**Technical Specification of Radar type level sensor for SILO**

**Silo level sensor:**

* Radar type level sensor suitable for coal storage silos having storage bin depth of 30m and diameter 18m.
* Level sensor unit must be a self-contained complete functional unit consisting of all necessary functional units such as :
  + Sensing unit with wave transmitter, receiver, wave guide and mounting.
  + Digital controller with relay output with NO and NC contact, 220V, 5A.
  + Panel mountable LCD/LED display unit having percentage and bar-graph display.
  + Sensor cable connecting sensor to the controller.
* Unit must operate with nominal 220V 50Hz AC mains supply.
* Controller unit must have DIN or Panel mounting options.
* Sensing unit must have at least IP67 rated dust and water proof metallic enclosure.
* Unit must support **HART/MODBUS/RS-485** for interfacing with existing PLC unit.
* The performance/accuracy of the measurement must not be affected by coal deposition on sensing unit and coal dust inside the storage bin.
* The sensing unit will be mounted on the roof/ceiling of Silo storage tank and the tank status must be available in the Silo control room. The silo control room is at ground height while silo roof is at 50m height from the ground. Sensing unit must include interconnecting cables for this arrangement.
* Level sensor unit must update tank level at least once per 5 second.
* Level sensor unit must store setting and calibration data internally and must not require re-configuration after power outage.
* LED display unit must have large Numeric and Bar Graph display of silo tank level.
* LED unit must have backlit for visibility in dark.