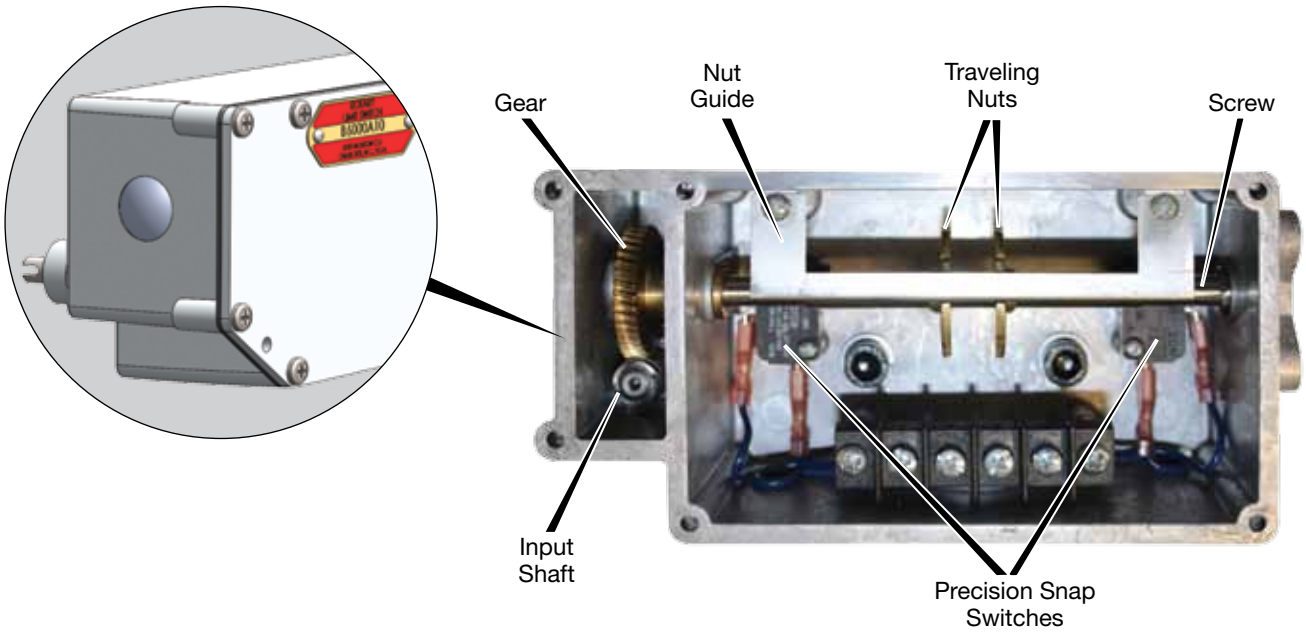
ACTUATOR CONTROLS

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; 1/2 amp, 125 VDC; ¼ amp, 250 VDC.
- Switches SPST-N.C. SPDT available.
- 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 1/2 inch NPT conduit opening, brass nuts travel on stainless steel shaft.
- Easy to adjust, slotted traveling nuts allow precise fine-adjustment without the trial and error of cam type switches.
- Three available ratios to serve different travel requirements, while optimizing repeatability.
- Operating temperature, -20° to 150°F. Lifetime lubricated with synthetic grease.
- Can be mounted on either side of actuator, in four 90° orientations.
- May be ordered on actuators close-mounted to 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:

