

This document details two examples to perform in the right way the control of the level in tanks fed from mothership tanks, using magnetic level switches. The mechanical and electrical construction of these sensors makes an efficient control in operations of filling or filling/emptying.

In normal conditions, the contacts START and STOP keep the level of the liquid between the margins where they are placed. They must be connected to an auxiliary relay or to a contactor to do the start-stop operation, never directly to the pump.

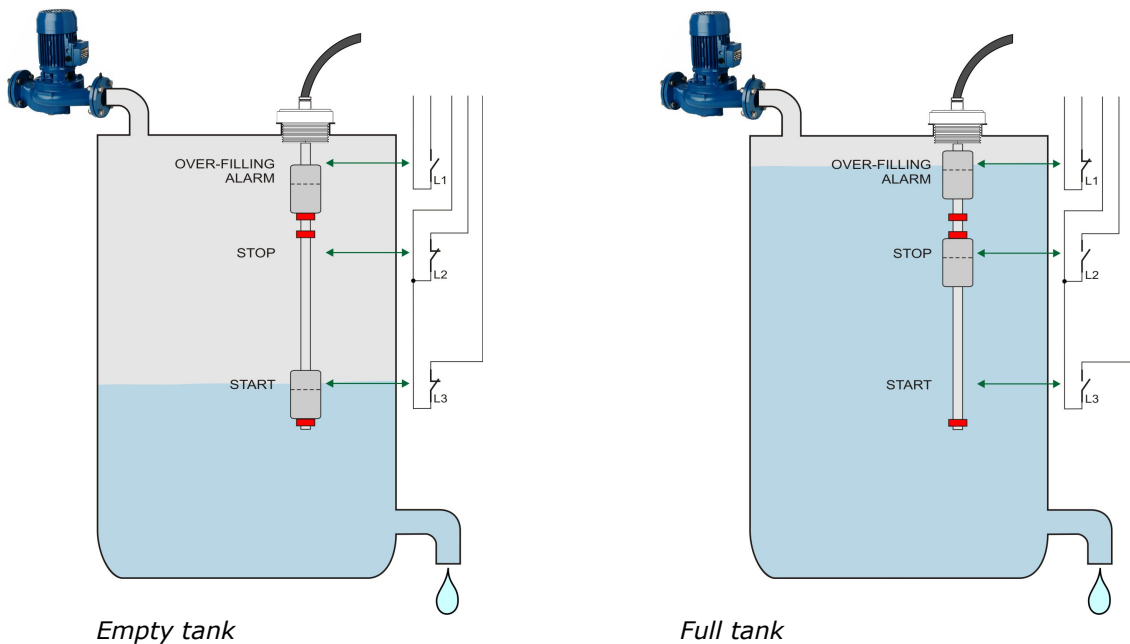
In the case of overfilling, the contact OVER-FILLING ALARM makes the safety control for this purpose. In the same way, the contact DRY ALARM prevents running the pump without liquid in the case of a fail of the contact START. In order to ensure safety, the alarm contacts are activated by means of floats different from the start-stop ones as well as they are provided with an independent electrical wiring.

In tanks placed higher than the mothership tank, and whenever possible, it's suggested to place a feedback pipe as additional safety to the alarm for over-filling.

To learn more about the modes of electrical connection, see the document "INSTALLATION AND APPLICATION OF THE LEVEL MAGNETIC SWITCHES".

