LEVEL MEASUREMENT Ultrasonic Level Transmitter 136 ULT

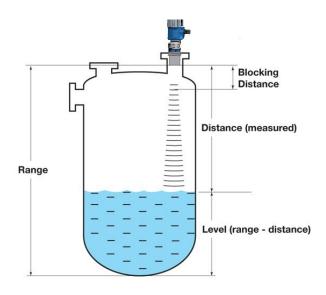


INTRODUCTION

The Ultrasonic Level Transmitter operates based on the Time of Flight principle, This device offers high accuracy and reliability, with a typical measurement range up to 15 meters. It supports 2-wire and 4-wire configurations. providing flexibility applications. different Communication options include 4-20mA, 4-20mA + HART, and RS485 protocols, allowing seamless integration into existing control systems with no major modifications required.

WORKING PRINCIPLE

The ultrasonic level transmitter emits an ultrasonic pulse directed towards the surface of the material. The pulse propagates through the air, reflects off the material's surface, and returns to the sensor. The sensor measures the time interval between pulse emission and reception, known as the time-of-flight. By applying the speed of sound in air and this time-of-flight data, the transmitter calculates the distance between the sensor and the material's surface. This calculated distance is then used to determine the material's level, which is subsequently transmitted to a controller or monitoring system for further processing.





AREAS OF APPLICATIONS

The Model 136 Ultrasonic Level Transmitter is specially designed to provide convenience of non-contact measurement of Level. Graphical Display visible in bright sunlight.

- Water and Wastewater Treatment
- Food and Beverage
- Pulp and Paper Industry
- Power Plants
- Marine and Shipping
- Storage Tank

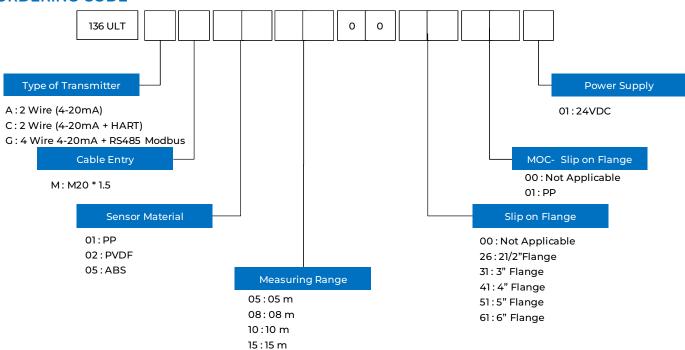
FEATURES

- Weatherproof Rugged Construction.
- Easy to install.
- Unaffected by product properties.
- No site calibration required.
- Cost Saving.
- HART version 7 compatible

OPTIONS

- Optional Remote Indicator (96X96), Model 176 suitable for panel mounting may be added with up to 4 set points for control purpose and MODBUS output for real time field information at control room.
- *24 VDC supply can be made available through 176 / 176 LPI.

ORDERING CODE

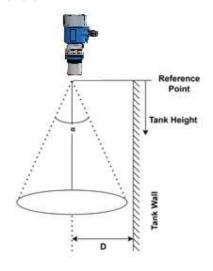


SPECIFICATIONS

Sr. No.	Specifications	Parameter Description			
1	Instrument Range	5m	8 m	10 m	15 m
2	Measuring Frequency	64KHz±5%	64KHz±5%	44KHz±5%	44KHz±5%
3	Dead Band	300 mm	500 mm	500 mm	600 mm
4	Beam Angle(α)	9°	9°	9°	9°
5	Accuracy**	±0.5% of FS & ±0.25% of FS (On Request)			
6	Power Supply	24VDC @30mA	24VDC @30mA	24VDC @30mA	24VDC @30mA
7	Power Consumption	<1.5W	<1.5W	<1.5W	<1.5W
8	Analog Output	4~20mA	4~20mA	4~20mA	4~20mA
9	Communication Interface	HART 7 or RS485			
10	Keyboard/ Display	LCD Display	LCD Display	LCD Display	LCD Display
11	Display parameters	Distance, Level	Distance, Level	Distance, Level	Distance, Level
12	No. of cable entries	2 Nos. (M20*1.5)	2 Nos. (M20*1.5)	2 Nos. (M20*1.5)	2 Nos. (M20*1.5)
13	Process Connection	2" BSP Threaded (PP)	2" BSP Threaded (PP)	2" BSP Threaded (PP)	2" BSP Threaded (PP)
14	Sensor Material	PP/PVDF/ ABS	PP/PVDF/ ABS	PP/PVDF/ ABS	PP/PVDF/ ABS
15	Housing Material	Aluminium	Aluminium	Aluminium	Aluminium
16	Ingrass Protection	IP 65	IP 65	IP 65	IP 65

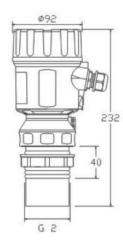
17	Ambient Temperature	10°C to 60°C	10°C to 60°C	10°C to 60°C	10°C to 60°C
18	Pressure	Normal Condition	Normal Condition	Normal Condition	Normal Condition
19	Humidity	0 to 95%	0 to 95%	0 to 95%	0 to 95%
20	Installation Mounting	Тор	Тор	Тор	Тор

SONIC CONE



Tank	tank wall "D" mm		
Height (m)	α = 9°		
1	158		
2	317		
3	475		
4	634		
5	792		
6	950		
7	1109		
8	1267		
9	1425		
10	1584		
11	1742		
12	1901		
13	2059		
14	2217		
15	2376		

MECHANICAL DETAILS



***Continuous development may necessitate changes without notice

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