**CASSEL INSPECTION**

- Reliably detects metals in packaged and unpackaged products on conveyor belts

- Removable sides make it particularly easy to install, ideal for belts that cannot be split

- Highest sensitivity with 4-quadrant technology

- Autocalibration and TeachAssistant for intuitive control and easy installation

- Maintenance-free due to automatic balance and calibration control

- Maximum detection performance with highest reliability in the entire detection area due to 4-quadrant technology

- Simple setup with teach assistant

- Memory for up to 250 products

- Easy to use with intuitive and multilingual menus

- 4-level password system, automatic log out after time lapse

- Documentation of all events and metal messages

- IFS- and HACCP reports available on the display at the touch of a button

- Optional: Data transfer to USB interface or connection to the company network via SHARKNET® software

- Cyclical function monitoring with Performance Validation System (PVS)

METAL SHARK TU in plastics recycling.

## Function:

Metal detector METAL SHARK® TU is used in combination with conveyor belts or chutes if these cannot be dismantled. The side walls of the TU can be removed so that sensors can be pushed over and under the belt without having to divide it.

Thanks to 4-quadrant technology, it detects magnetic and non-magnetic metal contaminants (iron, stainless steel, aluminium etc.) precisely and reliably. The stainless steel housing is easy to clean and very robust, making it suitable for many branches of industry.

## Application:

- Monitoring of packed or loose goods free or on conveyor belts or chutes
- Quality assurance for incoming goods, outgoing goods or during running production
- Machine protection, e.g. in the recycling industry

## Scope of delivery:

- Detection unit TU
- Control unit METAL SHARK® (separate mounting, e.g. wall mounting)

## Accessories & Extras:

- High temperature version
- Versions washable for hose cleaning (LPW) or cleaning with high-pressure cleaner (HPW) possible
- SHARKNET® connection for documentation, control and maintenance from a PC
- Signalling devices (optical/acoustic)
- Performance Verification Certificate (proof of functionality for audits) by CASSEL service technicians, e.g. during commissioning or maintenance


METAL SHARK TU with ascending conveyor, side guides.

## Industries:

- Animal feed
- Recycling
- Paper, cardboard, packaging
- Chemicals and pharmaceuticals
- Textile and fleece
- Palstics and rubber
- Wood

## Specifications:

| | |
|---|---|
| Electronics | Digital signal processor, digital frequency generation, digital balance control, automatic calibration, digital noise filters, integrated flexible control functions |
| Input | 2 analog 0...10 V DC (option: 4-20 mA)<br>8 freely configurable 24 V DC signals, e.g. for encoders, product recognition, buttons |
| Output | 2 floating: "error" and "metal"<br>8 freely configurable 24 V DC signals, e.g. magnetic valve, optical/acoustic alarm |
| Measuring method | High-frequency magnetic field, multi-channel operation, balanced receiver coils |
| Metal detection | Ferrous, non-ferrous (e.g. aluminium or copper) und stainless steel |
| Product compensation | 250 memory locations, automatic product compensation, TeachAssistant |
| Enclosure rating | Controller IP65<br>Sensor IP54, optional IP66 |
| Environmental conditions | Controller: -20°C to +40°C / -4°F to 104°F, optionally: -40°C / -40°F or +55°C / 131°F, rel. humidity 20% to 90% non-condensing<br>Sensor -30°C to +60°C / -22°F to +140°F, optionally bis +90°C / 194°F |
| Temperature of goods inspected | Standard: -30°C to +55°C / -22°F to 131°F<br>optionally: -40°C to +120°C / -40°F to 248°F |
| Power Supply | 1 Phase 110-230 V AC +/- 5%   20 W typ. (60 W max.) |
| Interface | RS232, LAN (optional, for SHARKNET®), USB (optional) |
| Maintenance | maintenance-free, selfcalibrating sensors |
| Diagnostics | integrated diagnostic software, automatic self-test |

All TU series metal detectors can be combined with HQ series conveyor belts.



## Special versions & optional extras:

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|---|---|
| Temperature extension cold | Temperature range extended to -40°C / -40°F<br>Resin seals remain elastic at low temperatures. Special insulation, heated enclosure and other features |
| Temperature extension hot | Temperature range extended to +55°C / +131°F<br>Adapted enclosure, additional thermal insulation, replaceable filter fan, heat exchanger and/or active cooling units. |
| High temperature extension for goods inspected | Goods temperature up to +120°C / 248° F max.<br>This option provides IP54 grade enclosure for the sensor |
| LPW/HPW | Increase of the IP protection class by adapting the sensor seal, installing additional seals and a double housing for the control electronics |
| SHARKNET® | The SHARKNET® software connects METAL SHARK® metal detectors with a central computer, providing centralized storage of all operating data plus batch and alarm documentation for HACCP and IFS compliance. |

## Accessories:

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|---|---|
|  | **Flashlight XENON red**<br>Very bright conspicuous optical alarm, 24V DC, IP 65<br>RB 10-100V 2W Xenon beacon<br>suitable for tripod or wall mounting |
|  | **Alarm horn**<br>Alarm transmitter with very loud acoustic signal, 24 V/DC<br>suitable for tripod or wall mounting |
|  | **Flashlight + horn on stand**<br>Acoustic and optical alarm on stand, stainless steel,<br>with bright xenon flashlight red and horn for conveyor belt mounting |
|  | **Test sticks, set 6 pieces**<br>certified, 100mm x 10mm x 10mm, acrylic, types and certificate number engraved in colour 2x FE, 2x NFE, 2x VA 1.4401 (sizes depending on application) |
| | Makrolon cover for control unit |
| | USB socket for control unit |



## The CASSEL quality promise:

As a premier manufacturer, CASSEL is committed to the highest quality standards. For more than twenty-five years, our goal has been to ensure the uncompromising quality of your products. We supply customers worldwide in various industries, including food, plastics, pharmaceuticals, textiles, lumber and mining.

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