

PRODUCTS - Control Valves

## DENSITY SENSITIVE VALVE



- Suitable for gravity discharge
- Responsive to 1% change in density
- Ideal for fuel grade monitoring
- Simple and easy to maintain
- Purely mechanical operation
- Multi application

This highly sensitive valve has been developed in collaboration with a major oil company with the prime objective of detecting the slight differences in density between aviation fuel grades.

To discriminate between aviation fuels, it has been re-developed to detect a minimum density difference of 1% if required - an extremely demanding requirement for such a simple device, but extensive tests have proved that it will function reliably under all service conditions.

The unit will primarily be used to prevent higher density aviation turbine fuel being put into aviation gasoline tanks, as this can cause immediate engine failure. However the same device has merely to be fitted in the inverted position to prevent aviation gasoline being put into a turbine tank, with no loss in sensitivity.

Designed for use on small airfields in remote areas worldwide, it is very simple to operate and maintain. The specially contoured and shrouded float works directly as a valve in the product stream. The hydraulic design is such that it is totally unaffected by the flow and yet very rapid in its response to a density change. Under most conditions it will close before 10 litres of an incorrect density fuel have passed through.

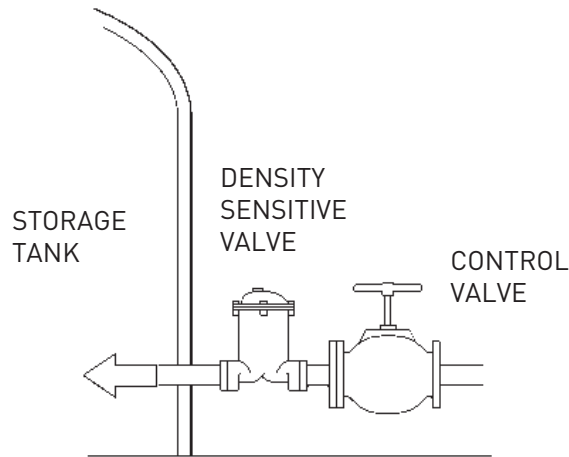
### Oil Water Separators and Interceptors

Variants of this valve can be supplied for controlling the oil outlet of oil water separators. Avery-Hardoll also supply density sensitive float and displacer switches. These are available in flameproof or intrinsically safe form.

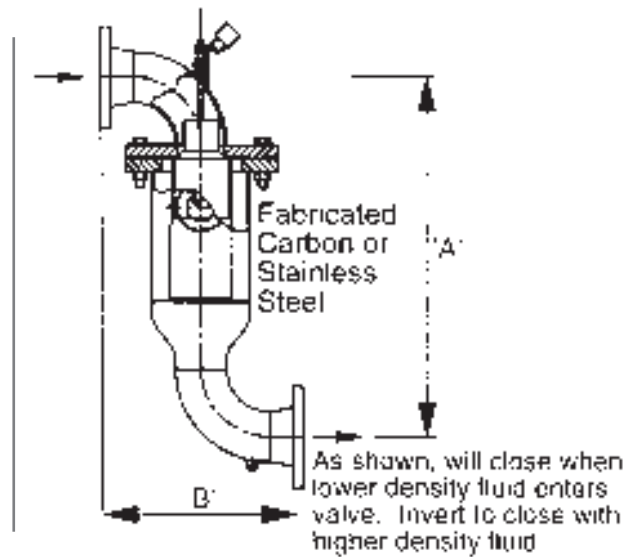
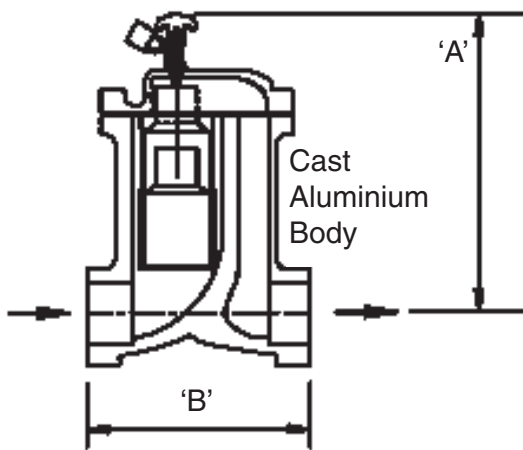
### OPTIONAL FEATURES

The unit is supplied pre-set to discriminate between two density limits. The ballasted float is sealed for life. The unit can be supplied with a Borosilicate glass observation tube or plain body. Drain and bypass valves can be fitted to assist resetting if required but are not essential.

## TYPICAL APPLICATION



## SPECIFICATION



Cast Aluminium Units			Fabricated Units - Carbon or Stainless Steel		
Max flow rate l/min	2 1/2" SV 2050 300	4" SV 4614 1200	Max flow rate (l/min)	2" SV 2107 300	4" SV 596 1250
Max pressure with glass window	1 bar	-	Max pressure with/without sight glass	10 bar	10 bar
Max pressure without window	1.5 bar	10 bar	Inlet/outlet connections	2.5"	4"
Inlet/outlet connections	2.5 BSP	ANSI cl 150 FF Flanges	ANSI Cl 150 flanges std		
Dimension A (mm)	368	618	Dimension A (mm)	501	810
Dimension B (mm)	230	500	Dimension B (mm)	301	457

All Units: Minimum density difference (sg) 0.02      Density range (sg) 0.68 to 1.2

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