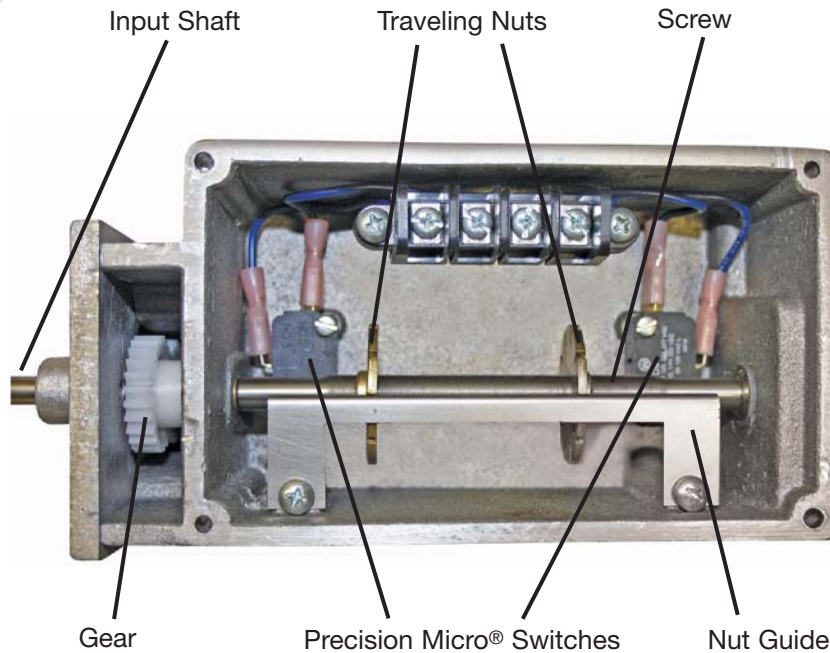


**Typical Rotary  
Limit Switch**



**Features**

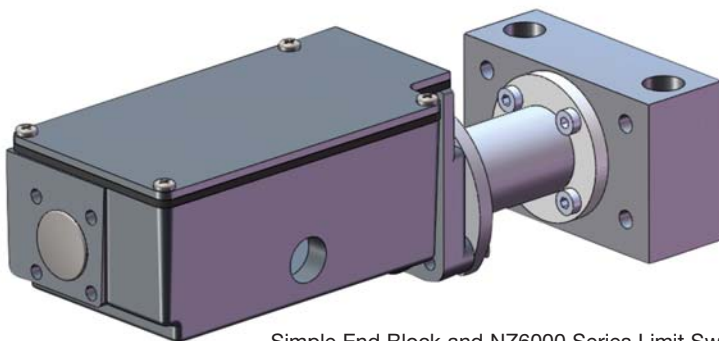
- The standard NZ6000 series switch is rated for 10A at 125-277VAC, and 1/2A at 125VDC.
- Four gear ratios to govern even the longest stroke requirements.
- Sturdy and compact. Constructed of corrosion-resistant materials. Meets NEMA-4 water tightness requirements.
- Simple to adjust. Two switches, one for up/stop and one for down/stop, are activated by the adjustable limit-switch nuts which travel laterally when the internal screw is rotated through gear reduction.
- Operating temperature range -20° to + 150°F.
- Lifetime lubricated.
- Both Limit Switch models are available with adapters for mounting to our Simple End Blocks.

