# Model LV35
# Liquid Level Transducers and Transmitters for Tank Applications in Chemical Industry

**BCM SENSOR**

## Description

Based on silicon piezoresistive technology, model LV35 submersible Liquid level transmitter is designed for use in applications where the pressure is created by corrosive pressure media. The pressure diaphragm is made from $96\%Al_2O_3$ and the housing is made from PTFE. LV35 level transmitters are designed for gauge pressure measurements.

The LV35 level transmitters are made of a Wheatstone bridge circuit. Various output signals are available, including millivolts signal ($\geqslant 2.5mV/V$), amplified signals (4~20mA, 1~5V or 0~5V), and digital signal ($I^2C$) . The measuring accuracy is up to 0.25%fs.

## Features

- for alkali corrosive medium
- wide measuring ranges: $0\sim1mH_2O$, ..., $\sim200mH_2O$
- various output signals:
    - transducers: full scale output $\geqslant 15mV/V$
    - transmitters: 4~20mA, 1~5V, 0~5V, $I^2C$
- accuracy: 0.25%fs (standard), 0.5%fs
- materials: $96\%Al_2O_3$ (pressure membrane); Polytetrafluoroethylene (PTFE) (housing)
- housing environment protection: IP68

## Dimensions



ø36
ø45
110
64.5
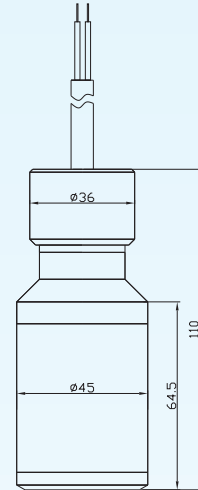
## Technical Data

| measuring media | | | liquids which are compatible with PVDF |
|---|---|---|---|
| measuring ranges | | mH₂O* | 0~1, ~2, ~3, ~5, ~10, ~20, ~50, ~100, ~200 (for transducer, min range = ~1) |
| overload pressure | | %fs | 150 |
| output signal | transducers | mV | $\geqslant 2.5mV/V$ |
| | transmitters | | 4~20mA (standard), 1~5V, 0~5V, I²C |
| power supply | transmitters | Vdc | 18, ..., 36 |
| | transducers | V | 5, ..., 10 |
| accuracy | | %fs | $\leqslant \pm0.25$ (standard), $\leqslant \pm0.5$ (0~1mH₂O can only have 0.5%fs accuracy) |
| long-term stability | | %fs/year | $\leqslant \pm0.5$ |
| response time | | ms | < 1 (10%~90% of leading edge) |
| input resistance | transducers | Ω | 2000~8000 |
| output resistance | transducers | Ω | 3500~6000 |
| load resistance | transmitters | Ω | 250~1150 |
| insulation resistance | | MΩ | > 500 @100Vdc (transducer only) |
| storage temperature range | | °C | -40~+100 |
| operating temperature range | | °C | 0~80 |
| compensated temperature range | | °C | 0~50 |
| temperature coefficient of span | | %fso/°C | $\leqslant \pm0.03$ |
| temperature coefficient of zero | | %fso/°C | $\leqslant \pm0.03$ |
| process connection | | | submersible in liquid |
| electrical connection | | | 4-core, Φ7.6mm shielded cable with vent hose which is mechanically strong enough for deep submersible liquid level measurements |
| pressure membrane material | | | 96%Al₂O₃ |
| housing material | | | PTFE |
| environment protection | | IP rating | IP68 |
| weight | | gram | 200 (probe head) + the weight of cable |

*: If in your applications the measured medium has different density than water, please inform BCM about the density.

The listed specifications and dimensions are subject to change without prior notice.

## How to order:   model-range-output-accuracy-cable length-customer specific requests

ordering code example: LV35-5mH₂O-4/20mA-0.25%fs-5m

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