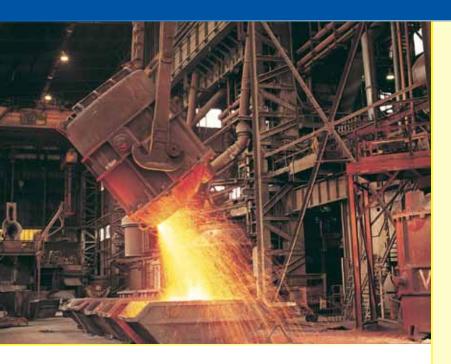
Protection Against Overhoisting



Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

Youngstown[®] Power Limit Switches were the world's first high-power interrupting devices built to limit overtravel for crane hoisting operations. Years of experience with electric crane applications, combined with sound engineering and manufacturing experience went into their design.

Helps Protect Employees and Best Meets OSHA Requirements

Youngstown[®] Power Limit Switches best meet OSHA requirements (OSHA 1910.179(g)(5)(iv)) for hoist overtravel because they are connected in the motor power circuit and directly disconnect the motor. These switches are operated by the crane hoist hook block and do not require the operation of additional devices to remove power from the motor.

Limits Overtravel on Crane Hoist Drives

Youngstown[®] Power Limit Switches are used on crane hoist drives to limit overtravel in the hoisting direction. Below is an example of a typical operation:

- Hook block lifts the suspended weight
- Gravity-operated arm moves downward
- \bullet Double Pole, double throw power contacts are activated
- Power is removed from the motor and the magnetic holding brake is set
- On DC motor hoists, a dynamic braking motor circuit is simultaneously established to provide electrical as well as mechanical braking.

Youngstown[®] Power Limit Switches Six Simplex Sizes Available in Ratings

- 26 HP to 500 HP at 230 volts DC
- 50 HP to 400 HP at 460 volts AC

Advantages

- Operated by crane hoist hook block
- Interrupts hoist motor current directly
- Quick make and quick break contacts
- Short reset travel between tripped and run positions
- Automatic gravity return reset mechanism
- Sealed bearings no lubrication required
- Right hand or left hand operating arm
- Standard straight operating arm or 90° operating arm
- Conduit connection boxes (optional)
- Optional control contacts for drive applications

Applications

• All crane hoist applications

DC		AC	
550 V	230 V	460 V/575 V	
Simplex			
25	25	50	
50	50	100	
100	100	200	
200	200	400	
660			
Duplex			
2-100	2-100	2-200	
2-200	2-200	2-400	
2-660			
	550 V Sim 25 50 100 200 660 Dup 2-100 2-200	550 V 230 V Simplex 25 25 50 50 100 100 200 200 660 Duplex 2-100 2-100 2-200 2-200	





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Maximum HP – Crane Rating