

Microwave moisture monitoring in cream cheese

Application

Monitor moisture in cream cheese and other thick products. Microwaves pass through the product along the measurement path. The technology can also be configured for wastewater total solids.

Measurement and control

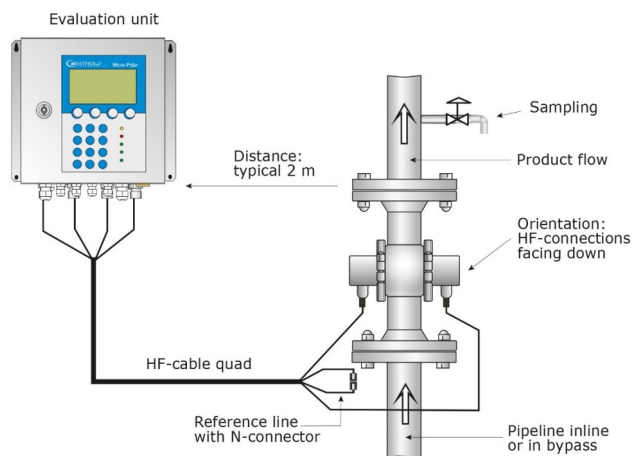
The Berthold instrument uses microwave measurement. It compares a reference signal with the signal passing through the product. Phase shift and attenuation are related to the product water content. The flow cell mounts in the pipe with a hygienic process connection. A continuous output follows the calibrated moisture or consistency. The measurement does not require an optical window. Applications include cream cheese, mozzarella, mascarpone and ricotta. Typical accuracy stated for the application: 0.2% of full range



Microwave flow cell and evaluation unit

Features and application details

Parameter	Specification
Product temperature	40 to 266F
Line pressure	Up to 16 Bar
Interfaces	Digital: RS232/ RS485
Power supplies	AC 110V $\pm 10\%$ 50...60Hz DC 24V $\pm 10\%$
Outputs	- 4-20 mA signal
Dimensions and weight	Cabinet: 10.6x12.6 x5.5" Flow cell depends on pipe diameter
Process connection	tri-clamp for hygienic process Flange for non-hygienic process
Cable length	6 feet 12 feet



Microwave measurement arrangement



Hygienic design certificate shown in the source