

# Manual Solenoids

## General instructions:

Bermad solenoids have been designed and manufactured to meet the highest standards and are suitable for electrically actuated valves.

## Operation:

Solenoids consist of an electric coil and a plunger with spring. The spring pushes the plunger onto a nozzle locking the upstream pressure above the diaphragm and closing the valve. When the coil is energised, the plunger is pulled up using electromagnetic force and so the nozzle is opened releasing the diaphragm pressure allowing the valve to open.

## Installation:

Before installation, check that the solenoid has the required specifications.

The system must be depressurized for installation.

Check whether the green O-ring at the bottom and the solenoid plunger is in position, and tighten the actuator.

For industrial solenoids:

Put the coil over the plunger tube and fasten it with the retaining clip. For the 3-way industrial solenoid, attach the core tube upper connector to the connection. Attach the connector with the rubber seal to the solenoid. Install the connector in such a way that no moisture can penetrate the connector.

Connect the wires.

Check that the manual control on the valve is switched to automatic mode.

## Normally open/normally closed:

The mode of a solenoid that is not energised is specified as NO (normally open) or NC (closed). The terms 'open' and 'closed' refer to the connection between the P and C connections (see wiring diagrams to the right).

Solenoid valve combinations:

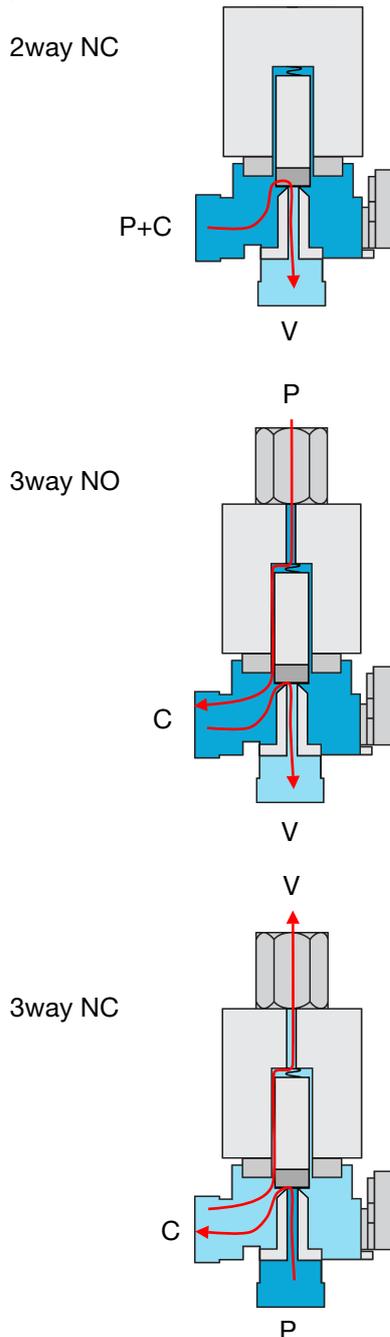
- 2w NC solenoid on valve = NC valve
- 2w NC solenoid on solenoid base = NC valve
- 3w NO solenoid on valve = NC valve
- 3w NC solenoid on solenoid base = NO valve
- 3w NO solenoid on solenoid base = NC valve

## Wiring diagrams:

Solenoids and solenoid valves have 3 connections.

P = Pressure = connection using high pressure  
C = Common = volume control/diaphragm chamber

V = Vent = connection using low pressure/no pressure

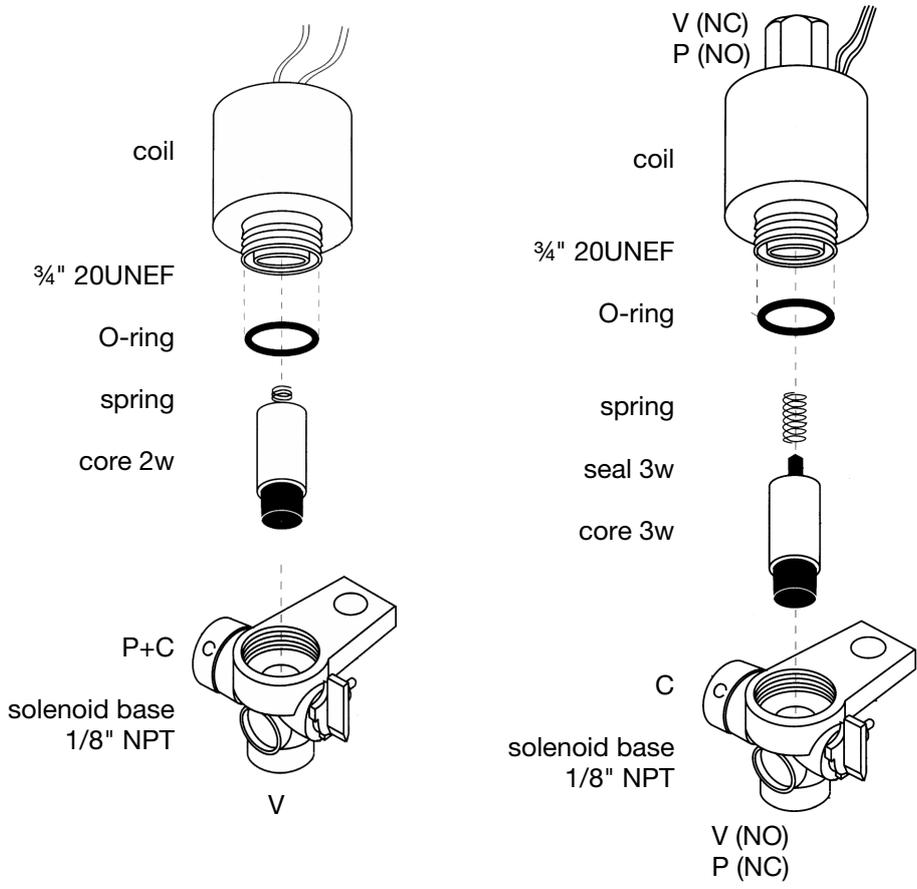


The diagrams show solenoids in a non-energised



# Manual

## Solenoids - parts drawing



  
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