

PADDLE TYPE LEVEL SWITCH

HLV-300 Series



ASME



www.hitrol.com



Always The Best Solution
HITROL CO., LTD.

Overview

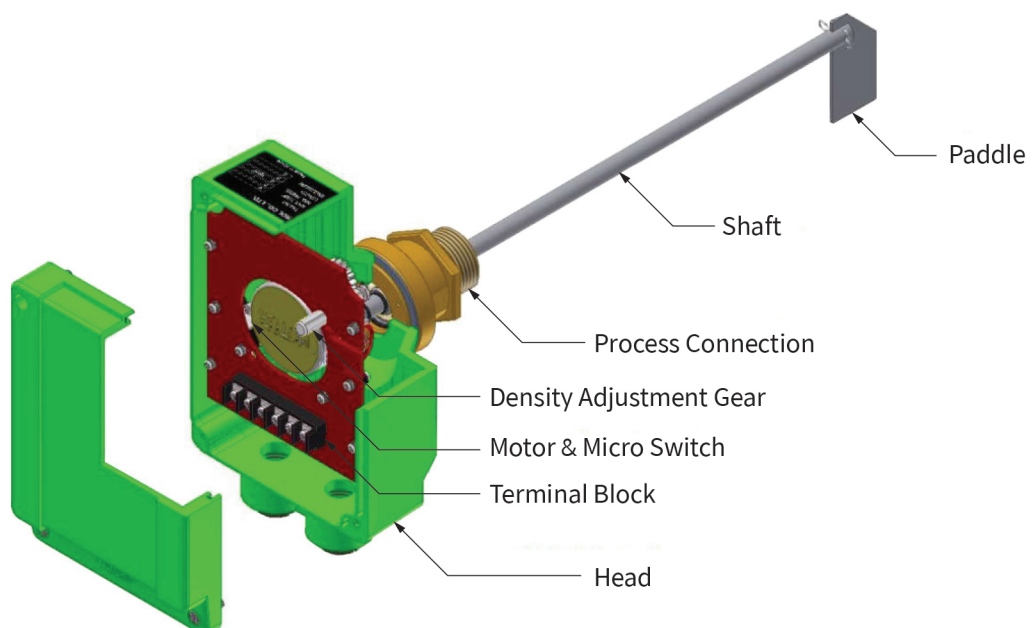
HLV-300 Series is a Paddle Type Level Switch which detects a level of solid and powder in a tank and is generally used for the process performing alarm by user's requirement at the site. This level switch has several advantages such as strong structure, high reliability and long life cycle. It can be applied for the detection of powder only and liquid is not available.

Characteristics

- Widely used to detect level of various solid and powder
- Strong structure and high reliability of measurement
- Simple adjustment and easy installation
- Applicable to explosion area (Ex-Proof version)
- Low cost
- Applicable to variety of paddle type

Operation Principle and Composition

When power is ON, a motor starts rotation and it makes the shaft and paddle rotate until a medium (solid or powder) contacts to the paddle of switch, and it keeps rotation without load to the motor, keeping a micro switch OFF. If the level of medium rises to the paddle, the paddle is stopped and it makes one-side rotation of motor to off the micro switch for motor operation, activates the other micro switch for contact from OFF to ON and detects a level of medium in a tank.



PADDLE TYPE LEVEL SWITCH HLV-300 Series

Specification

Model		HLV-300	HLV-300H	HLV-310	HLV-310H
Installation		Top or Side			
Ambient Temperature		-20°C ~ +60°C			
Process Temperature		80°C	180°C	80°C	180°C
Enclosure		Weather-Proof (IP65)			
Process Pressure		ATM			
Power Source		AC 110V / 220V, 60Hz			
Contact Form		SPDT			
Contact Rating		AC 250V/15A, DC 250V/0.3A, DC 125V/0.6A			
Switch Type		Micro Switch			
Length*		300mm (Std.) / Max. 600mm		300mm (Std.) / Max. 4,000mm (Extention Ver.)	
Process Connection		PF 1" (M) (Std.)			
Material	Housing	AL.C			
	Wetted Parts	SUS 304 (Shaft, Paddle)			
Cable Entry		PF 3/4" (F) (Std.)			