To ensure that limit switch has sufficient travel capability for the acme or ball screw system, use the following formula:

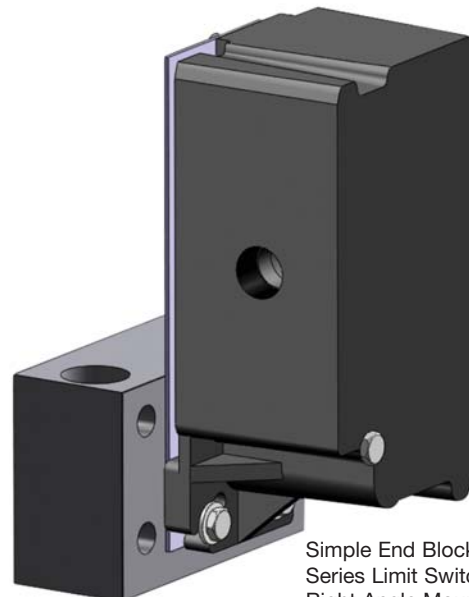
$$\text{Limit Switch Turns} = \frac{\text{Length of travel (inches)}}{\text{Screw Lead}}$$

Note: For water-tight connection, use a weather-tight connector and sealant around threads. Limit switches will be damaged if overtraveled. For shipping purposes, the 1/2" NPT hole is closed with a plastic plug which is not water tight.

**Mounting Configurations**



Simple End Block and NZ6000 Series Limit Switch  
In-Line Mounting



Simple End Block and SKA6000  
Series Limit Switch  
Right Angle Mounting

## Limit Switch Performance Specifications

Limit Switch Model	NZ6000-1	NZ6000-2	SKA6000AT10	SKA6000AT20
<b>Screw Lead</b>	<b>Max. Stroke per Limit Switch Model (inches)</b>			
0.100	12	24	109	219
0.125	15	30	136	273
0.200	24	48	219	438
0.250	30	61	273	547
0.320	38	78	350	700
0.375	45	91	410	821
0.413	49	100	452	904
0.473	56	115	517	1035
0.500	60	122	547	1095
0.667	80	162	730	1460
0.750	90	183	821	1642
1.000	120	244	1095	2190
1.334	160	325	1460	2921

The NZ6000 series switch is appropriate for most applications and is mounted in-line to the screw. The SKA6000 series switch is required only for long screws with fine pitches (more than 244 turns) and has a right angle gear reduction. SKA6000 series switches are readily adaptable to End Block sizes EB0003S – EB0006S, and require custom adapters for other block sizes.

## Limit Switch Mounting

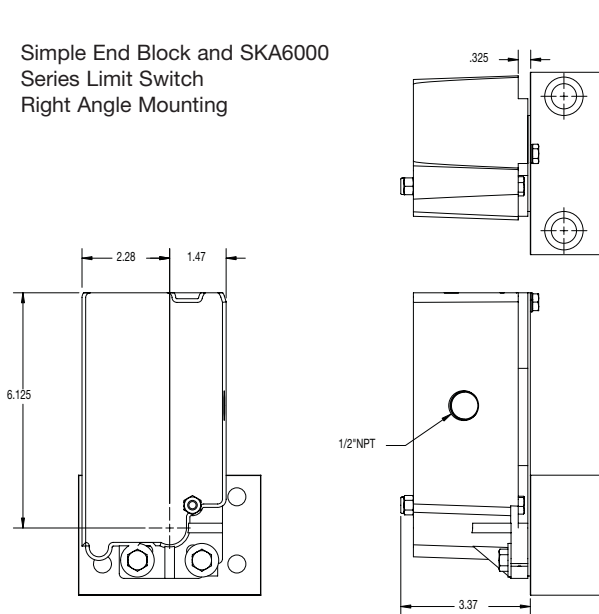
Mounting of a Limit Switch requires that the screw end be modified to provide a switch drive engagement. Specify screw journal end from the following table.

