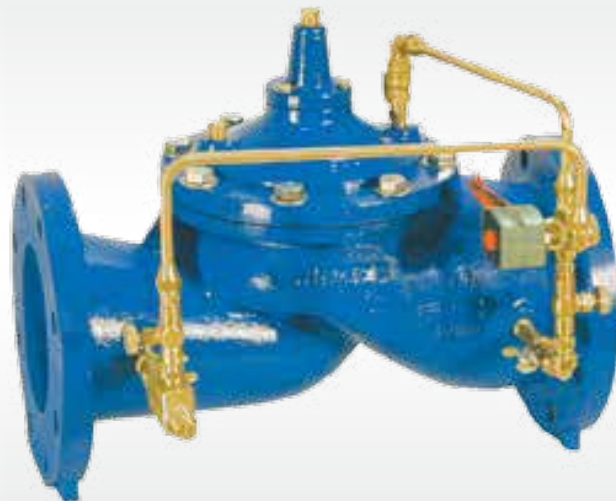


Solenoid Control Valve

The single solenoid control valve is used for remote on/off control via SCADA, IoT, or local controller.



TECHNICAL GUIDE: **AVH1.16**

Applications

Potable water
Pressure systems
Municipal
Mining Applications
Irrigation Applications

Product Attributes

Positive, drip-tight shut-off
Simple, on-off operation
Globe or angle style body

Quality

AS 5081:2008
Flanging to AS/NZS 4087
Coating to AS/NZS 4158



Singer solenoid control valves are based on the Singer model 106-PG or 206-PG main valve.

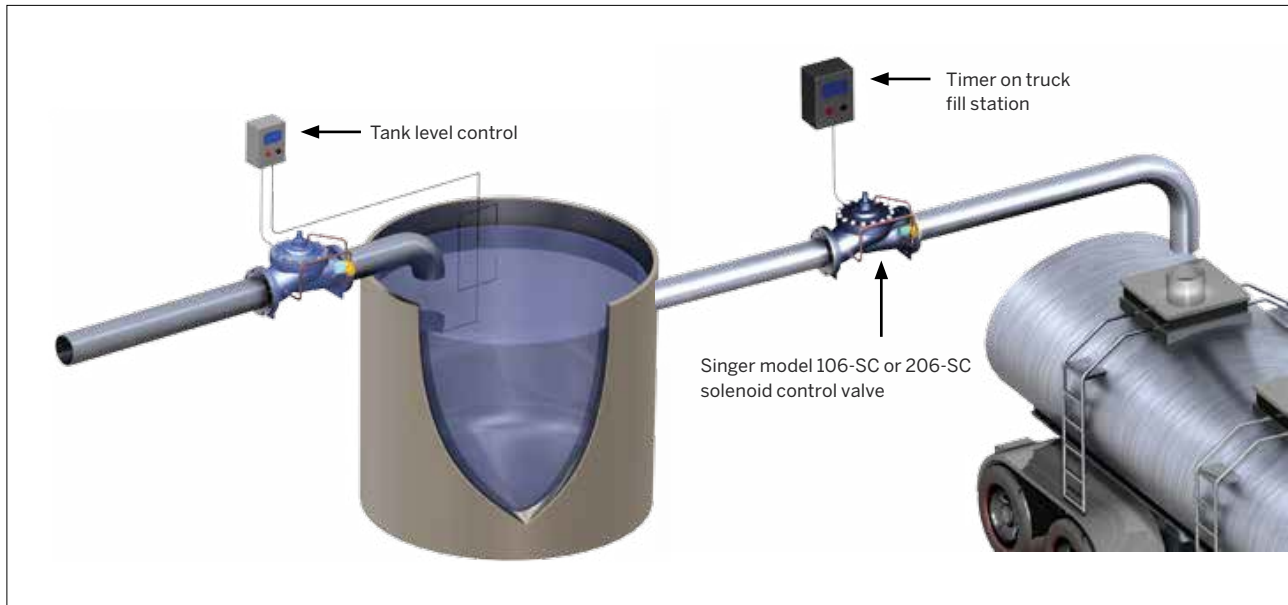


FIG. 1 Typical application

The solenoid control valve provides on-off position operation. The solenoid either admits inlet pressure into the main valve operating chamber or releases pressure from the operating chamber. The pilot system is usually piped to discharge at the valve outlet, but can be piped to discharge to drain (atmosphere). This valve is available either with the main valve closed when the solenoid is de-energised (NC - Normally Closed) or with the main valve open when the solenoid is de-energised (NO- Normally Open). (NC or NO refers to the main valve, not the solenoid.)

