

## METAL SHARK® R

Ultra High Sensitivity  
Sensor Ø 10/25/35 mm

### METAL SHARK® - The new generation in metal detecting technology

Introducing the METAL SHARK® presenting a completely new design in high sensitivity metal detectors. The METAL SHARK® provides outstanding sensitivity, accuracy, stability and precision product-effect-compensation.

The METAL SHARK® features the latest four channel DDS (direct digital synthesizer) and DSP (digital signal processor) technology. These technologies provide outstanding product-effect compensation. High processing speed, DDS and DSP makes the METAL SHARK® the leader in digital metal detection.

Digital balance control - levels temperature and humidity influences.

Auto calibration - fast and easy set-up.

Digital frequency & phase control avoid any drifts. Once calibrated keeps the set-up forever. No need for re-calibration.

Digital noise filters eliminate undesirable signals such as vibrations and shocks.

Multi-channel technology for the optimum recognition of all metals; ferrous, non-ferrous and stainless.

Power supply: Wide input 85-265 V AC works great even with unstable and poor power sources.

Auto self-control - possible functional defects of the device are displayed on a separate output contact.



### METAL SHARK® R

The R types provide highest performance in detecting magnetic and non-magnetic metals. Typically, applications are in the medical pharmaceutical sector as well as sanitary items, foods and chemical powders. The product falls through the R sensor head and an optional reject unit. With the reject unit smallest metal objects are separated out of the goods' stream promptly.

With a maintenance free design and high quality construction, the METAL SHARK® R is for reliable operation in the most challenging industrial environments.



### Easy handling

In practical use, settings of metal detectors often need to be checked quickly and reliably during production. Cassel attached great importance to user-friendliness: The software is self-explanatory: An interface-manager leads the user step by step through the menus that have to be adjusted. E.g. product teach is done with one-button-push.

### Product library

The characteristics of 125 different products are stored and recalled here.

### Operation History

Events such as metal detections or parameter settings are stored in a log list, including date and time and can be read on the display or exported via serial or ethernet link.

### Auto calibration

Provides simple and quick learning of product characteristics for product effect compensation. Pre-set product properties for DRY, WET, FROZEN, VIBRATION and SHOCK makes new product setting exceptionally easy and reliable.

### Performance validation

According to HACCP the metal detector is a critical control point and therefore has to be checked regularly. Optional check&catch gates in the pipeline allow to test the detector function regularly and easily. To this aim a metal embedded into a plastic ball is pushed through the pipe. Removable stainless steel grids in the accept and reject pipes allow the test metal to be easily removed. The performance validation automatically prompts the operator to test the performance of the Metal Shark at pre-set intervals.



Reject unit SG

### IQ, OQ, PQ qualification templates

On request supplies Cassel qualification templates along with the METAL SHARK® R metal detector, e.g. as required for the pharmaceutical industries.

### Infeed and Reject System

Product feed is typically done with a separate funnel or pipe inlet. Optional is a pneumatic driven reject diverter mechanism available. Quick demount design for easy cleaning.

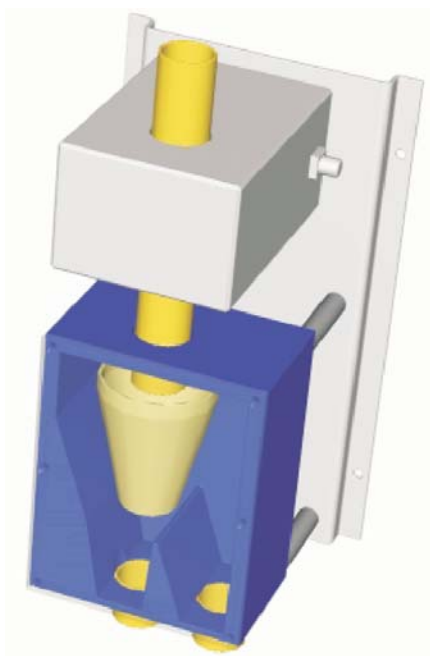
### Best sensitivity\*

\* depends on product effect and installation.

Aperture Ø [mm]	10	25	35
Fe ball Ø [mm]	0,05	0,07	0,10
Stainless	1,5...10x of Fe ball Ø		
Bronze, Alu etc.	1,5...2x of Fe ball Ø		

Note:

The sensitivities depend on shape, orientation and metal alloy of the metal object.



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