Connectivity for the Food Industry

M8 and M12 cables for use in hygienic environments

The Application

Hygienic safety is the highest priority in food production, so contamination of food and packaging through contact with machine parts has to be avoided at all costs. In this environment, sensors and actuators used in production and packaging—and the associated connection technology—must be able to withstand aggressive cleaning processes while still ensuring the smooth operation of production.

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The Goal

Different zones in food production impose varying requirements on sensors, actuators, and connection technology. In the **product contact zone**, hygienic requirements are strict, because the product comes into contact with system components and then returns to the production process. The **splash zone**, on the other hand, has less stringent requirements. In this zone, products may come into contact with machine parts but are not processed afterwards.

The Solution

Pepperl+Fuchs' food and beverage portfolio offers hygienic connectivity solutions tailored to food production. A range of products is available to satisfy the requirements of both zones.

The 4-pin series of M8 and M12 connectors are specially suited to the splash zone. **Washdown-design** connectors have metal knurling and smooth, easy-to-clean surfaces. The selection of materials and layouts was designed to meet the unique requirements of this zone.

To satisfy the strict requirements in the product contact zone, **hygienic-design** connectors are needed. These M12 connectors have a 1.4404 stainless steel knurled nut with a smooth surface that food cannot adhere to. With high quality standards, the M12 connectors have been designed for use in the product contact zone, in compliance with EHEDG standards.

The Benefits

Pepperl+Fuchs offers two product series for the food industry that are adapted to the individual requirements of the product contact and splash zones. These connectors meet strict requirements for protection, corrosion resistance, and hygiene. The portfolio also features extended temperature resistance up to 105 °C and products with smooth, easy-to-clean surfaces.

Further information at
www.pepperl-fuchs.com/connectivity-fb

Highlights

- Washdown and hygienic-design versions: connectivity solutions for all areas with strict hygienic requirements

- Smooth surfaces for easy cleaning and minimal food adhesion

- IP69 protection and stainless steel for complete corrosion resistance

- ECOLAB certified, EHEDG and FDA compliant for worldwide use

- Wide temperature range: −40 to 105 °C