

DATA SHEET**CONTACT**

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KFA3

4-wire TDR-Sensor with wire rope probe for continuous level measurement and point level detection in bulk solids, with analog and switching output.

MEASUREMENT PRINCIPLE

KFA3 uses TDR (Time Domain Reflectometry) technology: low-energy, high-frequency electromagnetic impulses, generated by the sensor's circuitry, are propagated along the probe which is immersed in the bulk solids to be measured. When these impulses hit the surface of the solids, part of the impulse energy is reflected back up the probe to the circuitry which then calculates the level from the time difference between the impulses sent and the impulses reflected. The sensor can output the analysed level as a continuous measurement reading through its analog output, or it can convert the values into freely positionable switching output signals. TDR-Sensors are also known as Guided Radars or Guided Wave Radars (GWR).

APPLICATION AREA

The innovative TDR technology enables direct, precise and highly reliable continuous level measurement as well as point level detection in almost every bulk solid – independent of changing process conditions (such as density, conductivity, temperature, pressure, moisture and dust). KFA3 has almost no installation restrictions – it can be mounted in small tanks as well as large silos, tall and narrow nozzles and it measures precisely even with difficult tank geometries or close to interfering structures.

BENEFITS

- Unmatched price/performance ratio
- Precise continuous level measurement and reliable point level detection combined in one device
- Complete galvanic insulation of device electronics from its inputs/outputs and the tank potential (no problems with electrochemical corrosion protection)
- Highly robust measurement due to 4-wire design and innovative signal analysis and disturbance signal suppression