



MCC Single Pulse Valve (SPV)

Description

Area of application

MCC's Single Pulse Valve "SPV" is an electric/pneumatic operated water valve for installation in large vehicle heating systems. They can be obtained in different sizes either as "normally open" or "normally closed", where the same pneumatic valve housing, normally open, is used and where the function normally open/closed is attained by selecting different types of solenoid valves. The valve housing is manufactured from aluminium, which means low weight.

The parts included are manufactured to cope with the commonly used glycol mixture of the heating systems. Features are low flow resistance, low weight and very robust design.

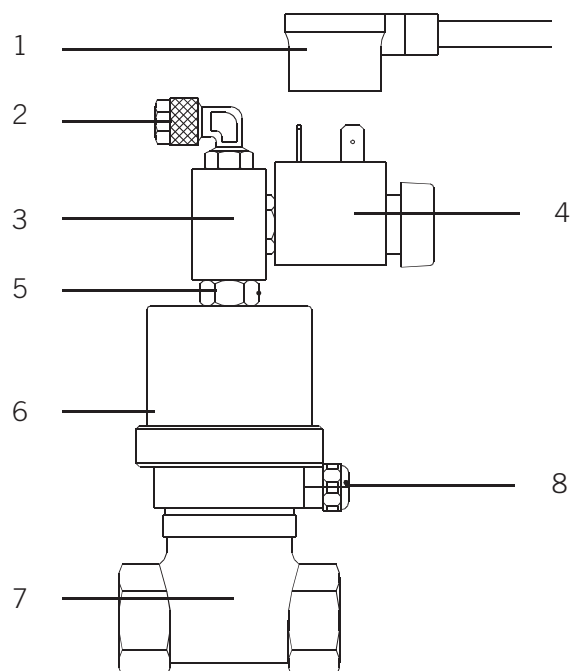
Further information

Solenoid valve, product information PRD0059.



Components

- 1 Cable contact
- 2 Air connection (not standard)
- 3 Solenoid valve (NO or NC)
- 4 Coil
- 5 Restrictor nipple
- 6 Valve body (NO)
- 7 Valve housing
- 8 Air filter

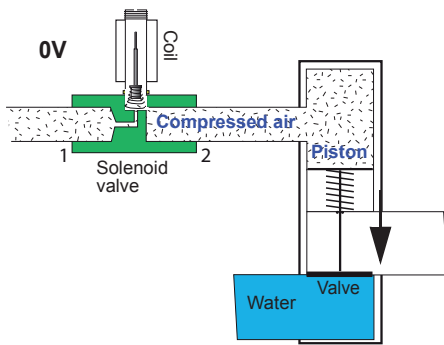


Function

The water valve which is used is always a "normally open" type, which means that it is open when it is unaffected by compressed air.

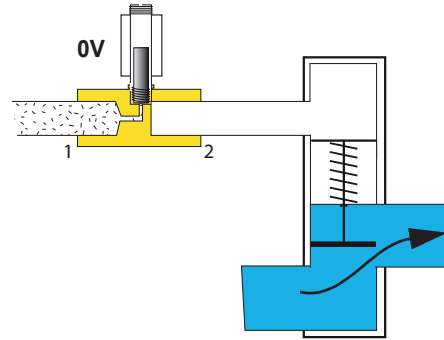
It is, however, possible to attain the function normally open or normally closed by selecting solenoid valve, see figure below.

Normally open solenoid valve (green), which gives the function normally closed valve

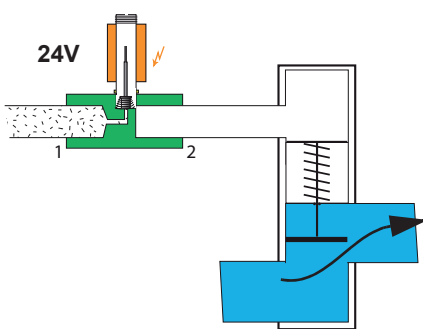


Here, there is no tension though the spool and the solenoid valve is held up by the force of the spring. This means that compressed air affects the water valve's piston and the water valve closes.

