



#### Reliable

Highly overload-resistant measuring systems

#### Cost effective

Accurate level measurement for optimal utilization of the container volumes

#### User friendly

Easy instrument selection: one sensor version fits all tank sizes

## Expansion tank in a thermal solar plant

### Level and pressure measurement of heat transfer fluid (HTF) in expansion tanks

The solar heat captured in the mirror system of a thermal solar plant is transported via a heat transfer fluid (HTF) to the steam generator at the central turbine. The HTF normally has a temperature between 300 °C and 400 °C. There are different containers for the fluid across the plant and the varying temperatures cause volume changes to the HTF that need to be accurately measured to operate the plant safely and profitably.

[More details](#)



#### VEGAPULS 6X

Non-contact level measurement with radar in the expansion vessel for heat transfer fluid

- Reliable function, even at high temperatures
- High-resistance materials guarantee long service life
- Wear-free operation ensured through non-contact measuring method

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#### VEGABAR 81

Pressure measurement in the thermal solar plant pipeline systems

- Highly resistant to overloading due to pressure surges
- Long service life thanks to seal-free measuring cells
- Wear and maintenance-free due to high-resistance diaphragm materials

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PRO

**VEGAPULS 6X**  
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**Measuring range - Distance**

120 m

**Process temperature**

-196 ... 450 °C

**Process pressure**

-1 ... 160 bar

**Accuracy**

± 1 mm

**Frequency**

6 GHz

26 GHz

80 GHz

**Beam angle**

≥ 3°

**Materials, wetted parts**

PTFE

PVDF

316L

PP

PEEK

**Threaded connection**
≥ G $\frac{3}{4}$ , ≥  $\frac{3}{4}$  NPT
**Flange connection**
≥ DN20, ≥  $\frac{3}{4}$ "
**Hygenic fittings**
Clamp ≥ 1 $\frac{1}{2}$ " - DIN32676, ISO2852

Slotted nut ≥ 2", DN50 - DIN 11851

Varivent ≥ DN25

hygienic fitting with tension flange DN32

hygienic fitting F40 with compression nut

Hygienic screw connections ≥ DN50 tube ø53 -  
DIN11864-1-A

Hygienic flange connection ≥ DN50 DIN11864-2

Hygienic clamp connection ≥ DN50 pipe ø53 - DIN11864-3-A

DRD connection ø 65 mm

SMS 1145 DN51

PRO

**VEGABAR 81**  
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**Measuring range - Distance**

-

**Measuring range - Pressure**

-1 ... 1000 bar

**Process temperature**

-90 ... 400 °C

**Process pressure**

-1 ... 1000 bar

**Accuracy**

0.2 %

**Materials, wetted parts**

Alloy C22 (2.4602)

Alloy 400 (2.4360)

Tantalum

Alloy C276 (2.4819)

Duplex (1.4462)

Titanium Grade 2 (3.7035)

1.4435

316/316L

Titanium Grade 7 (3.7235)

**Threaded connection**
≥ G $\frac{1}{2}$ , ≥  $\frac{1}{2}$  NPT
**Flange connection**

≥ DN25, ≥ 1"

**Hygenic fittings**

Clamp ≥ 1" - DIN32676, ISO2852

Slotted nut ≥ 1 $\frac{1}{2}$ ", ≥ DN40 - DIN 11851

hygienic fitting with tension flange DN32

hygienic fitting F40 with compression nut

Hygienic flange connection ≥ DN50 DIN11864-2

Hygienic fittings ≥ DN40 - DIN11864-1-A

**Seal material**

no media contact

**VEGA**