

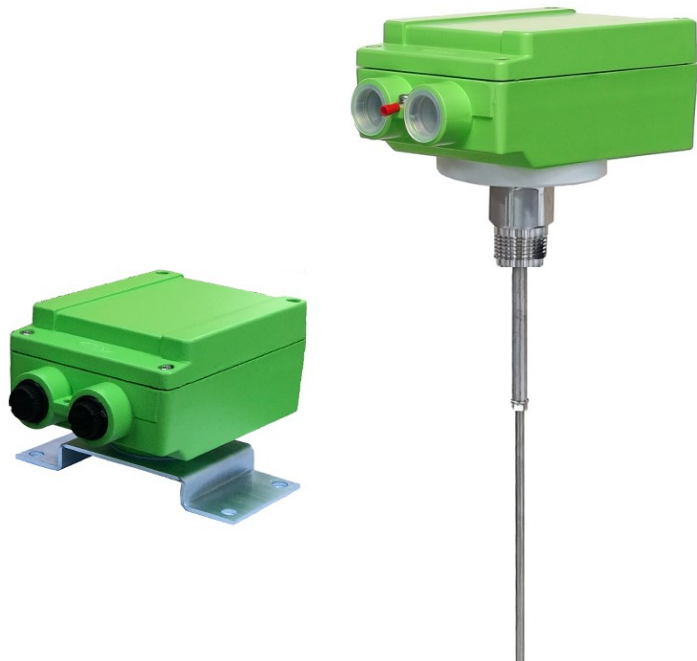
HITROL CO., LTD.

HEAD OFFICE.FACTORY.R&D INSTITUTE
HITROL CO., LTD. 141, Palhakgol-gil, Jori-eup
Paju-si, Gyeonggi-do, Korea
TEL. : (00)+82-31-950-9700
FAX. : (00)+82-31-950-9796 ~ 9799
www.hitrol.com