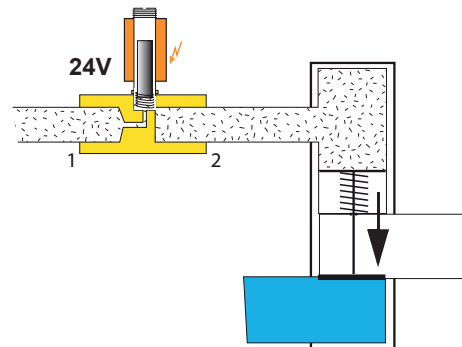
Normally closed solenoid valve (gold), which gives the function normally open valve



Here, there is no tension though the spool and the solenoid valve is held down by the force of the spring. This is so that no compressed air reaches the water valve's piston. The water valve is now open, which is its position unaffected by compressed air.



Now, the spool is fed with voltage which means that the solenoid valve closes and no compressed air reaches the water valve's piston. The water valve is now open, which is its position unaffected by compressed air.



Now, the spool is fed with voltage which means that the solenoid valve opens and compressed air reaches the water valve's piston. The water valve is then pushed down and closes the water flow.

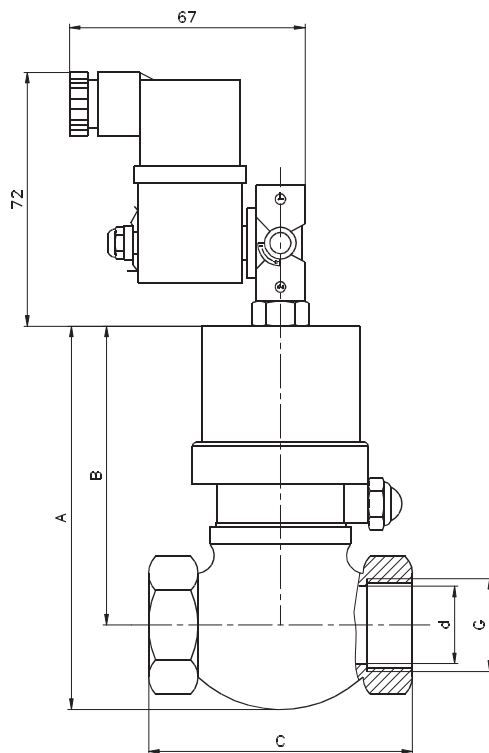
Technical data

General

Working pressure	0-8 bar
Pilot pressure	4-10 bar
Medium temperature -	30°C to +120°C
Surrounding temp.	-30°C to +80°C
Connection air	1/8"

Dimensions & weight

G	A (mm)	B (mm)	C (mm)	d (mm)	Weight (g)
1/2"	105	85	60	15	325
3/4"	113	85	75	20	364



Products

MCC's pneumatic valves are delivered as standard completely assembled with:

- Valve, Air filter, D-nipple 1/8" restrictor 0,5 mm (used to reduce the effect of shocks), Solenoid valve, Cable contact (supplied loose to solenoid valve)

The valve can also be ordered separately without assembled solenoid valve and filter.

Description	Part no.
Normally open valves	
Valve pneum NO 1/2" complete	11938
Valve pneum NO 3/4" complete	16665
Normally closed valves	
Valve pneum NC 1/2" complete	11935
Valve pneum NC 3/4" complete	16664
Valves without solenoid valve and filter	
Valve pneum NO 1/2"	6963 2110 112*
Valve pneum NO 3/4"	6963 2110 118*

*) Important information when ordering valve house only

If you have the former generation pneumatic valve marked "VALVAUT" and order a new SPV housing you should use the enclosed D-nipple (short). The old (long, see fig right), should be discard.



Accessories

Description	Part no.
Air filter R1/8" ext.	6952 8201 110
Solenoid valve MCC 3/2 NC complete with cable contact, cable 1m and spool	11897
Solenoid valve MCC 3/2 NO complete with cable contact, cable 1m and spool	12784
D-nipple 1/8" restrictor 0,5 mm	11187

Water connections

There are a number of connection types in MCC's range which can be used together with the valves. Listed below are two examples. For more information, see the product sheet.

Cobra adapter male R3/4"
More information in separate product sheet



11403

Air connections

There are some variations of rapid Air connections in MCC's range. See separate product sheet for more information