End Block	Mounting Kits	Screw Journal End
EB000S	EBLS01K	End 1A
EB001S	EBLS01K	End 1ALS
EB003S	EBLS04K	End 1B with L.S. Drill
EB004S	EBLS04K	End 1B with L.S. Drill
EB005S	EBLS06K	End 1B with L.S. Drill
EB006S	EBLS06K	End 1B with L.S. Drill
EB008S	EBLS10K	End 1B with L.S. Drill
EB009S	EBLS10K	End 1B with L.S. Drill
EB010S	EBLS10K	End 1B with L.S. Drill
EB012S	EBLS12K	End 1B with L.S. Drill

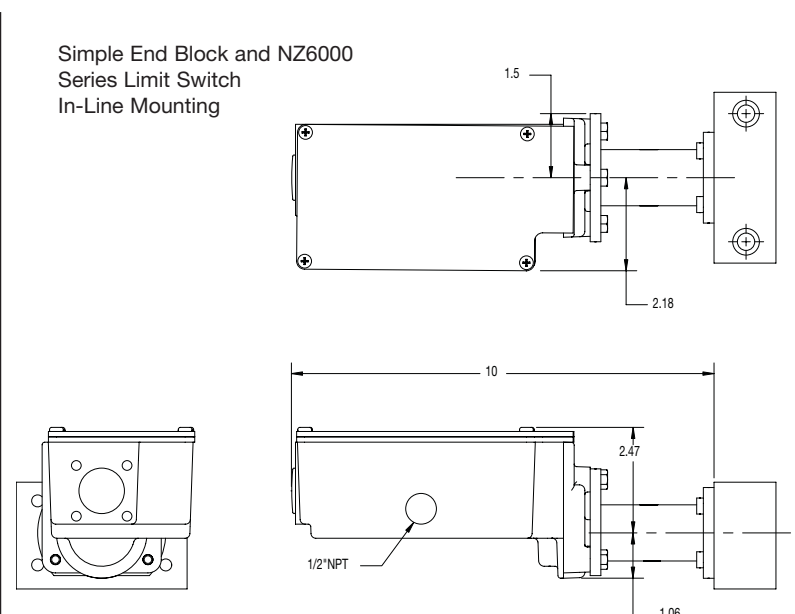
## Limit Switch and End Block Dimensions

End block must be located so that the 1B screw end is flush with the face of the block. See block dimensions page 52 and page 117 for further installation instructions.

Simple End Block and SKA6000 Series Limit Switch Right Angle Mounting



Simple End Block and NZ6000 Series Limit Switch In-Line Mounting



The Duff-Norton SKA6205 Series Position Feedback Potentiometer/Transducer is designed to mount on the end of any NZ6000 or SKA6000T limit switch. Its active component is a precision potentiometer which may be used as voltage divider to provide a feedback voltage that is proportional to the acme or ball nuts position.

