

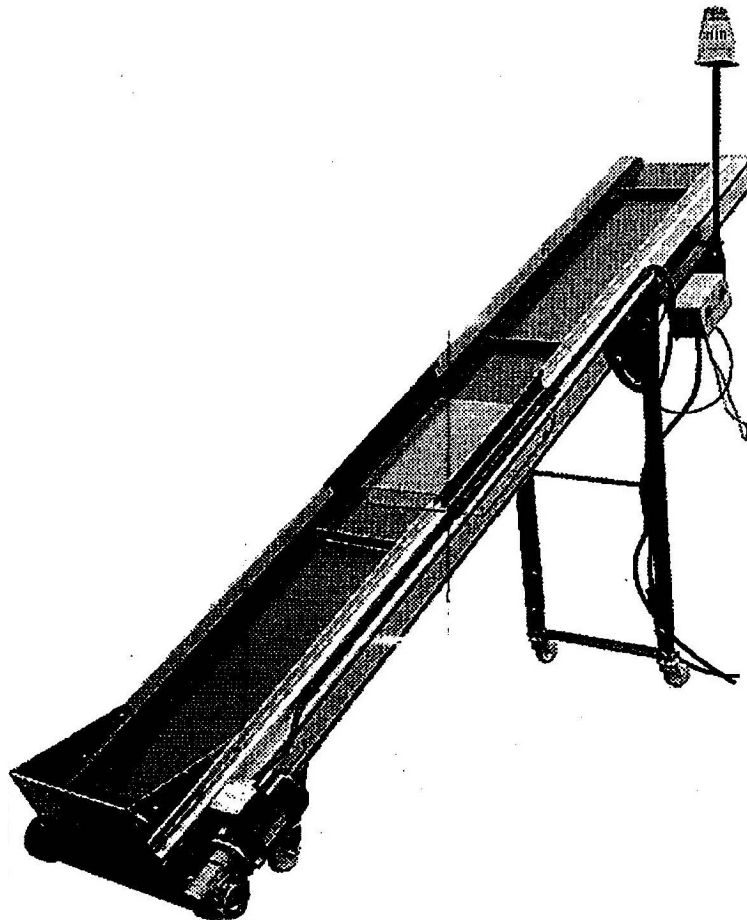


INSTRUCTION MANUAL

Metal detector

PULSOTRONIC

ENGELSK/ENGLISH/ENGLISCH



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MASKIN AB RAPID



WARNING - Reliance on this Manual Could Result in Severe Bodily Injury or Death!

This manual is out-of-date and is provided only for its technical information, data and capacities. Portions of this manual detailing procedures or precautions in the operation, inspection, maintenance and repair of the product forming the subject matter of this manual may be inadequate, inaccurate, and/or incomplete and cannot be used, followed, or relied upon.

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1. Application

This metal detector is dedicated to be integrated into conveyor belts which are feeding grinders in order to detect metal parts which must not enter the grinder.

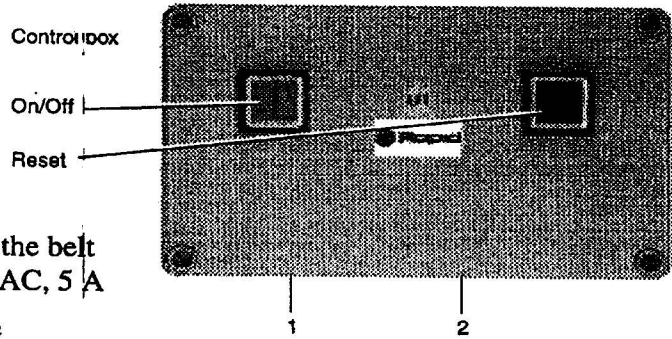
To assure this, the belt stops after metal detection.



2. Electrical schematics

Wiring

1. Power cable
 - a) Mains voltage
220 - 250 V
 - b) N.O. contact for stopping the belt
Pin 21 and Pin 22. 250 V AC, 5 A
2. Alarm output for optional use
 - c) Voltage output terminals 23/- and 24/+, 24 V DC/300 mA.
 - d) Potential-free switch-over
 - N.O. 26/25
 - N.C. 26/27
 load 250 V AC, 5 A

