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PRESS RELEASE

Single Sensor Able to Measure Fill Heights of Bins in Three Dimensions

The Banner ZMX 3D Time of Flight Sensor Detects Varying Heights within a 3D Space

MINNEAPOLIS — Industrial automation manufacturer, [Banner Engineering](#), introduces the ZMX series 3D Time of Flight Sensor. This provides an ideal single-sensor solution for monitoring the volume of materials, products, or packages that are routed to fill a bin or similar container.

Factories, warehouses, and distribution centers that use containers for accumulation of items can install a Banner ZMX sensor above the bin to monitor fill level to avoid overflow, package damage, or shipping empty space, thereby improving efficiency and operational performance. By combining digital imaging and thousands of laser measurement points, the sensor calculates the volume of the packages in a bin and tracks the peak height of objects within a user-defined area. The ZMX features a large 60° x 45° field of view, with a range of 200 to 2,500 mm (7.9 in. to 8.2 ft.), which enables it to detect items of any size, shape, or orientation.

A single 3D sensor provides more reliability than other technologies. For example, using multiple single-point laser sensors can be problematic if the beams fall into gaps between objects, and an ultrasonic sensor signal might get reflected away by an oddly angled or shaped package, leading to an overflowing bin. One centrally positioned ZMX sensor provides complete area coverage in three dimensions, tracking fill volume and peak height of objects within that field of detection.

The ZMX 3D Time of Flight Sensor is perfect for applications including bin fill and peak height monitoring, overflow detection, pallet stacking or depalletizing, parcel management, shipping and receiving, and tracking material flow volume or height statistics.

Banner Engineering manufactures industrial automation products that include sensors, smart IIoT and industrial wireless products, LED lights and indicators, machine safety equipment, as well as barcode scanners and machine vision devices. These products help produce the cars we drive, the food we eat, the medicine we take, and many of the things we touch every day. Headquartered in Minneapolis since 1966, Banner is an industry leader with more than 10,000 active products, operations on six continents, and a worldwide team of over 5,500 employees. Every 2 seconds a Banner product is installed somewhere in the world. Online at BannerEngineering.com

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