CATALOGUE

Vibration Type Level Switch HNV-970 Series



Doc. no. : HNV-970_E_Rev.0

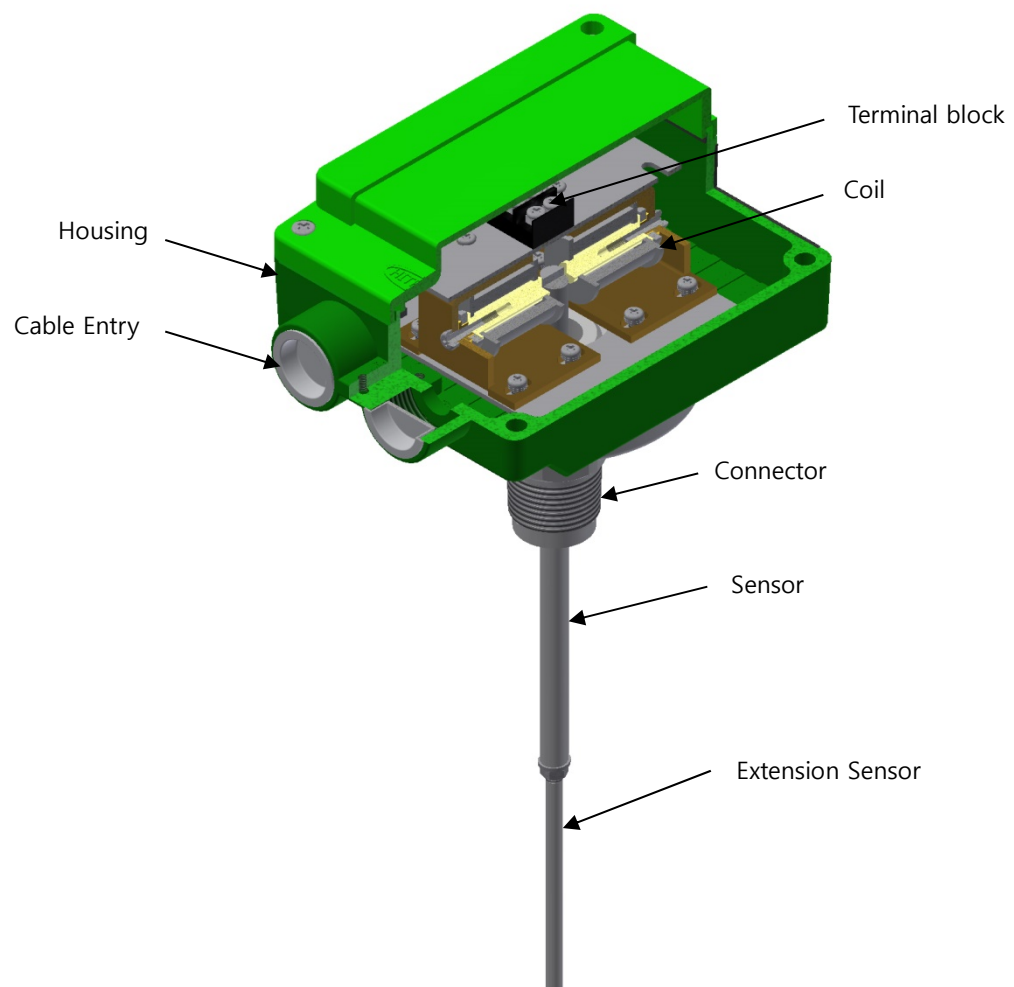
Issue date: 2025. 06

Overview HNV-970 Series is a level switch which detects powder and liquid in the tank. It is generally used to detect a contact output after sensing of medium in the tank. In particular, the HNV-970 series can be used to detect an interface level of sediments such as sand and carbon, etc in liquids.

Characteristics

- Various kinds of solid or powder level can be detected.
- Used to detect an Interface level of sediments such as sand and carbon, etc in liquids.
- Long life cycle due to mechanical moveless parts
- Length extension is available.

Operating Principles and Appearance A coil which generates a frequency is installed in the housing and it vibrates the sensor continuously with natural frequency. When the medium is contacted with the sensing rod, the frequency is becoming low and output is significantly decreased. It is sensed by the control unit and relay signal is out. It can be generally used for alarm and process control.



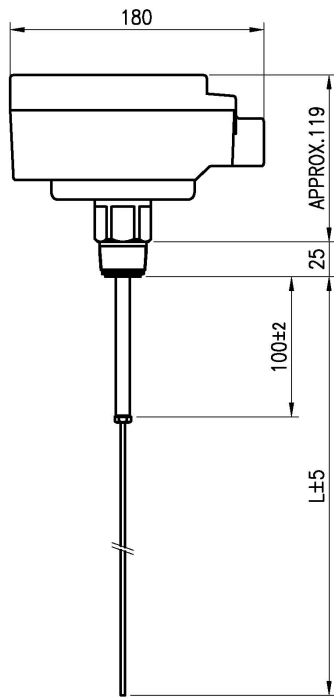
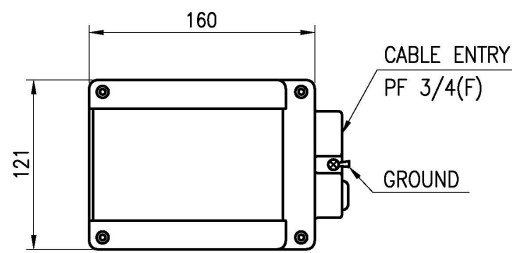
Specifications**Sensor**

Model	HNV-970
Housing ; Cable Entry	AL.C ; PF 3/4"(F)
Enclosure	Weather-Proof, IP54
Max. Temperature	80°C
Max. Process Pressure	10kgf/cm ² (Screw Type)
Mounting	Screw, Flange
Wetted Part Material	316L SS
Process Connection	PT 1"(M)
Installation	Side & Top
Distance	Max. 500m (between sensor and unit)

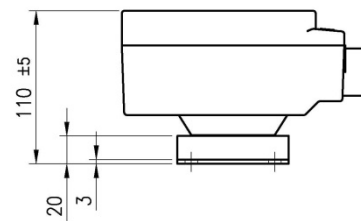
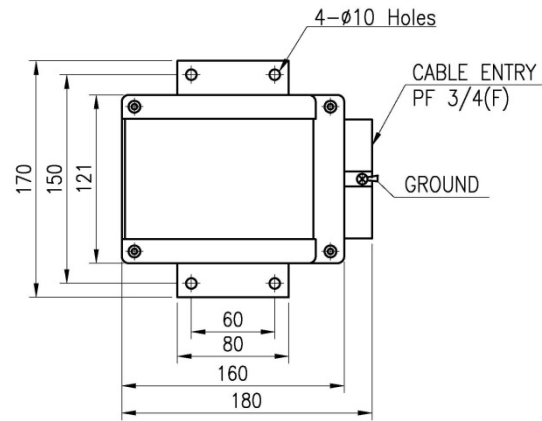
Combination Unit