HLV-300 Series

Model		HLV-310HP	HLV-310AP	HLV-320L
Installation		Top or Side		
Ambient Temperature		-20°C ~ +60°C		
Process Temperature		200°C	200°C	80°C
Enclosure		Weather-Proof (IP65)		
Process Pressure		ATM		
Power Source		AC 110V / 220V, 60Hz		
Contact Form		SPDT		
Contact Rating		AC 250V/15A, DC 250V/0.3A, DC 125V/0.6A		
Switch Type		Micro Switch		
Length*		300mm (Std.) / Max. 4,000mm		500mm (Std.)
Process Connection		65A JIS 10K RF (Std.)		125A JIS 10K RF (Std.)
Material	Housing	AL.C		
	Wetted Parts	SUS 304 (Protection Tube, Shaft, Paddle)		
Cable Entry		PF 3/4" (F) (std.)		



In Side Mounting, the maximum length of Length* is limited.
The warranty period for motor is one year from the date of shipment.

Model		HLV-330-Ex-A	HLV-330-Ex-B
Installation		Top or Side	
Ambient Temperature		-20°C ~ +60°C	
Enclosure & Process Temperature		Ex-Proof (IP64)	
		Ex d IIB T6 (70°C)	
		Ex d IIB T5 (80°C)	
		Ex tD A21 T90°C (70°C)	
Process Pressure		ATM	
Power Source		AC 110V / 220V, 60Hz	
Contact Form		SPDT	
Contact Rating		AC 250V/15A, DC 250V/0.3A, DC 125V/0.6A	
Switch Type		Micro Switch	
Length*		300mm (Std.) / Max. 600mm	300mm (Std.) / Max. 4,000mm (Extention Ver.)
Process Connection		65A JIS 10K RF (Std.)	
Material	Housing	ALC	
	Wetted Parts	SUS 304 (Protection Tube, Shaft, Paddle)	
Cable Entry		PF 3/4"(F) (Std.)	



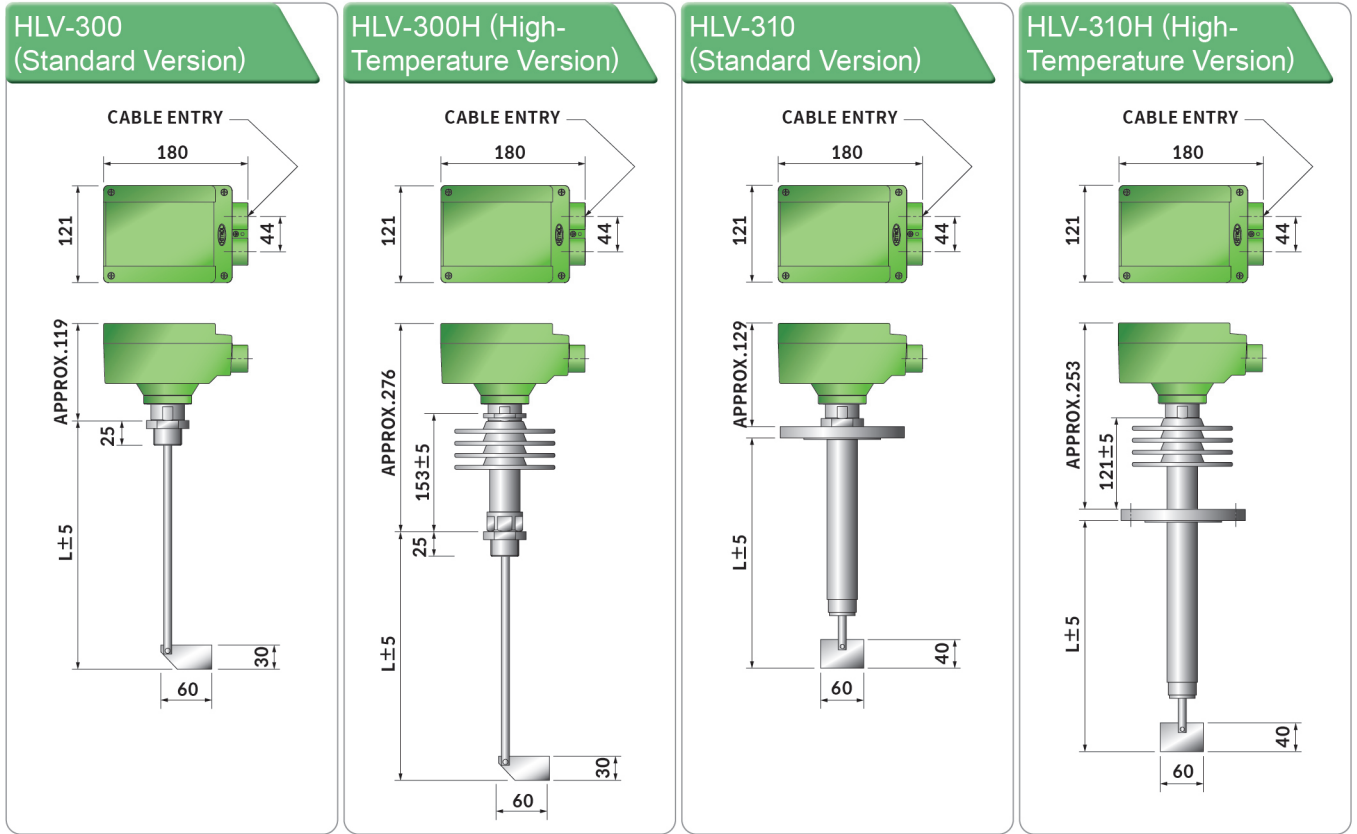
In Side Mounting, the maximum length of Length* is limited.
The warranty period for motor is one year from the date of shipment.

