

AM24 (-S) US

On-off/ floating point control, non-spring return, direct coupled, 24 V



AM24 US

Torque min. 160 in-lb, for control of air dampers.

AM24 US AM24-S US

Application

For on-off and floating point control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications.

The actuator is mounted directly to a damper shaft up to 3/4" in diameter by means of its universal clamp, or up to a 1.05" jackshaft with the optional K4-1 clamp. A crankarm and several mounting brackets are available for applications where the actuator cannot be direct coupled to the damper shaft.

Operation

The actuator is not provided with and does not require any limit switches, but is electronically protected against overload. The angle of rotation is mechanically limited to 95°. When reaching the damper or actuator end position, the actuator automatically stops. The gears can be manually disengaged with a button on the actuator cover. The position of the actuator is indicated by a visual pointer. The anti-rotation strap supplied with the actuator will prevent lateral movement.

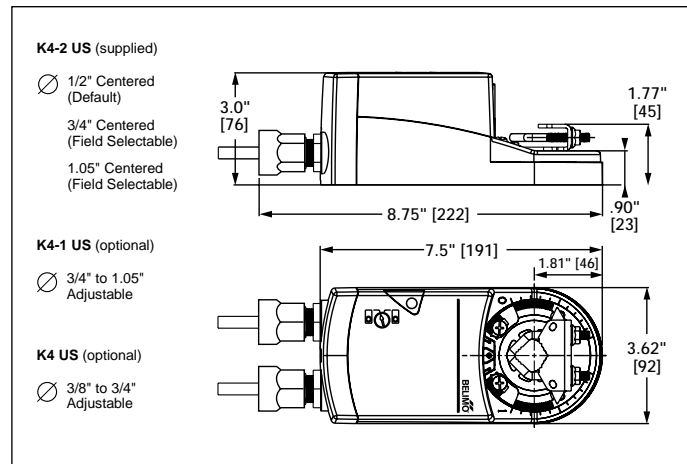
The AM24-S US version is provided with two built-in auxiliary switches. These SPDT switches are provided for safety interfacing or signaling. The switching function is adjustable between 0 and 95°.

Technical Data	AM24 US, AM24-S US
Power supply	24 VAC ± 20% 50/60 Hz 24 VDC ± 10%
Power consumption	2.5 W
Transformer sizing	4.5 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
Angle of rotation	0-95° adjustable stops
Torque	min 160 in-lb [18 Nm]
Direction of rotation	reversible with switch "CCW-CW"
Position indication	clip-on indicator
Running time	110 to 150 sec. for 0 to 160 in-lb
Manual override	external push button
Humidity	5 to 95% RH, non-condensing
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 type	NEMA 2 (IP54 with cable entry down)
Housing material rating	UL94-5V (flammability rating)
Noise level	less than 45 dB (A)
Servicing	maintenance free
Agency listings	UL 873 listed, CSA C22.2 No.24 certified, CE
Quality standard	ISO 9001
Weight	2.8 lbs [1.3 kg]

AM24-S US

Auxiliary switches	adj. 0° to 95°, 2 x SPDT 3A (0.5A) @24 VAC
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Dimensions (All numbers in brackets are metric.)



