

# Furnas Brand Series 54 Rotary Limit Switches

Limit the travel of electrically operated doors, conveyors, hoists, machine tool work tables and similar devices. Equipment having rotating mechanisms, or linear motion which can be translated into rotational motion, can be controlled by these versatile switches. Furnas Series 54 switches can be mounted in any position and are easy to wire and adjust.

## Switches Feature

- Four Gear Ratios
- Standard, Long Dwell or Fine Adjustment Cams
- Right or Left Hand Shaft
- Easy to Wire and Adjust
- Mount in Any Position
- Rugged Die-cast Aluminum Housing
- Available for NEMA 1, NEMA 4, and NEMA 12 Applications
- Multi-use Shaft - Attach Drive Sprocket using Woodruff Key, Pin or Setscrew



## Application

Furnas Series 54 switches are designed to serve as pilot controls for magnetic reversing starters and contactors which in turn make and break full voltage between line and load. Contacts in the switch are operated when the external shaft is rotated. For the switch to perform a pilot control function, the contact must be wired in series with the coil circuit of a magnetic reversing starter or contactor.

The shaft may rotate in either direction. When tripped, if rotation direction is reversed, the contacts will reset in 1/4 to 1 1/2 turns, depending on shaft-to-cam ratio. Switches with Long Dwell Cams are available. These cams provides for the contacts to be actuated for a longer period of time as might be required in hoist or similar applications.

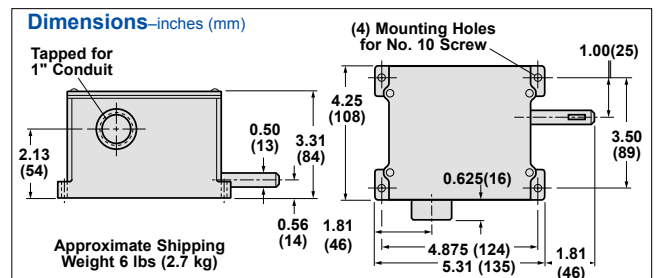
Fine adjustment cams are also available. This feature increases accuracy in setting the number of turns to cause the contact to operate.

## MODELS—Series 54 Model numbers are for RIGHT HAND SHAFT. For left hand shaft add L to model number.

Gear Ratio	Turns of Drive Shaft to Trip Contacts				Contact Blocks	Circuits		NEMA 1 & 12 Industrial Use Model No.	NEMA 4 Watertightse Model No.
	Max.	Min.	Overtravel	Reset		NO	NC		
<b>Standard Cams</b>									
18 to 1	16	1	1.75	0.25	2	2	2	54BB23FE	54BB23EE
					3	3	3		
					4	4	4		
36 to 1	32	1	3.5	0.5	2	2	2	54BB23FB	54BB23EB
					3	3	3		
					4	4	4		
72 to 1	64	1.5	7.5	1	2	2	2	54BB23FC	54BB23EC
					3	3	3		
					4	4	4		
108 to 1	96	2	11	1.5	2	2	2	54BB23FD	54BB23ED
					3	3	3		
					4	4	4		
<b>Long Dwell Cams</b>									
18 to 1	15	1	2.5	0.5	2	2	2	54EB23FE	54EB23EE
					3	3	3		
					4	4	4		
36 to 1	30	1.5	5	1	2	2	2	54EB23FB	54EB23EB
					3	3	3		
					4	4	4		
72 to 1	60	2	10	1.5	2	2	2	54EB23FC	54EB23EC
					3	3	3		
					4	4	4		
108 to 1	90	2	15	3	2	2	2	54EB23FD	54EB23ED
					3	3	3		
					4	4	4		
<b>Fine Adjustment</b>									
18 to 1	16	1	1.75	0.25	2	2	2	54BB73FE	54BB73EE
36 to 1	32	1	3.5	0.5	2	2	2	54BB73FB	54BB73EB
72 to 1	64	1.5	7.5	1	2	2	2	54BB73FC	54BB73EC
108 to 1	96	2	11	1.5	2	2	2	54BB73FD	54BB73ED

Field Modifications	
<b>Contact Block Kit (1 NO 1 NC)</b>	<b>Cat. No.</b>
Standard Cam	54BBGB
Long Dwell Cam	54EBGB
<b>Contact Block Kit (2 NO 2 NC)</b>	<b>Cat. No.</b>
Standard Cam	54BBGD
Long Dwell Cam	54EBGD
<b>Accessories</b>	<b>Cat. No.</b>
Adjustment Tool	D27760001

**Contact Block Specifications**  
 15 Amp 120, 240, 480 or 600 VAC.  
 1/2 H.P. 120 VAC, 1.0 H.P. 240 VAC  
 0.8 Amp 115 VDC, 0.4 Amp 230 VDC  
 Pilot Duty 600 VAC Max.



Kits include switch block, cam and mounting hardware