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FLOAT TYPE LEVEL TRANSMITTER

HT-100F Series



2 YEARS WARRANTY



ISO 9001 ISO 14001 ASME

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HITROL CO., LTD.

Overview

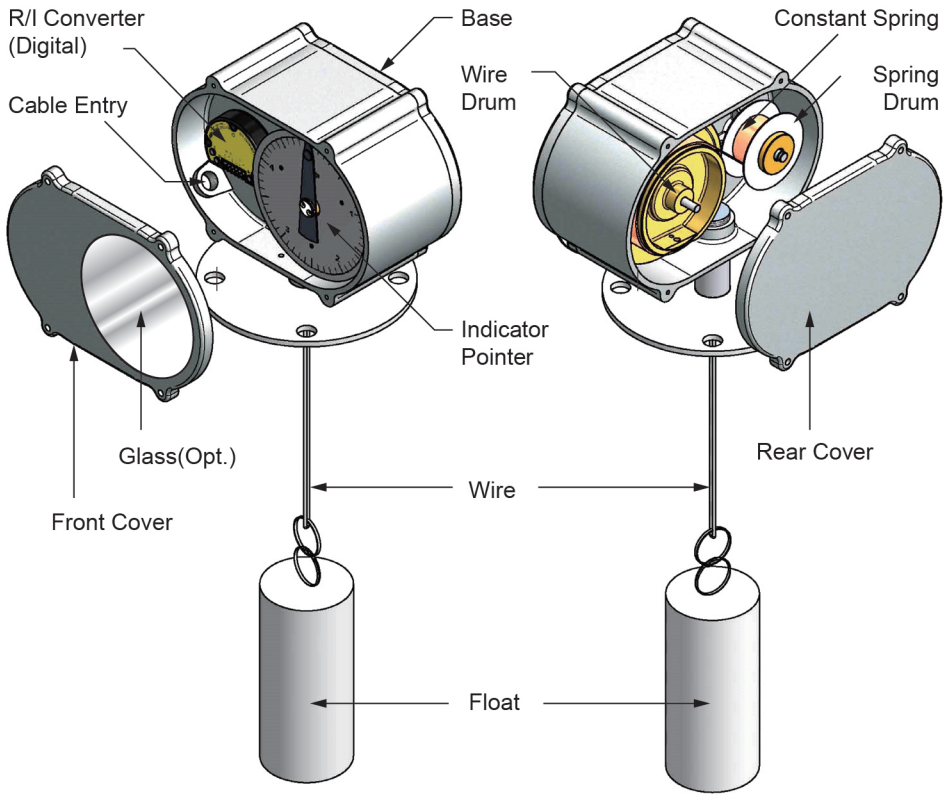
HT-100F Series is a Float Type Level Transmitter installing on the top of tank measures liquid levels continuously. Especially, it is easy to be installed to where the space between top of tank and ceiling is narrow at the site.

Characteristics

- Widely used to measure liquid levels
- Remote control and local indication are available.
- Easy Installation to where the space is narrow
- Strong structure and easy maintenance
- NAMUR NE43 is applied.

Operation Principle and Composition

- A float which is manufactured according to a specific gravity of a medium moves upward or downward with a same liquid level in a tank by buoyancy and a wire which is connected to a float is wound up to wire drum by a constant spring. The rotation of wire drum is transmitted to a gear system, operates indicator pointer. A magnet which is installed on the indicator pointer activates reed switches and changes a resistant value. This resistant value is transmitted to the R/I converter and it converts the resistant value to a current signal, DC 4~20mA continuously.



