

HITROL CO., LTD.

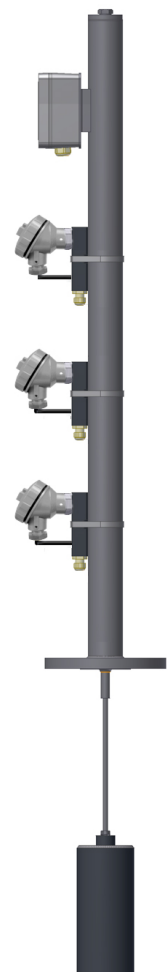
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INSTRUCTION MANUAL

FLOAT TYPE LEVEL SWITCH

HR-50 Series



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WARNING

You should be well-informed of the contents where
WARNING is marked before carrying out the work.



CAUTION

You should be careful where CAUTION is marked to carry
out the work.



NOTICE

You should be aware of where NOTICE is marked to carry
out the work.

Overview

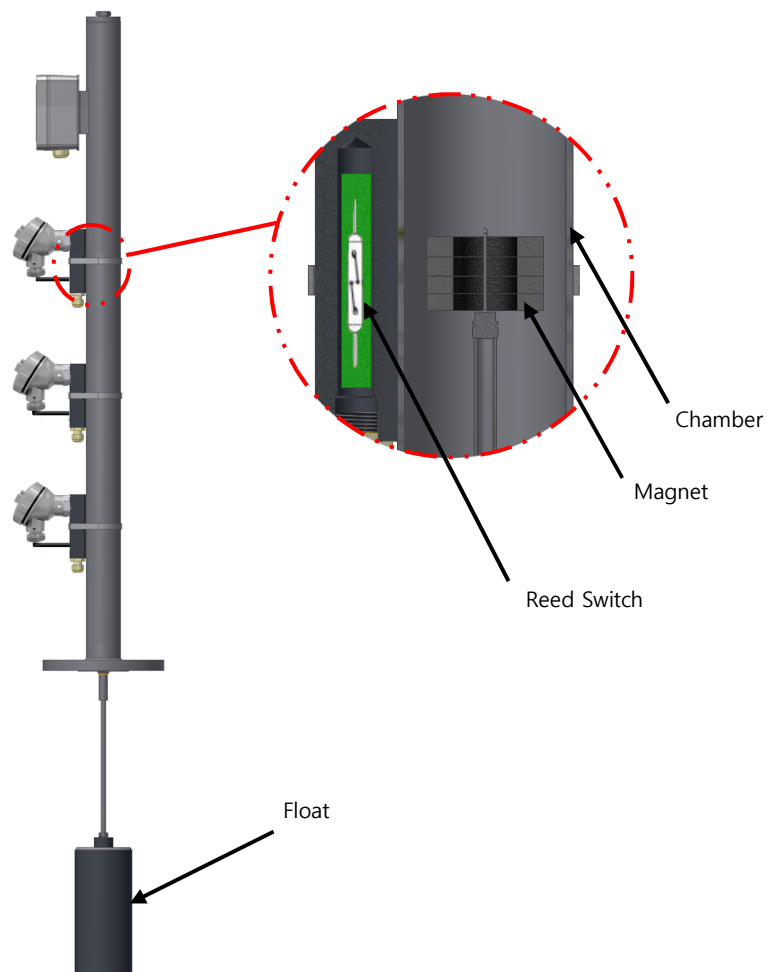
The HR-50 Series is a Float Type Level Switch that operates using a Reed Switch and a magnet. It can be installed on top of various storage containers to detect multiple contacts. HR-50 has great advantages where foreign objects or scales occur in the measurements, and its robust structure and high reliability make it widely available in industrial applications.

Characteristics

- Used for various liquid measurements
- Multiple detection locations are possible
- Robust construction and high reliability

Operation Principle

In the HR-50 Series, when a float designed to fit the weight of the measurement moves up and down equal to the liquid level by buoyancy, a magnet inside the chamber operates the Reed Switch installed outside the chamber to generate a contact point. You can set a number of detection positions to adjust the upper and lower alarm or adjust the level.



