

## ▶ METRON 05 D

- Divisible tunnel detector
- Detection of all metals
- Safe control over conveyers
- Automatic compensation of product effect
- Infinitely variable response sensitivity
- Metal detection irrespective of position



### DESCRIPTION:

The Metron 05D is a divisible tunnel detector by MESUTRONIC and is perfectly suitable for the control of conveyers.

The Metron 05D detects reliably metallic contaminants made of iron, stainless steel, aluminium, brass or copper, no matter whether it has to deal with loose parts or metallic inclusion. At any time, the requested response sensitivity can be adjusted to operating conditions by means of a comfortable navigation.

The bipartite design of the metal detector allows for an easy installation. Thus it can be quickly and simply integrated in existing or new conveyors. It is delivered with wiring and is thus operational immediately after switching on power supply.

The Metron control unit is provided with an LCD display with plain text fields and a keyboard on the front for comfortable handling of the detector. The electronic system comes with an autonomous control system, positionally accurate metal detection, parameter storage and serial interfaces.

### FUNCTIONING:

The metal detector produces an electromagnetic field after power supply is turned on. This electromagnetic field is radiated by the coil surfaces and penetrates the conveyor belt and the material conveyed. Due to the design – upper and lower coil form a tunnel – an equally strong field is generated over the entire material conveyed. Contaminants are thus detected irrespectively of their position.

If a metal piece penetrates the field or leaves it, it generates a measurable field change within the coil, which is recorded by the control unit connected in series. If the response limits set are transcended (response sensitivity), the detector is activated.

In addition to the response sensitivity set, the material quality and the form of the contaminant influence the metal signalling and activation.

## TECHNICAL DATA:

### METRON 05 D

#### Detector

Enclosure	Painted steel, RAL 3027, optionally stainless steel
Coil surface	additionally made of wear-resistant Duroplex
Coil length	400 to 1200 mm, dependent on coil width
Coil width	subject to respective conveyer
Installation height	460 to 1270 mm, subject to coil width
Metal free zone (non-moved metals)	1000 to 1800 mm, subject to coil width
Protection	IP 54, optionally IP 65

#### Control unit

Power supply	100 – 240 V AC 50/60 Hz
Power input	max. 75 A
Sensitivity	adjustable from 1 – 100 %
Outputs	
Relay 1	potential free relay changeover contact for metal recognition
Max. contact capacity	250 V/ 3 A
Relay 2	potential free relay changeover contact for system control
Max. contact capacity	250 V/ 3 A
Serial interfaces	1x alternatively RS 232,422,485 1x only RS 232
Handling	via 4 keys by means of two code protected handling levels
Display	LCD display with backlight additionally 3 LEDs for power line, metal and error
Temperature range	-10°C to +50°C
Enclosure	Painted steel, RAL 3027, optionally stainless steel
Power connection	approx. 1.8 m cable with earth type plug
Protection	IP 54, optional IP 65
Approval	CE

#### Typical applications

Pit and quarry industry  
 Timber industry  
 Recycling industry  
 Animal feed industry  
 Rubber and plastics industry

#### Application example

