

## ASI QuickSplit Flow Splitters

The ASI QuickSplit Flow Splitter is very elegant in its simplicity. Split ratios are created by two or more fluid resistors that form a parallel flow path. QuickSplit Flow Splitters are available with a fixed or adjustable split ratio. Interchangeable fluid resistors make it easy to change split ratios quickly, eliminating tedious adjustments to capillary tubing. The technology can be applied to all applications where a controlled, reproducible split ratio is required including LC/MS, flow fractionation, pre/post-column flow splitting mass directed fraction collection, and capillary chromatography. ASI QuickSplit Flow Splitters come in flow rate ranges which make them compatible with micro, analytical, semi-preparative and preparative inlet flows.

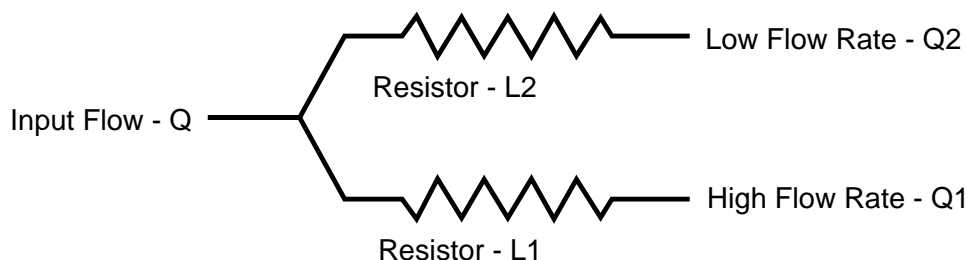
### QuickSplit Flow Splitter Features:

- Fluid resistor technology eliminates tedious adjustments to capillary tubing for split ratio optimization
- Split ratios are stable and reproducible, and not affected by changes in viscosity or pressure
- Adjustable splitters enable precise direct control over split ratios
- Easy to use interchangeable fluid resistors make it possible to achieve split ratios from 1:1 to 20,000:1
- Applications include LC/MS, pre/post-column flow splitting, and flow fractionation
- Multiport flow splitter diverts the inlet flow into 3 or 4 channels for applications that employ multiple detectors and/or a fraction collector
- Rugged stainless steel construction allows high pressure operation
- Low dead volume fluidic design
- Unique flow path geometry resists clogging better than capillary tube resistors

## QuickSplit Fixed Flow Splitters

Unlike conventional splitters that use long lengths of capillary tubing, the ASI QuickSplit Fixed Flow Splitter uses two compact fluid resistor elements which are designed as cartridges for easy replacement. The flow path of the QuickSplit Fixed Flow Splitter contains two fluid resistors that form a parallel flow path. Both low and high flow rate streams pass through fixed resistor cartridges. The ratio of these two resistors creates the split ratio.

Schematic flow diagram of the QuickSplit™ Fixed Flow Splitter



L1 = Fixed fluid resistor (resistance value varies depending on cartridge rating)

L2 = Fixed fluid resistor (resistance value varies depending on cartridge rating)

R = Split ratio =  $Q1/Q2 = \text{Resistance ratio} = L2/L1$

Since the flow rate is indirectly proportional to resistance, changing the resistance in either flow path results in a change to the split ratio. Changing resistance is accomplished by exchanging the fixed fluid resistor cartridges with a resistor set that has different resistor ratings.