

ELECTRODE TYPE LEVEL SWITCH

HE Series



ASME



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HITROL CO., LTD.

Overview

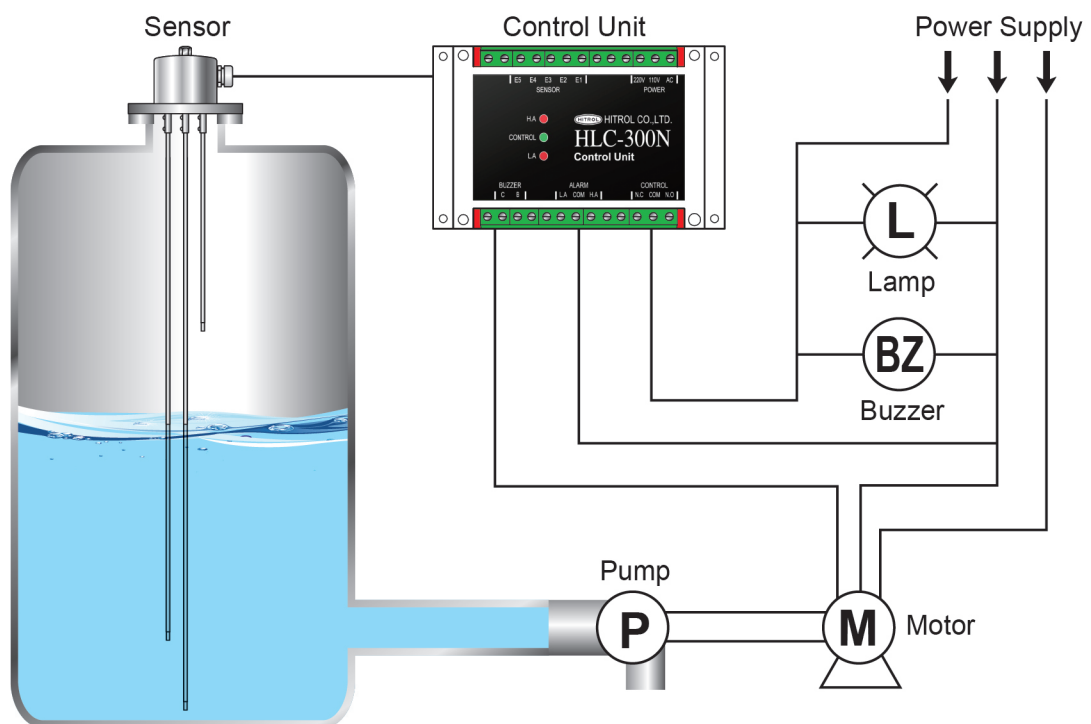
HE Series is an Electrode Type Level Switch, used for limit detection in a tank containing electrically conductive liquids. Limit levels can be determined by using one instrument with multi-probe rods. The rod length depends on the position of the level to be monitored and/or on whether a filling / empty function is required.

Characteristics

- Widely used for various liquids that has conductivity
- Low cost
- High reliability of measurement
- Simple structure and easy installation
- Semi-permanent life cycle due to moveless parts

Operation Principle and Composition

This technique is based on the conductivity difference between various materials. Air, for example, has very low conductivity and water in general has a very high conductivity. A low alternating voltage is applied between the electrodes. When the filling liquid reaches the electrode, a small alternating current flows, control unit produces a signal output after detecting of this alternating current.



Specification

Model	HE-□S	HE-□V	HE-1S
Installation	Top Mounting		
Electrode Material	SUS 316L + PP		SUS 316L + Teflon
Enclosure	Weather Proof (IP54)		Weather Proof (IP65)
Process Pressure	ATM		10kg/cm ² (std.) (Max. 20kg/cm ²)
Process Temperature	60°C		80°C (std.) (Max. 150°C)
Connection Material	Bakelite	PVC (std.)	SUS 316L (std.)
Process Connection	Screw PF 2" (std.)	100A JIS 10K (std.)	Screw PT 1" (std.)
Head Material	Bakelite	SUS 304	ALC
Cable Entry	Ø7mm	20A Cable Connector	PF 3/4" (std.)

