



### Reliable

Reliable measurement independent of process conditions

### Cost effective

plics® concept: short delivery time and standardized operation

### User friendly

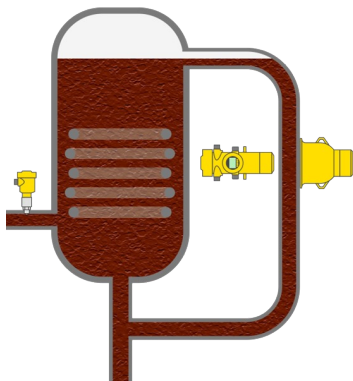
Simple installation and commissioning

## Evaporator

### Density and pressure measurement during spice slurry thickening

In the production of spices, the spices are first mixed with water and oil to form a slurry. This is fed into an evaporator, where water is removed to turn it into a kind of syrup. The thickened spice syrup must have exactly the right density - so that it can be spread thinly onto metal sheets for oven drying, ready to be ground into powder. To ensure the optimal density of the spice syrup, it requires a continuous measurement during manufacture. The pressure in the feed pipe leading to the evaporator also requires careful monitoring to ensure a smooth-running production process.

[More details](#)



### MINITRAC 31

Radiation-based sensor for density measurement in the evaporator

- External non-contact measurement through the pipeline regardless of process conditions and product properties
- Small, compact design enables space-saving installation
- PLICSCOM display and adjustment module for quick setup and on-site display of measured values

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### VEGASOURCE 31

The source holder houses the radiation capsule and protects it from external influences

- Minimal space requirement and simple installation
- Pneumatic opening and closing of the source holder ensures high operational reliability
- Reliable shielding minimises the control area

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### VEGABAR 82

Pressure transmitter for monitoring pressure in the evaporator feed pipe

- Wear-resistant CERTEC® ceramic measuring cell is non-sensitive to abrasion
- Absolutely front-flush ceramic diaphragm avoids sticking and abrasion damage
- Long service life thanks to the robust measuring cell

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PRO

**MINITRAC 31**  
[Show Product](#)

**Measuring range - Distance**

-

**Process temperature**

-40 ... 60 °C

**Process pressure**

-

**Accuracy**

0.1 %

**Materials, wetted parts**

No wetted material

**Seal material**

no media contact

**Housing material**
Aluminium  
Stainless steel (precision casting)
**Protection rating**

IP66/IP67

**Output**
Profibus PA  
Foundation Fieldbus  
Four-wire: 4 ... 20 mA/HART
**Ambient temperature**

-40 ... 60 °C

**VEGASOURCE 31**  
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**Ambient temperature**

-20 ... 80 °C

PRO

**VEGABAR 82**  
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**Measuring range - Distance**

-

**Measuring range - Pressure**

-1 ... 100 bar

**Process temperature**

-40 ... 150 °C

**Process pressure**

-1 ... 100 bar

**Accuracy**

0.05 %

**Materials, wetted parts**
PVDF  
316L  
Alloy C22 (2.4602)  
PP  
1.4057  
1.4410  
Alloy C276 (2.4819)  
Duplex (1.4462)  
Titanium Grade 2 (3.7035)
**Threaded connection**

≥ G½, ≥ ½ NPT

**Flange connection**

≥ DN15, ≥ ½"

**Hygienic fittings**
Clamp ≥ 1" - DIN32676, ISO2852  
Slotted nut ≥ DN25 - DIN 11851  
hygienic fitting with tension flange DN32  
hygienic fitting F40 with compression nut  
DRD connection ø 65 mm  
SMS 1145 DN51  
SMS DN38  
Swagelok VCR screwing  
Varivent G125  
Varivent N50-40  
for NEUMO BioControl D50 PN16 / 316L
**Seal material**
EPDM  
FKM  
FFKM