SUCCESS STORY 73
LIQUID FILLING TEMPERATURE

Q How can food or medical industries determine the temperature of products in a glass or plastic container?

A

Situation and background

The food industry provides glass jars that contain products like pickles and other vegetables. The fruit drink industry provides drinks like cranberry juice in 2 liter plastic containers. The medical industry provides liquid medicine in glass vials or bottles. In all of these applications, the product is inserted into the container, sealed and then heated to 80ºC (180ºF). The present method of detecting temperature failure is to do random sampling of the containers. This does not guarantee that every container is heated correctly to insure sterilization and proper sealing of the container and the product inside.

The winning solution

- By using an Ircon® Modline® 5 infrared thermometer operating at 2.0-2.8 microns, the instrument can see through glass or plastic containers and measure the liquid temperature accurately. The fast response time of the instrument combined with digital output ensure that every container temperature can be detected and recorded for quality control. In addition, it has a small enough spot size so that even the smallest of glass vials for medical purposes can be viewed.

Savings made

No containers have to be taken off the line to detect failures. In addition, the testing is automatic so the cost of a test engineer is eliminated. The customer is guaranteed that every container manufactured and sold is produced at the proper specifications.

KEY FACTS

Industry
Food
Fruit drink
Medical

Customer's End Product
Sterilized and sealed prepared food, fruit drinks or medicine

Process Temperatures
80˚C/180˚F

PRODUCT AND BENEFITS

Modline 5, 56 series, with standard lens and range of 50 to 300ºC/122-572ºF

- Capable of seeing through the container and measuring the product
- Fast response time to ensure seeing every container as it passes by
- Automatic recording of every container to provide product traceability