

MN4020 in pre-expanded polystyrene

The Challenge

Polystyrene balls need to be expanded to reach the right volume. This process is known as pre-expansion and involves heating the polystyrene with steam.

The solid beads are pneumatically filled in the expander. Then the beads are inflated under the influence of high pressure and steam. The customer must stop the process when all the beads have expanded. The material level in the expander changes due to the changing volume of the polystyrene spheres. This level should be detected by a limit switch. The process temperature is 110 ° C. The pressure at about 10 bar.

Our Solution

The solution of the measuring task at this customer was a single-rod vibration probe with a high sensitivity from a bulk density of 20g/l. The Mononivo MN4020 was used. This sensor reacts to contact of the expanded polystyrene balls and stops the further process. With a length of about 150mm, the sensor is very compact and can be installed in small containers even with small process connections from 1". The sensor is designed for use up to 150 ° C process temperature and is the perfect solution for use in EPS.



Products



MN 4020

Full, demand, empty detector

Short version

- Vertical, horizontal and oblique installation
- Extremely compact - from 160mm shaft length available
- Suitable for use within storage and process vessels
- High sensitivity, adjustable in four levels