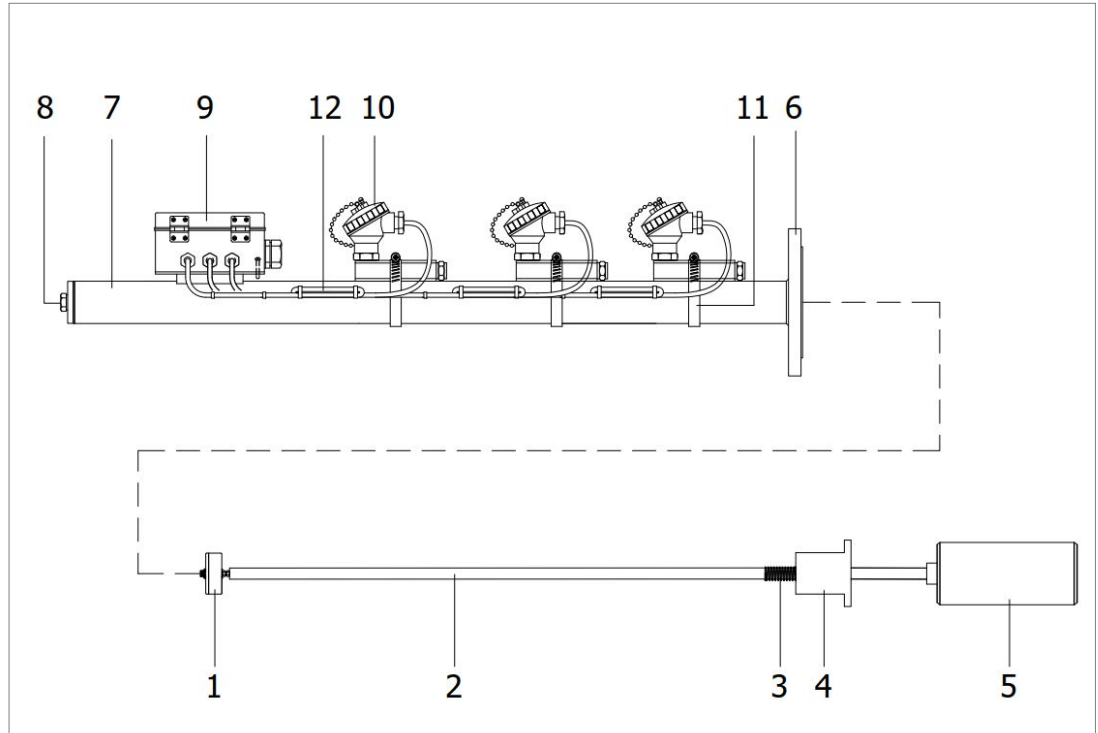
Specifications LEVEL ELEMENT

Model	HR-50	
Mounting	Flange	
Process Temperature	Max. 60°C	
Process Pressure	ATM	
Enclosure	Weather-Proof	
Process Connection	100A JIS 10K	
Material	Chamber Body	304 SS
	Float	PVC
	Terminal Box	ABS
Cable Entry	PG20	
Measuring Range	Max. 2500mm	

LEVEL SWITCH

Model	HR-10L	
Type	Reed Switch	
Ambient Temperature	-20°C ~ +60°C	
Contact Form	SPDT	
Contact Rating	AC 220V, 0.5A / DC 24V, 0.5A	
Enclosure	Weather-Proof (IP65)	
Material	Housing	Aluminum
	Body	Duralumin

**Product
Composition**



1. Magnet
2. Tube/Rod
3. Spring
4. Bottom Cover
5. Float
6. Flange (Process Connection)
7. Chamber Body
8. Vent Plug
9. Terminal Box
10. Level Switch (HR-10L)
11. Band
12. Cable

If you need to change the position of the contact, you can change it by loosening the band and moving the level switch.



NOTICE

The position of the terminal box and the level switch may vary depending on the point of contact (SET POINT).

If you apply too much force to the rod, it may break, so be careful.

