# Solenoids



Solenoids remotely switch high electrical current when a much lower current is applied to its electromagnet coil. Generally used in automobiles, trucks, buses, agricultural, recreational, marine and construction equipment. Offered in continuous or intermittent and grounded or insulated configurations with 12 or 24 volt DC rating. All solenoids are Single Pole, Single Throw (SPST); SPST grounded solenoids typically have 3 studs and SPST insulated solenoids typically have 4 studs. Solenoids with weather and dirt resistant plasticized steel housing available. 10-32 thread and 5/16"-24 thread copper terminals. Hex nuts and lock washers included. Bracket mounting: Holes 5/16" x 19/32", 2-13/64" on center. All Solenoids are normally open.

### Q: What is the difference between a grounded and an insulated solenoid?

A: A grounded solenoid has one of the electromagnet coils internally connected to the housing. In an insulated solenoid, none of the studs are electrically connected to the solenoid housing at any point.

#### O: How do I know if I should choose Insulated or Grounded?

- A: Choose Insulated if:
- 1) it is a highly corrosive area.
- 2) the mounting location is not electrically conductive.
- Choose Grounded if:
- 1) your mounting location is already grounded or will be grounded to the
- 2) the mounting location is not exposed to corrosive elements that would impair the grounding.

### Q: What is the difference between an intermittent and a continuous solenoid?

A: An intermittent duty solenoid is designed to be energized at a high current rating for a very short time - 10 to 15 seconds of load time, followed by a rest time. These are commonly used for starter motors. Continuous duty solenoids relay power for an indefinite length of time on an uninterrupted

### Q: Can a continuous duty solenoid be used in place of an intermittent duty solenoid?

A: Yes, but the continuous duty solenoid will have a shorter life expectancy compared to an intermittent duty solenoid. An intermittent duty solenoid should not be used in place of a continuous duty solenoid.

### Q: What does make and break mean?

A: To make a connection, you are closing a circuit or turning it "on". To break a connection, you are opening a circuit or turning it "off".

### Q: What is the difference between a relay and a solenoid?

A: A solenoid is a type of relay, but it can be used for heavier duty applications, such as a starter motor.

### Continuous





77002

Stock No	Grounded/ Insulated	Volt Rating	Continuous Current Rating	Make/Break Amp. Rating
77000	Grounded	12	85	85/85
77001	Grounded	24	85	120/65
77002	Insulated	12	85	85/85
77003*	Insulated	12	85	85/85
77004	Insulated	24	85	120/65
77005**	Insulated	24	65	65/65

\*Weather resistant

### INTERMITTENT





77020

Stock No	Grounded/ Insulated	Volt Rating	Make/Break Current Rating	Intermittent Time
77020	Grounded	12	750/100	10 sec. on- 20 min. off
77021*	Grounded	12	750/100	10 sec. on- 20 min. off
77022	Insulated	12	750/100	10 sec. on- 20 min. off
77023*	Insulated	12	750/100	10 sec. on– 20 min. off
77024	Insulated	24	120/65	10 sec. on- 30 min. off

<sup>\*</sup>Weather resistant

Weather resistant and UL Marine & CE/ISO Listed

# Solenoids



## **APPLICATIONS**

### **Highway Vehicles**

- Trucks
- Buses
- Tractors
- Postal Vehicles
- Trailers



**Stock No. 77002** can be used to operate a school bus stop sign.

### **Recreational Vehicles**

- Travel Trailers
- Golf Carts
- Motor Homes
- Snowmobiles
- Towable Vehicles
- Boats



**Stock No. 77003** can be used to start a golf cart.

### **Construction Machines**

- Bulldozers
- Trenchers
- Scrapers
- Compressors
- Graders
- Rollers
- Loaders
- Pavers
- HaulersExcavators
- Compactors
- Cranes



**Stock No. 77004** can be used to operate the bucket on a backhoe.

### **Industrial Machines**

- Wire Harnesses/Electrical Systems
- Aerial Lifts & Platforms
- Street Maintenance
- Vehicle Heating & A/C
- Tree Farming Equipment
- Mining Machinery
- Railroad Machinery
- Vehicle Cabs
- Baggage Handling & Ground Support



**Stock No. 77021** can be used to operate street sweeper brushes.

### **Emergency Equipment**

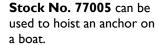
- Fire Apparatus
- Ambulance
- Rescue Equipment
- Police Vehicles



**Stock No. 77002** can be used to activate the emergency lights on an ambulance

### **Marine**

- Power Boats
- Sail Boats
- Generators
- Winches





# **DRAWINGS**

