



Object and filling level detection in the pharmaceutical industry

Reliable filling quantity and closure control of pharmaceutical containers using ultrasonic measuring methods

Initial situation

Detection of the filling quantities and secure closure of pharmaceutical containers needs to be reliable as they are checked at high process speeds and with a dense arrangement of sensors. Likewise, it must be possible to detect that caps have been safely fitted, regardless of their shape and colour. A universally applicable sensor that reliably monitors the filling level and closure of pharmaceutical packaging with different consistencies and packaging forms was required.

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Solution

The stainless steel version of the P43 series ultrasonic sensor from PiL Sensoren GmbH with a narrow sound beam was selected for the filling level measurement. With its stainless steel housing, the ultrasonic sensor which is especially suitable for the pharmaceutical industry is resistant to bacteria and pathogens and can detect various substances without contact and in confined installation conditions. The interference echo suppression also prevents mutual interference of sensors when arranged in close proximity.



P43-M12 in stainless steel version

The series P43 ultrasonic sensors have a synchronisation option that suppresses mutual interference of sensors installed close to each other. This means that up to ten sensors can be synchronised with each other via a synchronisation cable. As an alternative to the P43 series sensors, P53 series EHEDG certified ultrasonic sensors can be used for measurements in the pharmaceutical industry.



Certified P53 EHEDG series, for highest hygiene requirements for medical and pharmaceutical use

Customer value

- A rugged stainless steel M12 housing for industrial hygiene standards without increased requirements
- High degree of protection IP65
- Teach-in input with individual switching points
- Uncomplicated installation and calibration
- Window and hysteresis function

PiL Sensoren GmbH

PiL Sensoren GmbH is a pioneer and internationally recognised specialist in ultrasonic sensor systems and has been developing and producing customer-specific ultrasound distance sensors for industrial applications for more than 30 years. We enjoy working with you to develop customised sensor solutions to meet your individual requirements using our interdisciplinary know-how and many years of experience in sensor technology.

Take advantage of our interdisciplinary know-how on ultrasonic sensor systems.

We would be glad to advise you!

Contact

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