Model	HE-□H	HE-□H-S	HE-□H-SP
Installation	Top Mounting		
Electrode Material	SUS 316L + Teflon	SUS 316L + Ceramic	
Enclosure	Weather Proof (IP65)		
Process Pressure	Max. 10kg/cm ²	10kg/cm ² (std.) (Max. 20kg/cm ²)	
Process Temperature	80°C (std.) (Max. 150°C)	250°C (std.) (Max. 350°C)	250°C (std.) (Max. 450°C)
Connection Material	SUS 304 (std.)		
Process Connection	Screw PT 2 " (std.)	100A JIS 10K RF (std.)	
Head Material	Aluminum		
Cable Entry	PF 3/4" (std.)		

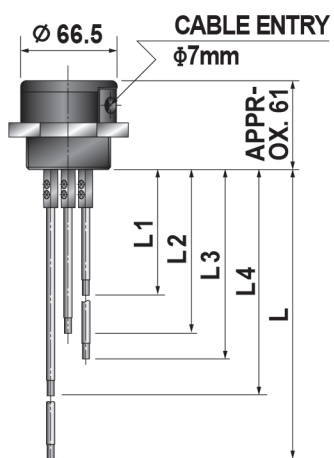
Combination Unit

Model	HLC-200A	HLC-300N	HLC-400
Installation	Panel Inside Mounting		
Power Source	AC 110 or 220V 50/60Hz	AC 110/220V 50/60Hz	AC 110/220V 50/60Hz
Contact Form	1-SPDT	1-SPDT / 2-DPST	4-SPDT
Function	Control or Alarm	Control + 2-Alarms	4-Alarms
Contact Rating	AC 250V 5A, DC 30V 1A	AC 250V 5A, DC 30V 5A	AC 250V 10A, DC 30V 10A
Appearance			

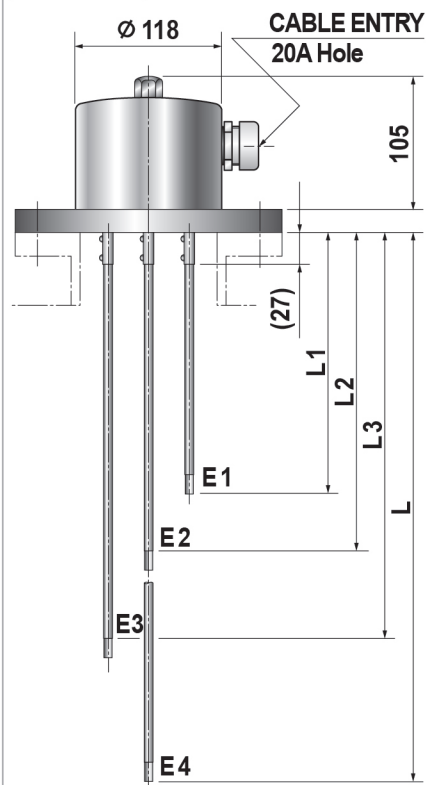
► **Order Code** can be printed at our website (www.hitrol.com)