FLOAT TYPE LEVEL TRANSMITTER
HT-100F Series

Specification

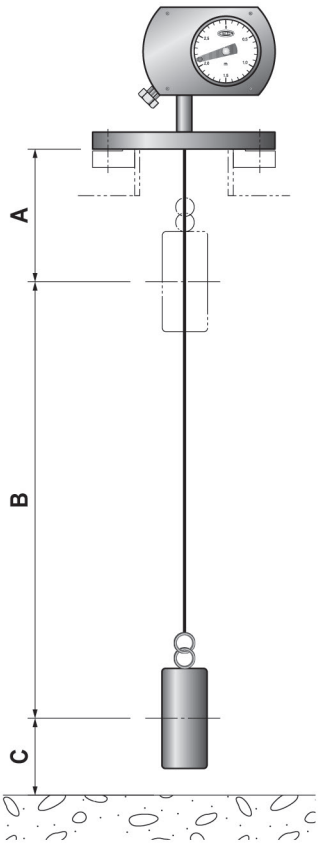
Model	HT-100F	HT-100FI
Mounting	Flange	
Process Temperature	Max. 80°C	
Process Pressure	ATM	
Local Indicator	No	Yes (1-Point Dial)
Power Source	DC 24V	None(Std.), DC 24V(Opt.)
Output	DC 4~20mA (2-wire)	Display(Std.), DC 4~20mA (2-wire) (Opt.)
Enclosure	Weather Proof (IP54)	
Wetted Part Material	SUS 316L	
Process Connection	100A JIS 10K FF / C.S (std.)	
Housing Material	Aluminum	
Cable Entry	PF 1/2"(F) (std.)	
Measuring Range	Max. 7.5m	
Accuracy	±2% of F.S	

▶ **Order Code** can be printed at our website (www.hitrol.com)

Float Application

Float Size		Spring Length / Measuring Range	S.G range
Outer Diameter	Length		
89.1mm	200mm	5m / ~ 3.5m	More than 0.7
		7.5m / ~ 6m	More than 0.7
		10m / ~ 7.5m	More than 0.8
76.3mm	250mm	5m / ~ 3.5m	More than 0.7
		7.5m / ~ 6m	More than 0.7
		10m / ~ 7.5m	More than 0.8

Measuring Length



Section	Length (mm)
A	Min.180
B	1,000~7,500
C	Min.150

A = Upper Dead Band : Minimum length which cannot be measured from the bottom of flange

B = Measuring Range

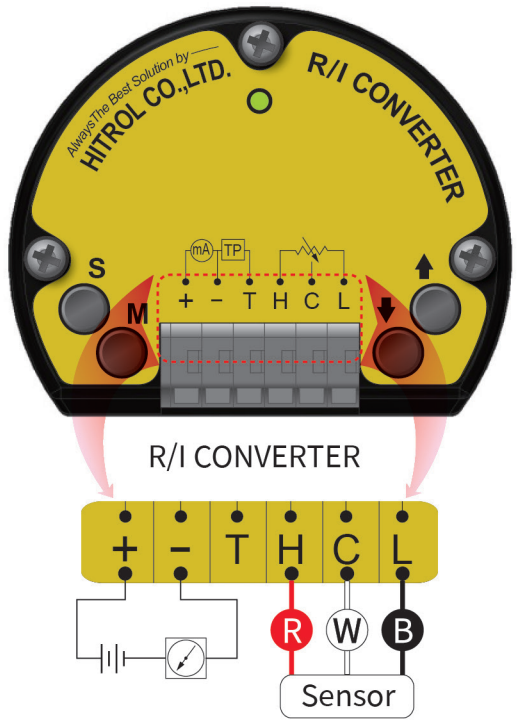
C = Lower Dead Band : Minimum length which cannot be measured from the bottom of tank

DIGITAL TYPE R/I Converter & RLT

▶ Specification

Item	Specification
Micom	16Bit MicroProcessor
Supply Voltage	+17V ~ +40V@Typ.+24V
Operating Voltage	+3.3V
Current Consumption	Less than or equal to 3mA@Sensor 1KΩ
Status Indicator	Bi-Color LED (Green/Red/Orange)
Zero / Span Set	Tact Switch
Wire Connection	One-Touch Connector
Ambient Temperature	-20°C ~ +85°C
Dimension	80mm x 65mm x 20mm
Weight	54g
Current Loop Interface	2-Wire Loop Current
Output Current (Accuracy)	4mA ~ 20mA@Less than±0.2%
Output Current Definite	TP

▶ Wiring



- It can be set freely according to user environment.
- Without removing of wire, output value can be checked using the T Terminal.
- Diagnosis Function for State of Sensor
- Simulation Current Out Function (4mA, 12mA, 20mA)

