

### Product Overview

The AX-LS-FL is a range of Liquid Level Float switches designed for multi level applications with access from the surface or where multi-level sensing is required from a single penetration. The unit consists of a float which is suspended from a weighted cable, as the liquid levels change, the float follows the surface level at the same time tilting due to its weighted restraint, inside the float are a number of micro-switches which trigger as the float tips. Suitable for a wide range of liquids.



### Products Features

- Easy Installation
- Alarm, filling, emptying and combined variants
- Standard 5m cable length (10m option)
- Suitable for a wide range of liquids

### Product Specifications

Standard cable length:	5 metres ( Option 10M)
Standard adjustment range:	250 to 1200mm (other ranges available at additional cost)
Pressure rating:	200Kpa
Switching Element:	Microswitch
Contact Ratings:	6A @6-250Vac (24V max for flammable liquids)
Materials:	Float: Polypropylene Cable: PVC standard (option polyurethane, rubber or teflon at additional cost) 2LHEN: Oil Resistant TPU
Min fluid specific gravity:	0.7
Buoyancy:	6 N (600g)
Protection Class:	IP67
Ambient Temperature Range:	0 to +55 °C
Max Diameter of Float:	170mm
Country of Origin:	Finland

### Product Order Codes

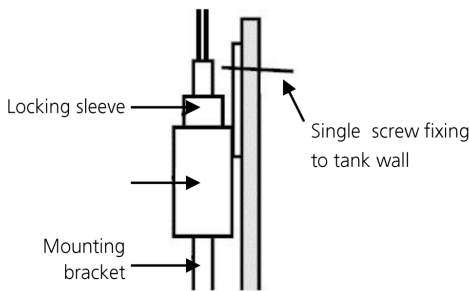
AX-LS-FL-1L	Low level alarm
AX-LS-FL-1H	High level alarm
AX-LS-FL-2L	Filling pump control
AX-LS-FL-2H	Emptying pump control
AX-LS-FL-2LH	High & low level alarm
AX-LS-FL-3L	Filling pump control & low level alarm or dual filling pump control
AX-LS-FL-3H	Emptying pump control & high level alarm or dual emptying pump control
AX-LS-FL-4L	Filling pump control & high & low level alarm
AX-LS-FL-4H	Emptying pump control & high & low level alarm
AX-LS-FL-4L5E	Dual pump filling control & low level alarm
AX-LS-FL-4H5E	Dual pump emptying control & high level alarm
AX-LS-FL-2LHEN	High & low level alarm for oil tanks
-10	10m Cable length

### Installation

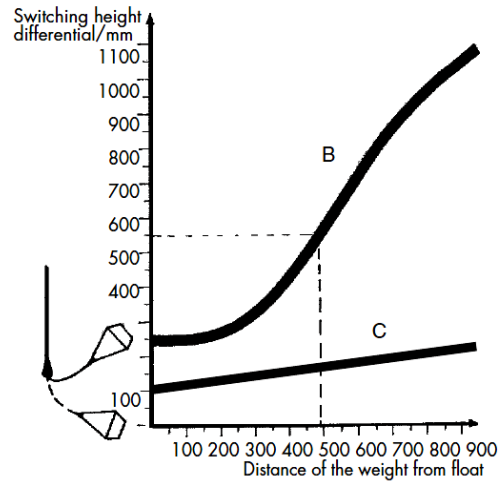
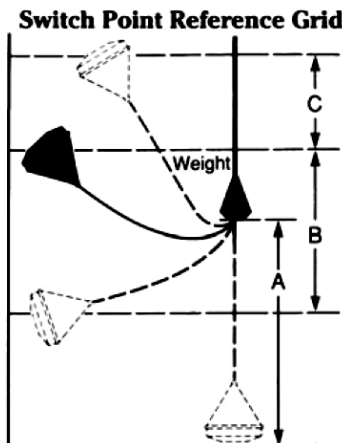
The AX-LS-FL series of float switches should be installed by a suitably qualified technician in accordance with any guidelines for the device and the equipment which it is to be connected to. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment being connected to. As a general rule screened cable should be used to connect signal to a BMS or other controller.

Ensure that all power is disconnected before carrying out any work on the float switches.

