

EL ABC DE LA AUTOMATIZACION

Limit switch (fin de carrera); por Carlos González



Estos elementos, son interruptores que al ser accionado mecánicamente, operan contactos eléctricos.

La posición inicial de estos elementos, es cuando no hay una fuerza externa que actúe sobre ellos. Una vez que son actuados, retorna a su posición original cuando cesa la fuerza externa.

Consideraciones para la selección

<p>Wrong Wrong</p> <p>Limit switches are designed for proper performance with the actuators with which they are supplied. Supplementary actuators should not be used unless the limit switches are specifically designed for them.</p>	<p>Free Position Interference Wrong Wrong End of Overtravel</p> <p>Free Position Operated Position Right Right End of Overtravel</p> <p>Operating mechanism for limit switches should be so designed that under any operating or emergency conditions the limit switch is not operated beyond its overtravel limit position. A limit switch should not be used as a mechanical stop.</p>	<p>Wrong Non-Overriding Right Non-Overriding</p> <p>For limit switches with lever actuators, the actuating force should be applied as nearly perpendicular to the lever as practical and perpendicular to the shaft axis about which the lever rotates.</p>	
<p>Wrong Right</p> <p>Where relatively fast motions are involved cam arrangements should be such that the actuator does not receive a severe impact. Cams should be designed such that the limit switch will be held operated long enough to operate relays, valves, etc.</p>	<p>Wrong Wrong Overriding Cam</p> <p>Right Right Overriding Cam</p> <p>Cam or dog arrangements should be such that the actuator is not suddenly released to snap back freely.</p>	<p>Actuator Free Position Wrong Cam Operating Position Wrong Right Cam Operating Position Right Operated Position</p> <p>A limit switch actuator must be allowed to move far enough for positive operation of the contacts.</p>	<p>Wrong Wrong Right Right</p> <p>For limit switches with pushrod actuators the actuating force should be applied as nearly as possible in line with the pushrod axis.</p>

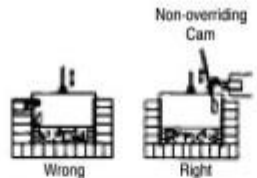
Consideraciones de Instalación



Cam

Wrong Right

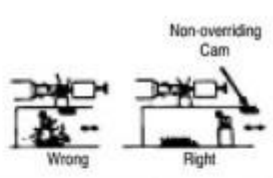
Limit switches should be mounted rigidly and in readily accessible locations with suitable clearances to permit easy service and replacement when necessary. Cover plates should face the maintenance access point.



Non-overriding Cam

Wrong Right

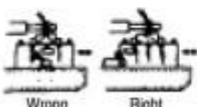
Limit switches should not be used in locations where temperature or atmosphere conditions are beyond those for which they have been specifically designed.



Non-overriding Cam

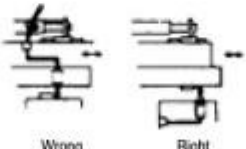
Wrong Right

Limit switches should be placed in locations where machining chips do not accumulate under normal operating conditions.



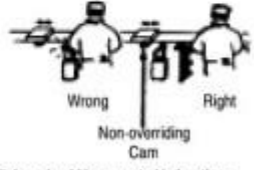
Wrong Right

Limit switches should not be submerged in or splashed with oils, coolants or other liquids.



Wrong Right

The location of oiltight limit switches and the method of connecting them should be such that condensation in the conduit cannot enter the switch enclosure.



Wrong Right

Non-overriding Cam

Limit switches should be mounted in locations which will prevent false operation by normal movements of operator or machine components.