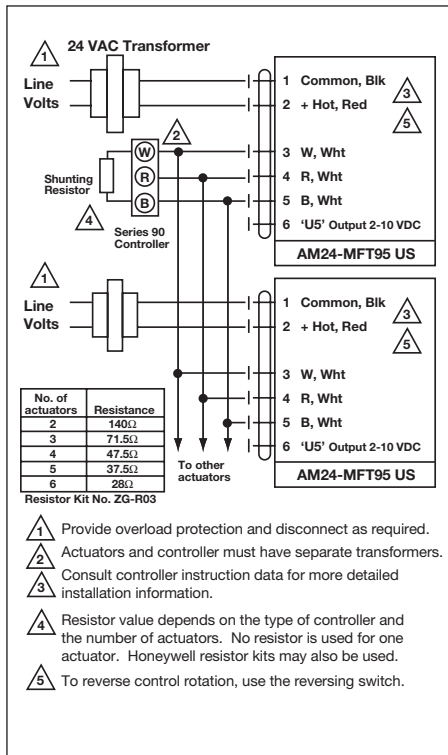
Override of AM24-MFT95 US



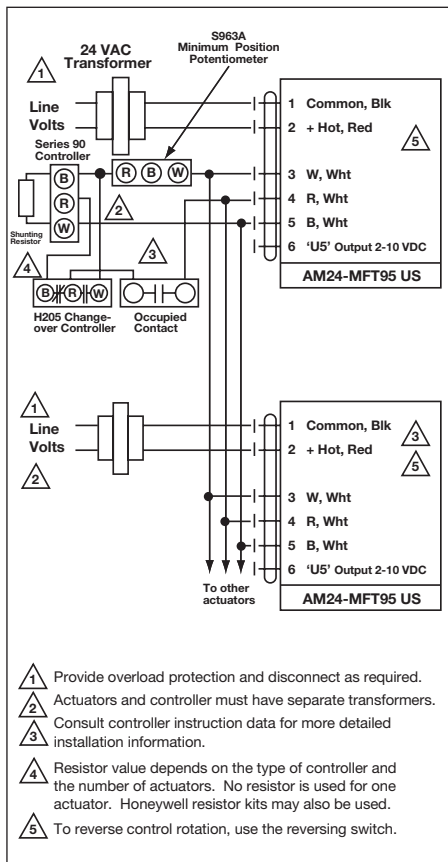
AM24-MFT95 US used with a Series 90 controller and a Series 90 low limit control



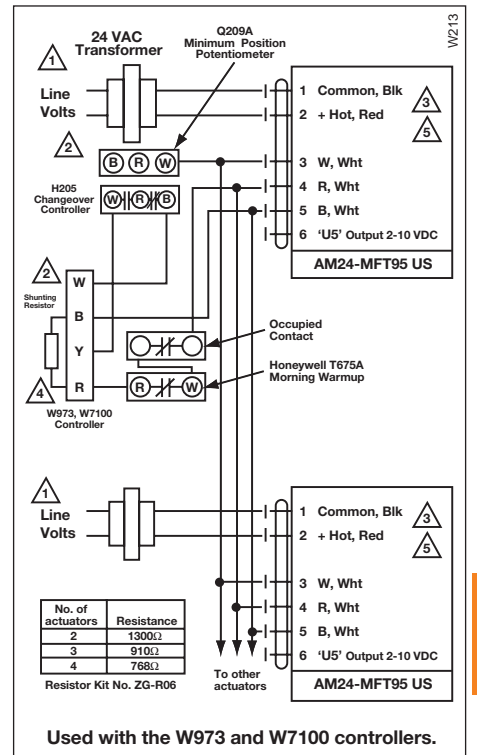
AM24-MFT95 US used with a Series 90 controller and a Series 90 high limit control



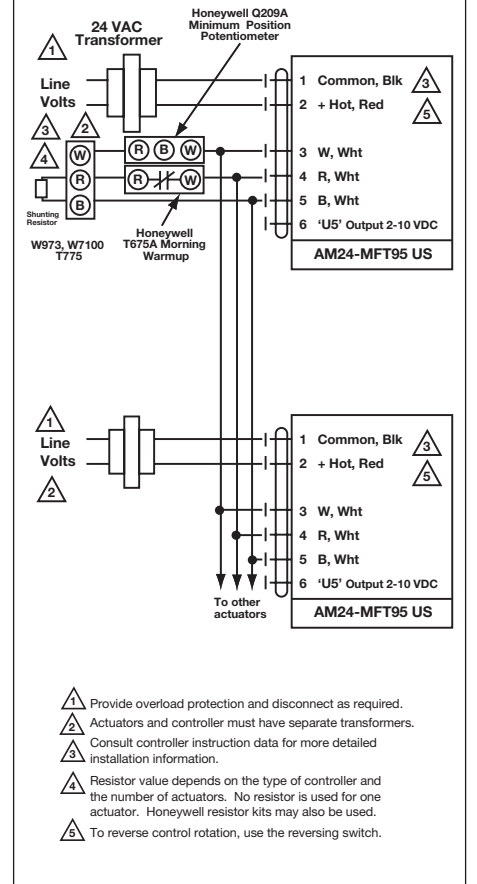
Wiring multiple actuators to a Series 90 controller.



Wiring multiple actuators to a Series 90 controller using a minimum position potentiometer.



Used with the W973 and W7100 controllers.



Typical wiring diagrams for multiple actuators used with the W973, W7100 and T775 controllers.