

Technical Data		AFRB24-SR, AFRB24-SR-S, AFRX24-SR, AFRX24-SR-S
Power supply		24 VAC $\pm 20\%$, 50/60 Hz 24 VDC $+20\%$ / -10%
Power consumption	running	5.5 W
	holding	3 W
Transformer sizing		8.5 VA (class 2 power source)
Electrical connection		
	AFRB...	3 ft, 18 GA appliance cable, 1/2" conduit connector -S models: two 3 ft, 18 gauge appliance cables with 1/2" conduit connectors
	AFRX...	3 ft [1m], 10 ft [3m] or 16 ft [5m] 18 GA appliance or plenum cables, with or without 1/2" conduit connector -S models: Two 3 ft [1m], 10 ft [3m] or 16 ft [5m] appliance cables, with or without 1/2" conduit connectors
Overload protection		electronic throughout 0 to 90° rotation
Operating range Y		2 to 10 VDC, 4 to 20mA
Input impedance		100 k Ω for 2 to 10 VDC (0.1 mA) 500 Ω for 4 to 20 mA
Feedback output U		2 to 10 VDC (max. 0.5 mA)
Direction of rotation	spring motor	reversible with CW/CCW mounting reversible with built-in switch
Mechanical angle of rotation		90° (adjustable with mechanical end stop, 35° to 90°)
Running time	spring motor	< 20 seconds @ -4°F to 122°F [-20°C to 50°C]; < 60 seconds @ -22°F [-30°C] 90 seconds
Position indication		visual indicator, 0° to 90° (0° is full spring return position)
Manual override		5 mm hex crank (3/16" Allen), supplied
Humidity		max. 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		Nema 2, IP54, Enclosure Type2
Housing material		zinc coated metal and plastic casing
Agency listings†		cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC & 2006/95/EC
Noise level		≤ 40 dB(A) motor @ 90 seconds ≤ 62 dB(A) spring return
Quality standard		ISO 9001
† Rated Impulse Voltage 800V, Type of action 1.AA (1.AA.B for -S version), Control Pollution Degree 3.		
AFRB24-SR-S, AFRX24-SR-S		
Auxiliary switches		2 x SPDT 3A (0.5A) @ 250 VAC, UL approved one set at +10°, one adjustable 10° to 90°

Wiring Diagrams



INSTALLATION NOTES

- 1 Provide overload protection and disconnect as required.
- 3 Actuator may also be powered by 24 VDC.
- 4 For end position indication, interlock control, fan startup, etc., AFRB24-SR-S and AFRX24-SR-S incorporates two built-in auxiliary switches: 2 x SPDT, 3A (0.5A) @250 VAC, UL Approved, one switch is fixed at +10°, one is adjustable 10° to 90°.
- 5 Only connect common to neg. (-) leg of control circuits



APPLICATION NOTES

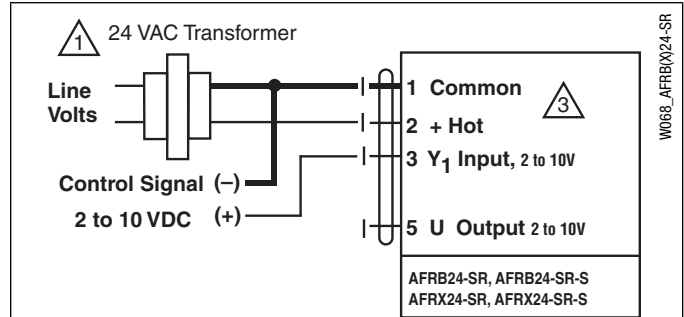


The ZG-R01 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC.

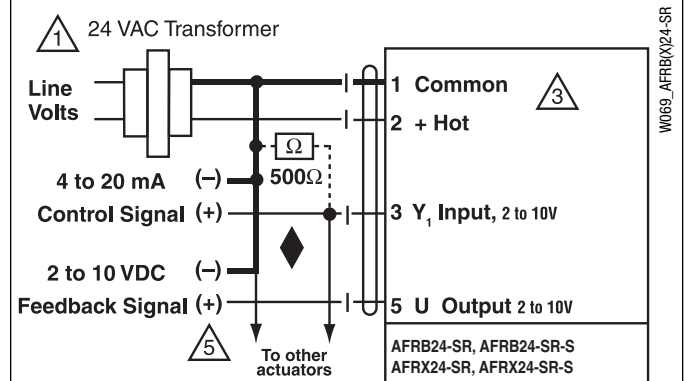


WARNING Live Electrical Components!

