

Optical level monitoring

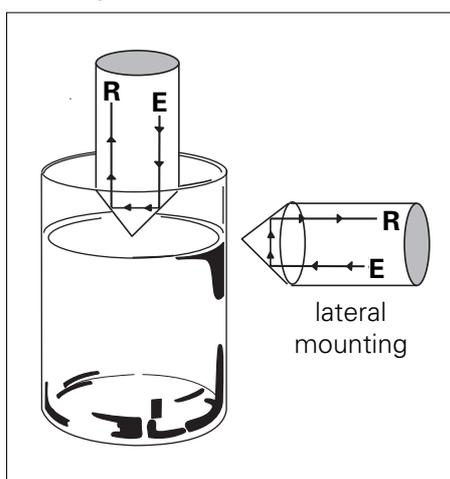
Farnell Codes : 4144170 - 4144181

Function

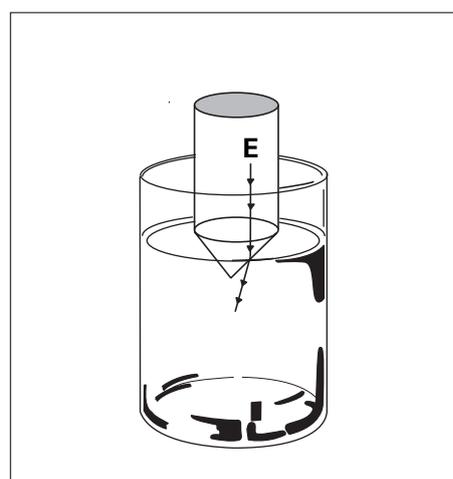
Levels can be measured simply and accurately using infrared light, without the need for any electrical or thermal connection between the target medium and sensor. The operating principle is illustrated in the drawing. The ratio of reflective indices changes, depending on whether the tip of the sensor is surrounded by liquid or air. If the sensor

tip is immersed in liquid, the light rays will be deflected into the liquid and the electronics of the receiver changes its switching status. The operating principle remains the same, irrespective of whether the liquid medium can conduct electricity or not. The medium can also be clear or cloudy.

Sensing level not reached



Sensing level reached



Housing

The housing material of the FFAK series is polysulphone (PSU), a special plastic chemically resistant to acids, lyes or oils. The FFAM series housing consists of stainless steel, which is also resistant

to many liquids. Its compact size allows it to be installed even where space is at a premium. The sensor can be installed vertically or horizontally.

Application

The chemical resistance of Polysulphone (PSU) or stainless steel (with glass tip) to various liquids, lends itself to many applications. Under normal conditions the sensor can be used with the following media:

- alcohol
- ether
- battery acid
- water
- hydrochloric acid
- vinegar
- mineral oils
- diluted lyes
- lactic acid

This list shows only the most significant media; the suitability for applications with other media should be checked with a chemical compatibility test.