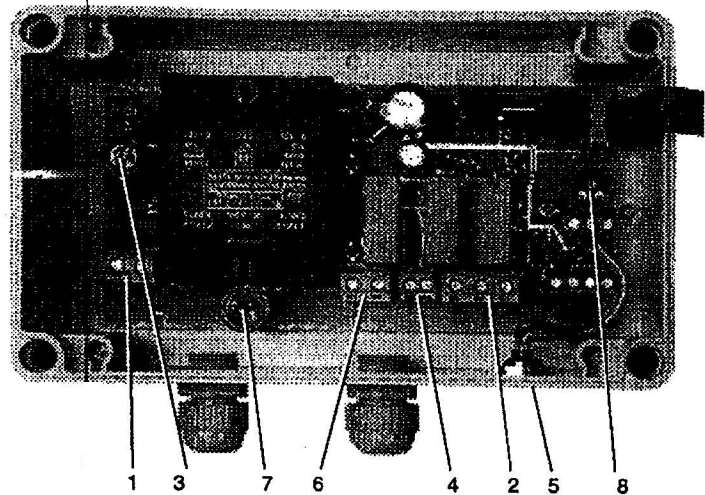


The outputs are activated until "Reset" is pressed.

Connections

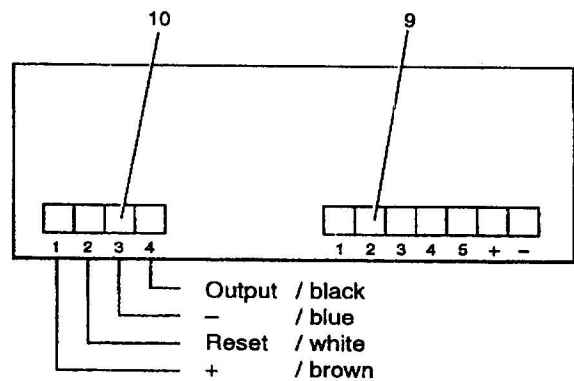
Electronic board in the control box.

1. Mains
2. Alarm output, potential-free switch-over
3. Fuse for
 - a) 230V AC; 0.1 A
slow blow
 - b) 115 V AC; 0.2 A
slow blow
4. Alarm contact, voltage output terminals 23/- and 24/+. 24 V DC/300 mA.
5. Connector of metal detector
6. Belt stop
7. Mains voltage selector
8. Setting the sensitivity
 - a) fully clockwise = max.
 - b) fully anticlockwise = min.



Electronic board in the metal detector

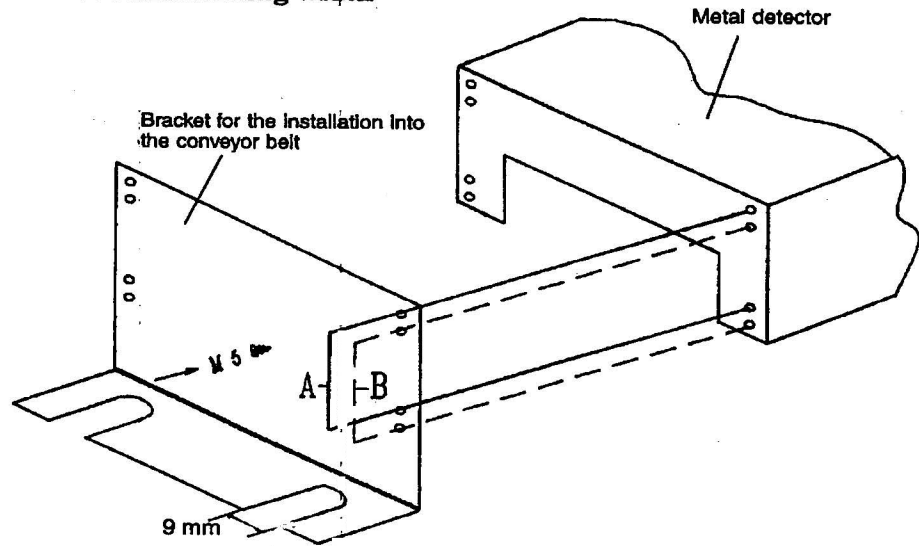
9. Internal wiring
10. Connection to the control box; pin-configuration is the same as of the control box.