The AX-LS-FL-1L and AX-LS-FL-1H units are supplied with a two part mounting bracket so that the cable can be secured to the top edge of the tank. The mounting consists of a plastic tube with a single hole fixing bracket with a tubular plastic insert which slips inside when you have the correct position lock the cable in position. Hang the float so that the required switching point is 12.5cms below the desired switching point. No weight is required. You may need to carry out final adjustments under actual pumping conditions.



The remainder of the range are supplied with a weight. The switching height differential is adjusted by moving the weight along the cable. The differential is on minimum, when the weight is nearest to the float.

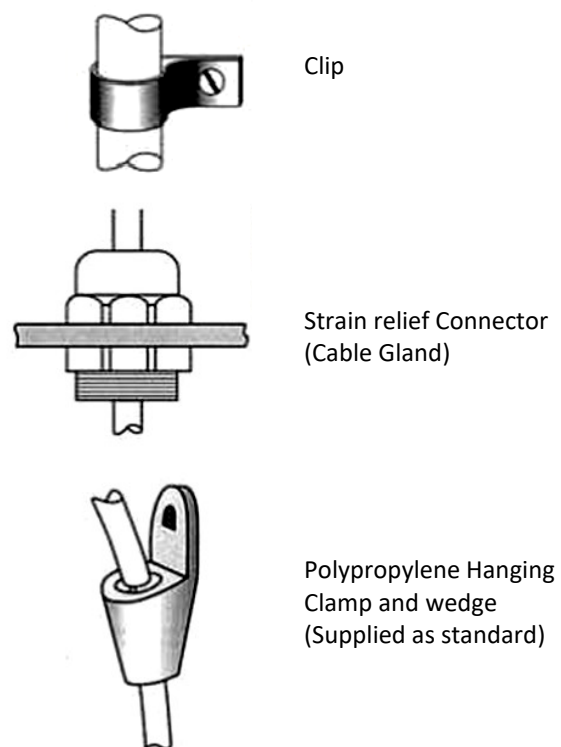


Curve B shows the switching height differential in relationship to distance of the weight from the float .

Curve C shows the equivalent differential between starting and alarm levels.

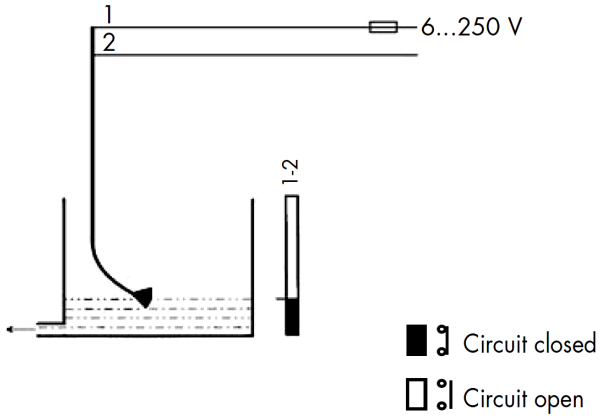
For Example: If the weight of model 3H is about 50cm from the bottom of the float (measure A) the start/stop differential is about 60cm and the start/alarm differential is about 25cm. The Differentials presented here are valid when standard PVC cable is used. Special cables may cause variations to these values.

There are several methods that can be used to fasten the cable so that the float is positioned at the right level in the tank. The three most commonly used are illustrated below.

