

## Metal Detector for Conveyor Installations

Series: MD-BD

CASSEL









## Application

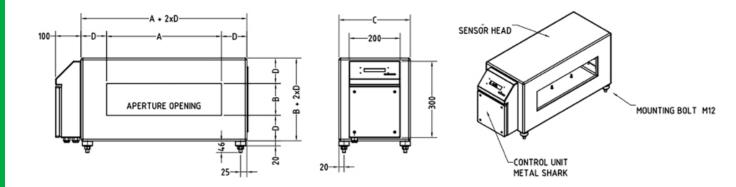
Typically integrated onto conveyor belts, include readily adjustable settings to ensure extreme equipment sensitivity, stability and reliability. The conveyor belt, framing and controls are made with sanitary designs for food grade process applications. Cassel Metal Detectors can be easily adjusted for the best product inspection tasks even under harsh environmental conditions or for conductive products. A variety of reject mechanisms (pusher, belt stop and alarm, etc.) are available to alert operators of a "find" or to divert contaminated product. This unit is generally used for:

- Frozen products
- Candy
- Bread, cakes and other pastries
- Fish
- Meat and meat products
- Ready-to-serve meals
- Raw material checks

\*Specifications subject to change

Series MD-BD Version 2.0 © MPI

683 Town Center Drive, Highland, MI 48356 | p. 800.544.5930 | f. 248.887.6100 info@mpimagnet.com | www.mpimagnet.com



MD - BD - Selection Guide	
Housing	Stainless steel, rust-proof
Control Electronics	Digital signal processor, digital noise filter, digital balance control, digital frequency control with synthesizer, digital temperature shift control, continuous self monitoring, maintenance free, no need for calibration, PowerDrive circuit
Output Signal	Metal alarm with potential-free changeover contact, metal alarm for 24V DC SPS activation, metal alarm for activation of 24V pusher magnetic valve, operating state/disturbance with potential-free changeover contact (230V/5 A), performance validation upon request, visual and acoustic alarm
Input Signal	All 24V DC reject trigger, e.g., photo sensor, monitoring of compressed air, reject affirmation, metal alarm confirmation, keyboard interlock, conveyor belt control, change of product, teaching mode
Measuring Method	Inductive, multichannel operation, balanced receiver coil
Metal Detention	Ferrous, nonferrous (e.g., aluminum or copper) and stainless steel
Product Library	120 storage spaces
Product Compensation	Performed automatically with teaching mode
Ambiance	Temperature -10 to +50 degrees C, humidity 30 to 85%
Product Temperature	-30 C to +80 degrees C
Power Supply	One phase 85 - 264V AC, 50/60 Hz, 100 watt
Interface	RS232, RS485, provides documentation per HACCP and IFS standards

## Options

**LPW Option for Low Pressure Wash-Down (IP67):** To obtain the IP67 rating, the METAL SHARK® controller can be housed in a double thick stainless steel enclosure. This upgrade allow for wash down with a pressure hose.

**HPW Option for High Pressure Wash-Down (IP69k):** To obtain the IP69k rating, the aperture can be specially sealed to prevent leaks and the METAL SHARK® controller can be housed in a double thick stainless steel enclosure. Daily wash-ups with a steam hose at a maximum pressure of 60 bar/900 psi can be conducted. Sausage processors as well as other manufacturers who conduct frequent wash-ups have found this feature very beneficial.

METAL SHARK 2 ® Controller: Fourquadrant technology allows a 360° analysis of the product "signature". Because the metal threshold follows the signature, Cassel metal detectors are able to detect metal in areas of the product where other competitive units cannot. Metal Shark 2, partnered with



an easy-to-use interface, provides superior performance without the need for technical personnel.

## **Cassel Features**

**HACCP and IFS Compliance:** Per HACCP principles, Metal Detectors are classified as critical control points and continuous checking is required to meet standards. If requested, Cassel can add a performance validation system (PVS) which automatically prompts the operator to test Metal Detector performance at pre-set intervals.

**Zero Maintenance Electronics:** All solid state electronics housed on one main board – ensures years of reliable performance offering the lowest cost of ownership on the market. Digital Balance Control adjusts for temperature and humidity fluctuations by monitoring coil balance more than 200 times per second. Cassel units also come with a 2 year standard warranty.

**Operational History:** Metal contaminant event or history, metal report, changes in parameter settings and other events are recorded with the date and time. Users can view the list of "incidents" on the control panel or export the log via a serial port.

**Ready for SHARKNET® Software:** To comply with HACCP and IFS standards, SHARKNET® enables automatic downloading of data documentation to a Windows-based PC.

\*Specifications subject to change

Series MD-BD Version 2.0 © MPI

683 Town Center Drive, Highland, MI 48356 | p. 800.544.5930 | f. 248.887.6100 info@mpimagnet.com | www.mpimagnet.com