

#### Reliable

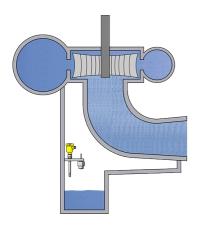
Protection against flooding of the turbine building with high reliability water level detection of the seepage shaft

#### **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 overfill 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

#### **Show Product**



# VEGAPULS C 21 Show Product



Measuring range - Distance

15 m

Process temperature

-40 ... 80 °C

Process pressure

-1 ... 3 bar

Accuracy

±2 mm

Frequency 80 GHz

Beam angle

Q°

Materials, wetted parts

PVDF

Threaded connection

 $G1\frac{1}{2}$  / G1,  $1\frac{1}{2}$  NPT / 1 NPT,  $R1\frac{1}{2}$  / R1

Seal material

FKM

Protection rating

IP66/IP68 (3 bar), Type 6P

# **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"

Hygenic fittings

Clamp ≥ 1" - DIN32676, ISO2852

Slotted nut  $\geq 1\frac{1}{2}$ ",  $\geq$  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