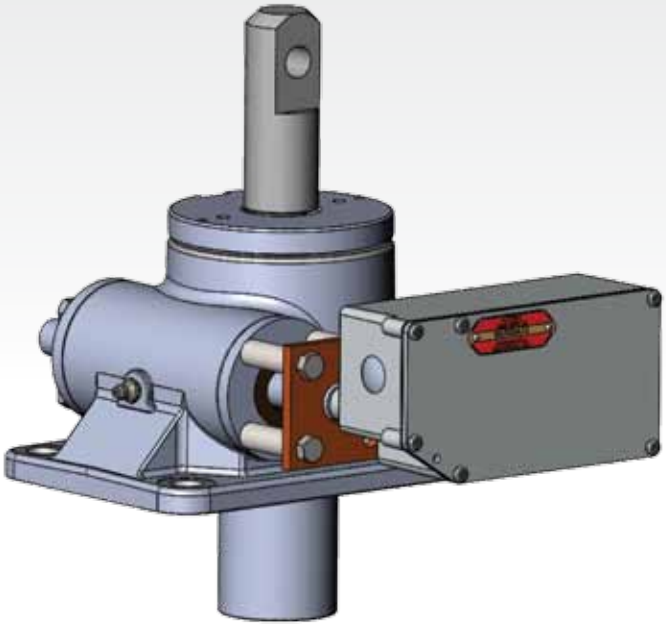
Required worm revolutions = (Inches of Actuator Travel) x (Actuator Turns per Inch)

NOTE

Need a specialty Limit Switch not shown above with options such as 4 Pole, or Explosion Proof capabilities? Contact our Customer Service group for more information.

Performance Specifications

Rotary Limit Switch Performance Specifications					
Model Number	Gear Ratio	Maximum Worm Revolution	Maximum Actuator Raise	Maximum 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

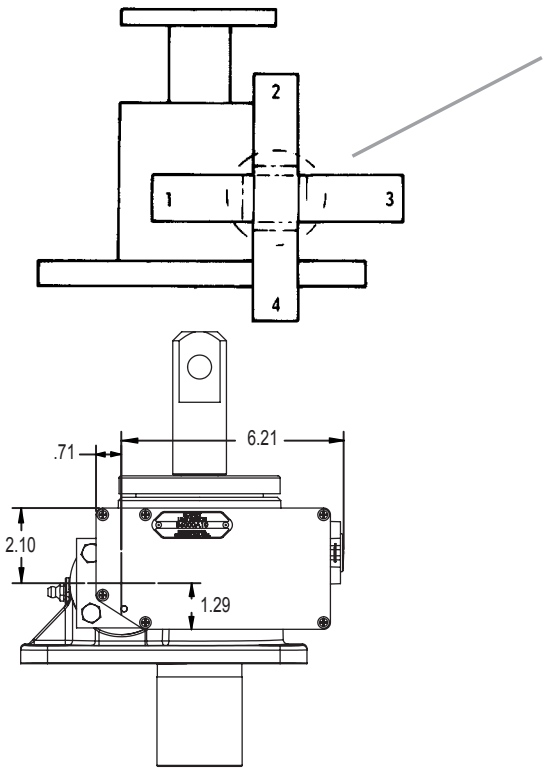


Mounting and Adjustment

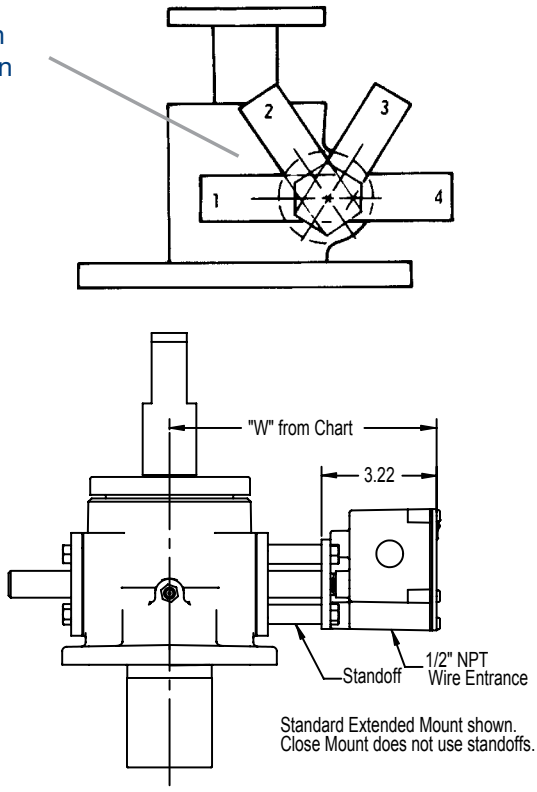
Mounting and Adjustment Chart		
Actuator Model, Tons	Width, "W", inches	
	Extended Mount Switch	Close Mount Switch
2	6.50	5.19*
5	7.50	6.00
10	8.50	6.63
15	8.50	6.63
20	8.50	6.87
25	10.00	7.56
35	10.00	7.56
50	14.00	9.81
75	15.00	10.38
100	14.50	10.75
150	14.50	10.75

