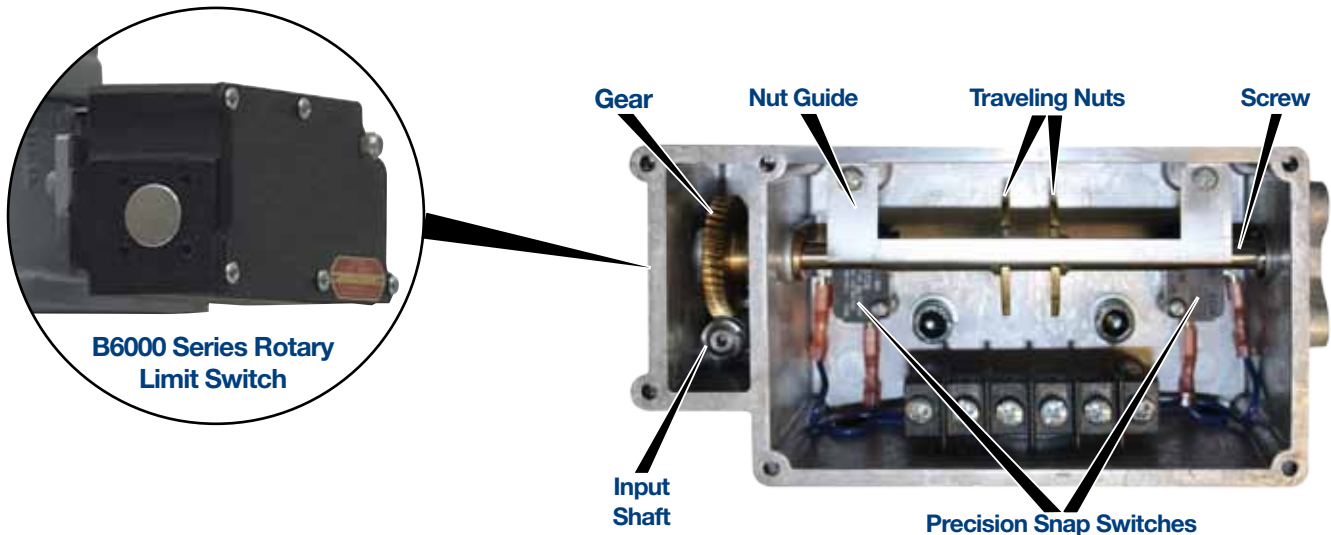


ACTUATOR CONTROLS

B6000 Series Rotary Limit Switch

When you need precise control of your mechanical actuator Duff-Norton's newest B6000 Series Rotary Union Limit Switch design provides the ultimate in adjustability with even higher accuracy than a cam switch. By eliminating plastic mechanical components we also ensure robust durability!



Features

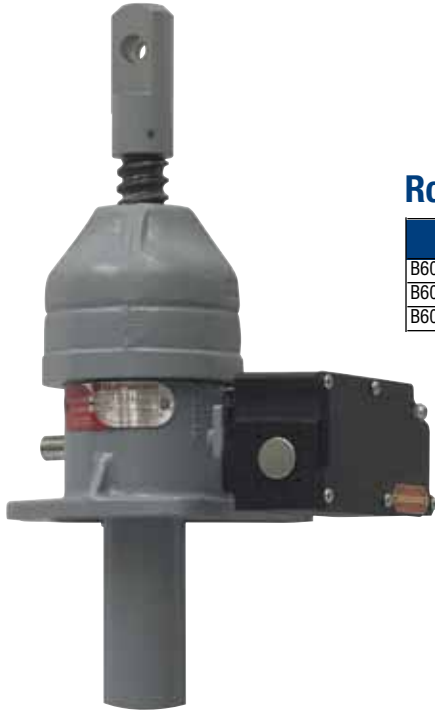
- Switches rated 15 amps, 125-277 VAC; ½ amp 125 VDC; ¼ amp, 250 VDC.
- Switches SPST standard (SPDT optional).
- Adaptable to all Duff-Norton mechanical actuators 2 ton and larger.
- Sturdy and compact. Corrosion resistant aluminum housing and cover. NEMA 4 enclosure rating. Threaded ½" NPT conduit opening. Brass nuts travel on stainless steel shaft.
- Easy to adjust. Slotted traveling nuts allow precise fine-adjustment.
- Three available ratios to serve different travel requirements, while optimizing repeatability.
- Operating temperature, -20° to 150°F. Lubricated for life with synthetic grease.
- Can be mounted on either side of actuator, in four orientations.
- May be ordered as close-mounted with shortened worms, reducing actuator width.
- Additional rotary limit switches available with 4 positions, or for hazardous locations. Consult factory.

