

Level Sensors for Fuels, Oils and Water

With these level sensors, ROAD has an extremely wide range of products with great flexibility. This diversity arises from the combination of the technology used, the application to the tank, the signal or data interface to the vehicle or machine, and the additional functional scope of the sensor.

Multifunctional, continuously measuring level sensors are also part of the product range, as are basic sensors for level measurement or limit value monitoring. Thanks to the technically superior basic structure of our sensors, we significantly reduce the development time and the implementation of customer-specific variants.



Our current level sensors have long since performed additional tasks far beyond the actual function of level measurement. Multifunctional level sensors from ROAD are „state of the art“ across all applications. Options such as: temperature measurement, CAN bus interface, integrated ventilation valves and much more, are frequently requested functions and have already been successfully implemented thousands of times.

Level sensors TFA



The TFA series is mainly used in buses and trucks. In addition to level measurement, these sensors are equipped as standard with suction and return lines for the engine and auxiliary vehicle heating, a pressure compensation valve and various filter elements.

Key Features and Benefits

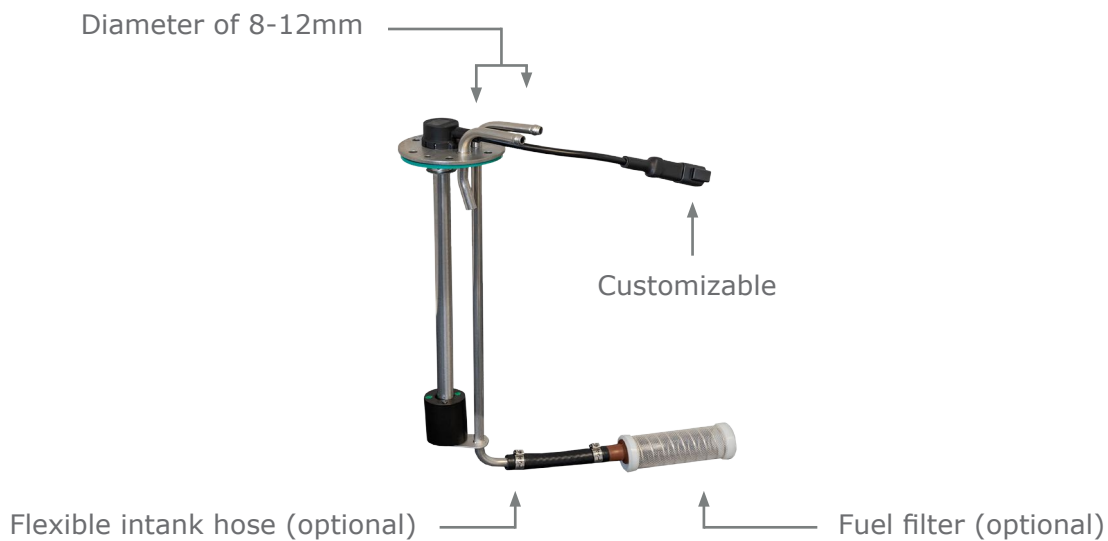
- Installation via bayonet flange (90°-rotation, twistlock)
- Integrated fuel connections for engine and auxiliary heating
- Fuel connections via fittings or quick coupling systems
- Integrated connector DIN 72585
- Filter element with a large surface
- Signal output in Ω , V, A, CAN bus
- High quality materials (die cast aluminum and pipes)

Multifunctional Fuel Sensors TFA



Level Sensors Series RG and RR with Suction/Return

Very robust sensors developed for heavy duty use and made of stainless steel. The RG / RR series is mainly used in mobile applications such as construction, agricultural and forestry machines. In addition to level measurement, these sensors have suction and return lines for the motor and, optionally, a filter element with a large surface area.



Key Features and Benefits

- Heavy duty version (stainless steel)
- Different flange diameters and hole patterns
- Flange seal attached captively
- Suction and return lines for the engine
- Protection class IP 67 and IP 6K9K
- Signal output in Ω , V, A or CAN bus
- Sensor length up to 1850mm
- Operating temperature from -40°C to $+105^{\circ}\text{C}$
- Customer-specific variants can be implemented at short notice
- Temperature measurement and switching output optional
- Effective filter element with large surface 3351mm^2 optional

Level Sensors Series RE



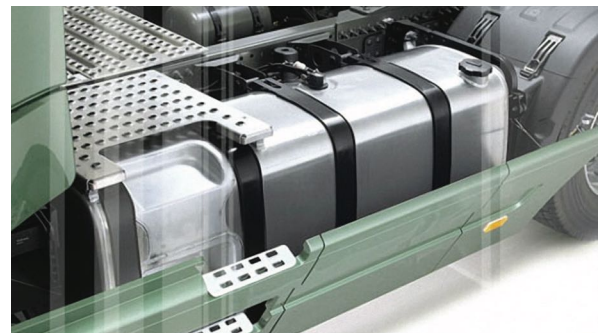
Level measurement in its basic function for many possible applications. Highly reliable, extremely robust and easy to use.

In addition to the flange variants with different hole patterns, variants with screw threads are also available for easy mounting of the sensor in the tank.

