

RADAR LEVEL MADE EASY

RANGE- finder



www.gpc.co.za

Marketed By:



D. K. INSTRUMENTS PVT. LTD.

An ISO 9001:2008 Certified Co.

76/2, Selimpur Road, Dhakuria, Kolkata - 700 031

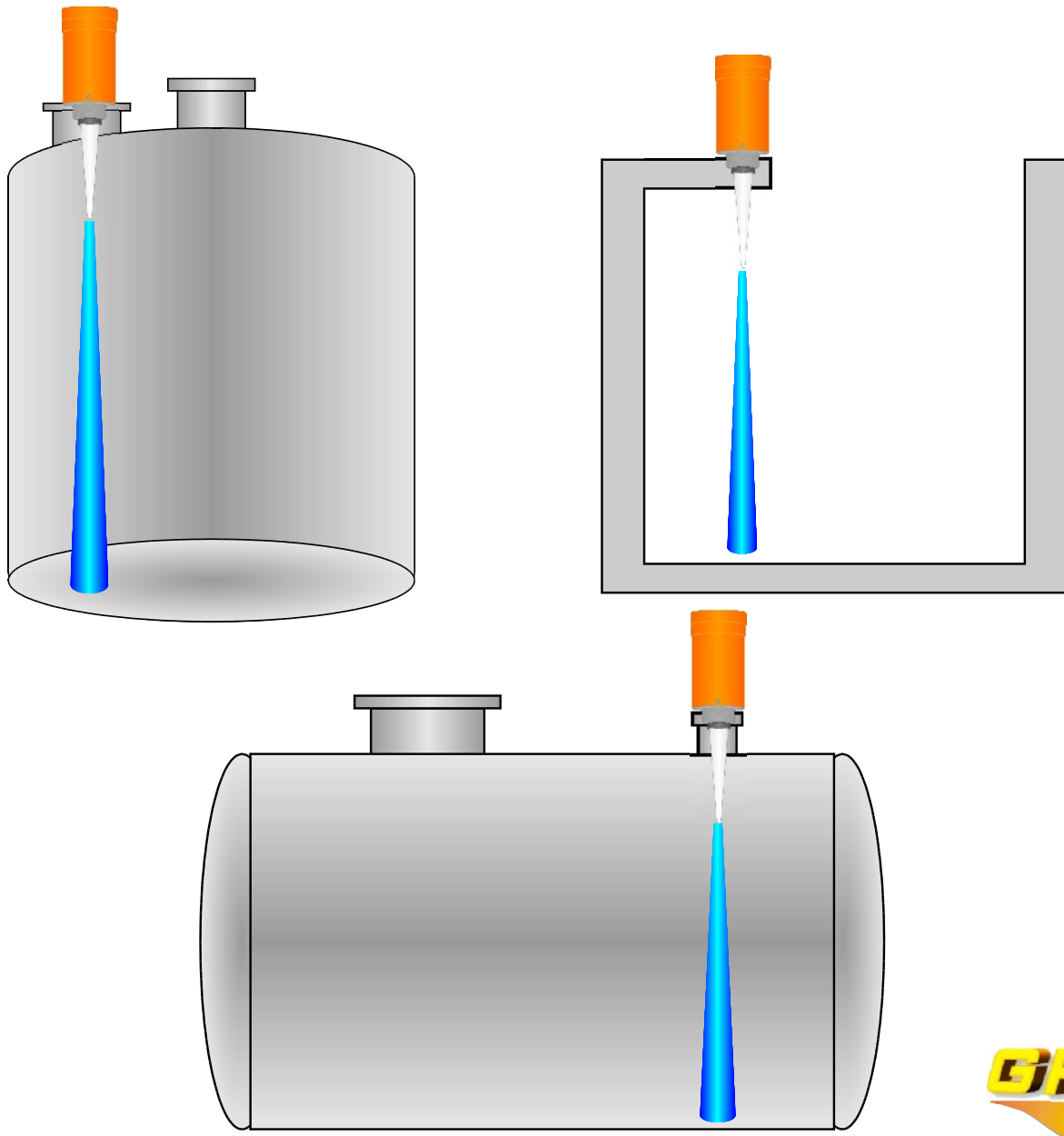
Ph. No.: 91-33-2415 1310 / 2405 0944, Fax: 91-33-2415 2311

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NEW NOISELESS SELF ADJUSTING PULSE RADAR PROBES

GPC is proud to announce release to production of very low cost pulse radar probes for 10m, 15m and 30m distances. This revolutionary designing offers very low noise performance, which is due to operation of the receiver that is activated by incoming echoes from wanted targets. Our radar probe adjusts microwave pulse amplitude and its width to a target distance and target reflection properties. The receiver changes its sensitivity with amplitude of received echoes. In addition to that, we also analyze the shapes of the received echoes and eliminate the ones coming from tanks' walls, standpipes and other obstructions. These features allow our radar to track any wanted target from the top of the rod antenna down to bottom of any shape tank regardless of tanks' shapes and environment conditions. Any build up on the rod antenna does not deteriorate the performance of the radar probe. Our radar does not have any mismatch between resonator and transceiver. This eliminates problems when a target is close to antenna and gives optimal performance of the radar. User interface of our radar is the same as of our ultrasonic probes, which is very simple and does not require any manuals. Communication software is also the same for ultrasonic and microwave probes. This allows a user to use radar and ultrasonic probes in the same network.



