Limit and Enclosed Switches

Operating Characteristics

Definitions below explain the meaning of operating characteristics. Characteristics shown in tables throughout catalog were chosen as most significant. Sketches show how characteristics are measured for in-line plunger actuation and rotary actuation.

Linear dimensions for in-line actuation are from top of plunger to a reference line, usually the center of the mounting holes. In the case of flange or bottom mounted switches, the reference line is the bottom of the switch. Rotary actuated HDLS, LS and ML limit switches have the characteristics in degrees of angular rotation. The operating characteristic dimensions on enclosed switches such as E6, OP, and EX with rotary actuators are listed in linear dimensions with the adjustable lever in one extreme position.

Differential Travel (D.T.) — Plunger or actuator travel from point where contacts ''snap-over'' to point where they ''snap-back.''

Free Position (F.P.) — Position of switch plunger or actuator when no external force is applied (other than gravity).

Full Overtravel Force — Force required to attain full overtravel of actuator.

Operating Position (O.P.) — Position of switch plunger or actuator at which point contacts snap from normal to operated position. Note that in the case of flexible or adjustable actuators, the operating position is measured from the end of the lever or its maximum length. Location of operating position measurement shown on mounting dimension drawings.

Operating Force (O.F.) — Amount of force applied to switch plunger or actuator to cause contact ''snap-over.'' Note in the case of adjustable actuators, the force is measured from the maximum length position of the lever.

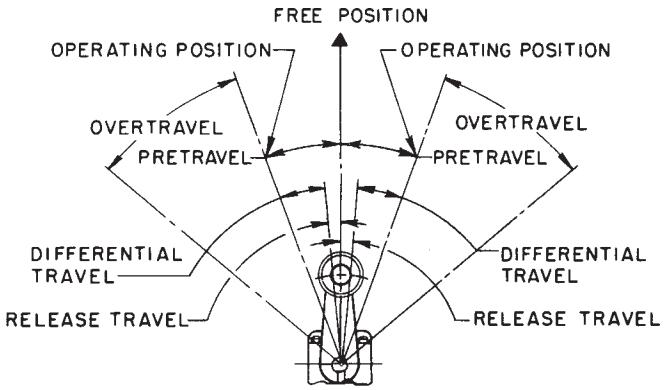
Overtravel (O.T.) — Plunger or actuator travel safely available beyond operating position.

Pretravel (P.T.) — Distance or angle traveled in moving plunger or actuator from free position to operating position.

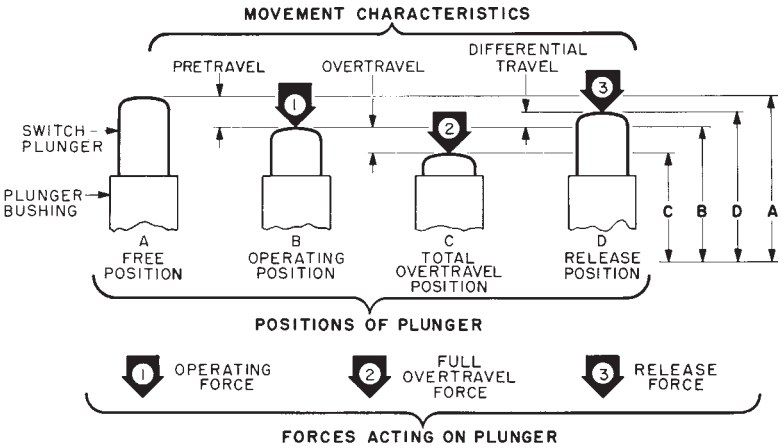
Release Force (R.F.) — Amount of force still applied to switch plunger or actuator at moment contacts snap from operated position to unoperated position.

Total Travel (T.T.) — Distance from actuator free position to overtravel limit position.

ROTARY ACTUATION



IN-LINE PLUNGER ACTUATION



FULL LOAD AND LOCKED ROTOR CURRENTS FOR SINGLE PHASE AND DC MOTORS.

	Alternating Current				Direct Current			
	115 Volts		230 Volts		115 Volts		230 Volts	
HP	Full Load	Locked Rotor	Full Load	Locked Rotor	Full Load	Locked Rotor	Full Load	Locked Rotor
2	24.0	144.0	12.0	72.0	17.0	170.0	8.5	85.0
1½	20.0	120.0	10.0	60.0	13.2	132.0	6.6	66.0
1	16.0	96.0	8.0	48.0	9.6	96.0	4.8	48.0
¾	13.8	82.8	6.9	41.4	7.4	74.0	3.7	37.0
½	9.8	58.8	4.9	29.4	5.4	54.0	2.7	27.0
⅓	7.2	43.2	3.6	21.6	3.8	38.0	1.9	19.0
¼	5.8	34.8	2.9	17.4	3.0	30.0	1.5	15.0
⅙	4.4	26.4	2.2	13.2	2.4	24.0	1.2	12.0
⅛	3.8	22.8	1.9	11.4	2.2	22.0	1.1	11.0
1/10	3.0	18.0	1.5	9.0	2.0	20.0	1.0	10.0
1/20	1.5	9.0	—	—	—	—	—	—