

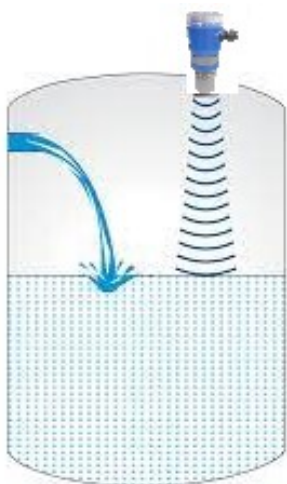
136 ULP

INTRODUCTION

The Ultrasonic Level Transmitter (Plastic) uses the Time of Flight principle to measure levels with high accuracy and reliability. It has a typical measurement range of up to 15 meters. The device is available with or without a display, offering flexibility for various applications. It provides a 4-20mA output.

WORKING PRINCIPLE

An ultrasonic level transmitter is a device used to measure the level of a material without making physical contact with the material. It operates based on the principle of sound waves. The transmitter emits ultrasonic waves (high-frequency sound waves) toward the surface of the material, and the waves bounce back. The device then measures the time it takes for the sound waves to return, which is used to calculate the distance to the surface of the material.



With Display



Without Display

FEATURES

- No site calibration required.
- Unaffected by product properties
- Weatherproof - Rugged Construction.
- Easy to Installation
- Light Weight
- Cost Saving.

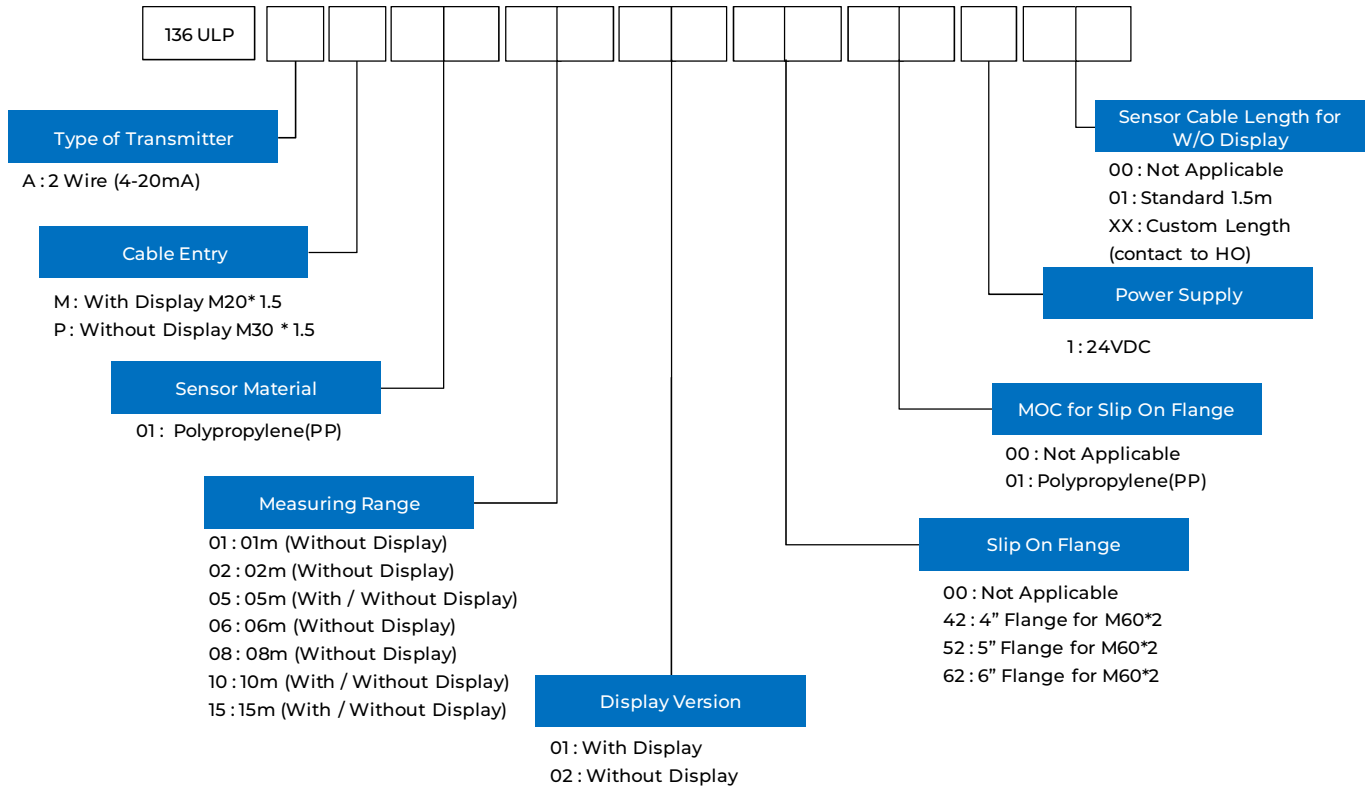
AREAS OF APPLICATIONS

- Waste water treatment
- Coal washing process
- Water Distribution
- Irrigation

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.

