



## Typical Applications

Used on brakes, conveyors, gates, safety devices, punch presses, clutches, machine tools, door openers, and valves.

## Function

A solenoid is an electromagnet, which applies a straight-line force, in a push or pull motion, when energized. It consists of a frame, plunger, and coil. When the coil is energized, a magnetic field is set-up in the frame. This magnetic field causes the plunger to move within the frame.

- ✓ Tool lifting for return strokes; to initiate a machining operation
- ✓ Magnetic brakes where solenoid exerts force on the brake shoes or spring set where, through a lever system the solenoid releases the brake on application of power
- ✓ Safety devices where the energized solenoid holds a latch or locking pin in the open position (in case of power failure, the latch is released and moves into the locked position)
- ✓ Contactors, where the solenoid is used to actuate the contacts
- ✓ Lever mechanisms to engage or disengage a clutch
- ✓ Latches for window and door openers
- ✓ Variable reactors for control of small motors and amplifier circuits
- ✓ Hopper gate actuators for automatic and remote control
- ✓ Paper, plastic, and thin metal punches where the solenoid drives the punch
- ✓ Magnetic drivers for small pins and nails

## Product Features

### CR9500 Industrial Strong-Box Solenoids

- ✓ **Long Life:** Unequaled mechanical life
- ✓ **Coil:** AC coil forms only
- ✓ **Encapsulated Coil:** Moisture-, oil-, and shock-resistant
- ✓ **Rating:** Nine different forms available, 24 different ratings up to 40 Lbs. at 1/2-inch stroke or 36 Lbs. at 1-inch stroke
- ✓ **Flexible Mounting:** Five different options; end, either side, throat, or elimination of brackets and use of through bolt
- ✓ **Versatility of Wiring:** Provisions for either lead or terminal type connections
- ✓ **Renewal Parts:** Available

### CR9503 Heavy-Duty Industrial Solenoids

Important- the load should be kept as close to the recommended value as possible when applying solenoids.

- If load is too large, action will be sluggish, and there will not be enough pull to compensate for line-voltage variations, may result in burned-out coils.
- If load is too light, excess energy results in excessive hammer blows on the solenoid and reduces its life.

- ✓ **Long Life:** Unequaled mechanical life
- ✓ **Coil:** AC coil forms only
- ✓ **Rating:** 11 solenoid sizes and over 12 different voltage ratings
- ✓ **Stroke Type:** Available from 3/4-inch up to 3-inch stroke length, Push or Pull
- ✓ **Renewal Parts:** Available



Transformers



Circuit Breakers  
& Switchgear



Industrial Drives  
& Controls



Motors