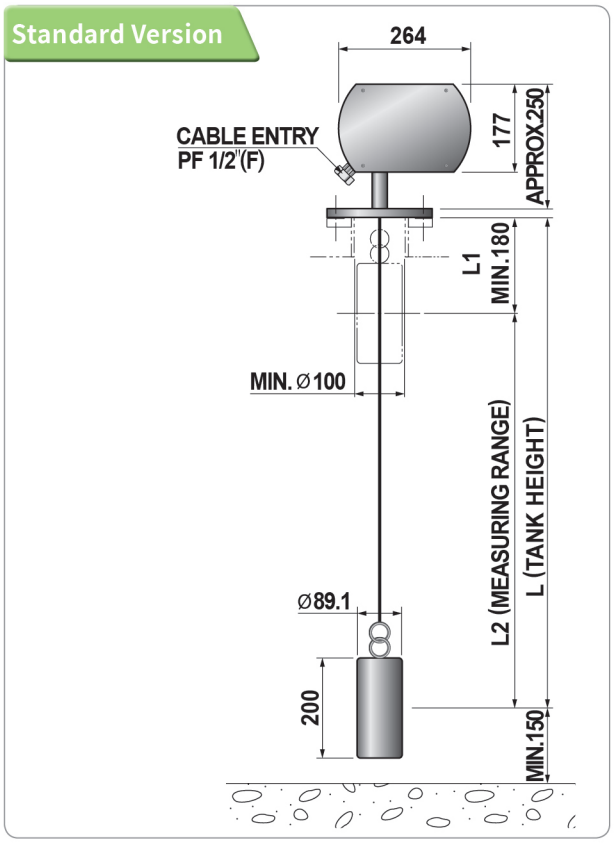
■ R/I CONVERTER

- + − : DC 24V(DC 4~20mA Loop)
- T : Output Test Point
- H.C.L. : Terminals between Sensor and R/I Converter