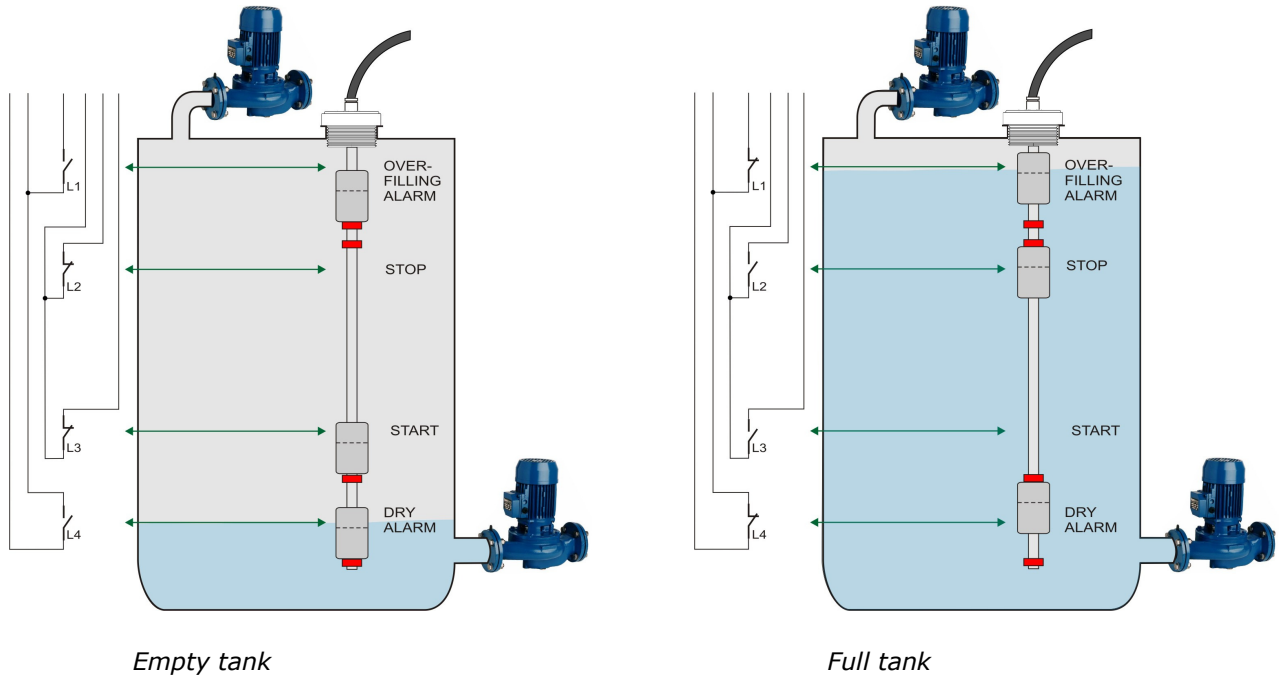
#### EXAMPLE 1

Suitable for tanks emptied by gravity. They are provided with a start-stop level to control the filling operation and one top alarm to prevent over-filling, which is mechanically and electrically independent.

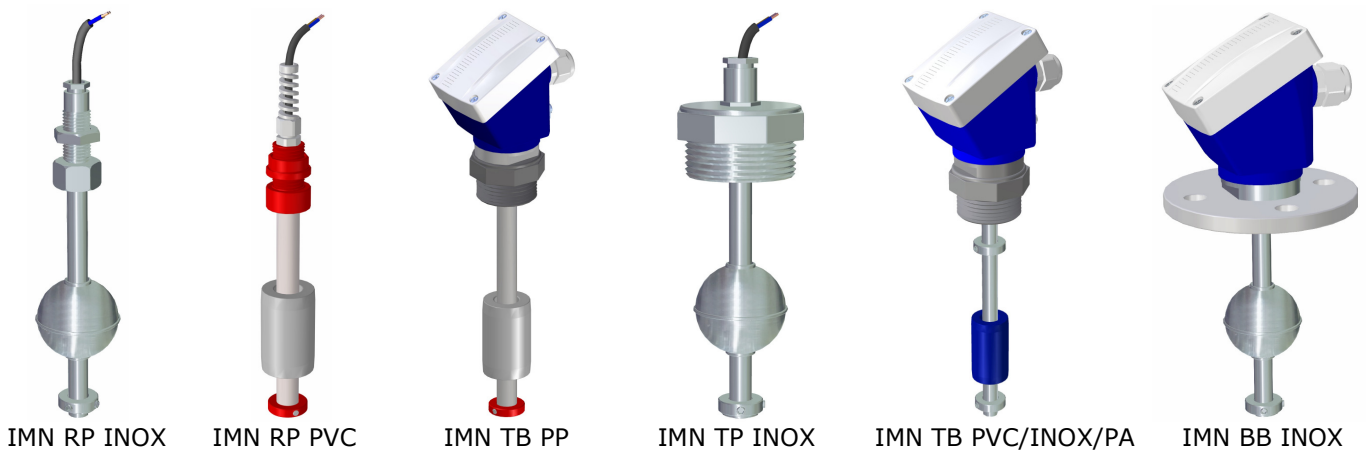


**EXAMPLE 2**

Suitable for tanks emptied by a pump. They are provided with a start-stop level to control the filling operation, one top alarm to prevent over-filling and one bottom alarm as a safety for the pump dry running.



Recommended sensors for these applications are the following:



The selection of the model and the constructive material depends on the medium to be controlled, on its physical characteristics (density, viscosity, etc.), on the working conditions (pressure, temperature, etc.), on the mechanical needs of the installation (height, process connection, accesibility) and on the electrical connection.

Consult with us the suitable model at each case.