

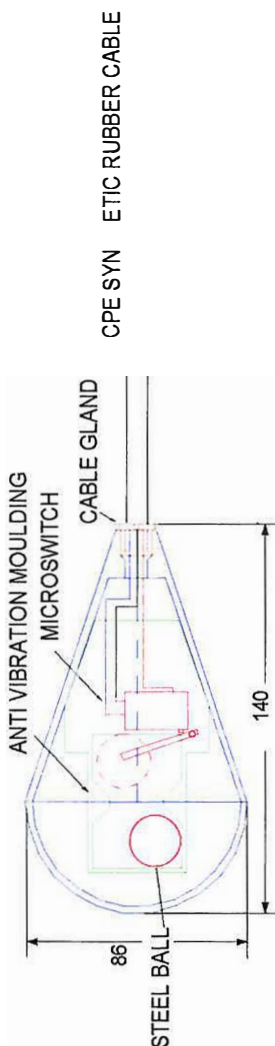
## LR20 – NON MERCURY LEVEL REGULATORS

Float Switches are inexpensive and efficient liquid level detectors. They are simple to install, and designed for trouble free operation over a long life. The LR20 is a plastic float switch using either a PVC or synthetic rubber 3 core cable. Actuation is via a roller ball and micro-switch arrangement within the switch thereby eliminating all heavy metals from this version.

### Construction

The unit comprises three major components

1. The float chamber houses the micro-switch arrangement, totally sealed within a polypropylene casing, with a single pole double throw action.
2. The three-cored cable, connected to the micro-switch assembly inside the float chamber, is sheathed in CPE (chlorinated polyethylene) synthetic rubber or PVC. This cable is supplied in three standard lengths, 5 metres, 10 metres and 20 metres  $\pm 5\%$  of the length quoted.
3. The float is a standard buoyant type and an optional stabilizing weight may be fixed at any point on the cable using the clamping mechanism of the two halves of the weight. The weight is sealed within a moulded polypropylene housing.



### Mounting

Whilst no hard and fast rules apply to the mounting of these units, the lead should be supported in an enclosed vessel, and in an open vessel it is advantageous to clip the lead to the side, especially if excessive turbulence is experienced.

To obviate the effects of rapid switching conditions that would result if such turbulence is experienced, it is advantageous to use a maintaining circuit which both safeguards the micro-switch and cuts out any chatter in the starters of associated pumps etc

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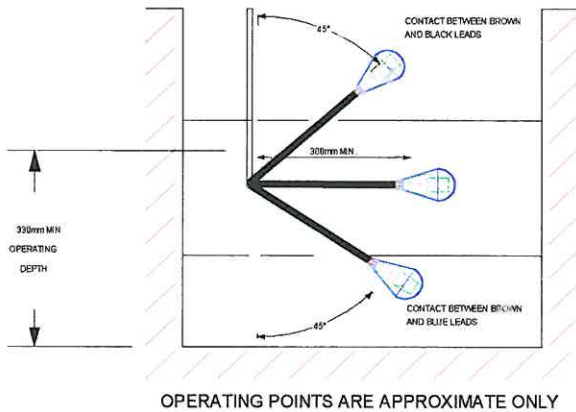
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# LR20 - NON MERCURY FLOAT SWITCH

## Method of Operation

The micro-switch assembly inside the float, axially mounted in line with the weight, changes contacts according to the float's position, as in the diagram below. Therefore as the liquid level drops or rises slowly, a pump or flow control suitably connected, can be switched in or out to maintain an average level of the liquid. By connecting only one side of the switch, the unit can be also used to fill or empty the tank as required.

Dimensions, in mm, do not take into consideration any lateral swing of the cable.



Contact rating: 250V 15A, non-inductive.  
250V 10A, inductive. 1.3 HP

**NOTE :** Local regulations may limit the voltage.

Max. temperature 70° C

Max. submerged depth 20 metres

Compressive Strength 482 KN/m<sup>2</sup> (70 lbf/in<sup>2</sup>)

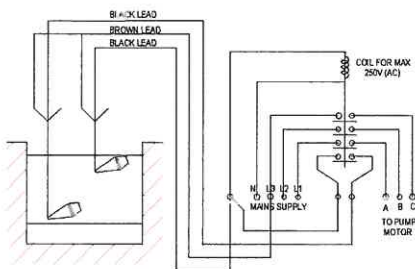
Operational in specific gravities from 0.8 to 1.3

## Chemical Resistance

Against	Rating
Lubricants	Fair
Diesel oil & petrol	Poor
Vegetable & animal fats	Good
Water Absorption	Good
Oxidation	Good
Ozone	Good
Sunlight	Good
Dilute Acids	Good
Alkalis	Good
Alcohols	Good
Salt water	Good

A comprehensive list of chemical resistances is available on request.

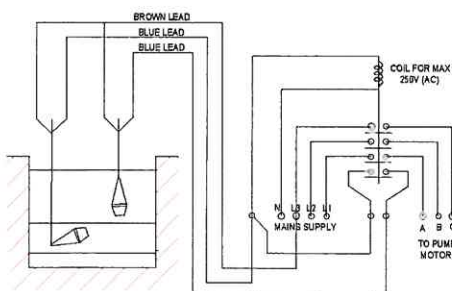
## Connection diagram for automatically emptying tank



When ordering please specify part numbers.

Type	Part Number	Weight (Approx.)
5 metre cable	LR20-L05M	1.3 Kg
10 metre cable	LR20-L10M	1.8 Kg
20 metre cable	LR20-L20M	2.8 Kg

## Connection diagram for automatically refilling tank



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