

Hydrostatic level meter HLM-25 Instruction

I. Description

Hydrostatic level meter HLM-25 is intended for continuous level measurement of non-aggressive liquids without hard dirtiness in non-pressure reservoirs, drill holes, water wells, sumps, tanks and swimming-pools, etc. Hydrostatic level meter HLM-25 is a compact measuring device containing silicon tenzometric sensor and evaluation electronics in stainless housing. From the probe housing continue 2-wire cable with capillary (for comparing atmospheric pressure into probe). Opposite end of the probe has dismountable steel cap to protect the membrane. The principle of level measurement is dependability of hydrostatic pressure on height of column of level liquid. For the measurement is possible to use standard measuring ranges or to define the required range. On the level meter there are not any setting elements.

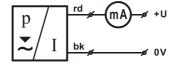
II. Assembly and disassembly

When lowered to the reference level the probe of level meter HLM-25N may hang freely on the cable or lie on the bottom of the tank.

The cable with the capillary can be extended using a standard signal cable. The cable connection should be placed in a non-hermetic box (with inner pressure equal to atmospheric pressure), preventing water or other contaminants from reaching the capillary. When the probe cable is roll up the minimum rolling diameter must be 30 cm and the cable must be protected from mechanical damage. The lines at the end of the cable are linked with a protective diode which shorts out if the permitted voltage (39 V) is exceeded. For this reason the cable supplied by the manufacturer can not be shortened. If the probe is installed more then 100 m it is necessary to use a hanging loop for fixation. In tanks where is a possibility of turbulence (where mixers operate or where is a turbulent inflow), the probe should be installed in a stilling tube (e.g. made from PVC). The probe membrane can not be cleaned by mechanical means. In case of application for different liquids then water it is necessary correct the liquid density or discuss the appliction with producer.

III. Installation

Electric connection of feeder cable is effected in voltageless state. Possitive pole of supply (+U) will be connected at red cable, negative pole of supply (0 V) will be connected at black cable - picture No.1. Cable from HLM-25 to the further unit is by two-wire cable with capillary with outside diameter of 8 mm. Power supply can be by stabilized power supply $10 \div 30 \text{ V DC}$.



Pic. 1: Electric connection of HLM-25

IV. Setting in operation

Types HLM-25N are switch on by turn up the supply unit (10 ÷ 30 V DC).

V. Setting up

At HLM-25 are not any setting elements.

VI. Usage, operation and maintenance

Manipulation with probe covers a right checking if the housing and feeding cable is not disfunctioned. In case of any visible damages please contact manufacturer or supplying company.

At HLM-25 and feeding calbe is prohibited to perform any changes or repair without manufacturer confirmation. Eventuall reparation must be done by manufacturer or authorized person. Installation, usage and maintanance of HLM-25 must be realized according this User's Instruction and followed by all valid norms for installation of electric devices.

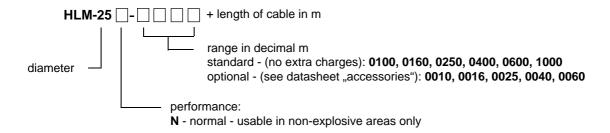
VII. Protection, safety and compatibility

Level meter is equipped with protection against reverse polarity, output current overload, short circuit and short time over voltages.

The protection against electric shock is done by safety voltage use.

Electromagnetic compatibility is provided by conformity with standards: EN 55022/B, EN 61000-4-2, EN 61000-4-3, EN 61000-4-5, EN 61000-4-6.

VIII. Labelling



IX. Standard accessories

HLM-25 has not any standard accessories.

For more detailed technical data about the product see in datasheed or at web site www.dinel.cz

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HLM-nav-2.2 01. 2006