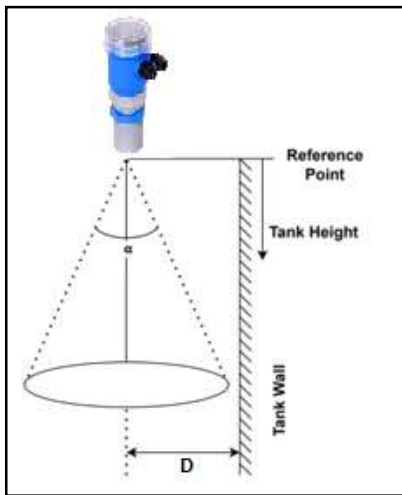
ORDERING CODE



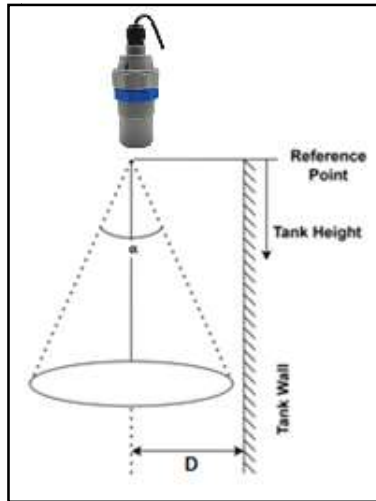
SPECIFICATIONS

Specifications	Parameter Description			
Display Version	With Display			Without Display
Instrument Range	5m	10m	15m	1m, 2m, 5m, 6m, 8m, 10m & 15m
Dead Band(m)	0.25	0.5	0.5	0.4
Beam Angle(α)	9°	9°	9°	9°
Process Connection	M60*2	M60*2	M60*2	M60*2
Measuring Frequency(KHz)	64KHz \pm 5%	44KHz \pm 5%	44KHz \pm 5%	64KHz \pm 5% for 6m Range 44KHz \pm 5% for 8 to 15m Range
Sensor Material	PP	PP	PP	PP
Housing Material	ABS Plastic	ABS Plastic	ABS Plastic	NA
Ingrass Protection	IP 65	IP 65	IP 65	IP 67
Operating Pressure	Atmospheric	Atmospheric	Atmospheric	Atmospheric
Power Supply	24VDC @30mA	24VDC @30mA	24VDC @30mA	24VDC @30mA
Accuracy**	\pm 0.5% of FS & \pm 0.25% of FS (On Request)	\pm 0.5% of FS & \pm 0.25% of FS (On Request)	\pm 0.5% of FS & \pm 0.25% of FS (On Request)	\pm 0.5% of FS & \pm 0.25% of FS (On Request)
Resolution	1mm	1mm	1mm	NA
Output	4~20mA	4~20mA	4~20mA	4~20mA
Output Configuration	2 wire	2 wire	2 wire	2 wire
Keyboard/ Display	Yes	Yes	Yes	No
No. of cable entries	M20*1.5 (02 nos.)	M20*1.5 (02 nos.)	M20*1.5 (02 nos.)	M30*1.5
Display parameters	Distance, Level	Distance, Level	Distance, Level	NA
Mounting	Top	Top	Top	Top
Cable Length	No	No	No	Integrated Standard Cable 1.5m

SONIC CONE



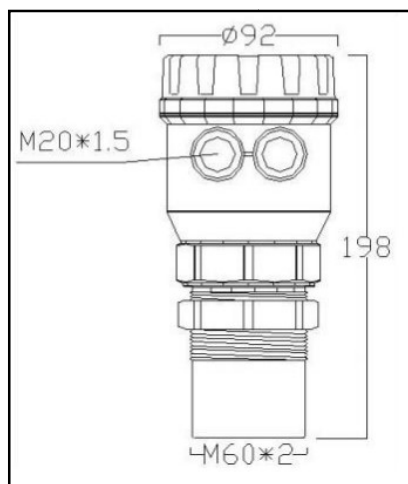
With Display



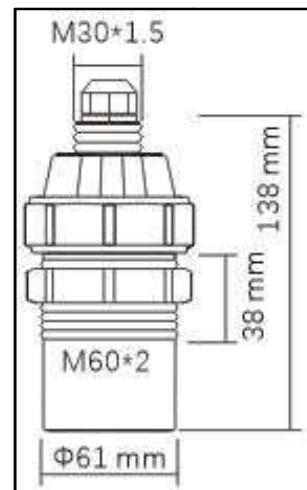
Without Display

Tank Height (m)	Tank Wall 'D' mm
	$\alpha = 9^\circ$
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



With Display



Without Display

***Continuous development may necessitate changes without notice.

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