### Reliable Protection Of Machines And Plants



## Technology Full Of Attraction



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### W 600 e

# ELECTRONIC METAL DETECTORS



#### Wagnermetal detectors: Experienceand know-howshowresults

Since the market introduction of the current 652 series, WAGNER netal detectors have been used successfully all over the world to protect mills, crushers, cutters and other valuable systemparts. Theywork around the clock and under many extreme climate conditions, for examplein cement, graveland woodcutting factories, in glass and paper recycling plants and also in coal power stations. In general, the user-friendliness, reliability and disturbance-resistant, robust housing are given positive reviews by our customers. The transmitter and receiver coils are sealed with special filler material together with the shielding steel sheet metal housing. For this reason, our devices are very resistant to mechanical and thermal loads. If none of our standard devices can be installed because of especially difficult installation conditions, we can manufacture custom designs. The control electronics can be mounted up to 50 m from the sensorat a location that can be easily accessed. No special knowledge is required for commissioning. Our operating instructions provide a detailed explanation of what needs to be done. The displays ensitivity setting for all devices is continually variable over a wide range. As soon as a magnetic or non-magnetic metal item with sufficient size passes through the search area, it is detected and a potential-free relay contact is switched. This signal can be output as a pulse with an adjustable length or as a continuous signal. The continuous signal can be acknowledged by the operator using the control electronic safter removing the metal item.

#### Tandemsensortype 652/2

Ourmost often sold sensortype is available for belt widths from 200 mm to 3000 mm. It consists of a sensor lower section, which is mounted below the belt, a distance frame and a sensor upper section, which is placed above it. Subsequentinstallation in existing conveyor systems is normally possible without problems because the sensor can be split into sections. The search sensitivity is evenly distributed over the entire working area.



#### Tandem sensor type 652/2L (light design)

We have developed this very light and compact but robust and disturbance-resistant sensor type especially for the stone and earth industry. It can be used for conveyorbelt widths from 300 mm to 1000 mm. The low weight and compact dimensions make subsequent installation easier especially in difficult installation conditions. This special sensortype is perfectly suited for protecting crushers or mills in gravelpits and quarries.



#### **Special designs**

Often, existing building and construction parts make the installation of standard devices more difficult. We design and manufacture custom devices for these especially difficult areas of use. We can also deliver metal detectors that correspond to ATEX regulations for hazardous lacation use. Our sales representatives will be happy to check your applicationon-site and provided etailed advice.









#### Single plate sensor type 652/1

Single plate sensors are very good for monitoring shallow material depths because of the especially high sensitivity near the sensor surface. Transmitter and receiver are integrated in one sensor housing that is mounted directly under the conveyorbelt on the conveyor frame. The metal housing provides very good shielding against disturbances around the device. The standard device can be used for material depths up to a maximum of 150 mm



#### Single plate sensortype 652/1L (light design)

This special type has greatly reduced housing dimensions as compared to the standard devices o that it can also be mounted in tight spaces. Here, a metal housing also provides protection from outside influences and makes the device secure and robust. Because of the compact design, the search area is so concentrated that even metal construction parts short distances away do not disturb the device. For layer depths under 75 mm, this device is the perfect solution.



#### Vertikal sensor type 652/4

Vertical sensors are manufactured with round or square openings depending on the purpose. The inseparable measurement system encloses the conveyor belt completely and therefore provides the highest search sensitivity with evenly distributed sensitivity. The area of use of vertivals ensors ranges from monitoring pneumatic conveyor systems and checking packages to inspecting tree trunks. Opening sup to 1600 mm are possible.



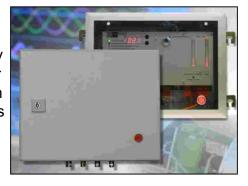
#### Signal lights and special accessories

We offer various combinations of blinking and signal lights as well as acoustic signal devices as accessories to optically display operational readinessand metal detection. Sandbagmarking devices are used if the conveyorbelt runs for different distances after metal is detected. They are mounted over the conveyor systemafter the metal detector and drop a sandbagon the conveyor material when the control unit reports sthat metal has been detected.



#### Controlunit type 650/1

The extremely user-friendly designed control electronics can be used to control all shielded sensor types made by WAGNERThe desired display sensitivity adjustment is continuously variable over a wide range, and bar graphs make it easier to find the optimal setting. The distance between the control electronics and sensor can be up to 50 meters. Disturbances are cancelled out using the most modern signal preparation techniques.



## Magnets -Our Strength



Magnetic clamping devices	Clampingsystems for machining, removing and shaping machine tools as well as fastening devices for laser welding
Control electronics	Magnetic control systems with pole reversal equipment together with drive and monitoringuntis
	For demagnetisingsteel componentsthat may not have any residual magnetism
Lifting magnets	For the handlingand transport of steel products. For the handling technology of magnetic gripping-and robot systems
Holding magnets	For handling technologies, the construction of jigs and fixtures and magnetic gripper systems for robot systems
Magnetic separators	For separating ferrous parts from bulk- and transportinggoods in the processingand recyclingindustries
Non-ferrous separators	For the separation and recuperation of high-grade non-ferous metals such as aluminium and copper
Metal detectors	For controlling delivery flows, detecting metallic foreign matters and for the protection of valuable plant components