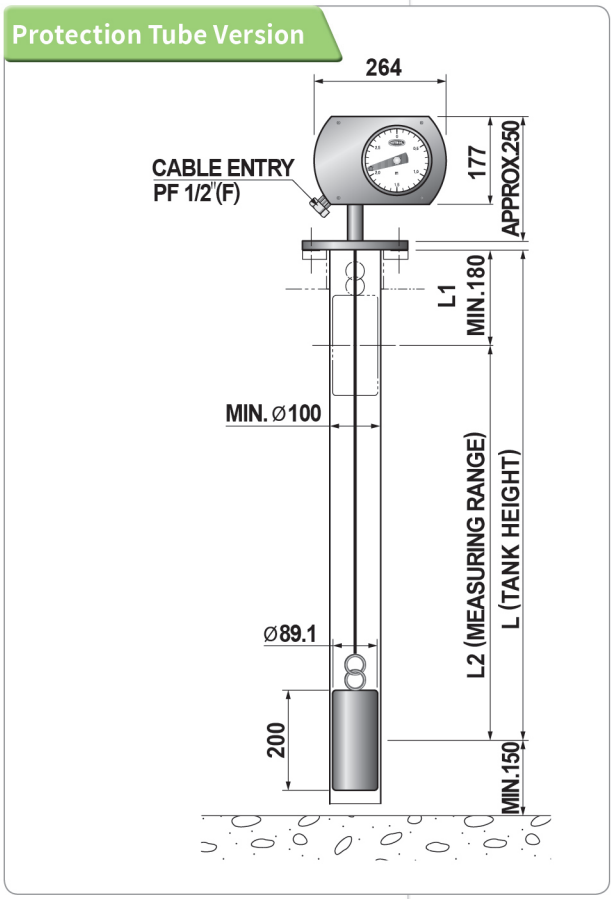
Dimension



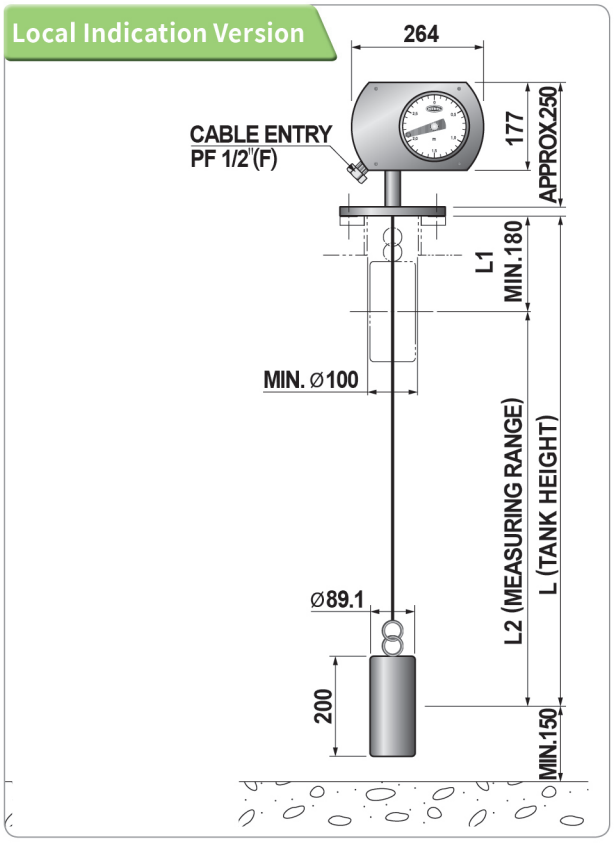
Standard Version



Protection Tube Version



Local Indication Version





- Actual product may have a tolerance slightly.

Installation

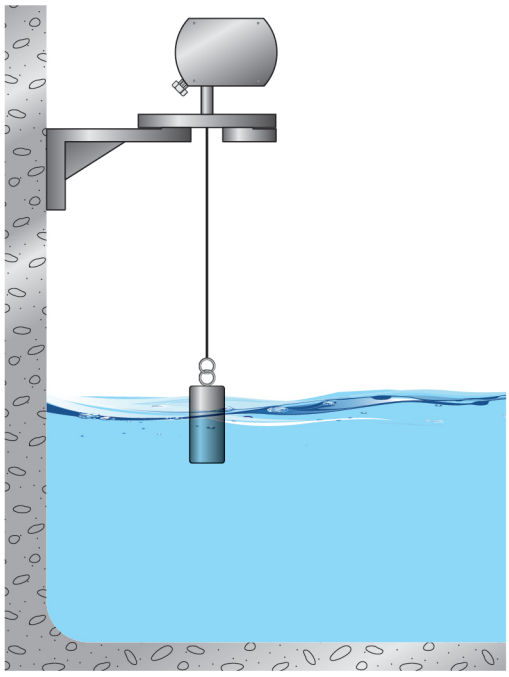
- Below recommendation should be considered when installation.



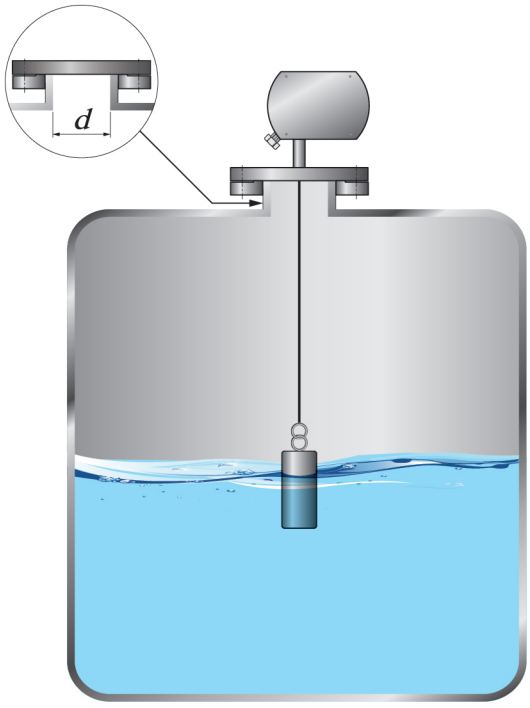
Product should be installed at the place far from inlet in order to avoid the malfunction.



Protection tube should be applied if there is a flow or slopping of the medium in the tank.



Bracket should be installed with the product when the installation on the concrete as per above figure.



Inner diameter (“d”) of tank nozzle should be larger than the outer diameter of float as per above figure.



FLOAT TYPE LEVEL TRANSMITTER

HT-100F Series

01 Digital Type Intelligent R/I Converter

02 Molded Reed Switch with
improved Stability and Precision



03 Strong Structure !
Easy installation at narrow space !

04 NAMUR NE43 is applied

05 Various Combination Unit &
Digital Indicator (HI-100D & HTA Series)







hitrol@hitrol.com | www.hitrol.com

* Design of product can be changed for upgrade without notice.