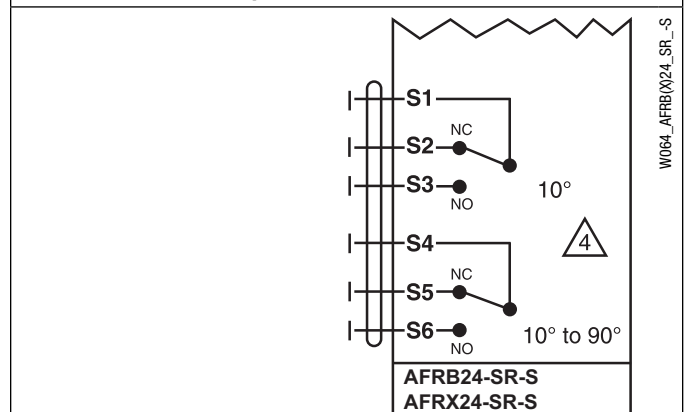
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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



2 to 10 VDC control of AFRB24-SR and AFRX24-SR



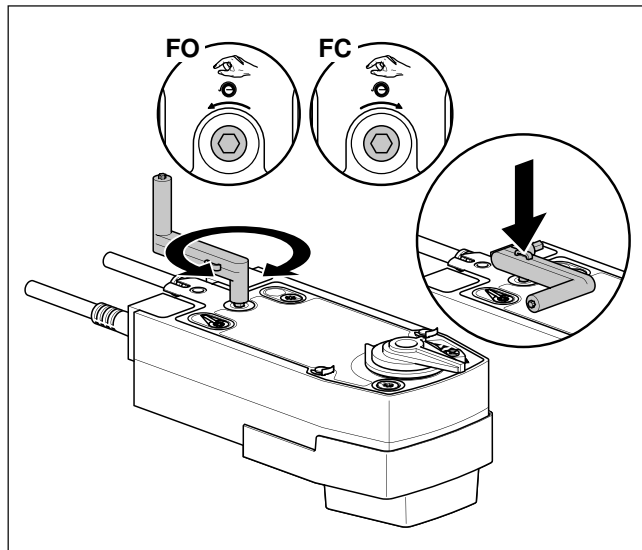
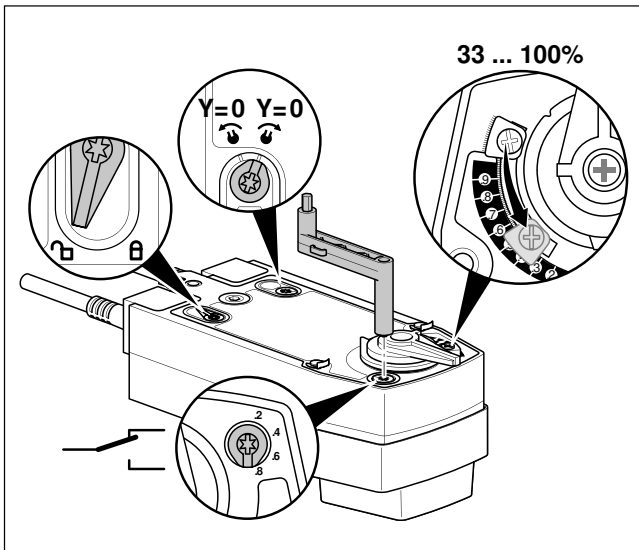
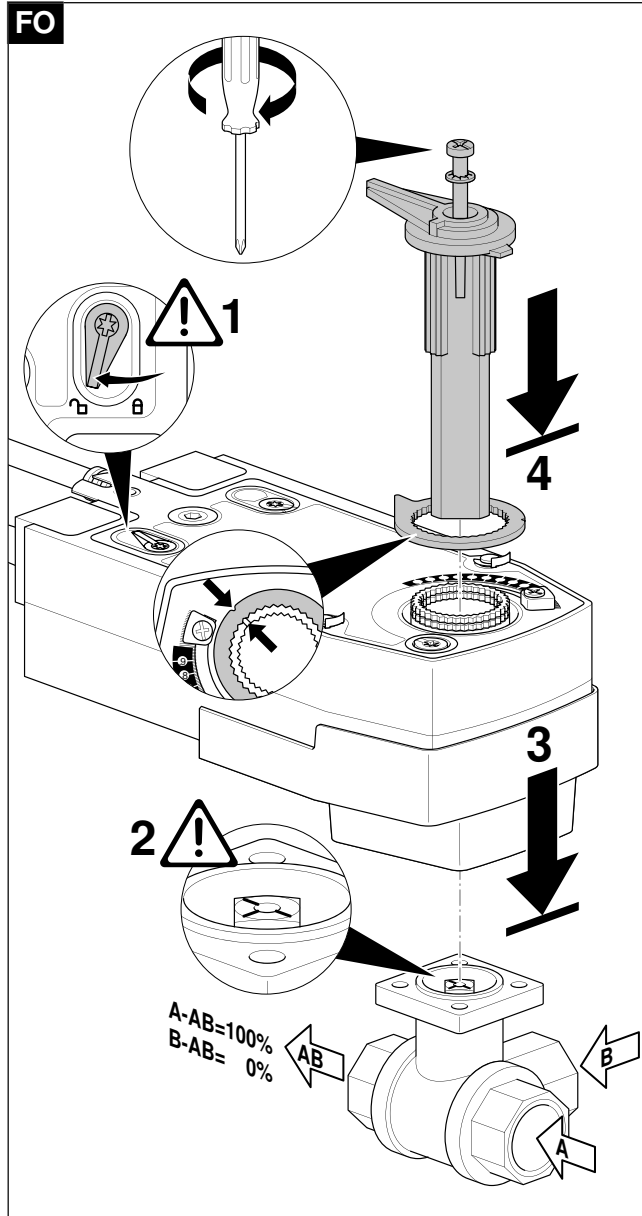
