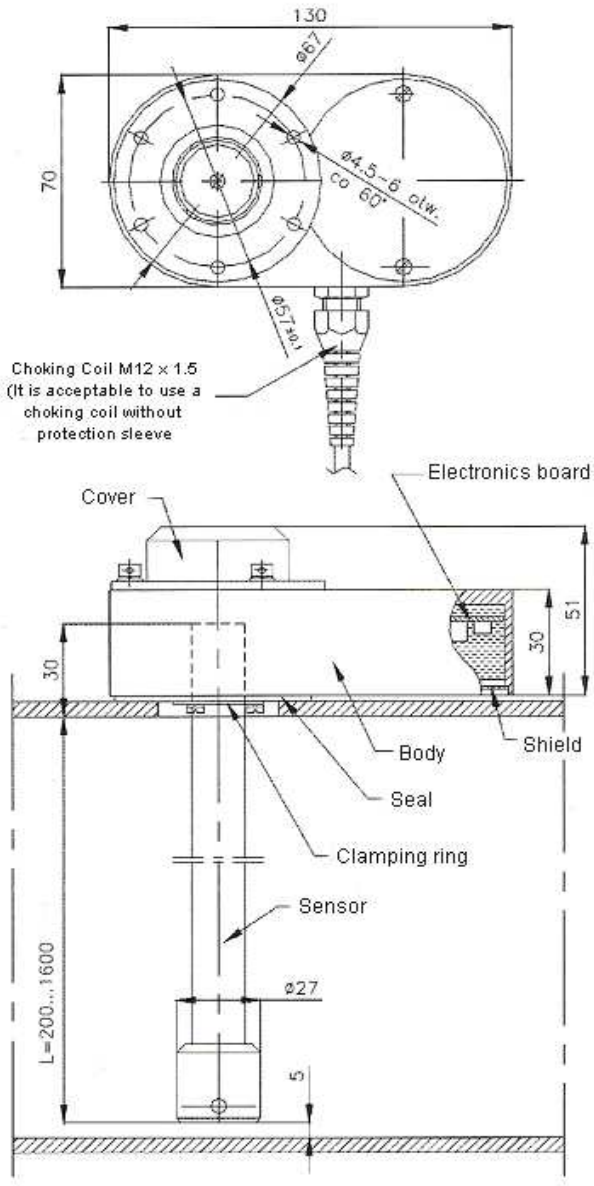
# Fuel Level Probe
# Type CS-26/RS/U

- ✓ **Measuring range 0÷800 mm $H_2O$**
- ✓ **Ministry of Transport Type Approval**
  Certificate No.
  E20 10R-03 25 17




### Function

The CS-26 Fuel level probe is used to measure fuel level in the tanks of motor vehicles, working-machines and locomotives. The probes have been officially approved by the Ministry of Transport.

### Structure and Operation

The measurement of fuel level with the CS-26 probe is performed with the use of a simple relation between the height of liquid column and the produced hydrostatic pressure. The probe is composed of two parts: the sensing element, placed inside a steel rod, and the electronic element, located inside aluminum housing which can be sealed. The measuring element is a piezoresistive sensor, separated from the medium by a separating membrane. Pressure measuring is performed at the membrane of the submerged probe (5 mm above tank bottom). Depending on the type of tank (pressurized or non-pressurized tank), pressure measuring is related either to atmospheric pressure or pressure inside the tank.

### Assembly and Usage

The CS-26 probe is mounted to the tank cover. A detailed description of assembly is presented in Technical Documentation.
The probe is designed to be connected to the following recording devices:

- analog input data recorder – current or voltage (current or voltage analog output probe).
- recorder or PC computer equipped with a serial RS-232C port (digital output probe).

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## Technical Specification

| | |
|---|---|
| **Measuring range** | 0÷800mm $H_2O$ (special ver. 0...200÷2000mm $H_2O$) |
| **Pipe length L in tank** | 800mm (special ver. L=200÷2000mm) |
| **Maximum overload** | ≤ 100kPa |
| **Basic error** | ≤ 0.16% |
| **Hysteresis, replicability** | ≤ 0.05% |
| **Long-term stability** | ≤ 0.1% for two years |
| **Working temperature range** | -25 ÷ 80°C |
| **Compensation temperature range** | -25 ÷ 40°C |
| **Output signal** | 0 ÷ 10V ; 0 ÷ 5V, 0 ÷ 4.5V, 0 ÷ 2.5V<br>100 ÷ 3800 bit |
| **Power supply** | 12 ÷ 36V for output = 0 ÷ 10V<br>8 ÷ 36V for output = 0 ÷ 5V<br>8 ÷ 36V for output = 0 ÷ 4.5V<br>3.3±0,1V for output = 0 ÷ 2,5V<br>3.3±0,1V for RS-232 output (RXD, TXD: range 0...3,3V)<br>6.0 ÷ 36V for RS-232 output (RXD, TXD: range 0...3,3V)<br>6.0 ÷ 36V for RS-485 output (A,B: range -7V...+12V) |
| Power voltage fluctuation error | 0.05% |
| Housing protection degree | IP 68 |
| Temperature fluctuation error | 0.2% / 10°C |

## Ordering

Standard versions:
**CS-26/RS/U** – measuring range: 0÷800mm $H_2O$, output signal: 0÷10V, pipe length in tank L=800mm
**CS-25/RS-232 -** measuring range: 0÷800mm $H_2O$, output signal: 100÷3800 bit in standard RS-232, pipe length in tank L=800mm
**CS-25/RS-485 -** measuring range: 0÷800mm $H_2O$, output signal: 100÷3800 bit in standard RS-485, pipe length in tank L=800mm

Special versions:

**CS-26/RS/U / __ / __ / L= ... mm**

Measuring range
Output signal
Pipe length in tank

**Example 1:**
Fuel level probe CS-26 standard version (measuring range 0÷800mm $H_2O$, pipe length in tank L=800mm) with voltage output 0÷5V
**CS-26/RS/U/0...800/0÷5V/L=800mm**

**Example 2:**
Fuel level probe CS-26 special version (measuring range 0÷1000mm $H_2O$, pipe length in tank L=1000mm) with RS ÷ 232 output
**CS-26/RS-232/0...1000/100...3800/L=1000mm**

**Example 3:**
Fuel level probe CS-25 special version (measuring range 0÷1000mm $H_2O$, pipe length in tank L=1000mm) with RS-485t output
**CS-26/RS-485/0...1000/100...3800/L=1000mm**

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