

# **iGRAIN RADAR – 80 GHz**

## **High precision level measurement**

### **General description**

The *iGRAIN* High Precision Radar level measurement system consist of:

- the *BIN-AUDITOR* Radar level measurement unit(s)
- the *iGRAIN INVENTORY MANAGEMENT SOFTWARE*

This system is ideal to keep track of grain inventory status in multiple bins as it interfaces with the *iGRAIN* Dash-Board Manager control software. Also good for other application.

It is designed for use in grain-, four- or feed silos. It provides an unsurpassed accuracy even in very dusty atmosphere with a maximum measuring distance up to 45 meters.

The advanced microprocessor technology can update level data every minute if needed.

The *iGRAIN INVENTORY MANAGER SOFTWARE* provides reliable information about **LEVEL**, **VOLUME** and grain **WEIGHT**. It also records all movements **IN** and **OUT** of each bin. The system displays **Level**, **Volume** and **Weight**. Grain density can be set by the user for higher accuracy or be chosen from the *iGRAIN* default density list.



### **Principle of operation**

The Radar emits a narrow microwave pulse that is transmitted downwards by the emitter. The radar reflection from the surface reveals the distance to the surface. The system can be set to zero when the silo is empty. The level can be seen on the unit and is available on both data bus and as analog output.

### **Features**

- Accurate Inventory Information
- Durable system with low maintenance requirement
- NOT sensitive to dust build-up inside the silo !
- Works in dusty environment due to high-frequency transmitter
- Inventory Trend Curves for every bin
- Remote access via *iGRAIN MANAGER SOFTWARE* Includes **THEFT** monitoring and Integrates with *iGRAIN* Inventory Management software
- Easy to install with the special mounting flange
- The small reflection area enhances the echo accuracy, and is beneficial to avoid interference
- Special features secure a higher accuracy than on other similar systems

## **Technical specifications iGRAIN BIN-AUDITOR Radar Sensor**

Measure Range:	45 m	Data Com.:	RS 485, Modbus
Level Accuracy:	+/-10 mm	Analog Output:	4 – 20 mA
Supply voltage:	230 VAC/24 VDC	Communication:	MODBUS
Cable Gland entry:	M20	Grain Silo Accuracy:	Approx. 1 - 2 %,
Sensor Head:	Cast Aluminum, IP 67	(total volume)	depending on silo dimensions etc.