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Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	2 W
	Power consumption in rest position	1 W
	Transformer sizing	4 VA
	Auxiliary switch	1x SPDT, 1 mA3 A (0.5 A inductive), DC 5 VAC 250 V, adjustable 095°
	Switching capacity auxiliary switch	1 mA3 A (0.5 A inductive), DC 5 VAC 250 V
	Electrical Connection	(2) 18 GA appliance cables, 1 m, with 1/2" NPT conduit connectors

Overload Protection electronic throughout 0...95° rotation

Functional data	Operating range Y	210 V
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Operating range 1	Z 10 V
Operating range Y note	420 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)
Input impedance	100 k Ω for 210 V (0.1 mA), 500 Ω for 420 mA
Position feedback U	210 V
Position feedback U note	Max. 0.5 mA
Direction of motion motor	selectable with switch 0/1
Direction of motion fail-safe	reversible with cw/ccw mounting
Angle of rotation	Max. 95°
Running Time (Motor)	95 s
Running time fail-safe	<25 s @ 20°C
Noise level, motor	35 dB(A)
Noise level, fail-safe	62 dB(A)
Position indication	Mechanical

Safety data

Power source UL	Class 2 Supply	
Degree of protection IEC/EN	IP42	
Degree of protection NEMA/UL	NEMA 2	
Enclosure	UL Enclosure Type 2	
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU	
Quality Standard	ISO 9001	
UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC	
Ambient humidity	Max. 95% RH, non-condensing	
Ambient temperature	-22122°F [-3050°C]	
Storage temperature	-40176°F [-4080°C]	
Servicing	maintenance-free	



Technical data sheet TFRB24-SR-S

Weight	Weight	1.6 lb [0.72 kg]
Materials	Housing material	UL94-5VA

Footnotes †Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

Electrical installation

X INSTALLATION NOTES

 $m{\upgain}$ Provide overload protection and disconnect as required.

Actuators may be connected in parallel. Power consumption and input impedance must be observed.

Actuators may also be powered by DC 24 V.

6 Only connect common to negative (-) leg of control circuits.

 Λ A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

Meets cULus requirements without the need of an electrical ground connection.

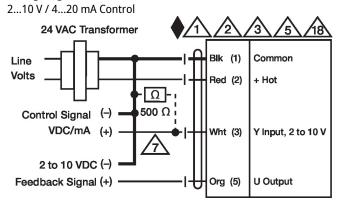
Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches.

Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

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.

Wiring diagrams



Auxiliary Switches