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

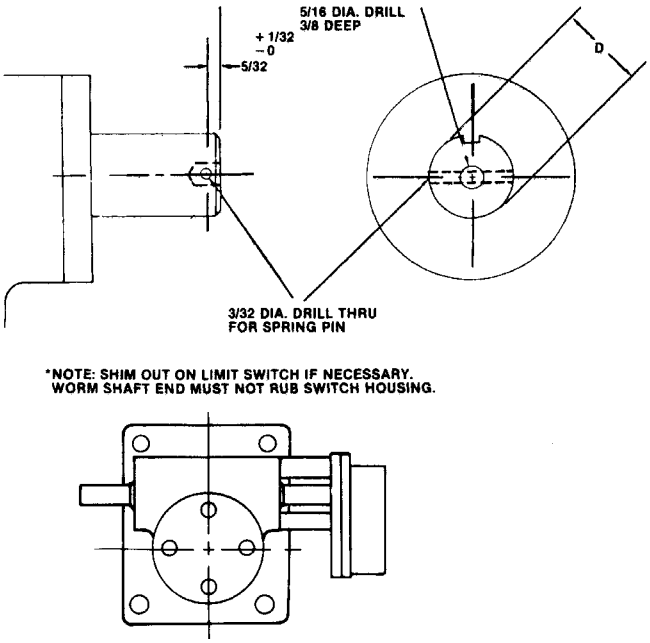
All models except 75, 100, and 150 Ton

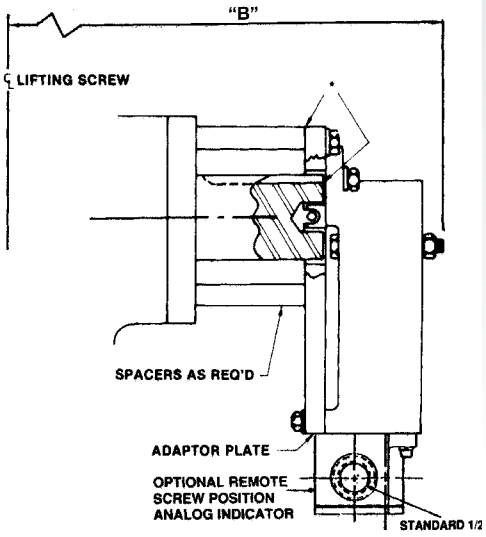


75, 100, and 150 Ton only



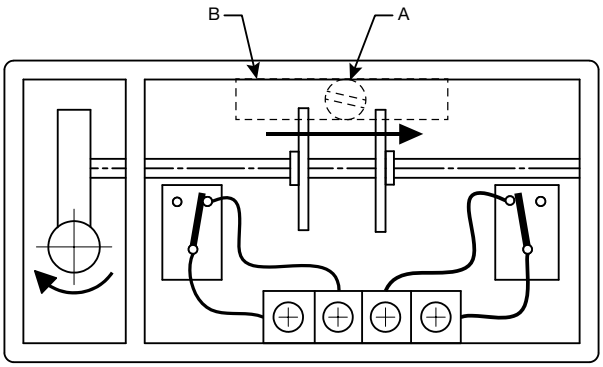
Limit Switch Field Installation Dimensions





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.



Note: N.C. = Normally Closed

Wiring Diagram A & B Models

NOTE

Limit switch cannot be fitted directly to ¼, ½ and 1 ton series. Anti-backlash mounting is the same as machine screw actuators. Dimensions are subject to change without notice.

Worm Shaft Dimensions

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

NOTE

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