



## Product Overview

### The TX-50 Industrial Proximity Sensor



The TX-50 is a high-performance, weatherproof proximity detector capable of detecting objects from 0 inches out to 254 inches (6.45 meters) and providing ultrasonic distance measurements from 12 inches out to 254 inches. (Objects inside of 12 inches are reported at 12 inches) Resolution on distance measurements is 1 inch.

The TX-50 features a very narrow beam and rapid measurement time, making it ideal for use cases like presence detection inside a threshold, object distance determination and liquid level monitoring.

Operation is simple. Apply +5V and the unit will self calibrate and begin transmitting range measurements every 49msec. Data is transmitted as TTL level ASCII characters at 9600 baud, 8 data bits, no parity and 1 stop bit.

The TX-50 features a robust, welded steel IP67 housing and a universal pole-mounting kit that supports pipe up to 3" in diameter. A 50' integrated, shielded power / data cable is included.

## Applications

- Proximity Detection
- Liquid Level Monitoring
- Range Determination
- Triggering for Video / RFID Equipment

## About Thinkify



Thinkify is a privately-held technology company in Morgan Hill, California that is enabling common objects, devices and whole environments to become aware of their contents using RFID.--We specialize in embedded RFID applications.

**Thinkify – Making things think.<sup>tm</sup>**

## Features

### Rugged

- Welded steel enclosure
- IP67 Compliant
- Tamper-resistant housing.

### High Performance

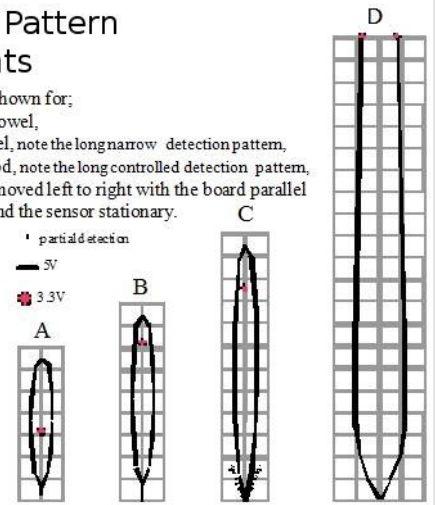
- Rapid measurement time (~21 Hz)
- Accurate (1" Resolution)
- Narrow beam
- Long range (> 6 meters)

### TX-50 Beam Pattern Measurements

The detection pattern is shown for:  
 (A) 0.25-inch diameter dowel,  
 (B) 1-inch diameter dowel, note the long narrow detection pattern,  
 (C) 3.25-inch diameter rod, note the long controlled detection pattern,  
 (D) 11-inch wide board moved left to right with the board parallel to the front sensor face and the sensor stationary.

This shows the sensor's range capability.

Note: The displayed beam width of (D) is a function of the specular nature of sonar and the shape of the board (i.e. flat mirror like) and should never be confused with actual sensor beam width.



### Easy to Use

- Simple serial interface
- 3.3 – 5V operation

### Flexible Installation Options

- Pole-mounting kit
- 50' of cable included. (Longer cables available)
- Low current requirements simplifies install (3.4 mA current draw (100 mA peak) at 5V)