Model	HLC-970-L
Housing ; Cable Entry	AL.C ; 2-PF 3/4"(F)
Enclosure	Weather-Proof, IP65
Ambient Temperature	-20°C ~ +60°C
Installation	Local
Power Source	AC 110V, AC 220V, DC 24V
Contact Form	DPDT
Contact Rating	AC 250V, 5A / DC 30V, 5A

Dimensions



HNV-970



HLC-970-L

Precautions for Mounting

For the mounting of vibration level switch, Screw and Flange (ANSI, JIS and DIN) types are available and installation with various mounting type is available. Below points shall be considered when installation of the product.

Side Installation (Horizontal Installation)

The product is not much affected by the material build-up on the sensor but it can be sensitive by shock due to thin sensing part. So, if possible, it is not recommended to install where the medium is falling down. However, if it is unavoidable to install at the inlet, protector shall be installed to prevent a sensing part from damage by falling medium.

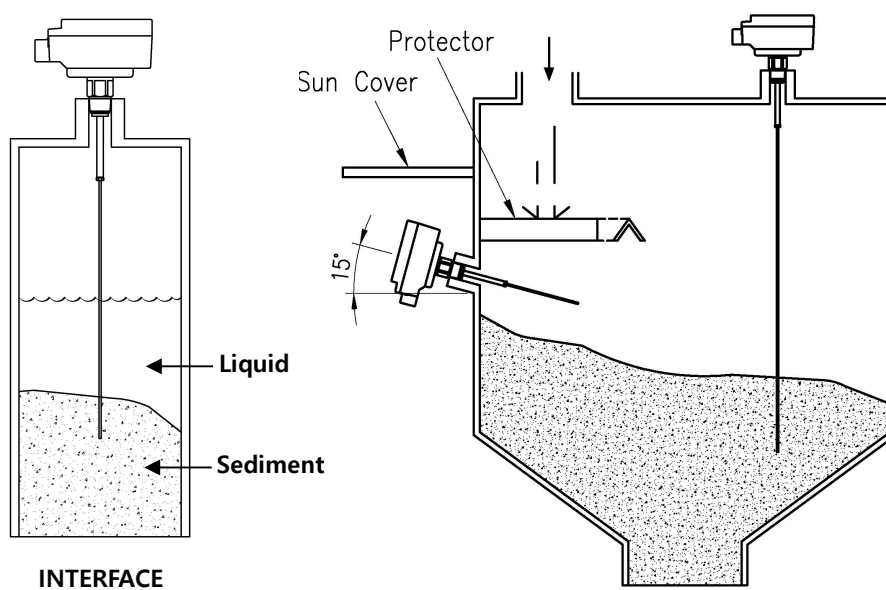
Top Installation (Vertical Installation)

Special precautions are not required. It is generally used to detect an interface level of sediment in liquids.

- When side installation, inactive rod shall be exposed min. 50mm at least into the tank inside and it is recommended to install slopingly (about 15°) against a horizontal line in order to prevent a malfunction by foreign substance between nozzle and probe.
- Sensor shall be installed at the place far from inlet of the tank and protector shall be installed in order to protect the sensor from damage.
- When side installation, cable entry shall be installed facing the ground for rain proof.
- When the installation at outside, it is recommended to install a sun cover in order to avoid an effect caused by temperature rise.
- If there is an agitator in the tank, the probe shall be installed with a safe distance from the agitator.



Pay more attention for installation to the tank which has a vibration because it may cause a malfunction.



**Warranty and
Contact
Information**

Warranty and Service

The product is subject to the warranty for 2 years after shipment and unpaid service will be provided for any damage occurred under normal operating conditions. If it is not about the failure of product, service fee will be charged.

Headquarter. Factory. R&D Institute

Hitrol Co., Ltd.

141, Palhakgol-Gil, Jori-Eup, Paju-Si, Gyeonggi-Do, Korea

Tel. : +82-31-950-9700 (Headquarter and After Sales Service Team)

Fax : +82-31-943-5600 (Headquarter and After Sales Service Team)