

CN7100 in buffer vessel for dosing plastic granulate



The Challenge

Within filament production the extruding material will be mixed individually from various components in different prescriptions and with a total volume of 100-200 kg/h. On top of the mixture there is a dosing mechanism for compilation of the prescription. This dosing mechanism will be filled with various components such as i.e. plastic granules (Dk value approx.2.2), color and magnesium. In order to ensure a high quality and constant mixture these raw material will be buffered in small vessels, each with 400 mm in diameter and 450 mm in height, on top of the mechanism. The filling of these vessels will be done with an automated pumping process through pipes and fed out of bags or vessels that are stored in a lower section of the production.

The challenges of these application are

- the low height of the buffer vessel
- the very low Dk-value of the plastic granulate
- the fact that the granulate can be hygroscopic wet because of previous storing in bags.
- a short possible immersion length

Our Solution

The UWT CN7100 sensor is the perfect solution since

- it allows accurate and reliable level detection even for low level control with light material and low filling height above the sensor
- the immersion length is just 120 mm so it could be perfectly installed in the vessel with small diameter
- the wide measuring range down to DK=1.5 allows also detecting these require material
- the CN7 version with plastic housing has low weight an can be installed even in the buffer vessels made of plastic
- can handle warm plastic granulate because of being dried during pumping from bag into vessel

Besides that the buffer vessels were already equipped with 3 sight glasses, for manual control, that allowed being replaced by a G1" threaded sensor version. So no additional mechanical change was required.





CN 7100 Version du boîtier

Détecteur complet, à la demande, vide

Version compacte

- Détection de niveau limite dans les liquides, les boues, la mousse, interfaces et solides
- Installation verticale, horizontale, oblique.
- Version du boîtier.
- Interrupteur 2 fils 4/20 mA.