Key Features and Benefits

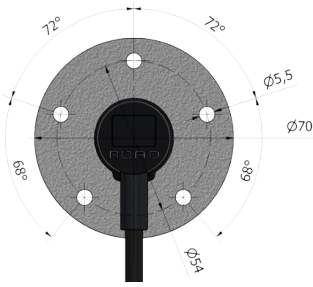
- Extremely robust, made of stainless steel or high quality aluminum
- Different flange diameters and screw threads
- Flange seals attached captively
- Protection class IP 67 and IP 6K9K
- Sensor length up to 1850mm
- Operating temperature from -40°C to +105°C
- Signal output in Ω , V, A or CAN bus
- Customer-specific variants can be implemented at short notice
- Temperature measurement and switching output optional

Level Sensors Series RF

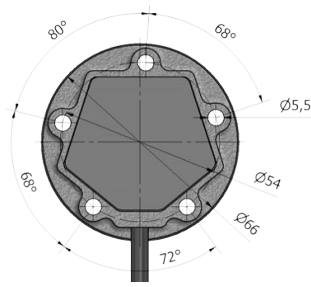


The RF series is based on the proven RE series. The two series differ structurally by a damping tube as an additional structural element for mechanical damping during extreme movement in the medium or as protection against larger floating parts in the medium.

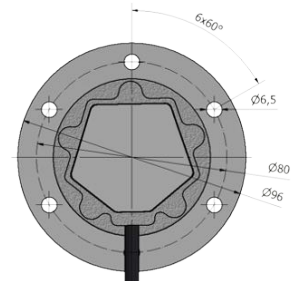
Flange Variants



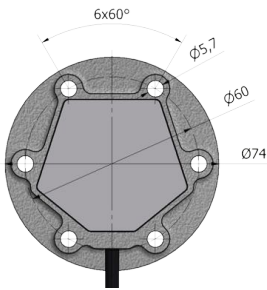
RE11 54 LKD/BCD*



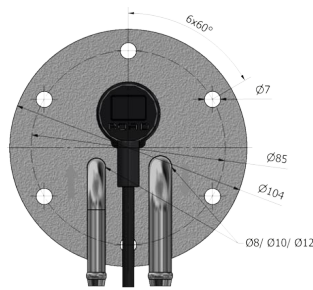
KTS 54 LKD/BCD*



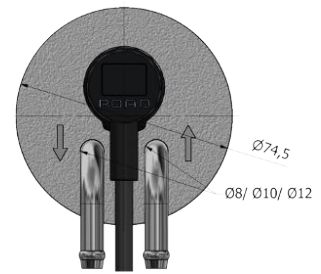
KTS 80 LKD/BCD*



KTS 60 LKD/BCD*

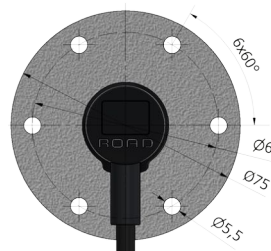
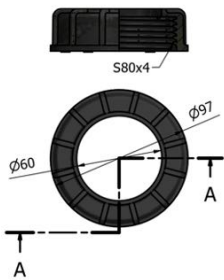


RR91 85 LKD/BCD*

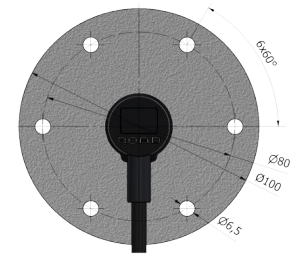


RG61 Union screw nut

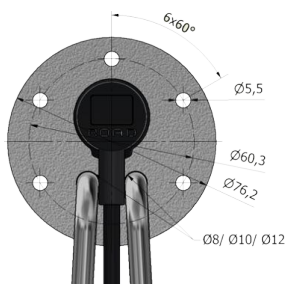
Coupling nut (PA66+GF30)
A-A (1:2)



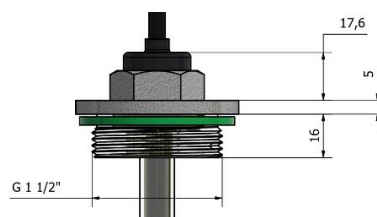
RE51 60 LKD/BCD*



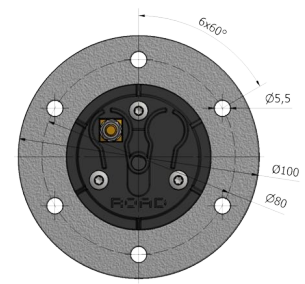
RE41 80 LKD/BCD*



RG51 60 LKD/BCD*



RE71



RA40 80 LKD/BCD*

* LKD = Lochkreisdurchmesser BCD = Bolt Circle Diameter

High Resolution Capacitive Level Sensors KTS



The KTS of the KA and KX series use a capacitive measuring method patented by ROAD without moving parts.

This modern, self-calibrating measuring method enables millimeter-precise, highly precise determination of the fill level.

Key Features and Benefits

- Made of high quality aluminum
- Different flange diameters and hole patterns
- Suction and return lines for the motor in the KX series
- Volume characteristic freely programmable
- Operating temperature from -30°C to +100°C
- Signal output in Ω , V or CAN bus
- Sensor length up to 1500mm
- Customer-specific variants can be implemented at short notice
- Temperature measurement and switching output optional

Multifunctional Fuel Sensors TFA with Heating Element



If TFA sensors are used in geographical areas with persistent cold, a heating element is the right decision in many cases. The main difference between these sensors is the type of heating elements used. Either a PTC heating element or a water heater is used.

The heating power of the PTC heating element is automatically regulated depending on the temperature. The water heater is switched on or off by a switching valve for the engine cooling circuit. The heating element is designed based on the number of heating spirals.

PTC Heating Element

Operating voltage range: 18V - 32V
Maximum power: 200W + 20W

Mechanical Level Indicators

The purely mechanical measuring device combines the functions of level measurement and level display in a simple but highly effective manner. According to customer requirements, the switch contacts „full” or „empty” can be offered as an option. All required flange adapters for screwing or welding to the tank are available as standard.



These displays are used for tanks without a power supply, as an additional tank display directly on the tank or for tank containers and interchangeable tanks. Application liquids: AdBlue®, oils, water and chemical and biological additives. Measuring ranges, lengths up to 800mm.