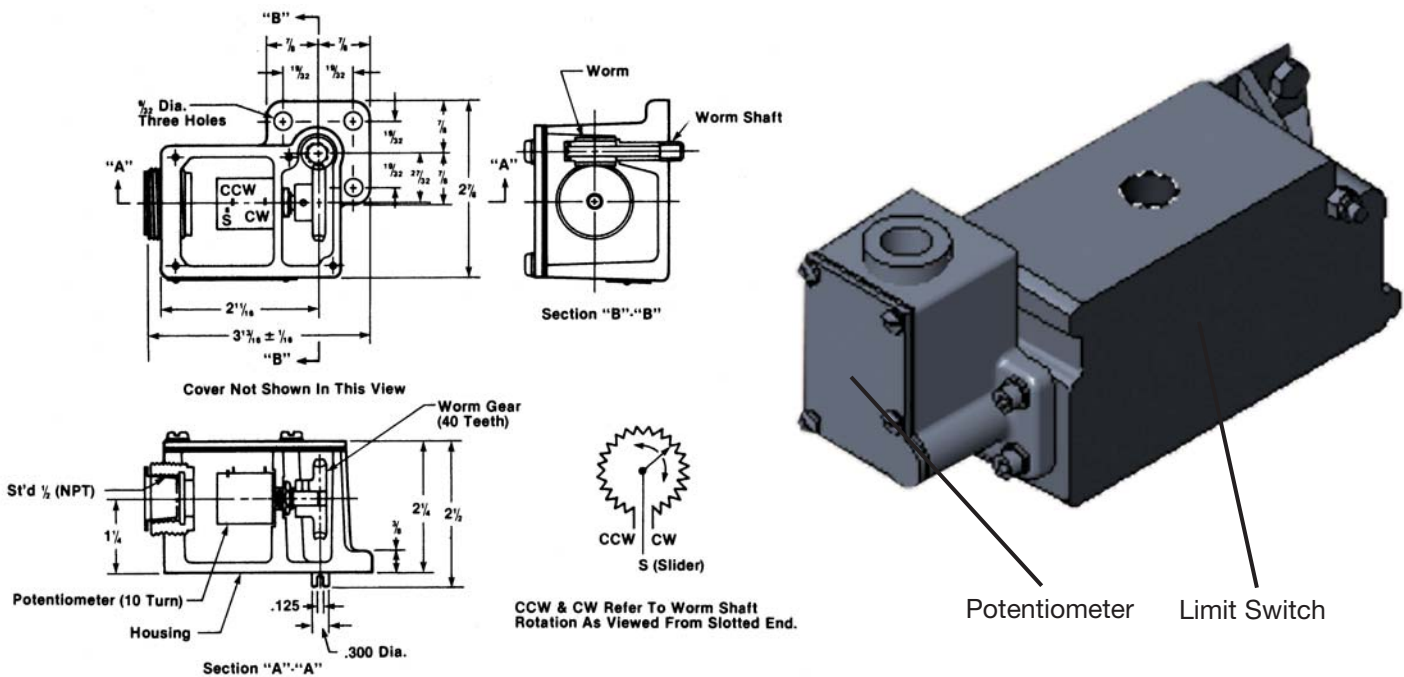
## Features

- Multiple gear ratios allow for a wide range of turns.
- Standard resistance is 5000 ohms. Other resistances are available on special order.
- Power rating: 2 watts at 40°C
- Max. service temp.: 85°C
- Interface directly with the Model SK6300-4K Digital Position Indicator to provide a scalable readout of position. The SKA6205 Series can also be used with most motor controls that have provision for potentiometer feedback signal.
- Transducer supplied with black anodized finish as standard.

## Potentiometer Performance Specifications

Model	Max. Turns		Max. Limit Switch Turns with Pot		
	Potentiometer	NZ6000-1	NZ6000-2	SKA6000AT10	SKA6000AT20
SKA6205-30	30	31	64	300	600
SKA6205-50	50	52	106	500	1000
SKA6205-60	60	62	128	600	1200
SKA6205-100	100	104	213	1000	2000
SKA6205-120	120	120	240	1095	2190

The table shows the turns capability of available pots, mated with limit switches. Choose a combination which most closely exceeds the application requirement.



Note: Transducer shipped unattached, to be installed at site.  
Includes required mounting hardware; soldering to potentiometer required.

## Digital Position Indicator for Duff-Norton Potentiometers

### Features

- Self scaling by inputting minimum and maximum readings – either by entering the stroke or input signal
- Accepts 1K to 10K potentiometer inputs
- Programmable decimal point location
- Input power requirement from 85 – 250 VAC
- Programmable front panel functions
- For use with Duff-Norton acme or ball screw and nut systems



The Duff-Norton model SK6300-4K Digital Position Indicator processes a feedback signal from a the SK6200T series potentiometer to provide position readout with user selectable scaling factor. By running the screw and nut system to two positions in its stroke and keying in the desired readout at each point, the indicator automatically scales the input signal to provide linear readout over the full travel. The SK6300-4K has a universal, 85-250 VAC power input and generates a regulated 24 VDC excitation signal to the potentiometer. The SK6300-4K operates seamlessly with any potentiometer equipped Duff-Norton screw and nut system.

### DIMENSIONS In inches (mm)

Note: Recommended minimum clearance (behind the panel) for mounting clip installation is 2.1" (53.4) H x 5.0" (127) W.

