

Bubble Sensor 3", series A, Type 6900-17

Sensor for continuous measurement of air bubbles in milk.



Description

The bubble sensor 3", serves for the metrologically precise online acquisition of undissolved air bubbles during milk collection.

Due to its structural design, it does not affect the milk flow. By means of a clamp closure, the bubble sensor 3", is installed in the milk collection pipe.

Response time of the bubble sensor 3", is in the range of milliseconds.

Application

The bubble sensor 3", serves for the exact measurement at short response time of the air content in percent during milk collection. Due to its high dissolution and the unique measuring method (patent pending), the sensor can be used directly to control the collection pump. If collection pipes leak, even entrapped air of < 2 % is detected securely, and the intake capacity can be reduced or stopped. If at the end of the milk collection there is entrapped air due to suction in the collection tank, the intake capacity can be reduced accordingly.

Function

The function of the bubble sensor 3", is based on an electrical conductivity measurement between two parallel electrodes in an isolated measuring space. The geometrical arrangement makes possible a very precise measurement of the air content. The electronic measuring method makes possible a very short response time.

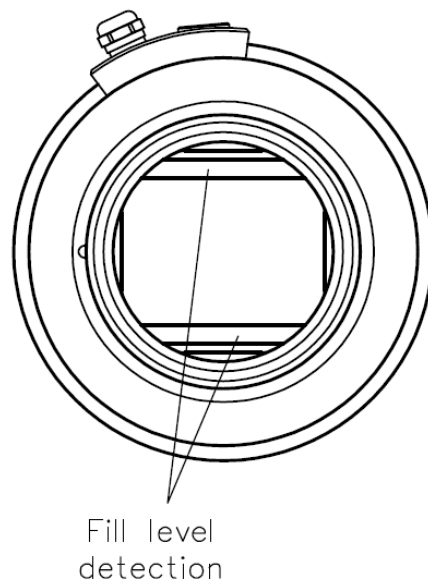
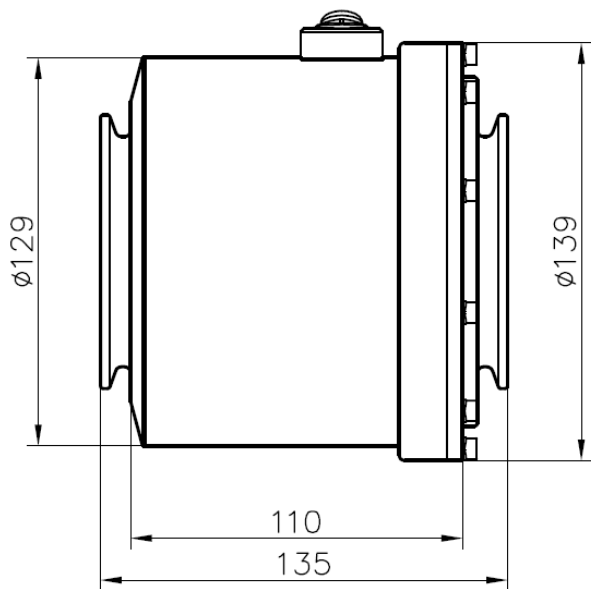
Features

- Short response time
- Precise measurement of air content
- Low resistance to flow
- Online measuring
- Different nominal bores

Technical data

Device-specific data	
Measurement ranges	0 ... 30 % air percentage (for homogeneous liquids)
Precision/Resolution	2 % / 0.3 %
Nominal conditions	23°C ± 2°C, 1,013 hPa
Additional device-dependent details	Smoothing section 5x nominal diameter
Electrical data	
Emergency current	DC 24 V ± 5 %, 50 mA
Connection type	Cable approx. 7 m
Inputs and outputs	2.5 ... 0 V filling degree
Ambient conditions	
Operating temperature	0 ... 80 °C, medium, -10 ... +50 °C electronic
Storage temperature	-10 ... +50 °C (without contents)
Climate class	IWF according to DIN 40040
Protection class	IP 66 according to DIN 40050
Ambient pressure	950 ... 1,050 hPa
Interior pressure	100 ... 2,000 hPa
Mechanical data	
Dimensions	See scale drawing
Nominal widths	NW 3"
Weight	approx. 35 N (3.5 kg)
Housing condition	1,4301
Attachment	Clamp

Dimensions



Ordering details

Designation	Order number
Bubble Sensor 3", series A, Type 6900-17	294298
Bubble Sensor 4", series A, Type 6900-19	294386