Dimension

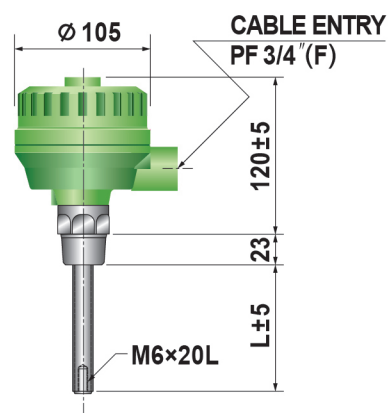
HE-□S



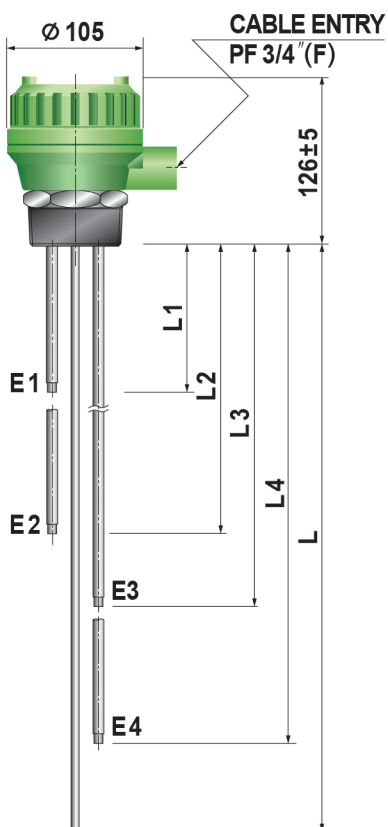
HE-□V



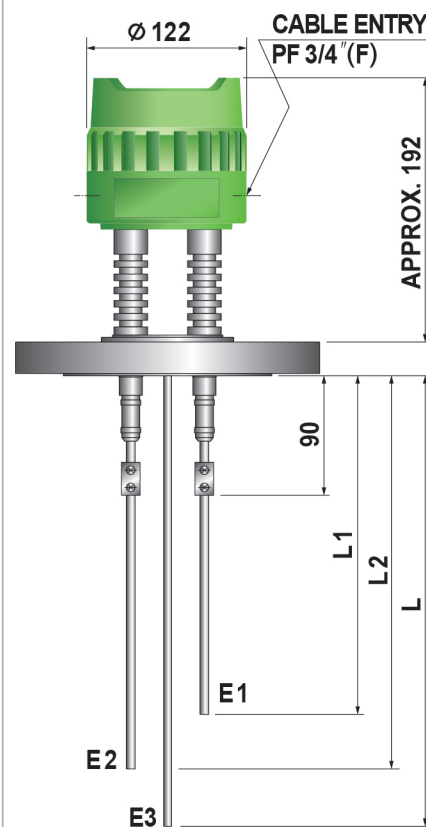
HE-1S



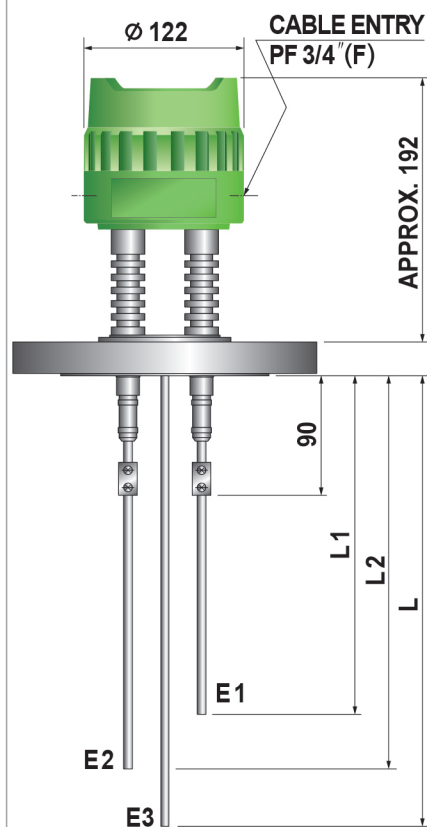
HE-□H



HE-□H-S



HE-□H-SP

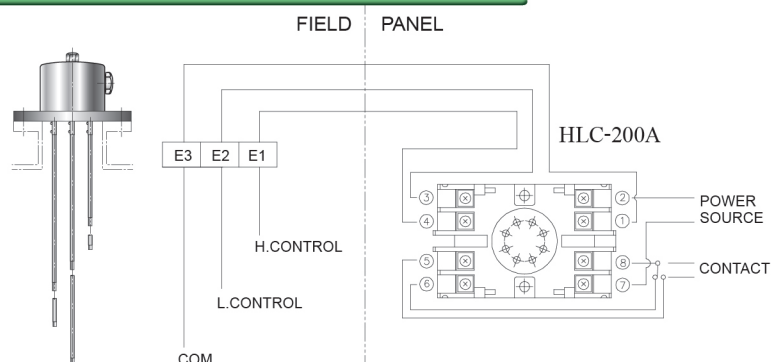


■ Actual product may have a tolerance slightly.

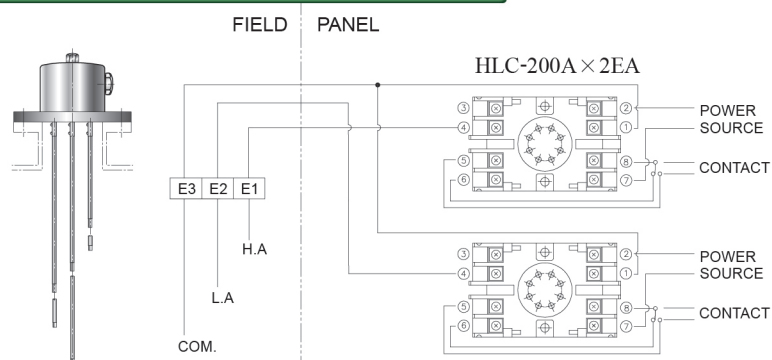
Connection Diagram



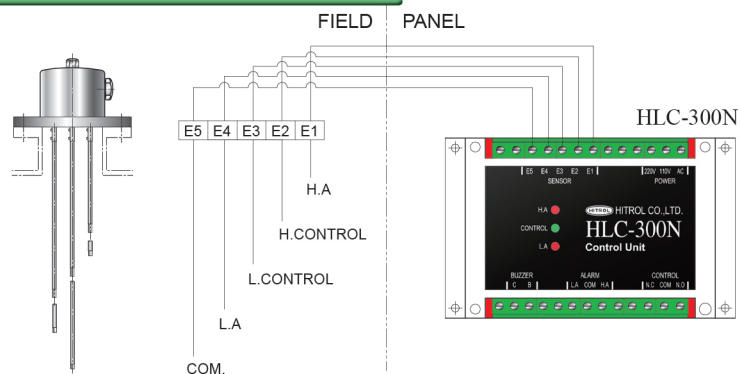
HLC-200A Connection Diagram (Control)