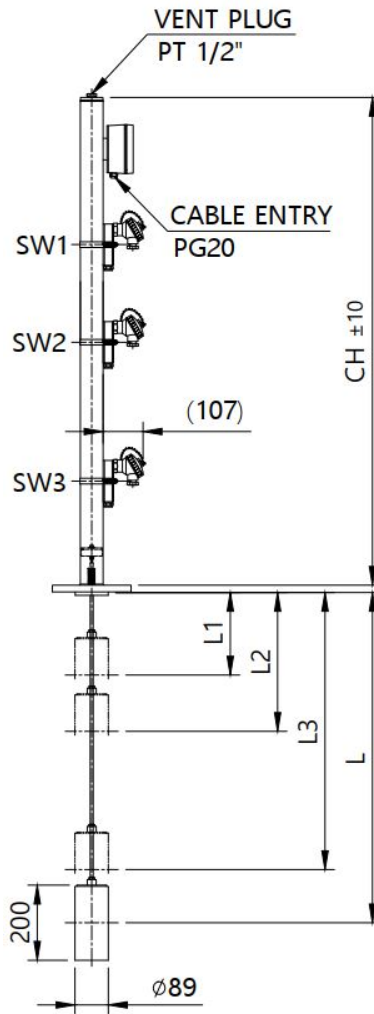


CAUTION

Care must be taken to ensure that the magnets are not impacted. Damage to the magnet can cause malfunction.

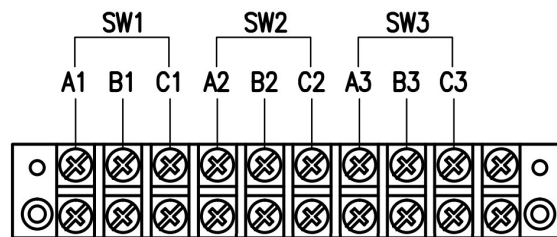
When inserting the product into the tank, the float must be slowly put in.

**Product
Dimensions**



Wiring

runoff is shown in the figure below and must be run off according to the contact type.



<3-SPDT Reference Example>

Maintenance

The main check part of the HR-50 Series is the Reed Switch. The life of key parts depends on your environment and can be used in optimal condition through periodic inspection. Therefore, the user should maintain it through inspection at least once a year. Inspection of the exterior of the product can be visually checked for damage, etc., and inspection of the lead switch can be simply checked as follows using a digital multimeter .

■ Check lead switch

-After setting the buzzer sound setting, connect the digital multimeter to the N .O. (Normal Open) and COM terminals of the product's terminal bands .

- It is normal when the buzzer sounds at the contact point position by moving



After checking the lead switch , an incorrect connection may cause product malfunction .

Precautions for Installation

- It must be the same specification when engaging flanges or screws.

-The user shall fasten a washer between the bolt and nut to prevent loosening.

- When fastening the product to the tank, it must be fastened to ensure maximum bonding using tools, etc.

-Gaskets must be used to engage flanges and flanges. (Gaskets should be selected by considering the temperature of the contents and the pressure of the container.)

- With the use of the level switch (HR-10L), no special precautions are required as it is



When moving and transporting the product, do not make a big impact on the product.

Safety and Environment

■ Precautions during use

- When fastening a product to a container, it must be fastened to ensure maximum bonding with a tool or the like.

- It should not have a big impact on the product.

■ Precautions for product run-off

- The terminal must be connected to the correct position of the contact.

(See *Line Method*)

- There is a risk of an electric shock, so you have to be careful about your safety.


■ disposal of products

- When discarding because the product cannot be used, separate and discard the metal and non-metal materials of the product. There are no accessories that affect the environment, so there is no need to be extra careful. (e.g. mercury switch)

Marking

■ Product Identification

- The product recognition mark is attached to the terminal box, and the model name, serial number, usage temperature, usage pressure, output, etc. of the product are displayed. The serial number is the manufacturing unique number that distinguishes the product.

 HITROL CO., LTD.	
PRODUCT	
<input type="text" value="HR-50"/>	
TAG NO.	
<input type="text" value="0"/>	
SER. NO.	
<input type="text" value="0"/>	
MAX. TEMP.	
<input type="text" value="0"/>	°C
MAX. PRESS.	
<input type="text" value="0"/>	kgf/cm ²
CONTACT FORM	
<input type="text" value="0"/>	
LENGTH	
<input type="text" value="0"/>	mm
ENCLOSURE	
<input type="text" value="0"/>	
www.hitrol.com Made in Korea	

**Warranty
and
Contact**

■ Quality Assurance and Services

The warranty period for this product is two years after the product is shipped, and in case of failure that occurs under normal use, you can receive free service. If the product is not broken, requesting service may result in charges regardless of the warranty period.

You can apply for aftersales service through the website or the headquarters.

■ Contact information of headquarters, factories, and research institutes

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