

## DATA SHEET



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## KFA2

4-wire TDR-Sensor with single rod, wire rope or coaxial probe for continuous level measurement and point level detection in liquids and light solids, with analog and switching output.

### MEASUREMENT PRINCIPLE

KFA2 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 liquid or solid to be measured. When these impulses hit the surface of the media, 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 liquid and solids -independent of changing process conditions (such as density, conductivity, temperature, pressure, vapour and turbulence). KFA2 has almost no installation restrictions - it can be mounted in small tanks, tall and narrow nozzles and it measures precisely even with difficult tank geometries or close to interfering structures. KFA2 is also especially suitable in bypass chambers and stilling wells. It is suitable for all types of process and storage tank applications and has an exceptional performance in media with low dielectric constant (i.e. low reflectivity) such as oils and hydrocarbons.

### BENEFITS

- Unmatched price/performance ratio
- Precise continuous level measurement and reliable point level detection combined in one device
- Fully modular probe design, i.e. the probe types are interchangeable without any special tools or welding
- 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