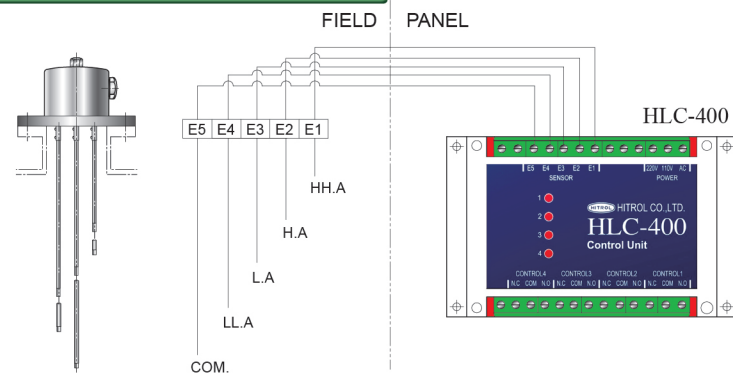
HLC-200A Connection Diagram (Alarm)



HLC-300N Connection Diagram



HLC-400 Connection Diagram





ELECTRODE TYPE LEVEL SWITCH

HE Series

01

High reliability for low cost

02

Simple structure and easy installation

03

Application to various environments
including of high temperature and pressure

04

Applicable to various level contact points
(1 Point ~ 6 Points)



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