

## Measurement and monitoring of 21 silos



### The Challenge

A customer in Portugal had a project where the levels of 21 storage silos with open hoppers for plastic products had to be monitored by the supplier. The silos needs anti-air protection against swelling.

### Our Solution

The complete project is done with the electromechanic sensors Niveau-MS 4000 and Niveau-MS1000. The Niveau-MS1000 with Modbus RTU interface measures continuously the level of the synthetic independent of density and EM value. The anti-puff ball detector Niveau-MS1000 with open extension protects against swelling. The sensor can be set quite flexible to the right length and switching point. Both sensors are abundant in the synthetic industry and can be used in all granules and powders. They are cost effective and easy to setup. The monitoring and control is done with the visualization Modus-M2000. The hardware is a 32-bit microcontroller with Modbus RTU interface, which communicates with the sensors and gives all data which are needed to monitor the levels and the demand. Remote access via internet and local informations per e-mail can be done very comfortable.

