Guided Microwave

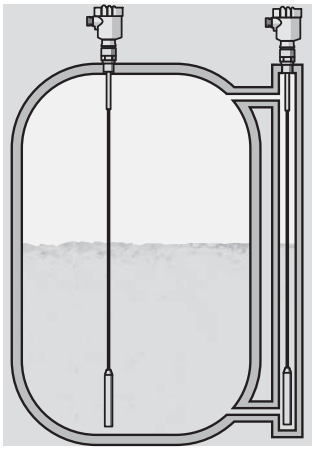
Level Sensor (*Guided Microwaves*)

Universal sensors for bulk solids and liquids

High frequency microwave pulses are coupled on a cable or rod and guided along the probe. The pulse is reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel. An adjustment with product is not necessary. All instruments are preset to the ordered probe length. The shortenable cable and rod versions can be adapted to the individual conditions on site.

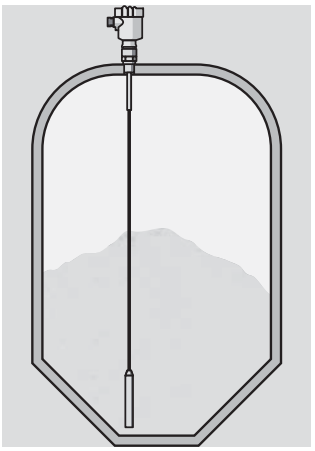
Applications in liquids

Density fluctuations, steam generation or strong pressure and temperature fluctuations do not influence the measuring result. Also buildup on the probe or the vessel wall do not influence the measurement. An ideal application is level measurement in a bypass tube where even products with dielectric values below 1.6 can be measured reliably. Also connection tubes – bypass tubes have no influence.



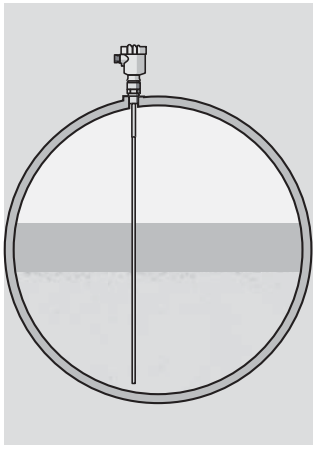
Applications in bulk solids

Typical problems in bulk solids such as e.g. dust and noise generation or condensation do not influence the reliability. Also the shape of the material cone or the product properties, e.g. the change from dry to wet sand do not influence the measuring result. Since the instruments are already preadjusted, setup is limited to connection of the sensor.



Interface measurement in liquids

The measuring principle was developed for detection of the interface. Typical applications are measurements of oil and solvents on water. The microwave pulse is reflected a second time on an interface with different dielectric value. This allows the detection of a second level. The advantage against displacers or floats is that the measuring principle is independent of density and does not use any moving parts. This ensures maintenance-free operation.



Level Sensor Guided Microwave KSR-GT

– Overview –

	KSR-GT 611	KSR-GT 622	KSR-GT 633
Application	Liquids, light-weight bulk solids	Liquids, heavy-weight bulk solids	Liquids
Measuring range	Cable: bis 32 m Rod: bis 4 m	Cable: bis 60 m Rod: bis 6 m	Cable: bis 32 m Rod: bis 4 m
Process fitting	From thread G¾A, flange	From thread G1½A, flange	from thread DN 50, Tri-Clamp from 1"
Process temperature	-40 ... +150 °C	-40 ... +150 °C	-40 ...+150 °C
Process pressure	-1 ...+40 bar	-1 ...+40 bar	-0,5 ...+16 bar
Accuracy	+/- 3 mm	+/- 3 mm	+/- 3 mm

	KSR-GT 655	KSR-GT 666	KSR-GT 677
Application	Liquids	Liquids, light-weight bulk solids	Interface measurements
Measuring range	up to 6 m	Cable: bis32 m Rod, Coax: bis 6 m	Cable: bis 32 m Rod, Coax: bis 6 m
Process fitting	from thread G¾A, flange	from thread G¾A, flange	from thread G¾A, flange
Process temperature	-40 ... +150 °C	-200 ... +400 °C	-200 ...+400 °C
Process pressure	-1 ...+40 bar	-1 ...+400 bar	-1 ...+400 bar
Accuracy	+/- 2 mm	+/- 3 mm	+/- 10 mm

subject to change without notice