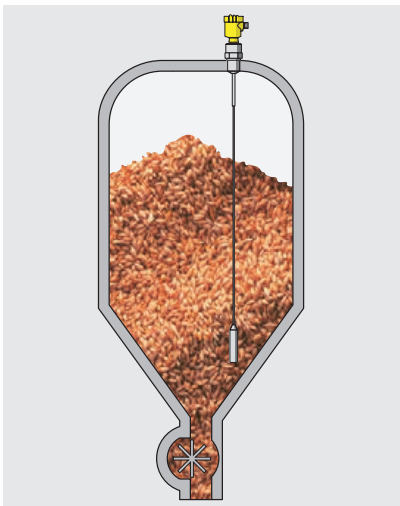




Level | Guided Wave Radar



Area of application



The GWR sensors of the VEGAFLEX series are suitable for level measurement in liquids and bulk solids. In liquids, they can also detect the interface between two media. They measure liquid levels very reliably, even under high pressure and extreme temperatures. They can be used in simple as well as in aggressive media and are also suitable for applications with stringent hygiene requirements. The sensors are able to measure light and heavy bulk solids with absolute reliability, even in the presence of dust and noise, and without being affected by buildup or condensation.

Measuring principle



High-frequency microwave pulses are coupled onto a cable (bulk solids) or rod (liquids) and guided along the probe. The pulses are reflected by the surface of the medium. The instrument calculates the level from the running time of the radar pulses versus the programmed tank height.

Advantages

GWR sensors operate independently of noise, pressure or temperature fluctuations and are also completely unaffected by changes in density, foaming, steam or dust. Buildup on the probe or on the container wall does not affect the measurement either. This allows simple, straightforward system design and engineering. The menu-driven adjustment routines enable simple, time-saving and confident setup.

	VEGAFLEX 81	VEGAFLEX 82
		
Application	All kind of liquids, applications with steam, buildup, foam generation, condensation as well as ammonia	Light-weight and heavy-weight bulk solids of all kind, applications with strong dust generation, condensation or buildup
Measuring range	Cable probe up to 75 m of 316 or Alloy C22 Rod probe up to 6 m of 316L, Alloy C22, Alloy C276, Duplex, 304L or Alloy 400 Coax probe up to 6 m of 316L, Alloy C22 or 304L	Cable probe up to 75 m of 316 or 316 PA coated Rod probe up to 6 m of 316L or Alloy C22
Version	Exchangeable cable (ø 2 mm, ø 4 mm) Exchangeable rod (ø 8 mm, ø 12 mm) Coax (ø 21.3 mm, ø 42.2 mm)	Exchangeable cable (ø 4 mm, ø 6 mm, ø 11 mm) Exchangeable rod (ø 16 mm)
Process fitting	Thread from G $\frac{3}{4}$, $\frac{3}{4}$ NPT, flanges from DN 25, 1"	Thread G $\frac{3}{4}$, $\frac{3}{4}$ NPT, flanges from DN 25, 1"
Process temperature	-60 ... +200 °C	-40 ... +200 °C
Process pressure	-1 ... +40 bar (-100 ... +4000 kPa)	-1 ... +40 bar (-100 ... +4000 kPa)
Accuracy	±2 mm	±2 mm
Signal output	4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus
Display/adjustment	PLICSCOM, PACTware, VEGADIS 81, VEGADIS 82	PLICSCOM, PACTware, VEGADIS 81, VEGADIS 82
Approvals	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Overfill protection, Ship, SIL2, FDA, INMETRO, NEPSI, KOSHA, CCOE	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Overfill protection, Ship, SIL2, INMETRO, NEPSI, KOSHA, CCOE
Benefit	<ul style="list-style-type: none"> Comprehensive diagnostic options ensure low-maintenance operation and thus high plant availability Shortenable probes enable simple standardization and maximum flexibility in planning 	<ul style="list-style-type: none"> Factory calibration simplifies setup considerably Shortenable probes enable simple standardization and maximum flexibility in planning

Level I Guided Wave Radar

	VEGAFLEX 83	VEGAFLEX 86
		
Application	Aggressive liquids or liquid media with stringent hygienic requirements, applications with steam, buildup, foam generation or condensation	Virtually all liquids under extreme pressure and temperature conditions, applications with buildup, foam generation or condensation
Measuring range	Cable probe up to 32 m of PFA Rod probe up to 4 m of PFA or 1.4435 (BN)	Cable probe up to 75 m of 316 or Alloy C22 Rod probe up to 6 m of 316L or Alloy C22 Coax probe up to 6 m of 316L, Alloy C22, Duplex or Alloy C276
Version	Cable (ø 4 mm) Rod (ø 8 mm, ø 10 mm)	Exchangeable cable (ø 2 mm, ø 4 mm) Exchangeable rod (ø 8 mm, ø 16 mm) Coax (ø 21.3 mm, ø 42.2 mm)
Process fitting	Flanges from DN 25, 1", hygienic fittings, clamp, slotted nut	Thread from G $\frac{3}{4}$, $\frac{3}{4}$ NPT, flanges from DN 25, 1"
Process temperature	-40 ... +150 °C	-196 ... +450 °C
Process pressure	-1 ... +16 bar (-100 ... +1600 kPa)	-1 ... +400 bar (-100 ... +40000 kPa)
Accuracy	±2 mm	±2 mm
Signal output	4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus
Display/adjustment	PLICSCOM, PACTware, VEGADIS 81, VEGADIS 82	PLICSCOM, PACTware, VEGADIS 81, VEGADIS 82
Approvals	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Overfill protection, Ship, SIL2, EHEDG/3-A, FDA, INMETRO, NEPSI, KOSHA, CCOE	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, steam boiler, Overfill protection, Ship, SIL2, INMETRO, NEPSI, KOSHA, CCOE
Benefit	<ul style="list-style-type: none"> • Gap-free hygienic design ensures good cleanability with simple methods • Maintenance-free operation increases profitability of the plant 	<ul style="list-style-type: none"> • Comprehensive diagnostic options guarantee low-maintenance operation and thus high plant availability • Shortenable probes enable simple standardization and maximum flexibility in planning