3. Mechanical construction

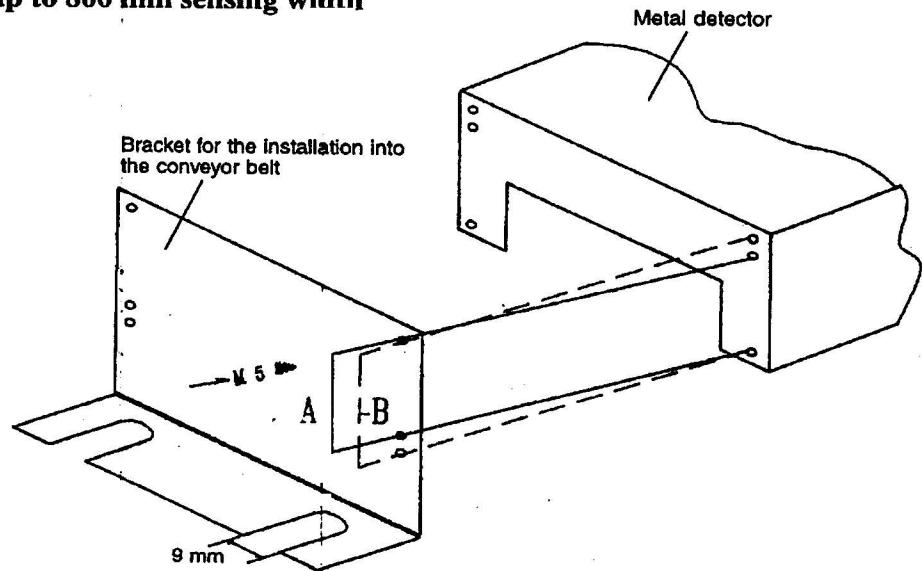
Metal detectors with 800 mm sensing width



Depending on the height of the frame in the conveyor, the bracket may be mounted at different positions.

- A Fixing points for a 78 mm high frame
- B Fixing points for a 80 mm high frame

