

# SOLENOID OPERATED SERVO VALVES

## TANK FILLING CONTROL

### Key Benefits

- » Overfill prevention
- » Automatic control - With a range of pilot controls including AMS displacers and float switches
- » Low pressure loss
- » Available in 1.5", 2", 3" and 4" variants

### Application

This pilot controlled tank filling valve is used to prevent overfilling of a storage tank during fuel delivery.

The valve is installed in the fixed fuel delivery line between the isolating valves. The valve provides a controlled closure without any sudden shock that will affect the pump's operation. Automatic closure of the valve is achieved by means of an external high level switch fitted in the storage tank

The AMS Tank Filling Control Valves are widely used in bulk fuel and other storage installations. In all cases the valve provides a reliable and simple solution to fuel shut off. With the benefits of controlled valve closure, remote control using tank fitted level controls, a range of materials to suit different liquids and line sizes from 1.5" to 6", the valve has been used extensively in fuel terminals and Authorised Distribution depots.



### Operation

With no flow in the system the valve is kept closed by a piston return spring.

As pressure is applied to the liquid with the pilot valve closed, it passes through the valve stem into the cylinder exerting a greater pressure against the piston forcing the valve head against its seating therefore preventing fuel flow.

When fuel flow is required through the system, the pilot valve is opened releasing the liquid from the cylinder and increasing the pressure at the valve head, forcing it off its seating. The piston is forced open allowing the liquid to flow through the valve.

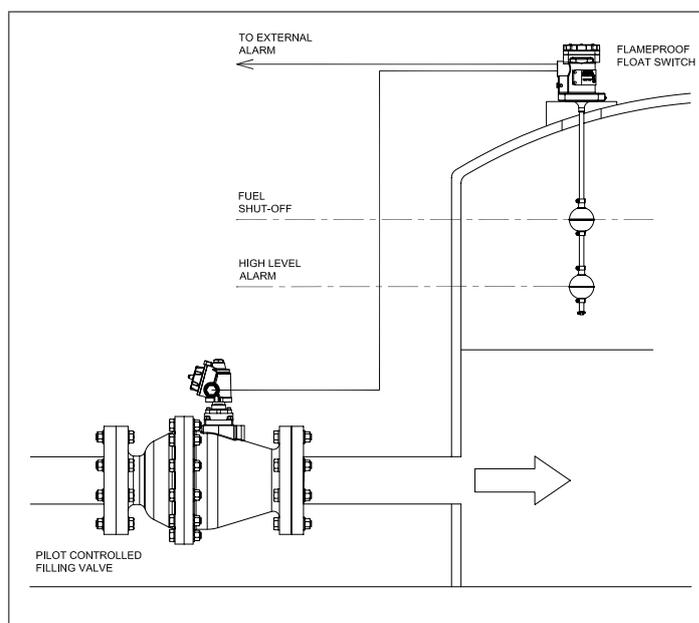
## Typical application

AMS can supply a safe, reliable solution for tank filling applications in the form of Level Control with Flameproof float switches and Fuel shut-off using self powered Pilot Controlled Filling Valves.

The diagram opposite illustrates a typical scenario where a two float Flameproof Level Controller operates, firstly, as switch to a 'High Level Alarm' and then shuts off supply to the tank instantly via the solenoid operated Tank Filling Control Valve mounted in the inlet pipeline.

Both the units are built, tested and supplied by AMS and are sold separately or together as a complete package.

Different variants can be made to customers' requirements. Please ask our distributors or sales department for further information on our range of Level Controllers and Control Valves.



## Specification

The material with which a valve has been made is shown by a lettered prefix:

- » SV - Anodised Aluminium Alloy
- » SVS - Stainless Steel

The pipe-flange dimension of a valve is indicated by a numbered suffix

- » 015 - 1.5 inches
- » 02 - 2 inches
- » 04 - 4 inches

DESIGNATION		DIMENSIONS (IN INCHES)				PITCH CIRCLE DIAMETRE
		A	B	C	D	
SV-015	SV1500	6.25	5.25	2.625		4 holes tapped 1/2" UNF dia. x .75" deep equispaced on 3.875" P.C.D.
SVS-015	SV1502					
SV-02	SV2000	7.25	6.00	2.625		4 holes tapped 5/8" UNF dia. x .937" deep equispaced on 4.50" P.C.D.
SVS-02	SV2002					
SV-03	SV4559					8 holes .687" dia. on 7.50" P.C.D.
SV-04	SV4501	*14.50	9.00	4.25	9.25	12 holes .875" dia. on 10.25" P.C.D. or to customers requirements.
SVS-04	SV4524					
SV-06	SV6501-A SV6501-H	*18.625	12.00	4.25	12.00	
*Complies with BS 1655 Table 1						Flanges can be supplied to meet customer requirements

The servo valve body can be fitted with a range of other pilots included some made specifically to suit customer requirements. Our pilots can enable the valve to be used as

- » Check Valve
- » Density Sensitive Valve/Fuel Grade Monitor (With float mechanisms fitted)
- » Pressure Regulating Valve (With single or dual pressure regulators fitted)
- » Flow Control Valve (With Dual back pressure regulators and Orifice Plates fitted)