

LIQUID LEVELLING SYSTEM

NEO-HN5

Applications:

- Bridges,
- Tunnels,
- Excavations,
- Railways,
- Embankments,
- Dams,
- Piles,
- Buildings.



General Information:

The NEO-HN5 liquid levelling systems is a very precise method for measuring the settlements. The sensors are easy to install also in restricted areas and places with limited access. It's used for measuring the settlements of tunnels, bridge objects, dams, pillars and slabs in buildings. Wide selection of measuring ranges and high accuracy, allow to measure even the smallest vertical displacements.

Main benefits:

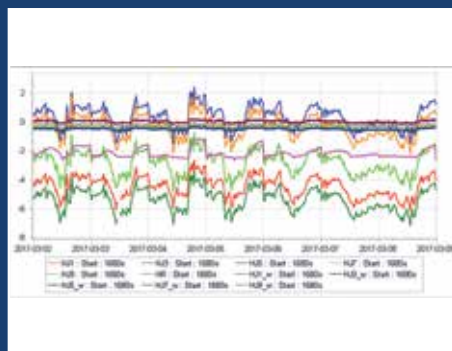
- Fast readouts,
- High accuracy,
- Reliability,
- Excellent temperature stability,
- Durable construction - heavy duty and watertight housing,
- Universal interface,
- Possibility of monitoring of long sections,
- Low maintenance level.



PRECISE, FAST AND DURABLE SYSTEM

The settlement system consists from the pressure sensors and reference station, which are connected to each other with nylon hoses, filled either with water or with the antifreeze liquid. It's highly recommended to install the reference station out of the settlement zone, so it's stable and in case of any movement of measured elements, the reference point will not be affected. When the system is completely filled, than all cells have the same pressure. If any of the cells will move, than the difference in pressure will be recorded by the transducer located between the water and air chambers in the cell. If settlement will be recorded by one cell, due to construction movement, than the water pressure in this sensor will increase and system will show the negative value. If construction will raise, than water pressure in this cell will decrease and system will show the positive value. Additionally each sensor is equipped with vent screw, which allow to remove the air bubbles, what can influence that system will give a wrong readouts.

| Sensor's type: | NEO-HN5.300A | NEO-HN5.1000A | NEO-HN5.3000A | NEO-HN5.300D | NEO-HN5.1000D | NEO-HN5.3000D |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Measurement range [mm] | 300 | 1000 | 3000 | 300 | 1000 | 3000 |
| Resolution [mm] | 0,01 | 0,01 | 0,01 | 0,01 | 0,01 | 0,01 |
| Accuracy in temp. +10°C - +40 °C | 0,1% of measurement range | 0,1% of measurement range | 0,1% of measurement range | 0,1% of measurement range | 0,1% of measurement range | 0,1% of measurement range |
| Power supply | 8 - 28 VDC | 8 - 28 VDC | 8 - 28 VDC | 8 - 28 VDC | 8 - 28 VDC | 8 - 28 VDC |
| Output Signal | Analog 4-20 mA | Analog 4-20 mA | Analog 4-20 mA | Digital RS485 | Digital RS485 | Digital RS485 |
| Ingress Protection Rating | IP67 | IP67 | IP67 | IP67 | IP67 | IP67 |
| Sensor's dimensions | 134 mm x 50 mm | 134 mm x 50 mm | 134 mm x 50 mm | 134 mm x 50 mm | 134 mm x 50 mm | 134 mm x 50 mm |
| Housing material | Anodized aluminum | Anodized aluminum | Anodized aluminum | Anodized aluminum | Anodized aluminum | Anodized aluminum |
| Base housing dimensions | 300 mm x 200 mm x 380 mm | 300 mm x 200 mm x 380 mm | 300 mm x 200 mm x 380 mm | 300 mm x 200 mm x 380 mm | 300 mm x 200 mm x 380 mm | 300 mm x 200 mm x 380 mm |
| Base housing type | Plastic | Plastic | Plastic | Plastic | Plastic | Plastic |
| Working temp. | -20°C - +50°C | -20°C - +50°C | -20°C - +50°C | -20°C - +50°C | -20°C - +50°C | -20°C - +50°C |
| Other measurement and temperature ranges are available on inquiry. | | | | | | |



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