Metal detectors up to 800 mm sensing width

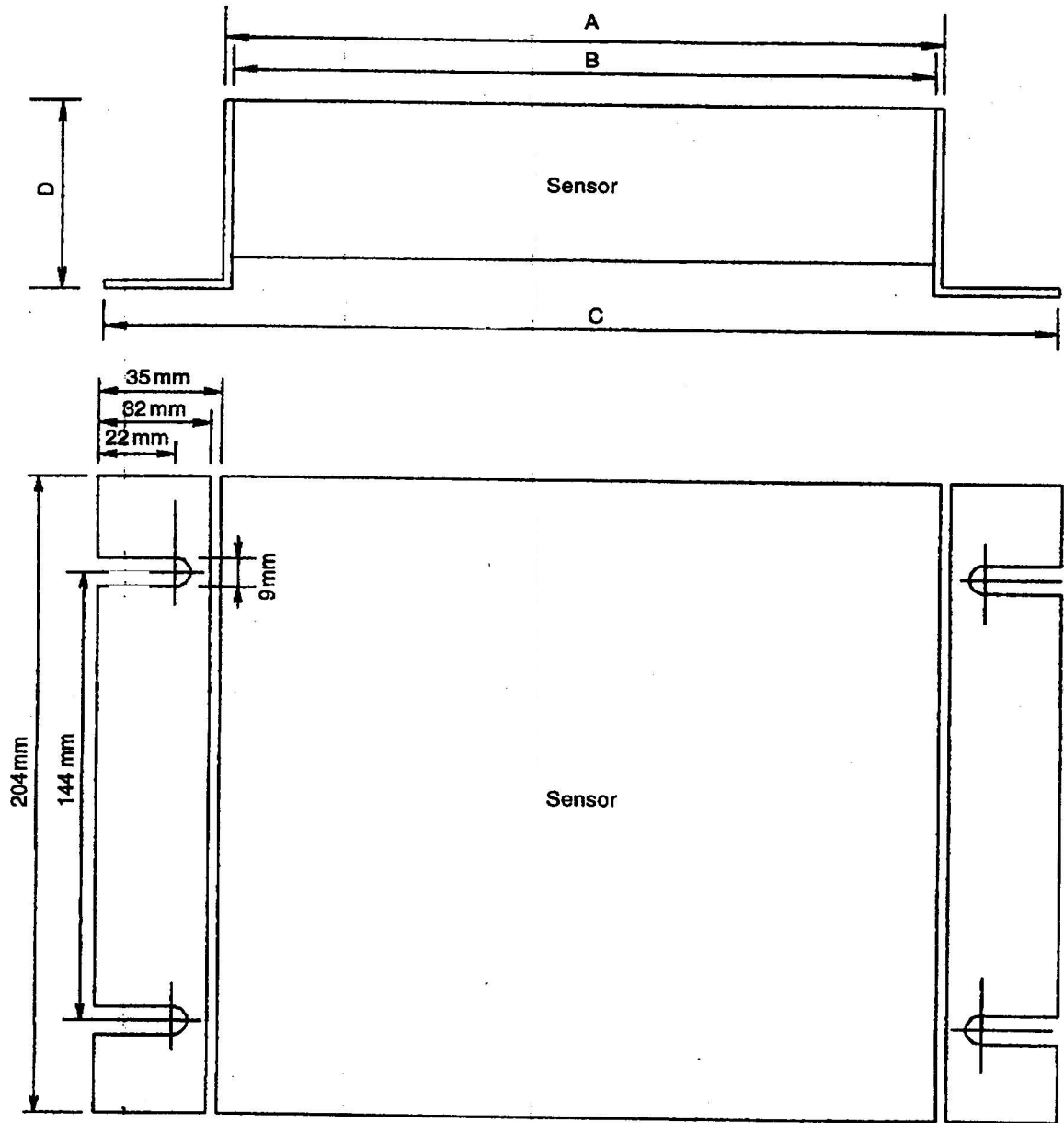


Depending on the height of the frame in the conveyor, the bracket may be mounted at different positions.

- A Fixing points for a 78 mm high frame
- B Fixing points for a 80 mm high frame



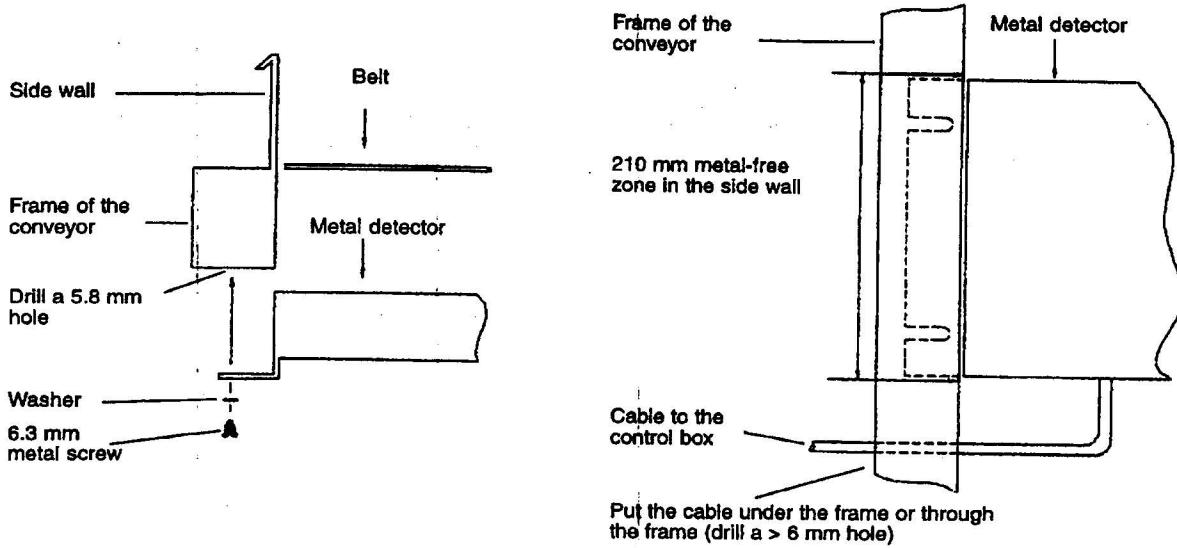
Dimensions



- A = 205 mm / 305 mm / 455 mm / 505 mm / 605 mm / 655 mm / 705 mm / 805 mm depending on type of sensor.
- B = 200 mm / 300 mm / 450 mm / 500 mm / 600 mm / 650 mm / 700 mm / 800 mm depending on type of sensor.
- C = 269 mm / 369 mm / 519 mm / 565 mm / 665 mm / 715 mm / 765 mm / 865 mm depending on type of sensor.
- D = 60 mm / 78 mm / 80 mm depending on type of conveyor.



4. Installation



5. Sensitivity

Metal part	Max. sensing distance in mm related to the following positions over the detector.		
	left side	middle	right side
Fe nut			
M3	36	35	35
M5	46	49	56
M8	66	67	70
M12	82	83	79
M20	175	169	170

6. Technical datas

Belt speed/material speed 3 – 20 m/min

Permissible equipment temperatur

Metal detector -10 – + 60°C.
Control box -10 – + 50°C.

Degree of protection

Metal detector IP 65
Control box IP 44

Power supply

Metal detector 24 V DC out of control box
Control box 230 V AC or 115 V AC 50 Hz mains
mains voltage is selectable

Connections

Metal detector 2 m cable with connector to the control box
Control box connector type HA4 for mains alarm outputs on terminals

Operating elements

Control box Power switch (green)
Reset push-button (dark blue)



7. Example, wiring diagram