To ensure that limit switch has sufficient travel capability for the actuator unit, use the following formula:

$$\text{Required worm revolutions} = (\text{Inches of Actuator Travel}) \times (\text{Actuator Turns per Inch})$$

ACTUATOR CONTROLS

Rotary Limit Switches



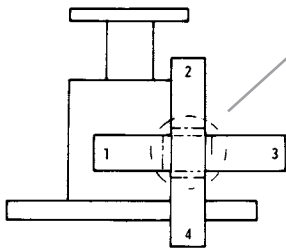
Rotary Limit Switch Performance Specifications

Model No.	Gear Ratio	Max. Worm Rev.	Max. Actuator Raise	Max. Over-travel	Switch Reset Dist.
B6000A10	10:1	1200	1200/TPI	24/TPI	5/TPI
B6000A20	20:1	2400	2400/TPI	48/TPI	10/TPI
B6000A40	40:1	4800	4800/TPI	96/TPI	20/TPI

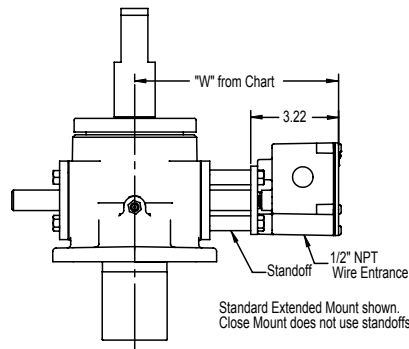
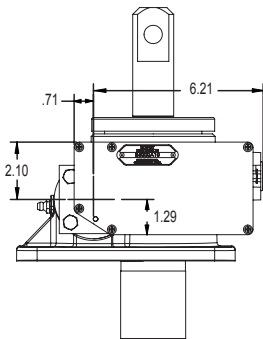
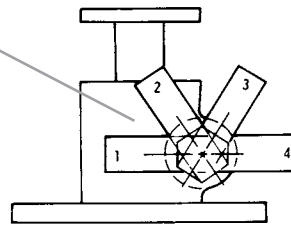
Rotary Limit Switch Mounting and Adjustment

All models except
75, 100, and 150 Ton

75, 100, and 150 Ton only



Switch Position



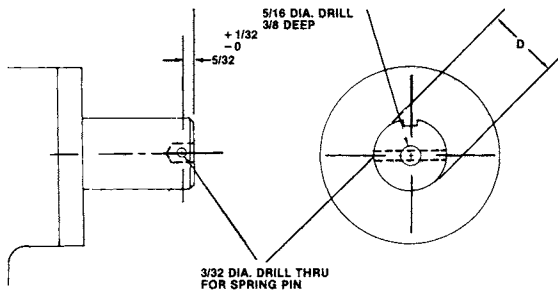
Actuator Model, Tons	Width, "W", inches	
	Extended Mount Switch	Close Mount Switch
2	6.50	5.19*
3	6.50	5.19*
5	7.50	6.00
10	8.50	6.63
15	8.50	6.63
20	8.50	6.87
25	10.00	7.56
35	10.00	7.56
50	14.00	9.81
75	15.00	10.38
100	14.50	10.75
150	14.50	10.75

* M1802: Pos. 2 & 3 only.
M9002: Pos. 1,2,&3 only.

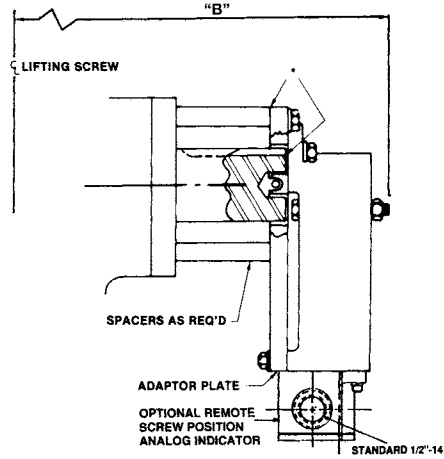
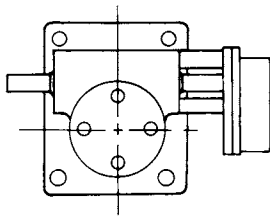
ACTUATOR CONTROLS

Rotary Limit Switches

Limit Switch Field Installation Dimensions



*NOTE: SHIM OUT ON LIMIT SWITCH IF NECESSARY.
WORM SHAFT END MUST NOT RUB SWITCH HOUSING.



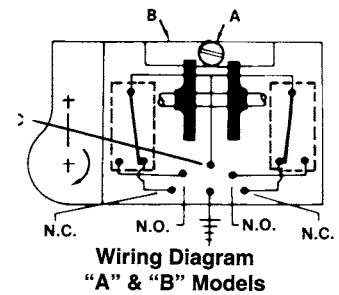
Worm Shaft Dimensions

Capacity	Mounting Dimensions	Worm Shaft Dia.
2 & 3 Ton MS	6 3/4	.500
3 Ton BS	6 3/4	.500
5 Ton MS & BS	7 3/4	.750
10-15 Ton MS & BS	8 3/4	1.000
20 Ton MS & BS	8 3/4	1.000
25 Ton MS & BS, 35 Ton MS	10 1/4	1.375
50 Ton MS & BS	14 1/4	1.500
75 Ton MS	15 1/4	1.750
100 Ton MS	14 3/4	1.750
150 Ton MS	14 3/4	1.875

Note: Limit switch cannot be fitted directly to 1/4, 1/2 and 1 Ton series. anti-backlash mounting is the same as machine screw actuators. Dimensions are subject to change without notice.

Rotary Limit Switch Electrical Wiring Diagram and Setting Instructions

1. **CAUTION:** Disconnect power before making any adjustment.
2. Check drift before adjusting limits.
3. Remove screw "A" and nut guide keeper "B" to adjust limits.
4. Run actuator unit to desired limit.
5. Rotate appropriate nut until switch clicks, then turn 1/2 turn more.
6. Replace "A" and "B."
7. Run actuator unit to other limit.
8. Repeat steps 2, 4 and 5 to adjust this nut.



N.O. = Normally Open
N.C. = Normally Closed

Slight adjustments may be necessary. See Performance Specification Chart on the previous page for notch adjustment value.