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

Dimension

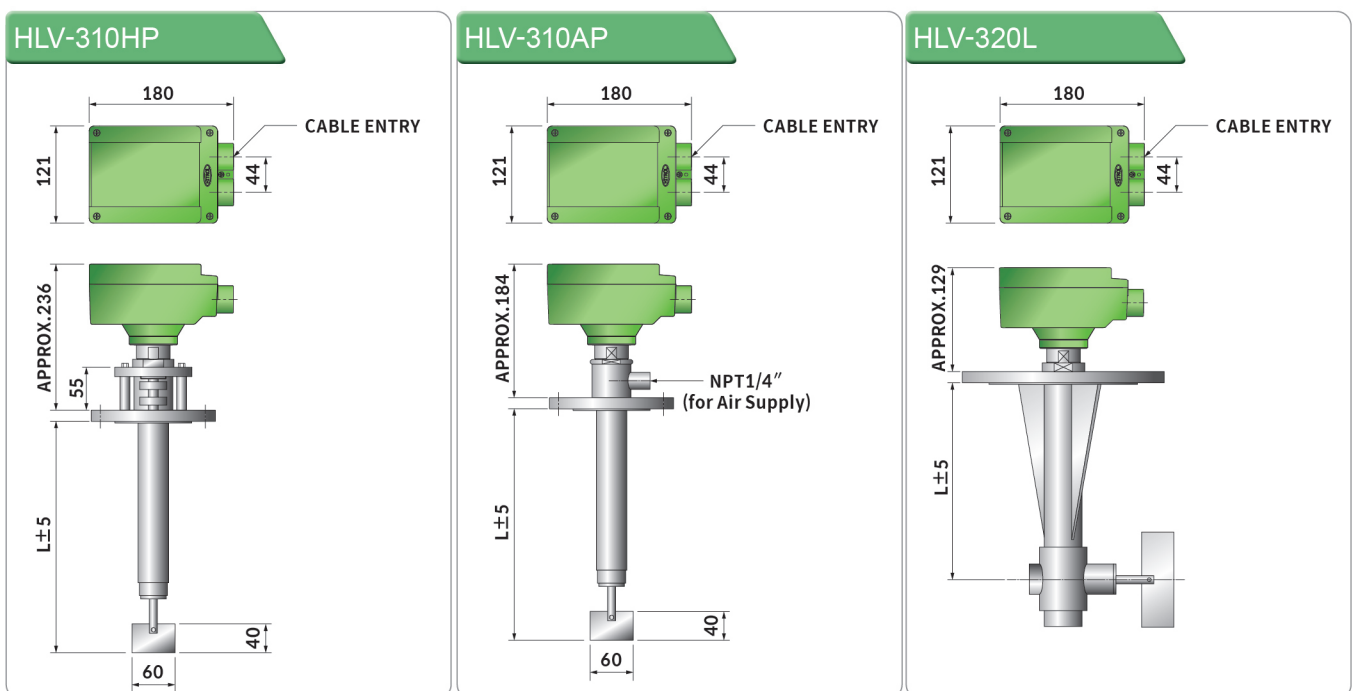
Dimensions in the outline drawing are displayed in [mm].

