



VAJRA (R35) - Automatic Water Level Recorder using Radar sensor - Technical Specifications

GENERAL	
Service	Measurement of level of river / canals / lakes / tanks
Weight of Instrument	Less than 5.0 Kgs (including battery)
Power	Rechargeable battery (20 AH), 15 W solar panel or better
Ingress Protection	IP68
SENSOR	
Sensor Type	Battery Operated Radar Range Finder, 60-64 GHz (Non-Contact Radar Type)
Output	3.3V TTL UART
Range	0-10m
Dead Band	500 mm
Resolution	1 mm
Accuracy	+/- 2mm
Beam Angle	Less than 16 degree
Fastest Read Rate	10 readings per second
Sampling Interval	Customizable
Memory Type for inbuilt GSM / GPRS Modem	Non-Volatile flash memory that can store 100 days of data (with 15-minute logging interval, expandable as per requirement)
Units of Measurement	in, ft, mm, cm, m
Operating Temperature	-5 to 70 degree Celsius
Humidity	0 to 100 %
Material	Corrosion Resistance
TRANSMISSION	
Mode	Cellular Transmission (2G/3G/4G/5G SIM compatible)
Performance	For RSSI better than -75dBi, Data Reception availability of 90% or better
Output Interface	SDI-12 / RS 485 / 4-20 mA/ RS232/ Compatible with data logger.
Communication Direction	Utilize cellular network for two-way connection

The instrument has a special feature for inbuilt error correction and averaging feature. It is achieved by taking 100 readings in 10 seconds and choosing the best reading by identifying mean, median & mode of the readings. Also the internal watchdog offers inbuilt diagnostic features for self diagnostics and reporting device health online.