InnoSenT

RELY ON MORE *SENSES*

RADAR TECHNOLOGY FOR YOUR COLLISION AVOIDANCE APPLICATION

iSYS-6030 COLLISION AVOIDANCE RADAR SYSTEM

HIGHLIGHTS

- high accuracy distance measurement to stationary or slow moving targets
- user-confi gurable output power in 1dBm steps
- successor product for iSYS-6003 with extended functionality

APPLICATION BENEFITS

- accuracy with measurement error of ±0.1% over range
- no influence from weather conditions or temperature fluctuations
- 20ms update rate for the continuous measurement of distances
- increased temperature range enables indoor & outdoor applications
- installation behind safety buffers or edges possible
- frequency band allows approval in Europe, US and China

TECHNICAL DATA

- radar-based system working in the frequency band between 57-64 GHz
- detection range up to 40m
- narrow beamwidth of 6° in azimuth and elevation
- supply voltage 3.6 - 16 V DC
- low power consumption approx. 145 mA
- single-target and multi-target mode
- rise time of device in 70ms
- 4 configurable outputs for control functions
- compact design (50x50x47mm) for easy integration into customer housing

QUICK START GUIDE

The initial operation of the iSYS-6030 is quick and easy. This is a short description of the setup of the sensor. Consult the user manual for detailed information.

1. Step: Install the iSYS-6030 GUI software in a windows environment.
The software package can be downloaded from our website (https://www.innosent.de/downloadportal/).
• Open the setup file of the software package (iSYS-6030 -> GUI -> iSYS_6030_GUI_V1.xxx.exe) and follow the instructions of the installation in a windows environment.

2. Step: Mount the iSYS-6030 sensor in a stationary position.
• For example on a tripod or standing upright on a horizontal surface.
• Align the sensor in one direction.

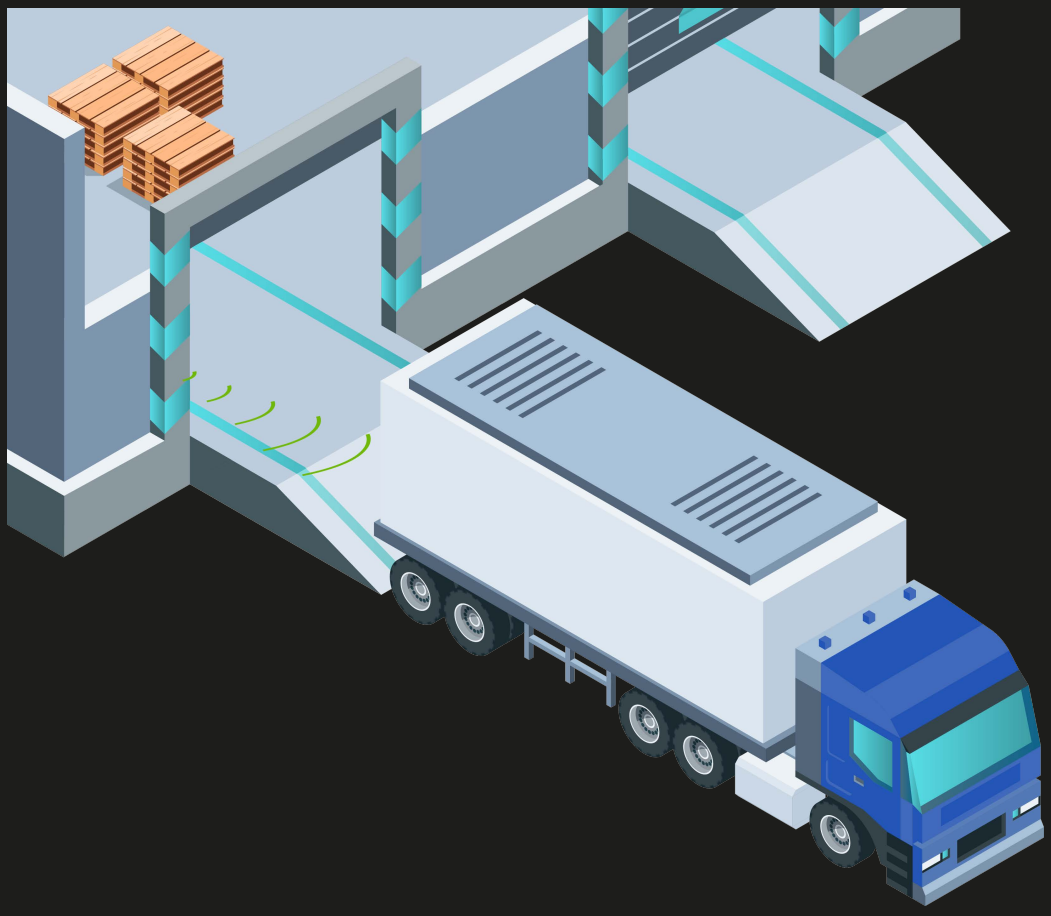
3. Step: Connect the iSYS-6030 via an USB cable (micro connector type B) to your PC.
• Open the installed iSYS-6030 GUI Software on your PC. On the left side you will find the menu tab "Connection and Selection".
• Press the "Refresh COM ports" button to refresh the list of COM ports attached to the host PC. This must be done before you can attempt to connect to the sensor.
• After refreshing the COM ports the drop down will show you all available COM ports of the host PC. Select the COM port of your iSYS-6030 sensor.
• Press the "Connect" button to connect the iSYS-6030 with the host PC. If successful, you will see a green response in the console. If unsuccessful, you will see a red response.

4. Step: After the connection has been successfully established, the iSYS-6030 can measure the distance to targets and visualize the measurement.
• In the fill level tab you can visualize and evaluate the measured distance to a medium.
• You can configure the tank height and the fill warning level, among other things.
• In the LCD-Display tab you can see the simple measured distance to a medium based on the current settings.

5. Step: The spectrum tab is only visible in the advanced mode of the GUI.
• You can select the GUI mode on the connection and selection tab in the top right. The default mode is basic.
• The spectrum tab shows the measured FFT data of the sensor as well as the calculated threshold and is the primary tab to configure the advanced settings of the sensor.

6. Step: Congratulations! You have just started your iSYS-6030 evaluation kit sensor system.

The easy installation and evaluation is one smart feature of the iSYS-6030 evaluation kit. The software enables a quick configuration of all necessary parameters. For more information on advanced settings see the user manual.

INSTALLATION

The figure shows a typical setup for collision avoidance in industrial applications.