

## INTELLIGENT WALK-THROUGH WEAPON DETECTION SYSTEM MODEL: WMD500

### Overview

Intelligent Walk-through Metal Detection System/IMDS created by Polimek is a Groundbreaking Metal threats Detection System, designed for faster screening of passing people, even with their backpacks, purses and bags, etc. for the detection of a large variety/number of Metal Threats, such as regulated knives, firearms, flammable and explosive containers, pipes and other prohibited metal items.



“INTELLIGENT” , is the typical characteristic relative to legacy walk through metal detectors. INTELLIGENT is powered by Patented “Metal Classification Detection” technology. It can intelligently identify, classify and not alert for common personal metal items instead of filtering small metals by reducing the sensitivity, thus distinguishing the metal contraband from the daily necessities and only alarming the metal contrabands.

Intelligent Walk-through Metal Detection System/IMDS is made up of a patented metal-classifying detection and analytic system, a visual camera and edge-computing embedded host with artificial intelligence technologies, a monitor tablet and the control cloud platform. The system can be set up outdoors and easily transported for event security or conveniently situated permanently in an indoor space.

The IMDS is designed to scan people walking at average speed through the detector system one-way or two-way. The system optionally displays "CLEAR" if no threat is detected or "Object Detected" and conceal zone if the system detects a potential threat on an individual.

### Key Features

Intelligent Metal-classified detection and daily necessities filtering the everyday carry items such as mobile phones watches, cigarettes, lighters, keys, coins, belt buckles and others illustrated as below, will be detected and distinguish alarm items will be filtered, or set for “WARNING”



- Weapon Contraband alarm based on metal classification detection and identification

The detected weapon contraband items will be identified and classified as five categories: “tools, knives and guns” , “aluminum cans” , “tinplate” , “copper/aluminum tube” and “other contraband” .

The contraband alarm information will contain the metal material and shape, it will be displayed on the interface of monitor tablet and sent to the control cloud platform.



- High-accuracy weapon contraband detection performance and low false alarms

The customer has the option to change the Security Standard settings in the IWDS or through walk-through weapon detector according to their threat matrix. In addition, the sensitivity can be changed up or down (three levels) according to the use case and customer goals. The sensitivity can be easily increased for added security, however, the nuisance rate of false alarms will likely increase. In terms of the nuisance rate of false alarms, we have observed that in the average crowd, a rate of about 5%. So, in a group of about 100 people going through, generally, about 5 will set off the alarm (for a range of reasons).

- Configured with more than 25 detection and alarm zones, it can detect concealed contra-bands on any part of the body, especially the easy-to-miss zone such as on the head, in the armpits, on the abdomen, on the inner side of thighs, and the inner side of calf, on the soles of the feet, the back of body etc.

- Not only the alarm can be defined as the concealed zone of body, the system can distinguish whether the metal items are concealed in the front or back of body, and show the alarm position separately.

