

# LLF70 Series

## Compact, External Fitting, Low Level, Low S.G. Float Switch



- Suitable for low specific gravity liquids (0.7 S.G.)
- Very low level sensing
- Class leading compact design
- Compression seal fitting
- Flying Lead or M12 plug connection
- Available in Nylon, Polypropylene, PPS & PVDF
- 25VA & 100VA versions available
- Many variants are UL recognised components File No. E171218
- Many variants have WRAS and/or UL approval

The LLF70 series is designed for fitting through a tank wall from the outside, where access to the inside for fitting is not possible.

These devices are particularly suitable for detecting low levels of liquids in the bottom of tanks and containers, and for lower SG liquids. Typical applications include vending machines, commercial dishwashers and auxiliary tanks on vehicles.

These are manufactured in a variety of plastics, with a choice of gasket materials, to suit most commonly used liquids.

The switch action may be reversed by mounting the device with the float able to move upwards away from the body, instead of the more normal downwards direction.

Available with either flying leads or M12 socket for electrical connection. Cable sets with M12 plugs are also available.

Custom versions can be made for particular applications. Please contact Cynergy3 with your requirements.

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ISO9001 CERTIFIED

LLF70 2018

| Technical Specification | LLF73     | LLF74                          | LLF78                        | LLF76                           | LLF77                             |
|-------------------------|-----------|--------------------------------|------------------------------|---------------------------------|-----------------------------------|
| Material                | Nylon     | Polypropylene<br>WRAS approved | Polypropylene<br>UL approved | Polyphenylene<br>Sulphide (PPS) | Polyvinylidene<br>Fluoride (PVDF) |
| Colour                  | Black     | Opaque                         | White                        | Grey                            | Green                             |
| Temp. Range °C          | -20 / +75 | -20 / +100                     | -20 / +100                   | -10 / +120*                     | -10 / +105                        |
| °F                      | -4 / +167 | -4 / +212                      | -4 / +212                    | +14 / +248*                     | -14 / +221                        |
| Min. Fluid SG           | 0.7       | 0.7                            | 0.7                          | 0.7                             | 0.7                               |
| Must close level (SG=1) | 1mm       | 1mm                            | 1mm                          | 1mm                             | 1mm                               |
| Must open level (SG=1)  | 10mm      | 10mm                           | 10mm                         | 10mm                            | 10mm                              |

\* ETFE cable needs to be selected in order to achieve the maximum temperature rating

| Electrical Specification | 25W (Y code) | 100W (H code) |
|--------------------------|--------------|---------------|
| Contact Form             | N/O (N/C)    | N/O (N/C)     |
| Switching Power Max      | VA           | 100           |
| Switching Voltage AC Max | V            | 240           |
| Switching Voltage DC Max | V            | 120           |
| Switching Current Max    | A            | 0.6           |

All ratings are for resistive load only.

| Standard Parts | Material      | Max Power | Leadouts         | Gasket   | Approvals |
|----------------|---------------|-----------|------------------|----------|-----------|
| LLF73H100RN    | Nylon         | 100VA     | 100cm PVC 16/0.2 | Nitrile  | WRAS      |
| LLF73Y100RN    | Nylon         | 25VA      | 100cm PVC 16/0.2 | Nitrile  | WRAS      |
| LLF73Y100RM    | Nylon         | 25VA      | 100cm PVC 16/0.2 | Silicone | WRAS      |
| LLF74H100RN    | Polypropylene | 100VA     | 100cm PVC 16/0.2 | Nitrile  | WRAS      |
| LLF74Y100RN    | Polypropylene | 25VA      | 100cm PVC 16/0.2 | Nitrile  | WRAS      |
| LLF74Y100RM    | Polypropylene | 25VA      | 100cm PVC 16/0.2 | Silicone | WRAS      |
| LLF76H100RN    | PPS           | 100VA     | 100cm PVC 16/0.2 | Nitrile  | WRAS & UL |
| LLF76Y100RN    | PPS           | 25VA      | 100cm PVC 16/0.2 | Nitrile  | WRAS & UL |
| LLF77Y100GN    | PVDF          | 25VA      | 100cm PTFE 7/0.2 | Nitrile  | UL        |
| LLF77H100GN    | PVDF          | 100VA     | 100cm PTFE 7/0.2 | Nitrile  | UL        |
| LLF77Y100GV    | PVDF          | 25VA      | 100cm PTFE 7/0.2 | Viton    | UL        |
| LLF77H100GV    | PVDF          | 100VA     | 100cm PTFE 7/0.2 | Viton    | UL        |
| LLF78H100RN    | PP (UL)       | 100VA     | 100cm PVC 16/0.2 | Nitrile  | UL        |
| LLF78Y100RN    | PP (UL)       | 25VA      | 100cm PVC 16/0.2 | Nitrile  | UL        |
| LLF73HNP       | Nylon         | 100VA     | M12 connection   | Nitrile  | WRAS      |
| LLF73YNP       | Nylon         | 25VA      | M12 connection   | Nitrile  | WRAS      |
| LLF74HNP       | Polypropylene | 100VA     | M12 connection   | Nitrile  | WRAS      |
| LLF74YNP       | Polypropylene | 25VA      | M12 connection   | Nitrile  | WRAS      |
| LLF76HNP       | PPS           | 100VA     | M12 connection   | Nitrile  | WRAS & UL |
| LLF76YNP       | PPS           | 25VA      | M12 connection   | Nitrile  | WRAS & UL |
| LLF77HNP       | PVDF          | 100VA     | M12 connection   | Nitrile  | UL        |
| LLF77YNP       | PVDF          | 25VA      | M12 connection   | Nitrile  | UL        |
| LLF77HVP       | PVDF          | 100VA     | M12 connection   | Viton    | UL        |
| LLF77YVP       | PVDF          | 25VA      | M12 connection   | Viton    | UL        |
| LLF78HNP       | PP (UL)       | 100VA     | M12 connection   | Nitrile  | UL        |
| LLF78YNP       | PP (UL)       | 25VA      | M12 connection   | Nitrile  | UL        |



