

# 质量控制



## 应用领域

Food and Pharmaceuticals

物流解决方案

Packaging

In packaging machines, quality control is crucial to monitor the flow of bottles at filling systems, for example, and prevent jams. When detecting transparent objects in production processes, reliability and jam monitoring are essential. Ultrasonic sensors detect objects—such as glass bottles, transparent PET containers, or cans—contact-free and precisely, without optical interference.

Depending on the object size and measurement range, four sensor families with different sensing ranges are available:

- > **pico+ with M18 threaded sleeve:** 20 mm to 1.3 m measurement range for small packaging units or beverage bottles,
- > **lpc+ with M18 threaded sleeve:** 20 mm to 1.3 m measurement range with 2 output stages,
- > **zws in a cubic miniature housing:** 20 mm to 1 m measurement range for small objects and packaging units in fast production processes, and
- > **pms in Hygienic Design:** 20 mm to 1.3 m measurement range for use in food or pharmaceutical products.

## 该应用领域的传感器



### **zws**

**housing:** miniature cubic housing

**detection ranges:** 150 mm, 240 mm, 250 mm, 350 mm and 700 mm

**outputs:** 1x pnp or npn, 4-20 mA or 0-10 V

**special feature:** zws-7 with 250 Hz switching frequency



### **lpc+**

**housing:** M18 all-metal sleeve

**detection ranges:** 250 mm, 350 mm, 600 mm and 1,300 mm

**outputs:** 2x Push-Pull, 1x Push-Pull plus 4-20 mA or 0-10 V

**special feature:** 90° angular head



### **pico+**

**housing:** M18 all-metal sleeve

**detection ranges:** 250 mm, 350 mm, 600 mm and 1,300 mm

**outputs:** 1x Push-Pull, 4-20 mA or 0-10 V

**special feature:** 90° angular head



### **pms**

The sensor family in Washdown Design stands out for its gap-free and dirt-free stainless steel construction - ideal for the beverage, food, and pharmaceutical industries.

