Valmet TS

Microwave Solids Sensor

For more than ten years Valmet's microwavebased solid content transmitters have been used in the process industry for highly demanding applications. Valmet TS has been developed from third generation microwave solids transmitters, combining cost-efficiency with the extreme accuracy of microwave technology. The new transmitter meets the needs of wastewater treatment plants – with no compromises in accuracy. The 500 references in global waste water industry speak for the excellence.

Applications

Sludge pumping from primary & secondary sedimentations / Feed to Thickening: Sludge pumping control based on reliable total solids measurement, and thus optimising sludge quality early on in the process, is vital for the whole sludge handling procedure.

Digester feed: Maintaining a high, optimised total solids content in the sludge entering the digesters helps to achieve better process control and significant savings. Sludge digestion time can be increased to produce more biogas.

Dewatering: Significant savings can be achieved through better dewatering control: a reliable total solids measurement helps to optimise polymer dosing and thus reduce polymer costs.

Dry Cake: The Valmet TS can be installed in the feed line to the incinerator, immediately after the sludge cake pump.

Benefits

- Lower energy consumption in dewatering, better utilisation rate in energy production
- Higher pumping capacity means higher water processing volumes and helps to postpone investments
- Better utilisation of solids transportation capacity
- Lower polymer onsumption
- Highly efficient use of dewatering centrifuges
- Less laboratory analysis
- Provides higher solids content in sludge

Technical Specifications

Measuring range	0 – 40 % TS. If more than 16 % TS
Repeatability	±0.01%Cs
Sensitivity	0.001 %Cs
Damping	1 to 99 s
Ambient temperature	–20…+70 °C (–4…+158 °F), protect from direct heat radiation
Sensor sizes:	PN16 DN50, 80, 100, 150, 200, 250, 300 PN 100 DN100, 150, 200
ATEX Certificate	No. VTT 12 ATEX 058X, II 3G Ex nR IIC T6 Gc
Options	Glass-lined versions available
Enclosure class	IP 65 (NEMA 4)
Operating voltage	90…260 VAC / 0.1 A
Wetted materials	WFT sensors AISI 316, AISI 316L, Ceramic gasket EPDM, Simrit 483
Current output	Total solids 4 – 20 mA + HART® 18 to 35 VDC
Secondary output	Process temperature/Conductivity 4 – 20 mA 18 – 35 VDC
Binary inputs	2 inputs, isolated 12 – 48 VDC
Communication	PC-connection RS-232 PROFIBUS PA Support for Valmet FieldCare
pH-range	2.5 – 11.5
Process temperature	0…+100 °C (+32…+212 °F)
Operating pressure	Recommended minimum process pressure >1.5 bar (22 psi), No entrained air. If less than1.5 bar (22 psi), please consult Royce Water Technologies.
Vibration max.	20 m/s2, 10 – 200 Hz
Pressure rating	PN16 bar (232 psi) standard. PN100 bar (1440 psi) option for FT100/150/200 (4"/6"/8") sensors