

3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

# RUS-M24-MOD Electric 24 Volt Modulating Control Damper & Louver Actuator DIRECT COUPLED SPRING RETURN

#### **DESCRIPTION**

Ruskin model RUS-M24-MOD electric modulating (proportional) spring return actuator designed for factory mounting on dampers and operable louvers. Actuators can be mounted directly to a damper or louver shaft from 5/16 to 5/8 inch (8 to 16 mm) diameter with a universal clamp.

#### **FEATURES**

- Designed specifically to operate damper and operable louver applications up to the square footage face area listed below.
- Reversible mounting design simplifies installation and enables the actuator to be spring return in either direction.
- Electronic stall detection through entire rotation range extends life by deactivating the motor when an overload condition is detected
- · 5 Year factory warranty

TECHNICAL INFORMATION				
COMMERCIAL DAMPER FACE AREA*	12 sq. ft. with seals 24 sq. ft. without seals			
LOUVER FACE AREA	18 sq. ft. with seals 30 sq. ft. without seals			
INDUSTRIAL DAMPERS	Dependent on model and system conditions (Consult Ruskin)			
RUNNING TIME	Drive: 150 sec Spring: < 17 to 25			
INPUT SIGNAL	0(2) to 10 VDC 0(4) to 20 mA (w/ 500 ohm resistor)			
POSITION FEEDBACK	0(2) to 10 VDC			
POWER SUPPLY	AC 24 V 50/60 Hz OR DC 24 V			
POWER CONSUMPTION	AC: Running 7.9 VA, Holding 5.5 VA DC: Running 3.5 W, Holding 1.9 W			
TRANSFORMER SIZE	8 VA			
DIRECTION OF ROTATION	Reversible with cw/ccw mounting			
POSITION INDICATION	Visual indication 0° to 95°			
OPTIONAL AUXILIARY SWITCH (-S Models)	N/A (Consult Ruskin Special Order)			
ELECTRICAL PROTECTION	Double insulated			
ELECTRICAL CONNECTION	3 ft, 18 ga appliance cable (-S models have 2 cables) 1/2" conduit connector			
OVERLOAD PROTECTION	Electronic throughout 0° to 95° rotation			
ROTATION PROTECTION	Max 95° adjust. with mechanical stop (optional)			
HOUSING	NEMA 2 (IP54)			
HOUSING MATERIAL	Galvanized Steel			
HUMIDITY	5 to 90% non-condensing			

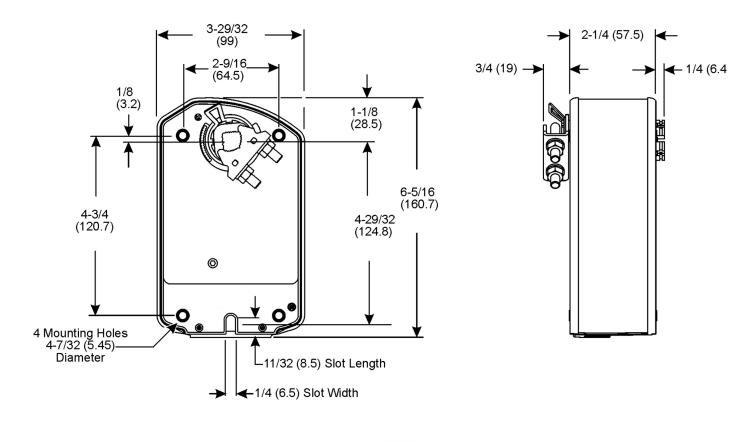
<sup>\*</sup>Consult Ruskin for proper actuator sizing on TED50 series dampers

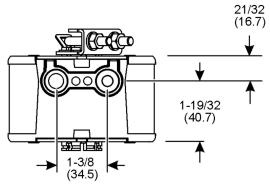


RUS-M24-MOD Electric Spring-Return Actuator

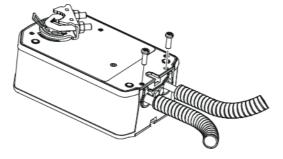
TECHNICAL INFORMATION			
AMBIENT TEMPERATURE	-40 to 140°F (-40 to 60°C); 90% RH Maximum, Non-condensing		
STORAGE TEMPERATURE	-40 to 185°F (-40 to 85°C); 95% RH Maximum, Non-condensing		
AGENCY LISTINGS	UL 60730-1A: 2003-08 UL 60730-2-14: 2002-02 UL 2043 C22.2 No. 24-93		
NOISE LEVEL AT APPROX. 40" DISTANCE	Drive: <35 dba Holding: <20 dba Spring: <52 dba		
WEIGHT	RUS-M24-MOD: 3.43 lb (1.56 kg)		
SERVICING	Maintenance free		
QUALITY STANDARD	ISO 9001		

ACCESSORY		
ADJUSTABLE END STOP KIT	Part #M9208-603 From 35° to 95° in 5°increments	
WEATHER SHIELD	Part #M9000-322 NEMA4X, IP66 impact-grade plastic enclosure with UV inhibitors to extend life	



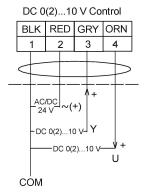


## **CONDUIT CONNECTIONS**

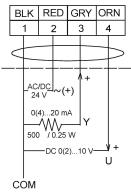


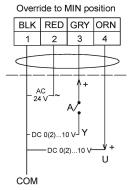
All RUS-M24-MOD Series Actuators accept 3/8 in. trade size flexible metal conduit.

### WIRING RUS-M24-MOD PROPORTIONAL ACTUATORS

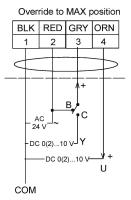


0(4)...20 mA Control with External Resistor



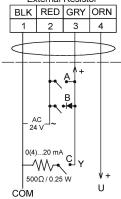


A Open = MIN Position A Closed = Normal Operation



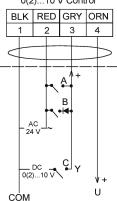
B Closed = MAX Position C Closed = Normal Operation





FUNCTION	Α	В	С
0% ( MIN )	-/-	-/-	-/-
50% (MID)	<b>√-</b>	<b>→</b>	<b>-/</b> -
100% ( MAX )	1	-/-	<b>-∕-</b>
NORMAL	-/-	<b>-/</b> -	_1_

Override to MIN, MID, MAX positions 0(2)...10 V Control



FUNCTION	Α	В	С	
0% ( MIN )	-/-	-/-	<b>√-</b>	,
50% ( MID )	-/-	_1_	<b>√-</b>	(Z)_w
100% ( MAX )	_1_	-/-	-/-	20300
NORMAL	-/-	-/-	_1_	G:M9

RUS-M24-MOD Control Wiring Diagram (Overrides)

**IMPORTANT:** Do not install multiple RUS-M24-MOD Series Actuators connected to the same mechanical load. Master-Slave application of RUS-M24-MOD Series Actuators requires that each actuator be connected to independent loads.

**Note:** In Master-Slave applications, the slave actuator lags the master actuator position by a few seconds.

