

- For continuous level measurement of non-aggressive liquids in non-pressure reservoirs, boreholes, tanks etc.
- Precise customer choice of the measurement range up to 100 m (H<sub>2</sub>O)
- The health certificate for contact with potable water available
- Current or Voltage output
- Easy "plug and play" installation without any settings



**DISAI**  
Automatic Systems  
T. 962 448 450 [www.disai.net](http://www.disai.net)

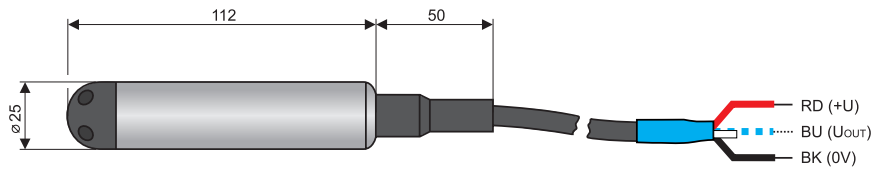
**Hydrostatic level meter HLM-25S** is compact measuring device containing silicon strain gauge sensor and evaluation electronics in stainless steel probe. From the probe housing comes out 2-wire cable with capillary (for atmospheric pressure compensation). The front side of the sensor is equipped with plastic removable cap (to avoid membrane damage). The level meter has no customer-accessible adjusting elements.

### SENSOR VARIANTS

- **HLM-25S**                      **Measuring range 1 ... 100 m H<sub>2</sub>O**, arbitrary measurement ranges (customer configurable in 10 cm step). Current (4 ... 20 mA) or voltage (0 ... 10 V) output, performance for non-explosive areas.

TECHNICAL SPECIFICATION		
Supply voltage	HLM-25S-____-I HLM-25S-____-U	12 ... 36 V DC 16 ... 36 V DC
Current output	HLM-25S-____-I	4 ... 20 mA
Voltage output	HLM-25S-____-U	0 ... 10 V
Power consumption (off-load)	HLM-25S-____-U	Max. 8 mA
Pressure permissible overload		1.5x range
Basic error – accuracy (hysteresis, repeatability, non-linearity)		Typ. 0.5% of range Max. 0.7% of range
Long-term stability		0.3% / Year
Temperature error (for 0 ... +50°C)	Range 1 ... 5 m H <sub>2</sub> O Range 5 ... 10 m H <sub>2</sub> O Range 10 ... 100 m H <sub>2</sub> O	Max. 0.04% / K Max. 0.03% / K Max. 0.02% / K
Compensated temperature range		0 ... +50°C
Ambient temperature range (medium temperature)		-20 ... +70°C
Maximal load resistance for current output (U = 24 V DC)		R <sub>max</sub> = 600 Ω
Minimal load resistance for voltage output		R <sub>min</sub> = 1 kΩ
Protection class		IP68
Used materials	Probe housing Membrane Pressure transducer cap Cable sheath Cable gland	St. steel W.Nr. 1.4305 (AISI 303) St. steel W.Nr. 1.4435 (AISI 316L) Plastic HDPE Plastic PE NBR rubber
Weight	Sensor Cable (1 m)	190 g 60 g

## DIMENSIONAL DRAWING



## INSTALLATION

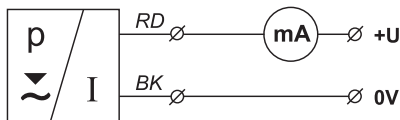
- Installation is done by hanging the probe down into the measured area (tanks, boreholes). The probe is left hanging on the cable, or is placed on the bottom. If the probe is **hung deeper than 50 m**, it is necessary to use a **cable hanger KD-60** (see picture)
- The cable includes an air compensation tubing (capillary), so the connection must be done in **non-hermetic junction box**.
- When wounding up the cable in the bundle it must have minimum diameter of 30 cm. The cable is not recommended to be **shortened** or otherwise **mechanically modified**.
- In tanks where there are **strong turbulences or waves**, the probe should be placed in the stilling tube, behind the wall, or at least at the maximum possible distance from the source of turbulence.
- When using **other liquid than water** it is needed to make the output correction with respect to the density of the liquid, eventually **consult the application** with the manufacturer.



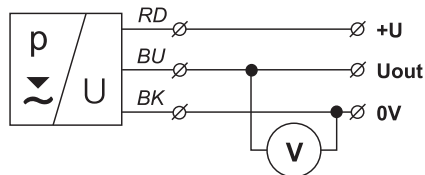
Cable hanger KD-60

## ELECTRICAL CONNECTION

The sensor is connected to the evaluation (control, display) units through the connecting cables. Connection scheme is shown on pictures. Electrical connections must be always done in voltage-free state! The power supply unit must be a source of safe voltage which can be a part of the evaluation or display device.



Connection scheme (current output)



Connection scheme (voltage output)

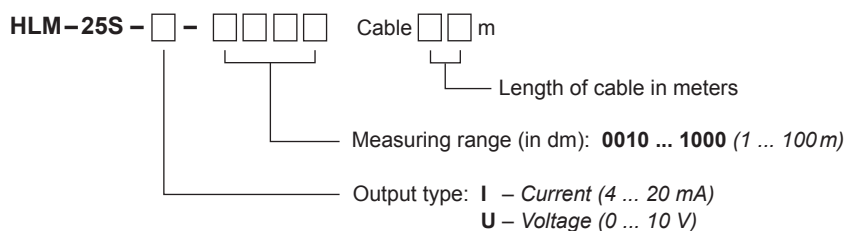
### Wire colour:

RD – Red  
BU – Blue  
BK – Black

## AREAS OF APPLICATIONS

For continuous level measurement of non-aggressive liquids without gross (solid) impurities in non-pressure tanks, boreholes, wells, reservoirs and swimming pools. Suitability for other than water liquids are advised to consult with the manufacturer.

## ORDER CODE



## CORRECT SPECIFICATION EXAMPLES

HLM-25S-I-0010	Cable 3 m	(Current output 4...20 mA, Measuring range 1 m, Cable 3 m)
HLM-25S-I-0200	Cable 25 m	(Current output 4...20 mA, Measuring range 20 m, Cable 25 m)
HLM-25S-U-0500	Cable 52 m	(Voltage output 4...20 mA, Measuring range 50 m, Cable 52 m)

---

## ACCESSORIES

*Optional – for extra charge*

- Cable hanger KD-60
- 

## SAFETY, PROTECTIONS AND COMPATIBILITY

The level sensor HLM-25S is equipped with a protection against reverse polarity and current overload. Electromagnetic compatibility is provided by conformity with standards EN 55011/B, EN 61326-1, EN 61000-4-2 (8 kV), -4-3 (10 V/m), -4-4 (2 kV), -4-5 (1 kV) and -4-6 (10 V).



QMS  
ISO 9001

**Dinel, s.r.o.**  
U Tescomy 249  
760 01 Zlín, Czech Republic

Phone: +420 577 002 003  
Fax: +420 577 002 007

HLM-25S-dat-3.3

sale@dinel.cz  
www.dinel.cz