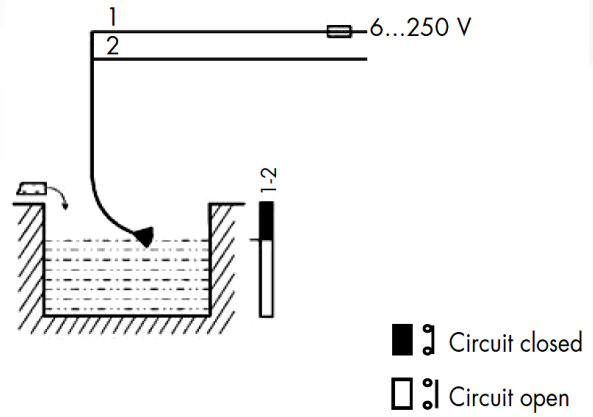


### Connections

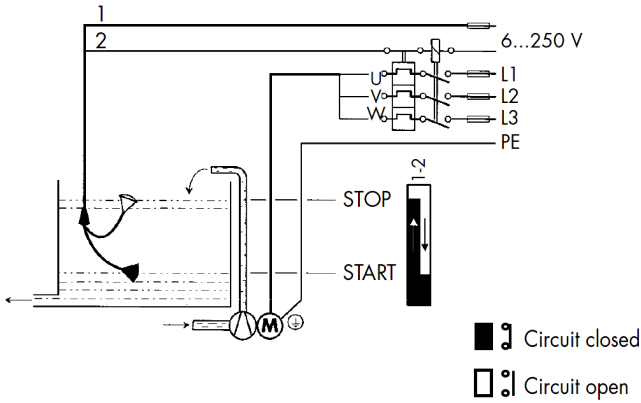
**AX-LS-FL-1L**



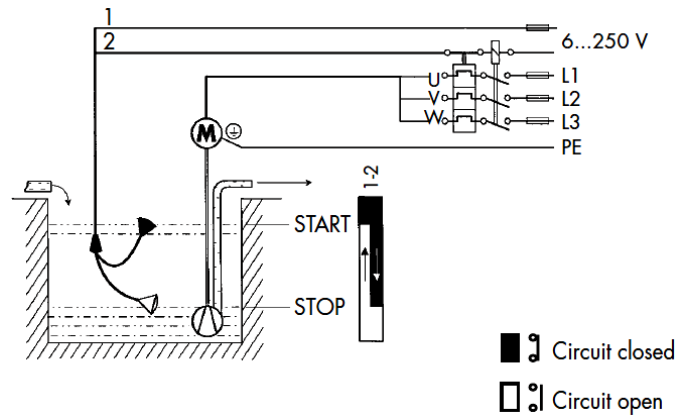
**AX-LS-FL-1H**



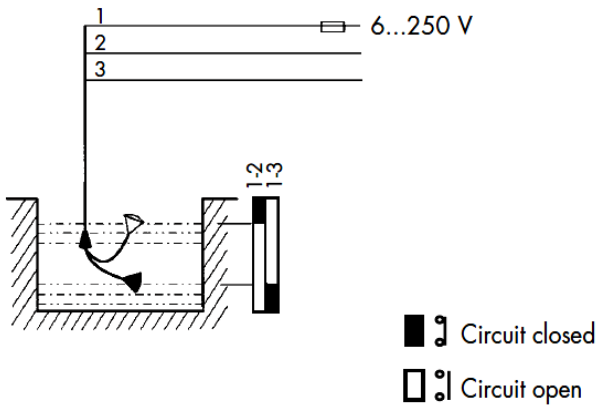
**AX-LS-FL-2L**



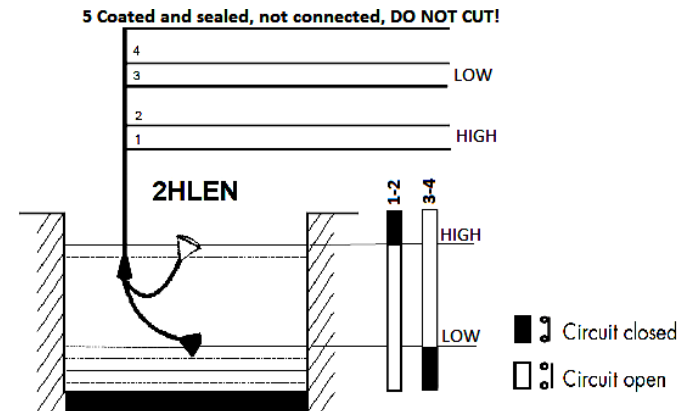
**AX-LS-FL-2H**



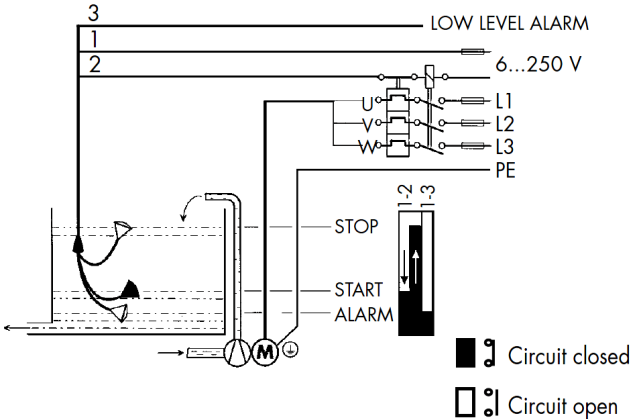