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Continuous 3 Wire Radar Level Transmitter



FEATURES

- * Simple push-button calibration
- * Output 4-20mA or 20-4mA
- * Compact size for easy mounting
- * Optional Rs232 or Rs485 Communications

APPLICATIONS

- * Food and Beverages
- * Water / Wastewater
- * Chemicals (With Vapors)
- * Oils
- * Solids (Vapors and Dusty applications)



CALIBRATION - 4-20mA or 20-4mA

Full: (Set near target)

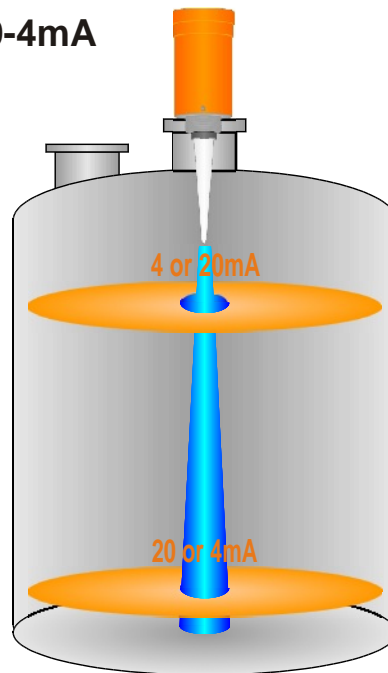
1. Calibration mode LED color is blinking green.
2. Push button and hold until LED turns Orange (20mA).
Or push button and hold until LED turns Red (4mA).
3. Release button, observe LED flashes to acknowledge the calibration.

Empty: (Set far target)

1. Calibration mode LED color is blinking green.
2. Push button and hold until LED turns Red (4mA).
Or push button and hold until LED turns Orange (20mA).
3. Release button, observe LED flashes to acknowledge the calibration.

Loss of Echo - 22mA or 3.5mA

1. To chose 22mA press and hold button until the LED goes off - 2 flashes.
2. To chose 3.5mA press and hold button until the LED goes off - 1 flash.



SPECIFICATIONS

MECHANICAL

- * 2 x 1/2" NPT gland entry
- * Aluminium or SS Enclosure
- * IP 65 Protection

ENVIRONMENTAL

- * Temp - 40 to + 60 Deg C
- * Pressure 1 - 10 bar
- * Approvals: FCC Part 15
- * CE

OPERATIONAL

- * Accuracy: +- 0.25% of full span
- * Transmitter Power: 50uW Ave.
- * Beam Angle: 8 - 10 deg.
- * Loss of Echo: (30 sec) 22mA

ELECTRICAL

- * Power: 12 to 28Vdc
- * 0.07 A max @ 24 Vdc
- * Output: 4-20mA / 20-4mA
6.1uA Resolution

CALIBRATION

- * Push button or Programmable via comms port
- Optional: RS232 or RS 485 (Modbus)

ORDERING INFORMATION

MODEL	RANGE	RESOLUTION	MOUNTING	FREQUENCY
RF3-10-RC	0 - 10m	5mm	2" NPT	6.3GHZ
RF3-15-RC	0 - 15m	5.7mm	2" NPT	6.3GHZ
RF3-30-RC	0 - 30m	11mm	2" NPT	6.3GHZ

For Sanitary version (2" ferrule) add S to model number.

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INSTRUCTION MANUAL FOR RF3R Radar SENSORS



TYPICAL INSTALLATION

- * Direct mounting Radar sensor.
- * Simply thread sensor directly into METAL or PLASTIC nozzle.

CALIBRATION - 4-20mA or 20-4mA

Full: (Set near target)

1. Calibration mode LED color is blinking green.
2. Push button and hold until LED turns Orange (20mA).
Or push button and hold until LED turns Red (4mA).
3. Release button, observe LED flashes to acknowledge the calibration.

Empty: (Set far target)

1. Calibration mode LED color is blinking green.
2. Push button and hold until LED turns Red (4mA).
Or push button and hold until LED turns Orange (20mA).
3. Release button, observe LED flashes to acknowledge the calibration.

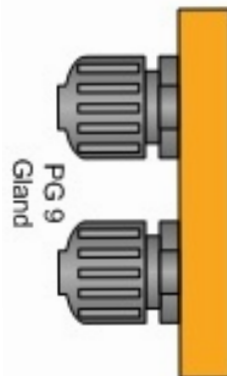
Loss of Echo - 22mA or 3.5mA

1. To chose 22mA press and hold button until the LED goes off - 2 flashes.
2. To chose 3.5mA press and hold button until the LED goes off - 1 flash.

OPERATION: An Electromagnetic pulse is transmitted from the RF3R sensor. The pulse travels to the surface being monitored and is reflected off the surface back to the sensor. The time of flight is divided by 2 and converted to an output signal directly proportional to the material level.

Low Dielectric Material operation mode on / off

1. To turn LDM ON. Push button and hold until LED goes off after the sequence of yellow, red and turns off. The LDM operation is on when the LED's green light blinks constantly.
2. To turn LDM OFF. Push button and hold until LED goes off after the sequence of yellow, red and turns off. The LDM operation is off when the LED is continuously green.



RF3R Wiring Connection

