

## Selecting the correct floatswitch

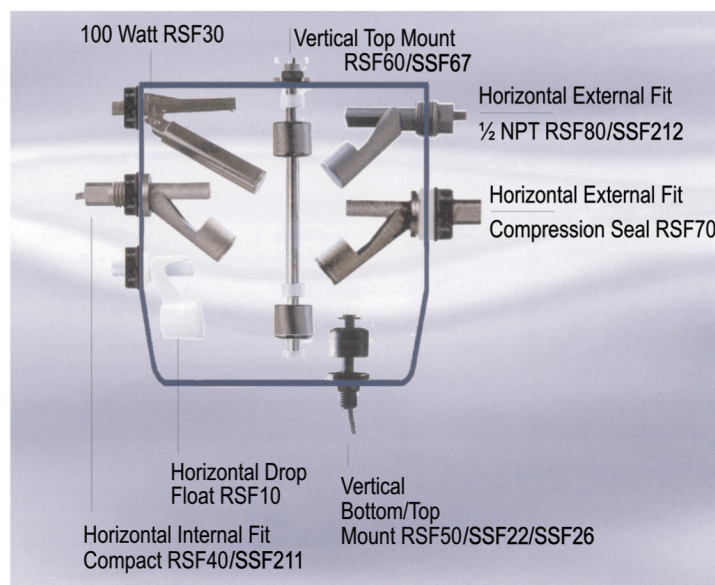
Float switches come in many different varieties, so how do you decide on the right one for each application? Some may be suitable for reservoirs and big tanks, others for chambers of just a few millilitres, and the choice of right material can be critical along with the safety standard for the application.

Cynergy3, formerly known as CRYDOM Magnetics, has been making float switches for nearly 40 years from its manufacturing sites in Dorset, UK. It understands that there is a logical route to finding the best choices for each application.

### PHYSICAL ARRANGEMENT AND CHOICE OF FLOAT SWITCH STYLE

The choice of styles that may be suitable for an application will depend on the physical arrangement of the tank, the available mounting positions, the tank wall thickness and whether access is available to the inside of the tank.

Typically, floatswitches are available in vertical or horizontal mounting styles. Options also include the ability to mount the switch from inside or outside of the tank. All models can be configured to either switch on a rising or falling fluid.



### MATERIAL SELECTION

The selection of most suitable materials, for float switch and gasket, can be made by reference to a Chemical Compatibility Chart. "Please see tech tips at [www.cynergy3.com](http://www.cynergy3.com)". This gives a good indication of the suitability, of the float switch materials, in a wide range of liquids. It may be necessary, for some liquids, to obtain a sample float switch to test the compatibility.

Cynergy3 produces float switches in 4 main material groups – plastics are colour coded for easy identification

NYLON	Suitable for oils and fuels	BLACK
POLYPROPYLENE	Suitable for Hot water applications	OPAQUE
POLYPHENYLENE SULPHIDE(PPS)	Suitable for most aggressive acids	GREY
STAINLESS STEEL	Suitable for high temp fluid applications	SILVER

### ELECTRICAL

It is important to fully understand the nature of the load, to be switched by the float switch, and to make sure that the switch is capable of handling this load. The electrical ratings, shown in float switch specifications, are all for purely resistive loads. Any loads that have either inductive or capacitive components should have the appropriate contact protection measure applied.

### CABLES

Cynergy3 has standard, UL approved, cable types for the various float switches, which are shown on the product data sheets. Other cables, or connectors, can be supplied subject to special quotation and order.

### ENVIRONMENT

The application environment can be critical to the choice of float switch. A water tank for vending machine may require a simple plastic switch with WRAS approval. However, if the application is in a hazardous area, e.g. a petrochemical storage tank, where flammable gases, vapours and dust may be present, a stainless steel explosion proof switch will be required. Cynergy3 can supply float switches for all environments, including drinking water systems, Industrial Process Control, Safe Area, Intrinsically Safe and Hazardous Area (ATEX), meeting the required industry directives.

### OPTIONS

Cynergy3 has, over the years, produced many variants of its float switches to match particular customer requirements and are always prepared to advise on particular application problems.

### PRODUCT EXAMPLES

Cynergy3 type	Key features
RSF53	Vertical mount, single switch, Nylon
SSF22	Vertical mount, single switch, SUS316
SSF26	Vertical mount, 200°C, SUS316
RSF66	Vertical mount, two switch PPS
SSF67	Vertical mount, two switch, SUS316
RSF44	Horizontal switch, Polypropylene
RSF73	Horizontal switch, External mount, Nylon
RSF86	Horizontal switch, 1/2NPT mount, PPS
SSF212	Horizontal switch, 1/2NPT mount, SUS304