



# p-TRON 03 FM

## METAL DETECTION

**METAL SEPARATOR FOR INSTALLATION IN HORIZONTAL OR VERTICAL SUCTION LINES WITH AUTOMATIC REJECT WITH BYPASS SOLUTION FOR METAL DETECTION IN GRANULATES, GROUND AND VIRGIN MATERIALS**

**Reliable** *in Process and Detection*  
**Durable** *in Technology and Performance*  
**Easy** *in Installation and Handling*

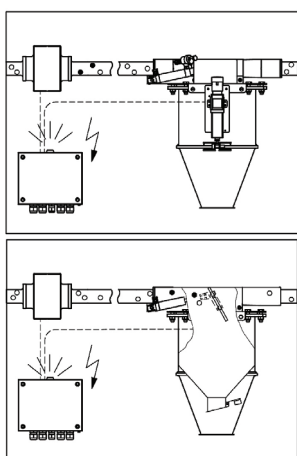


- Fast reacting reject system with powerful and permanently maintenance free pneumatic actuator
- Round ports allow for an easy and trouble free intergration into the existing process. Quick and efficient installation
- Designed for all applications and throughputs.
- Appertures from: 38mm to 80mm available.
- Immune against interference with the new 'LCR compact' coil featuring an interference shield and removable anti-static sensing tube.
- Product effect compensation - Guarantees continuous sensitivity and trouble free operation even with 'difficult' products.
- Self monitoring - In addition to the detection unit (coil and electronics) the operating pressure and reject functions are permanently monitored as well as an auto test button as standard. Malfunctions are indicated.

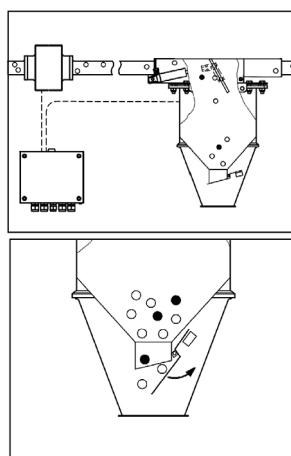
### Applications

Machinery protection

### WORKING PRINCIPLE



- With transmitter and reciever coils an electromagnetic field is evaluated in the detector. If a metal particle enters the field the measured signal is deflected in one direction when the metal particle leaves the field the signal is deflected in the opposite direction. If the detection thresholds are exceeded in both ditections a metal signal is created.
- In case of a metal signal the pneumatic cyclinder opens the reject flap. The metal particle is re-directed into the eject material bin.



- The metal particle is redirected into the eject bin together with a small amount of conveyed material. Because the eject material bin is sealed during the conveying phase the air stream does not break down. After the eject duration the flap is closed again automatically.
- During the conveying pause the eject material bin is emptied. As soon as the conveying starts again the pendulum flap is sealed again through the vacuum created in the eject material bin.