STANDARD MATERIALS

Standard materials for pilot system components are:

- ASTM B62 bronze or ASTM B-16 brass
- Stainless steel trim
- Standard solenoid coil is rated as NEMA 1, 2, 3, 3S, 4 and 4X, combination general purpose and watertight
- Other voltages, ratings and constructions are available, consult with Hygrade.

SELECTION SUMMARY

1. Select the valve with sufficient capacity, using the allowable operating pressure drop across the valve.
2. If the outlet pressure is less than 35% of the inlet pressure, check for cavitation.
3. Ensure the maximum working pressure rating of the valve exceeds the maximum operating pressure.
4. Continuous, "C", service up to 20 ft /s / 6 m/s is generally suitable.
5. Provide system maximum and minimum operating pressures, electrical voltage, etc for correct solenoid selection.
6. If control fluid is from a separate source, provide Hygrade with details.
 - a. For valve positioning - process control, see section 2SC-PCO, Dual Solenoid Control Valve, page 185.
 - b. For two (2) stage opening or closing, consult with Hygrade.
 - c. Most pilot functions may be combined with the model SC, consult Hygrade.

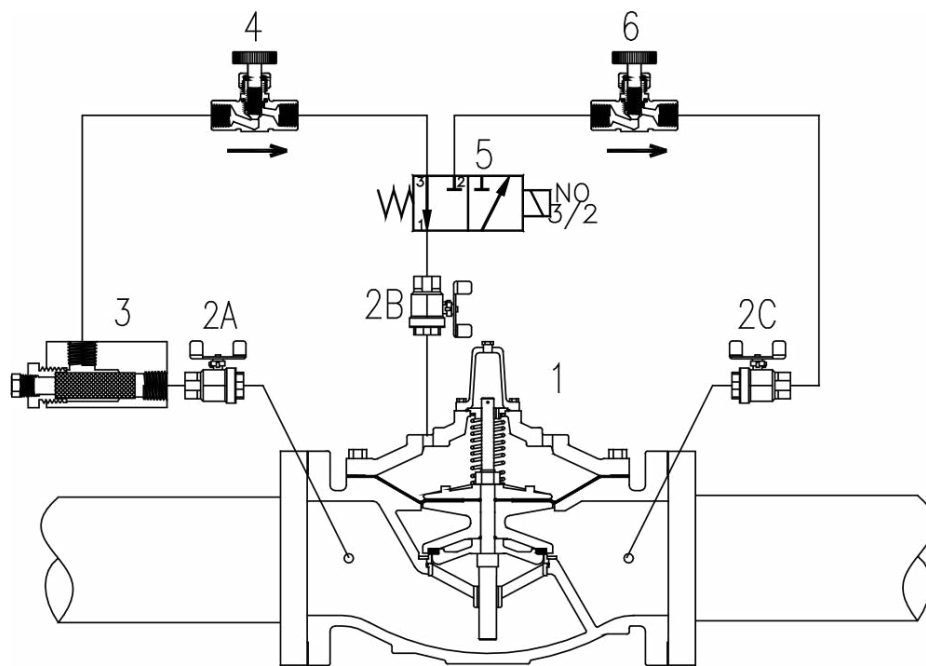


FIG. 2 Schematic A-0593C

SCHEMATIC DRAWING

1. Main Valve - 106-PG or 206-PG
2. Isolating Valves - (2A, 2B, 2C - *optional on 3 in / 80 mm and smaller*).
3. Strainer - 40 mesh stainless steel screen
4. Closing Speed Control - model 852-B (*optional on 3 in / 80 mm and smaller*).
5. Solenoid Pilot Valve - 3 way - 120 VAC / 60 Hz standard, other voltages available
6. Opening Speed Control - model 852-B (*optional on 3 in / 80 mm and smaller*).



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