# Waste water pump control

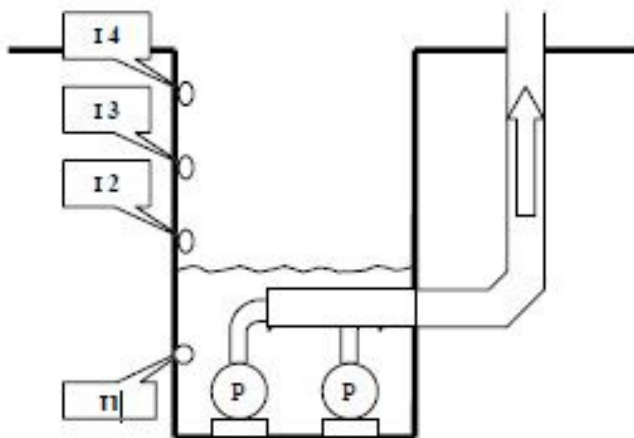*MFD-Titan is required to control the water level in an effluent collecting pit*

An effluent collecting pit has two pumps installed in it, which empty the pit in alternation as soon as the 50 % capacity has been reached.

If a pump is providing insufficient output, the second pump should switch on as well when the 80 % effluent level is reached.

If there is a fault in one of the pumps, the second pump should take over its function.

Once the pit is emptied, a dry run float switch should switch off the pumps. An alarm output is activated if the pit reaches the 100 % level.

The operating hours, number of switch operations and fault messages are also counted and displayed.



## Device class used

MFD-Titan

## Wiring

### Inputs

I01 Dry run float switch, installed at 10%  Pumping off
I02 Level 50% Pump on
I03 Level 80% Second pump on
I04: Level 100% Alarm siren on
I05 Motor fault Pump 1  Trip-indication motor protection
I06 Motor fault Pump 2 Trip-indication motor protection
I07 Reset operating hours counter, pump 1
I08 Reset operating hours counter, pump 2

### Parameters

C01   Step relay
C13   Counting the alarms
C14   Fault counter, pump 1
C15   Fault counter, pump 2
C21   Count switch operations, pump 1
C22   Count switch operations, pump 2
OT01 Operating hours counter, pump 1
OT02 Operating hours counter, pump 2

### Output assignment

Q1   Contactor, pump 1
Q2   Contactor, pump 2
Q3   Fault, pump 1 / 2
Q4   Alarm 100% filled
LED2  Fault pump / flooding
LED3  Pump running