

## 878 Series Installation Instructions

Check nameplate for correct catalog number, pressure, voltage, and service. Visit our web page at [www.ranchovalves.com](http://www.ranchovalves.com) for product information.

### Description

Series 878 valves are 2-way normally closed assisted pilot-operated solenoid valves designed for general service such as water, oil, diesel, fuel and inert gas. Valves are made of industrial strength cast bronze or stainless steel. Series 878 valves are made with an explosion proof/watertight coil housing. Series 878 valves are Normally Closed: Valve is closed when solenoid is de-energized and it opens when energized.

Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance has to be performed by qualified personnel.

Minimum Ambient Temperature AC and DC: 0°F / -18°C  
Maximum Ambient Temperature AC Voltage: 140°F / 60°C  
Maximum Ambient Temperature DC Voltage: 122°F / 50°C

### Type of Fluid:

FKM- Fuel / Diesel / Jet Fuel / Ethanol / Kerosene  
Buna - Air / Water / Natural Gas / Inert Gas / Propane Gas  
Epdm - Hot Water  
PTFE- Fuel / Diesel / Jet Fuel / Ethanol

**Maximum Rated Fluid Temperature:** AC: 176°F/80°C - DC: 122°F/50°C

### Flow Direction

To be able to operate correctly, all solenoid valves must be installed with the arrow cast on the body pointing in the direction of flow.

### Positioning

The PIPES on both sides of the valve must be HORIZONTAL and securely fastened install the valve with the COIL UPWARDS.

Tightening up. Always use counter-force when tightening up pipe connections, i.e. use a spanner on both the valve body as well as on the pipe connector

### Flush

Always flush out piping before installing a solenoid valve. If there is dirt in the medium, a filter of 100 microns should be installed upstream of the valve.

### Coil

878 Series solenoid valve must be installed ONLY with the COIL UPWARDS. This ensures correct shut off and minimizes the risk of dirt collecting in the armature tube.

Check to ensure that the coil operating voltage is correct. Also ensure that the data is correct (voltage and frequency) and matches the supply. If the two sets of data do not correspond, the coil might burn out.

As far as possible, always choose single-frequency coils; they give off less heat than double-frequency versions.

### Electrical Connection

The coil has two 18" long lead wires coming out of a 1/2" NPT conduit connection. Either wire can be used for the live or neutral supply in case of an AC coil or positive and negative in case of DC.

Wiring must comply with local codes and the National Electrical Code.

### Maintenance

**WARNING:** To prevent the possibility of personal injury or property damage, turn off electrical power, depressurize valve, and vent fluid to a safe area before servicing the valve.

Depending on the medium and service conditions, periodic inspection of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. If parts are worn or damaged, install a complete Rancho Valve Rebuild Kit.