



#### Reliable

Protection against flooding of the turbine building with high reliability water level detection of the seepage shaft

#### Cost effective

Optimal operation and monitoring of the pumps

#### User friendly

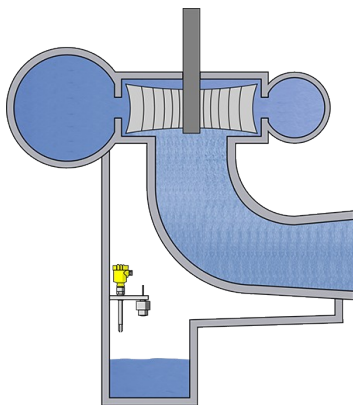
Easy installation, even in tight spaces

## Turbine building in the hydroelectric power plant

### Level measurement and point level detection in a seepage water shaft

A large number of sensors are deployed to ensure reliable operation of the generators and turbines in the hydroelectric power plant. They monitor the pressure in the hydraulic lines, the lubricant supply for turbine bearings, vibration, temperatures and many other parameters. At the lowest point of the plant, cooling water from the generators and any leakage water from the Kaplan or Francis turbines is collected in a seepage water shaft, pit or sump. To prevent a flooding of the shaft and thus of the turbine building, with disastrous results for equipment, the sensors are often installed redundantly. As additional protection, the maximum water level is monitored with a point level switch.

#### More details



#### VEGAPULS C 21

Level measurement with radar in the seepage water shaft

- Exact measuring results unaffected by internal fixtures and foaming
- High plant availability thanks to wear and maintenance free measurement
- Highly resistant materials ensure a long service life

#### Show Product



#### VEGASWING 63

Level detection with vibrating level switch as overflow protection in the seepage water shaft

- High switching reliability through continuous self-monitoring
- Low maintenance costs thanks to wear-free measuring principle
- Simple setup and commissioning through adjustment-free sensor design

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## BASIC

## VEGAPULS C 21

[Show Product](#)**Measuring range - Distance**

20 m

**Process temperature**

-40 ... 80 °C

**Process pressure**

-1 ... 3 bar

**Accuracy**

± 2 mm

**Frequency**

80 GHz

**Beam angle**

8°

**Materials, wetted parts**

PVDF

**Threaded connection**

G1½ / G1, 1½ NPT / 1 NPT, R1½ / R1

**Seal material**

FKM

**Protection rating**

IP66/IP68 (3 bar), Type 6P

## PRO

## VEGASWING 63

[Show Product](#)**Process temperature**

-50 ... 250 °C

**Process pressure**

-1 ... 64 bar

**Version**

Standard

Hygienic applications  
with gas-tight leadthrough  
with tube extension  
with temperature adapter

**Materials, wetted parts**

PFA  
316L  
Alloy C22 (2.4602)  
Alloy 400 (2.4360)  
ECTFE  
Enamel

**Threaded connection**

≥ G¾, ≥ ¾ NPT

**Flange connection**

≥ DN25, ≥ 1"

**Hygienic fittings**

Clamp ≥ 1" - DIN32676, ISO2852  
Slotted nut ≥ 1½", ≥ DN40 - DIN 11851  
Varivent ≥ DN25  
hygienic fitting F40 with compression nut  
SMS 1145 DN51  
SMS DN38  
Hygienic fittings ≥ DN25 - DIN11864-1-A  
Hygienic flange connection DIN11864-2-A;  
DN60(ISO)ø60,3  
SMS socket piece DN38 PN6

**Seal material**

no media contact

**Housing material**

Plastic  
Aluminium  
Stainless steel (precision casting)  
Stainless steel (electropolished)

**Protection rating**

IP66/IP67  
IP66/IP68 (1 bar)  
IP65