
2025

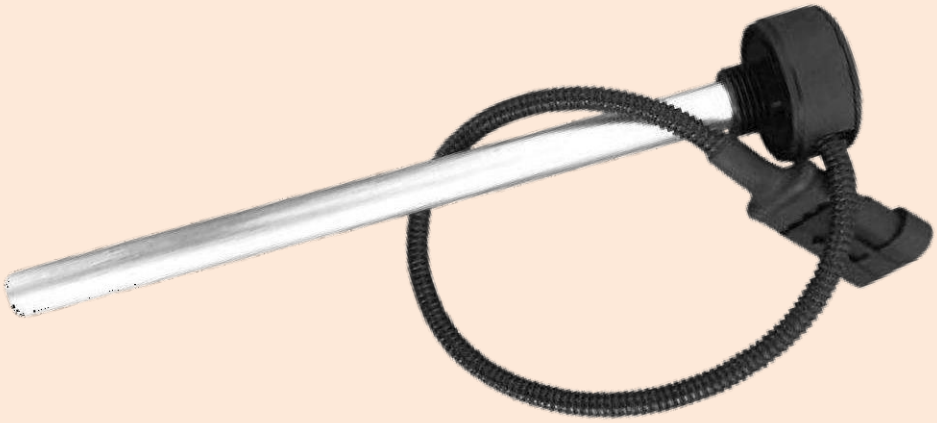
# NIKOLIN MINI. FUEL MONITORING SENSOR FOR SMALL FUEL TANKS

NIKOLIN
FUEL CONTROL

**PURPOSE AND BRIEF CHARACTERISTICS OF THE SENSOR**

01.01.2025

# PURPOSE OF THE SENSOR



NIKOLIN MINI is a compact solution for accurate fuel monitoring, designed specifically for small fuel tanks. Designed with space in mind, this sensor is ideal for installation in hard-to-reach places and small-volume tanks.
The main advantage of NIKOLIN MINI is its ability to provide highly accurate fuel level measurements. Thanks to this, users are able to effectively control fuel consumption, optimize its use and promptly track the remaining fuel in the tank.
Due to its compact size and high accuracy, NIKOLIN MINI finds wide application in various fields. It is ideal for small vehicles, compact minivans, pleasure boats and other devices where fuel tank space is limited. This sensor allows owners and operators of such devices to receive reliable fuel data, which contributes to increased efficiency and reduced costs.

The sensor is compatible with trackers operating via the RS 485 or RS 232 interface.

A distinctive feature of the MINI sensor is its small size.


The height of the sensor “head” - 20 mm.
The diameter of the sensor “head” - 45 mm.
Inner rod (not pipe) - 6 mm.
Outer pipe - 14 mm.
The length of the sensor - 300 mm.

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The sensor allows you to trim it almost to the “root.” It is quite obvious that with a small tank depth and when the car or other vehicle is moving, the fuel will “shake” in the fuel tank. Therefore, it is quite difficult to obtain accurate data while driving. But this is not a problem, because as soon as the movement stops and the fuel “calms down, the tracker, together with the fuel control sensor, will record the exact amount of fuel consumed and remaining in the tank.

Moreover, the sensor’s compatibility with widely used communication interfaces such as RS 485 and RS 232 enhances its functionality. Users can easily integrate the NIKOLIN MINI sensor into existing tracking systems, allowing for real-time fuel monitoring and data feedback. This adaptability ensures that vehicle owners and operators can optimize their fuel usage, leading to cost savings and improved operational efficiency.

In addition, the precision engineering behind the NIKOLIN MINI allows users to tailor the sensor to their specific needs. The ability to trim the sensor makes it a practical solution for varying tank depths, while the reliable data collected post-motion further ensures that users can make informed decisions regarding fuel consumption. With the NIKOLIN MINI, accurate fuel management is no longer a challenge, but a streamlined part of vehicle operation.

## EXAMPLES OF FUEL TANKS

METAL

PLAST

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# APPEARANCE AND DELIVERY SET.

INSTALLATION KIT

CABLE

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# DIGITAL SENSOR "MINI" SPECIFICATION.

| Name | Value |
|---|---|
| ***Power supply*** | |
| Supply voltage, V | 10…30 |
| Current consumption, mA | 20 |
| ***Interfaces RS-232 (RS-485)*** | |
| Data transfer protocol | Modbus, Omnicomm |
| Data transfer rate, default bit/s | 19200 |
| Supported data transfer rate bit/s | 9600, 14440, 19200 38400, 57600, 115200 |
| Parity | no |
| Stop bit | 1 |
| ***Level measurement*** | |
| Lower limit value of the controlled levelof fuel fromthe tank bottom,mm | from 10 |
| The upper limit of the measurement mm | from 10 to 300 |
| Basic level measurement reduced error % sensor length | ± 1 |
| Additional reduced error on the temperature,% * | No more than ± 1 |
| ***General characteristics*** | |
| Overall dimensions, mm | 300 x 45 x 45 |
| Weight, kg | to 0,2 |
| Continuous operation time | unlimited |
| Operating temperature range, °C | from -40 to +70 |
| Relative environment humidityatatemperature of no morethan+40 °C, % | No more than 95 |

*Additional reduced error considers the impact of air temperature from - 40 °C to +70 °C.

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