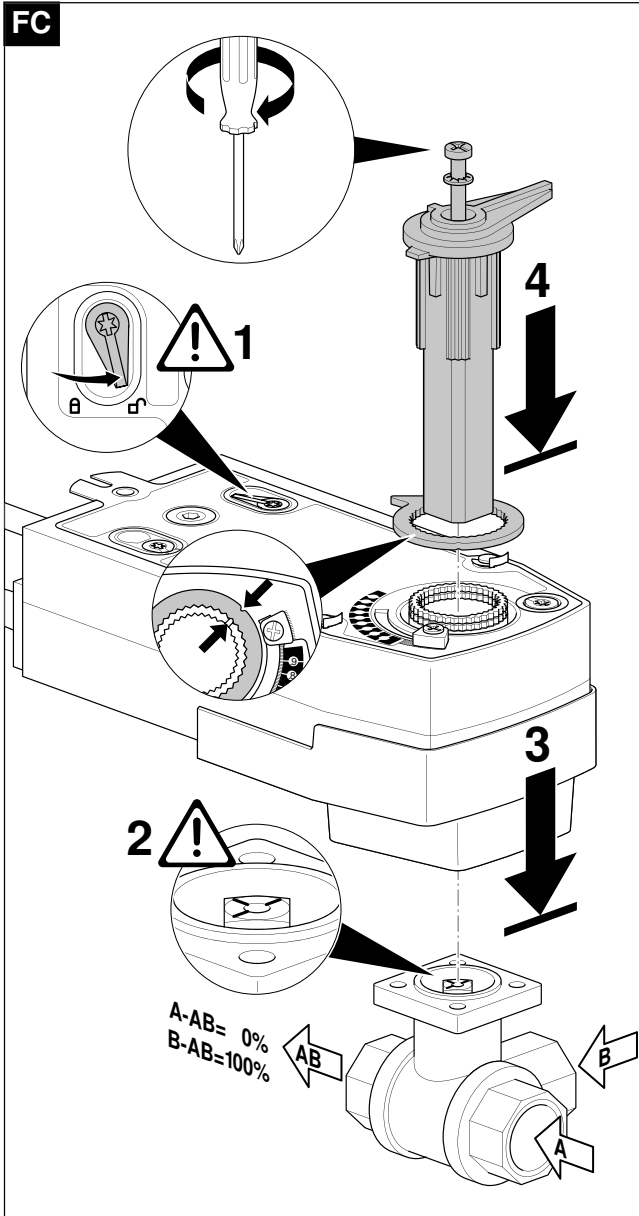
4 to 20 mA control of AFRB24-SR and AFRX24-SR with 2 to 10 VDC feedback output



Auxiliary switches for AFRB24-SR-S, AFRX24-SR-S

AFRB24-SR, AFRB24-SR-S, AFRX24-SR, AFRX24-SR-S

Proportional, Spring Return, 24 V, for 2 to 10 VDC to 4 to 20 mA Control Signal



08/10 - Subject to change. © Belimo Aircontrols (USA), Inc.