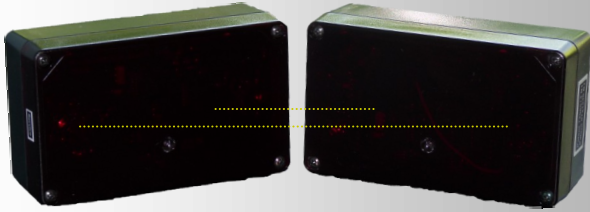


# Point Sensor IR Directional Counter-900 3005-104



## FEATURES

- Dual IR Beams for Directional People Counting
- Battery operated for a truly wireless installation
- Radio interface operates with all Point Six Receivers
- Battery life up to 4 years
- Unique serial number embedded in radio data packets
- 25 ft. IR transmission range
- Up to 1300 Ft. radio range
- Counts beam interruptions
- CRC-16 error checked radio data packets
- 4.53" X 2.56" X 1.57" polycarbonate enclosures
- Complies with part 15 of the FCC rules
- User replaceable batteries

## DESCRIPTION

The Point Sensor IR Directional Counter-900 is a battery operated infrared beam interruption sensor with a 900 MHz radio transmitter. The sensor consists of two parts; the IR transmitter and the IR receiver. The IR receiver has an integrated radio transmitter for truly wireless installation and operation. The IR transmitters produce 96 pulses of high intensity IR each second across a maximum distance of 25 feet. The nature of these IR pulses is such that the IR receiver can distinguish them from any other source of IR. This characteristic allows the IR sensor to operate in almost any environment without interference from ambient lighting. The "IN" and "OUT" logic is built into the product making the radio transmission data very easy to interpret. All counts are totalized and stored in memory. Once every 120 seconds the totalized counts are transmitted via the integrated radio.

The IR Point Sensor is designed to require very little energy; the internal 3.6 Volt Lithium thionyl chloride battery pack will operate the IR receiver for up to 4 years in normal operation. The IR transmitter can operate on the 3.6 Volt internal Lithium thionyl chloride battery pack for 4 years.

The product is ideally suited for applications where running cables is cost prohibitive or not practical. Typical applications include: shopping centers, casinos, retail and hotels.

PARAMETER	MIN	TYP	MAX	UNITS
Battery life IR receiver	-	4.0	-	Years
Battery life IR transmitter	-	4.0	-	Years
Battery type: Lithium Thionyl Chloride 3.6vdc	-	-	-	-
IR Range	.5	-	25	Feet
Radio Range	-	1,300	-	Feet
IR receiver reed switch reset time	-	3	-	Seconds
IR receiver reed switch to ship mode	-	8	-	Seconds
IR transmitter reed switch wake time	-	2	-	Seconds
IR transmitter reed switch to ship mode	-	8	-	Seconds
Enclosure 4.53" X 2.56" X 1.57" Polycarbonate	-	-	-	-
FCC Certified: OUR9XSTREAM	-	-	-	-

**Point Six Wireless**  
*Unique, High Value Wireless Solutions*

# ***Installation and Operation Instructions***

## **Operation**

The IR receiver and IR transmitter can be placed in a Shipping Mode to lower energy usage and to prevent Radio transmissions during shipping. Touching a magnet to the service label for a period of time greater than 8 seconds and then releasing will enter Shipping Mode. IR receiver and IR transmitter shipping mode is indicated by a rapid flashing of the LED when a magnet is touched to the service label for less than 3 seconds.

Shipping mode is terminated by entry into Online Mode. Online mode is entered from Shipping Mode by placing a magnet next to the service label until the LED stops flashing for both the IR transmitter and IR receiver. In online mode with the IR Beams properly aligned, the IR Point Sensor will begin counting the "In" and "Out" beam interruptions.

The internal 24-bit will perform a Counter Reset each time a magnet is placed next to the service label on the IR receiver for more than 3 seconds.

Every 120 seconds the receiver will transmit a data packet using the onboard 900 MHz radio.

**FCC ID: OUR9XSTREAM  
MADE IN USA**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES, OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESERED OPERATION

## **FCC Radio Frequency Interference Statement**

Power Sensor IR Directional Counter 900      FCC ID: OUR9XSTREAM

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, Subpart B, of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications.

The limits are designed to provide reasonable protection against such interference in a residential situation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to power outlets on separate circuits.
- Consult the dealer or an experienced radio/TV technician for help.

## **MODIFICATIONS**

Changes or modifications not expressly approved by **Point Six Wireless** could void the user's authority to operate the equipment.

# Wireless Transmitter Packet-Data Specification

## “DirectionCtr” (65/64)

IDSSSSSSSSaaaaaBBBBBBBCCCCKK<CR>

Note: All fields are in ASCII Hex

“ID”

The device type field: Directional Counter has device type 65 hex. A 64 hex when in service mode.

“SSSSSSSS”

The MS-30 bits of these 4-bytes are the serial number of the Directional Counter. The LS-2 bits are the status flags. The meaning of the status flags are:

Bit 1	Bit 0	State
0	0	Blocked
0	1	Okay
1	0	Undefined
1	1	Undefined

“aaaaaa”

This 24-bit field is the direction “A” counter stored LS-byte first. Counts in Direction “A”.

“BBBBBB”

This 24-bit field is the direction “B” counter stored LS-byte first. Counts in Direction “B”.

“CCCC”

This field is the CRC-16 error check as was originally received and checked. This CRC is over the first 11 bytes of the packet starting with the device type and ending with but not including CRC-16.

“KK”

This field is the mod 256 sum of all the binary data values as represented by the ASCII hex values in the response but does not include the <CR>.

Note: “Blocked” is when the sensor’s beam has been blocked for typically 10 seconds.

Example Packet

6510732581FF0000FE0000464516

SN = 10732580; state = Okay; CountA = 255; CountB = 254

### Installation Illustration