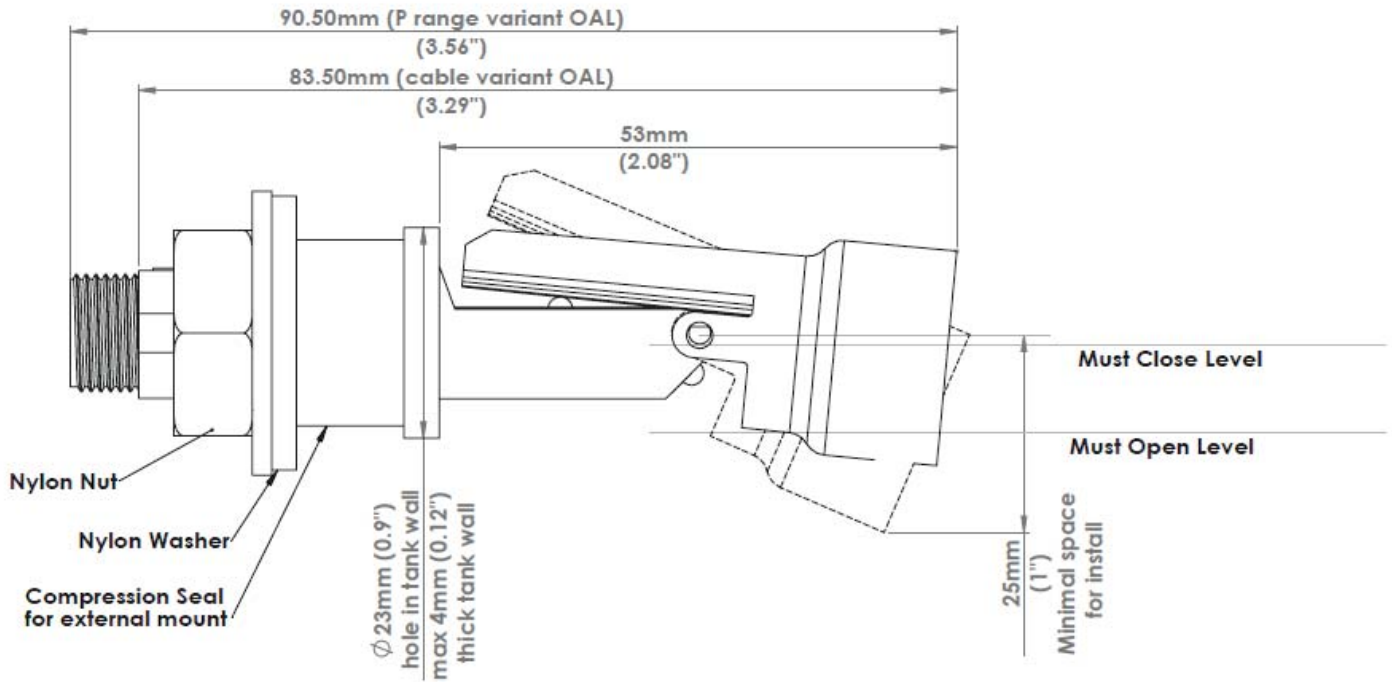
Made in the UK

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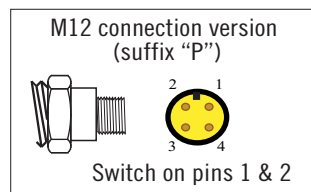
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## Mechanical Dimensions



## Electrical Connections



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