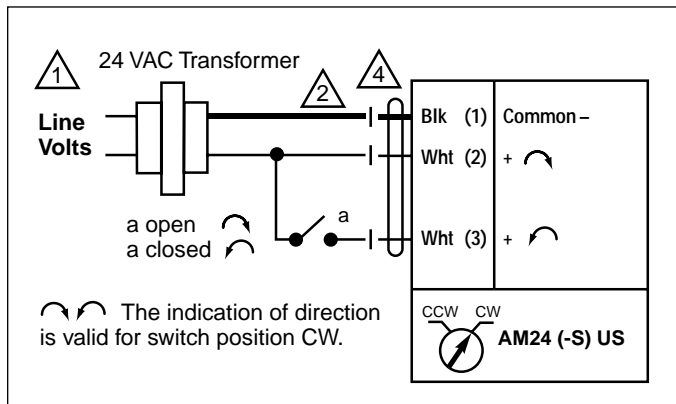
Accessories

AV 1	Damper shaft extension for AM
AV10-18	Universal shaft extension
K4 US	On <u>All</u> Accessories lists in the book
K4-1 US	Clamp for 3/4" to 1.05" jackshafts
K4-H	Hex shaft clamp, for 3/8"-5/8" shafts
KH-AM	Crankarm
SA1 US, SA2 US	Auxiliary switches
PA... US	140 Ω, 500 Ω, 1000 Ω, 2800 Ω feedback potentiometers
Tool-01	10 mm wrench
ZG-AM	Crank arm adaptor kit
ZG-100	Mounting bracket
ZG-101	Mounting bracket
ZG-103	Mounting bracket
ZG-104	Mounting bracket
ZS-100	Weather shield (metal)
ZS-150	Weather shield (polycarbonate)
ZS-260	Explosion-proof housing
ZS-300	NEMA 4X housing

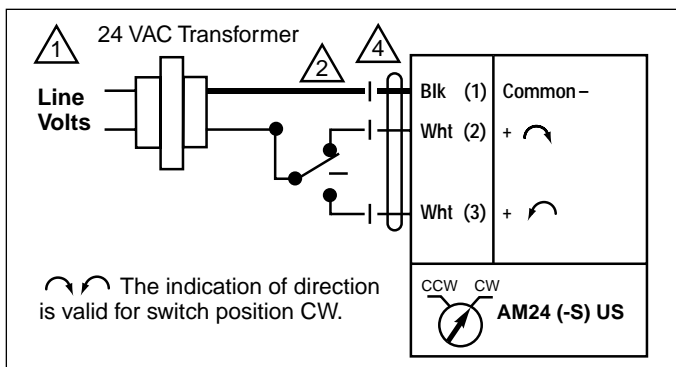
AM24 (-S) US - Typical Specification:

Control damper actuators shall be electronic direct coupled type which require no crank arm and linkage and be capable of direct mounting to a jackshaft up to a 1.05" diameter. Actuators shall be UL and CSA listed, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall have reversing switch and manual override on the cover, and be protected from overload at all angles of rotation. If required, two adjustable SPDT auxiliary switches shall be provided (AM24-S US). Actuators shall be as manufactured by Belimo.

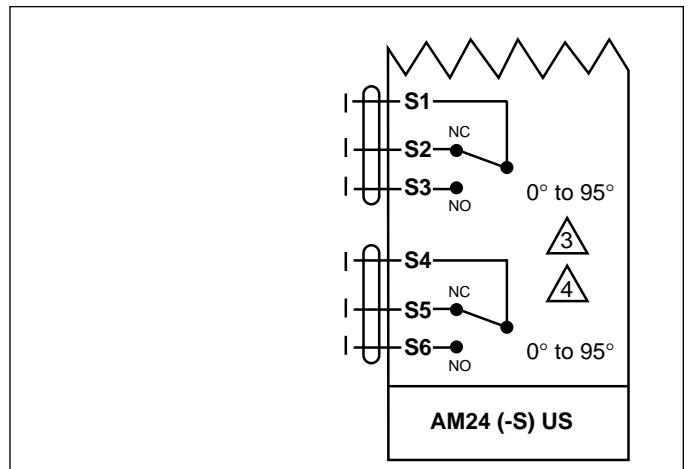
Wiring diagrams



On-off control



Floating point or on-off control



Auxiliary switch wiring for AM24-S US

Notes

- 1 Provide overload protection and disconnect as required.
- 2 Actuators may also be powered by 24 VDC.
- 3 For end position indication, interlock control, fan startup, etc., AM24-S us incorporates two built-in auxiliary switches: 2 x SPDT, 3A (0.5A) @24 VAC, UL listed, adjustable between 0° and 95°.
- 4 Meets UL and CSA requirements without the need of an electrical ground connection.