**AX-LS-FL-2LH**



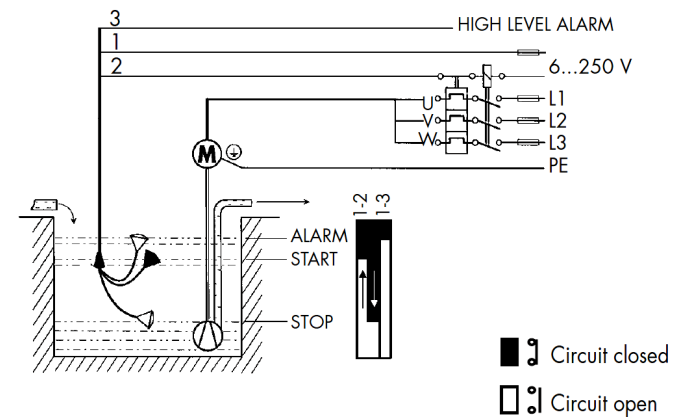
**AX-LS-FL-2LHEN**



**AX-LS-FL-3L**

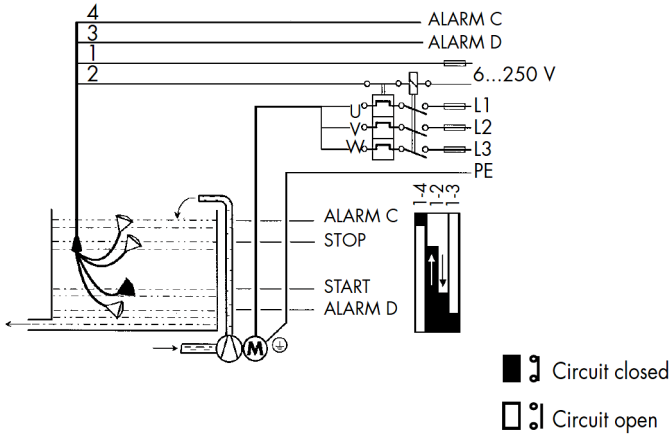


**AX-LS-FL-3H**

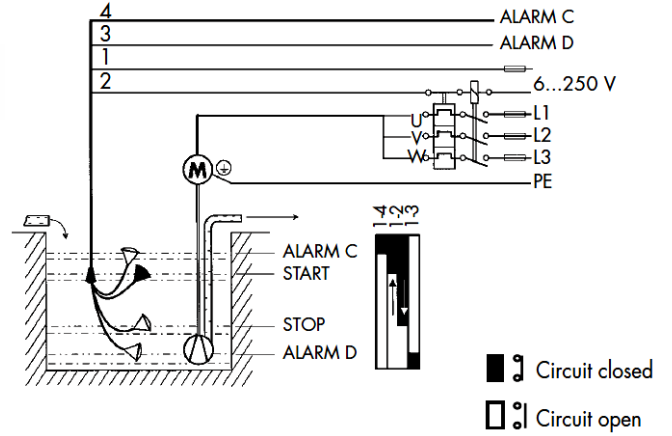


### Connections (contd..)

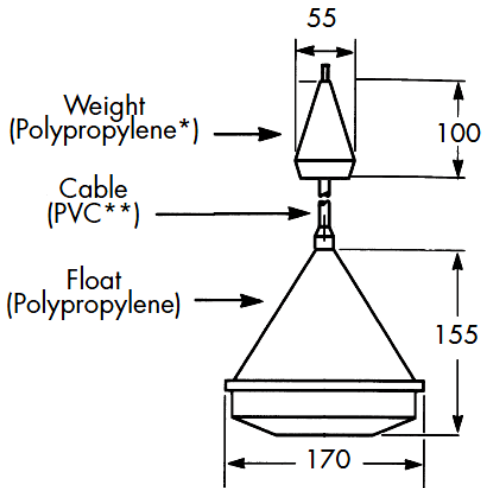
AX-LS-FL-4L



AX-LS-FL-4H



### Dimensions



### Datasheet Contents

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