

Bubble sensor, 4", type 6900-12

Sensor for continuous measurement of air bubbles in milk.



Description

The bubble sensor, 4", 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, 4", is installed in the milk collection pipe.

Response time of the bubble sensor, 4", is in the range of milliseconds.

Additionally, an integrated temperature sensor makes possible to measure the temperature of the collected milk.

Application

The bubble sensor, 4", 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, 4", is based on an electrical conductivity measurement between two coplanar electrodes in a rectangular 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.

An integrated temperature sensor makes possible to measure the temperature of the collected milk.

Features

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

Technical data

Device-specific data

Measurement ranges	0 ... 30 % air content
Nominal conditions	25 °C ± 2 °C, 1.013 hPa
Further device-specific data	Smoothing length 5 x nominal diameter

Electrical data

Auxiliary energy	DC 24 V, 50 mA
Inputs and outputs	2,5 ... 0 V filling grade, Pt 100 4L, - 50 °C ... + 100 °C

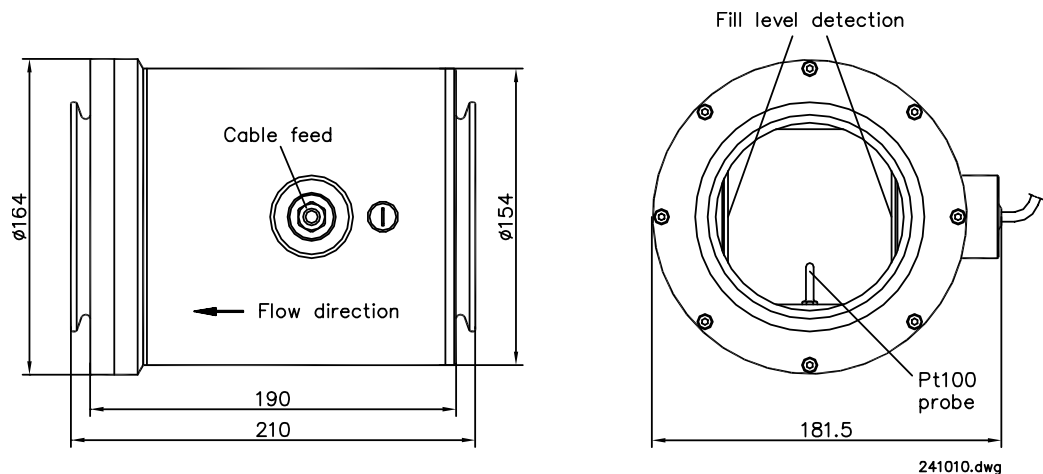
Ambient conditions

Operating temperature	0 °C ... 90 °C, medium, - 10 ... + 90 electronics
Storage temperature	- 10 ... + 60 °C
Ambient pressure	950 ... 1.050 hPa
Climatic classification	INU in accordance with DIN 40400
Internal pressure	100 hPa ... 2.000 hPa

Mechanical data

Weight	40 N (4,0 kg)
Nominal bores	4"
Quality of casing	1.4301 (inner tube PET)
Connection	7-meter-cable, open cable ends

Dimensions



Ordering details

Designation	Order no.
Bubble Sensor, 4", type 6900-12	241 010