



PROXIMITY SENSOR 30 M

MODEL: "RADAR 30"

The proximity warning system for HEMM consists of RADAR sensor modules and RADAR 30 display module. (X = 1 number of sensor modules).

Raddar Module Specifications:

- a) Front Detection Distance: (1-30m adjustable as per your requirement)
- b) Rear Detection Distance: (1-30m Adjustable distance as per your requirement)(When Use Rear Side)
- c) Operating Voltage 9-36V
- d) Storage Temperature -40 to +85*
- e) Working frequency 76-77 GHz
- f) Transmit power 12 dBm
- g) Modulation Mode FMCW
- h) Horizontal angle (*) – 110 @ - 3dB
- i) Vertical angle (*) – 30 @ - 3dB
- j) Angle accuracy +/- 0.5 @ 40*
- k) Angular resolution 15*
- l) Speed Range -36 to +36 km/h
- m) Detectability 30m
- n) Distance Accuracy +/- 0.02m
- o) Waterproof Grade IP69K
- p) Led Display : With Object Direction Display.
- q) Audio Alert : Yes >80dBm @ 12V/10cm

- Designed as per industrial/mining conditions. Can be used in dusty and humid conditions.
- Separate sensor and display module (multiple sensors can be connected to display module).
- Micro-controller and sensor IC both are present in each sensor. This provides better calibration and communication with display module.
- Single cable interface makes it easy to connect in field.
- Easy mounting

Available Housing Material:

- CPVC (For Sensor Module)
- MS (For Display Module)

Cable for interconnection of the two modules:

- 1 M 4-core shielded cable
- Other cable lengths up to 30 M are available

Options:

- 1-8 sensors depending on requirement

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Description:

The sensor module provides very short to long-range detection and ranging, in an extra compact, robust CPVC housing, designed to resist water intrusion. This sensor has a new high power output along with real-time auto calibration for changing conditions (temperature, voltage, acoustic or electrical noise) ensuring reception of the most reliable (in air) ranging data for every reading taken. The low power operation detects objects from 200 mm to 30000 mm (100 feet) and provides sonar range information with 10-mm resolution. The interface output format is: pulse-width/serial output.

Features:

- Extra Compact Housing
- High acoustic power output
- Designed for outdoor or indoor environments
- Real-time auto calibration and noise rejection for every ranging cycle
- Precise narrow beam
- Continuously variable gain
- Object detection includes soft target objects
- ☐ +12-28V DC supply for Display Module
- Free run operation can continually measure output range information
- Triggered operation provides the range reading as desired
- All interfaces are active simultaneously (thus avoiding cross-talk)
- Serial, 0 to +5V, 9600 Baud, 8,1,N or Pulse-width output
- Sensor operates at 70 GHz
- Option to operate in continuous or short-time mode (e.g. 5 mins. at start-up)
- Audio Buzzer indication (variable rate) for proximity warning.

Benefits:

- Lightweight, compact, weather resistant design
- Acoustic and electrical noise resistance
- Reliable and stable range data
- Quality narrow beam characteristics
- Very low power excellent for multiple sensor or battery based systems
- Ranging can be triggered externally or internally
- Sensor reports the range reading directly due to in-built processor
- No calibration requirement is perfect for when objects may be directly in front of the sensor during power up
- Easy mounting