► Weather-Proof

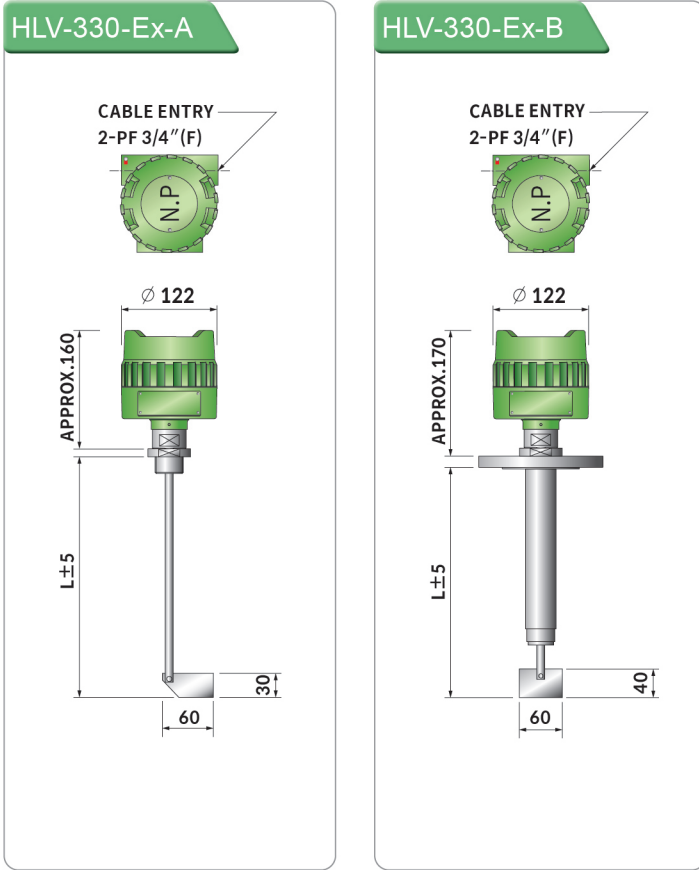


HLV-300 Series

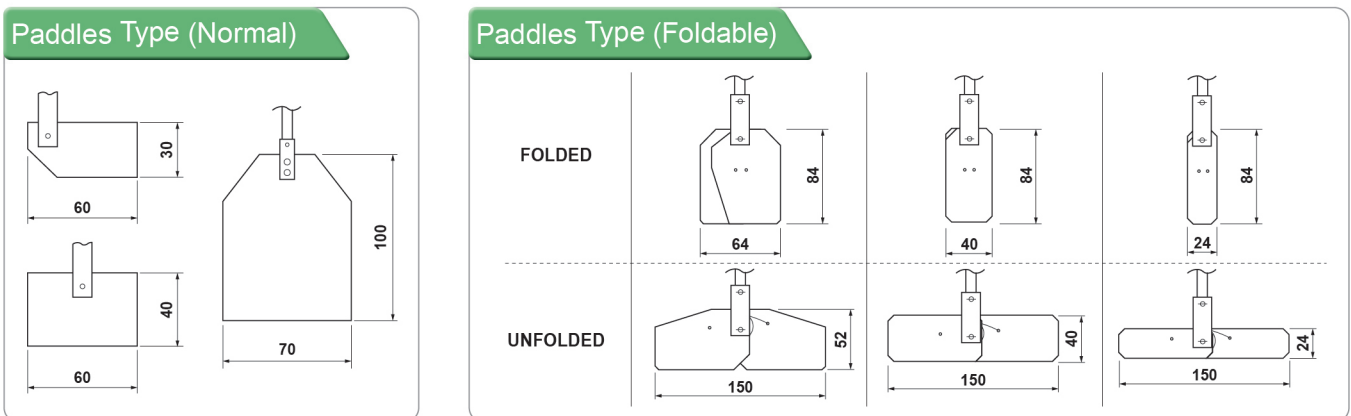
► Weather-Proof



► **Explosion-Proof**



► **Paddles**

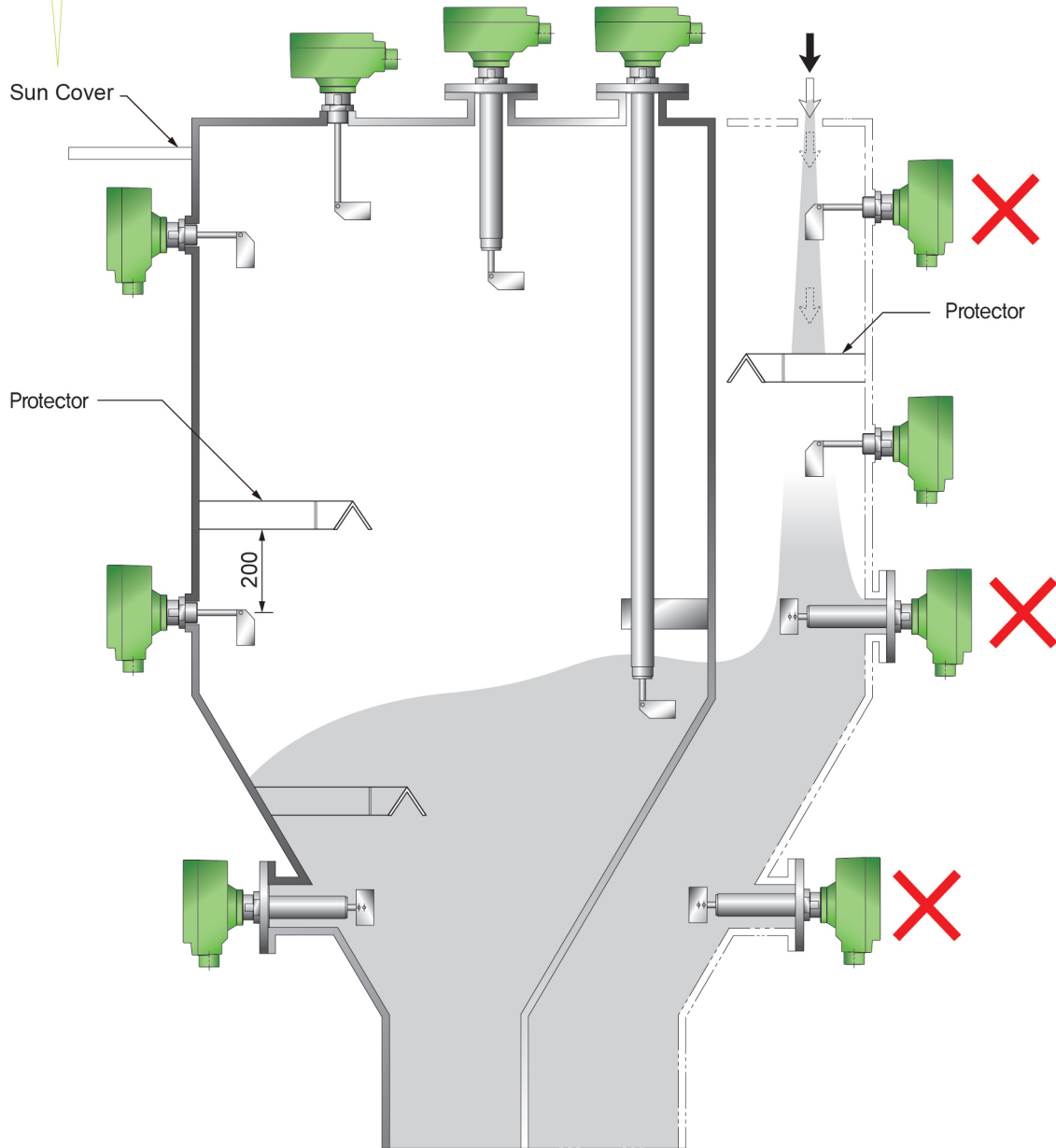


■ Actual product may have a tolerance slightly.

- Below recommendation should be considered when installation.

Sun cover should be installed to protect the housing from the damage by direct sunlight.

Sensor should be installed at the place far from inlet of the tank and protector should be installed in order to protect the sensor from damage by falling medium if it is installed at the inlet.



In the case of side mounting, it is not recommended to apply a double-wing type paddle when installing a low level.



PADDLE TYPE LEVEL SWITCH

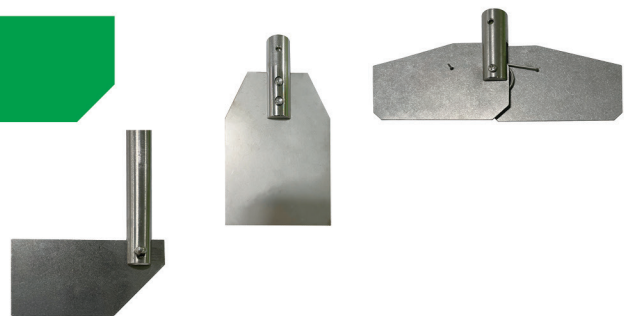
HLV-300 Series

01 Applicable to explosion area
(Ex-Proof version)

02 Strong structure and high
reliability

03 Widely used to detect level of
various solid and powder

04 Applicable to
variety of paddle type



 hitrol@hitrol.com

 www.hitrol.com

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