

## Radar Level Transmitter –Liquid & Solids 138-W51

### INTRODUCTION

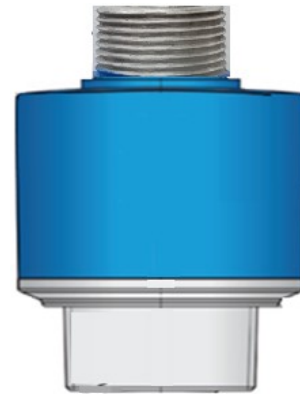
The Radar level Transmitter Liquid & Solids (138-W51) is a highly reliable and user-friendly non contact level sensor. It utilizes advanced 80 GHz radar measurement technology, which remains unaffected by the type of liquid or solid being measured, as well as the surrounding environment. The 138-W51 series offers an accuracy of  $\pm 5\text{mm}$ , with an  $8^\circ$  beam angle. It can operate in temperature ranging from  $0^\circ$  to  $60^\circ \text{C}$ . This two wire transmitter provides a 4 to 20mA + HART output.

### FEATURES

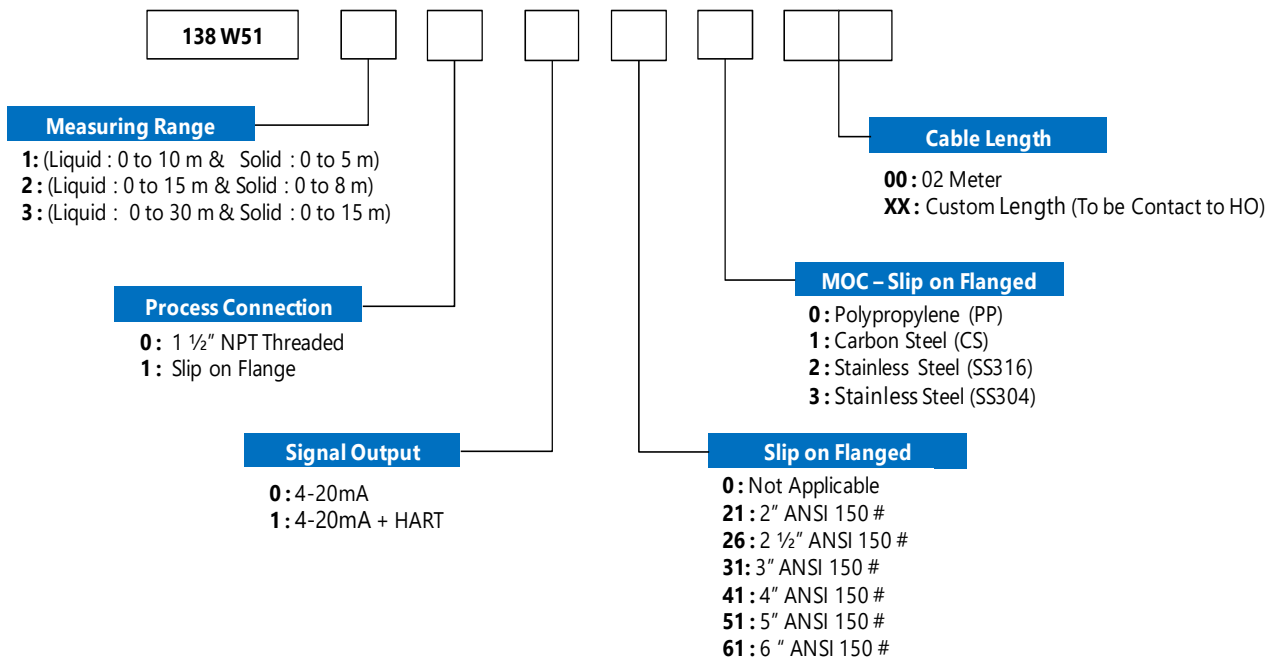
- 80 GHz technology for reliable and maintenance-free operation
- Rugged PVDF antenna and enclosure for corrosive liquid or solids.
- IP68 rated sensor for harsh outdoor or below grade installations
- Includes 2m PE/PVC jacketed cable for sealed wiring termination
- Measures level & Distance.
- Minimum dead band maximizes the potential fill capacity of small tanks
- Configuration via HART Server.

### HOW ITS WORKS

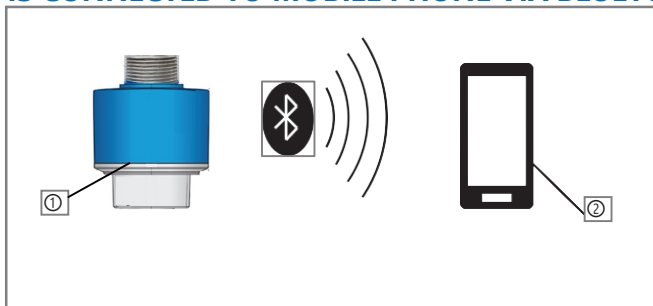
- The sensor emits a continuous radar signal through the antenna.
- The signal is reflected by the medium and received as an echo by the antenna.
- The frequency difference between the emitted and received signal depends on the distance and in turn on the filling height.
- The measured filling height is converted into output signal by the microcontroller circuit.



### ORDERING CODE



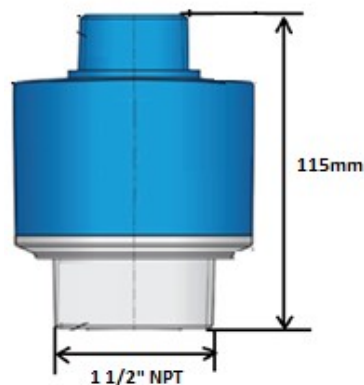
### RADAR IS CONNECTED TO MOBILE PHONE VIA BLUETOOTH



## SPECIFICATIONS

Sr.No.	Category	Parameter Name	Parameter Description		
1	General	Operating Frequency	80 GHz ,W Band ,FMCW Radar		
2		Typical Application	Water Level Measurement of Rivers, Lakes, Channels, Reservoirs, Sinks, / Hydrological Application , Water resources Development		
		Measuring Ranges	Liquid: 0 to 10 m & Solid: 0 to 5 m	Liquid: 0 to 15 m & Solid: 0 to 8 m	Liquid: 0 to 30 m & Solid: 0 to 15 m
4		Blind Zone	300mm		
5		Display Version	Without Display		
6		Beam angle	8°		
7		Installation method	Threaded & Slip On Flange		
8		Threading Type	1 1/2" NPT Threaded		
9		Slip on Flange Type	2" / 2 1/2" /3"/4"/5"/6" ANSI 150#		
10		Accuracy	±5mm		
11		Power Supply	24 VDC @ 30mA		
12		Analog Output	2 Wire, 4-20mA @500Ω load		
13		Communication O/P	Not Applicable / HART (Optional )		
14		Device Configuration	Through Bluetooth communication by using Mobile App		
15		Antenna type	Lens antenna		
16	Construction	Housing Enclosure	PP/Aluminum		
17		Antenna /Sensor Material	PP		
18		Flange Material	PP		
19		Cable Orientation	Top		
20		Cable Length	Standard 2 m. (Extra Length optional on request )		
21		Cable Jacket Material	PE/PVC		
22		Process Temperature	0 to 60 °C		
23		Process Pressure	Atmospheric		
24	Protection class	Standard IP 67 / IP68 on Request			
25	Environmental	Humidity	≤ 95%RH		
26		Operating Temp.	0 to 60 °C		
27		Weight	~ 2.5kg		

## MECHANICAL DIMENSIONS



LF-138-0814-R02 08/2023

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