deister electronic

BiTech® Waste Disposal Management

The RFID system for intelligent waste management

BiTech® Smart cities need smart waste management logistics

The intelligent solution for waste identification

Automated vehicles, intelligent waste containers and efficient recycling plants: Industry 4.0 has arrived in the waste disposal and processing industry. The waste management industry 4.0 is automated and individualised. On-board computers and ID systems as well as efficient weighing areas are part of the standard repertoire of a modern waste management company.

Chipped waste bins, mobile applications and software solutions for route optimisation make everyday work easier and make processes faster, more transparent and more efficient: Conserving resources and saving time and money are the order of the day. The increasing interconnectedness through waste apps and smart bins is being massively driven forward. Demand-oriented disposal leads to more efficient processes and thus also to increased planning reliability. This strengthens the competitiveness of companies and creates new growth opportunities. Digital documents will determine the future of waste management. Digitalisation in waste disposal is advancing.

Advantages for disposal contractors and municipalities:

- Transparency in logistics and finances
- Cost savings/disposal certificates
- Extension of service
- Only paid service is fulfilled (blacklist)
- Secure investments through modular structure
- Transparency of costs and services towards consumers and disposal contractors
- Facilitated information disclosure towards consumers
- Avoidance of illegal emptying
- Better acceptance of the notices
- Evaluations for future fees
- Member of BDE
- Incentive for waste avoidance and steering towards the separation of valuable resources

❶ LFR 4 universal reader

Reader for tooth and body antennas

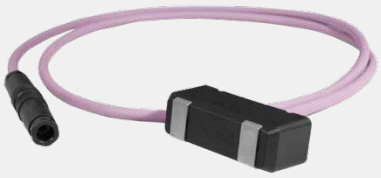
The LFR 4 reads disposal containers with HDX and FDX transponders and identifies the antenna's transponder and reference numbers, which can be transferred to tablets or the on-board computer. The auto-trim function ensures quick installation and immediate system functionality. If required, up to 4 antennas can be connected. Due to the auto trim function, different tooth and body antennas can also be combined.

LFR 4 universal reader

❷ AZF tooth antenna

Perfect reading range, direct mounting

The antenna has a reading range of up to 5 cm and a high mechanical stability. The mounting location is predefined by mounting directly on the comb lift. The tooth antenna ensures a fast and valid reading of HDX or FDX transponders, independent of the lifter or the containers.



AZF tooth antenna

❸ ABF body antenna

Reliable detection, optimum reading range

All disposal containers with HDX and FDX transponders are identified quickly and reliably, even if mixed. The auto-trim function ensures quick installation and immediate system readiness. The reading range of up to 20 cm makes it ideally suited for containers made of plastic or metal.

ABF body antenna

❹ ASF rear comb antenna

Best reading performance with compact design

The rear comb antenna can be perfectly mounted behind the dumping comb and is therefore ideally suited when the installation of a tooth antenna is not possible. The use of the rear comb antenna allows different container sizes to be attached and read out on both rear loaders and side loaders.

ASF rear comb antenna (Image similar)

❺ UHF long range reader

Long range, rugged design, IP67

The TSU readers impress with their extremely robust aluminium die-cast housing with compact design. Reader and antenna are built into one housing and optimally matched to each other by the manufacturer. This enables reliable adjustment of the reading performance! The TSU 200 achieves a reading range of up to 7 m. The operating status is clearly signalled via LEDs. All connections on the reader are designed as M12 connectors.

TSU 200 UHF long range reader

Disposal vehicles and systems

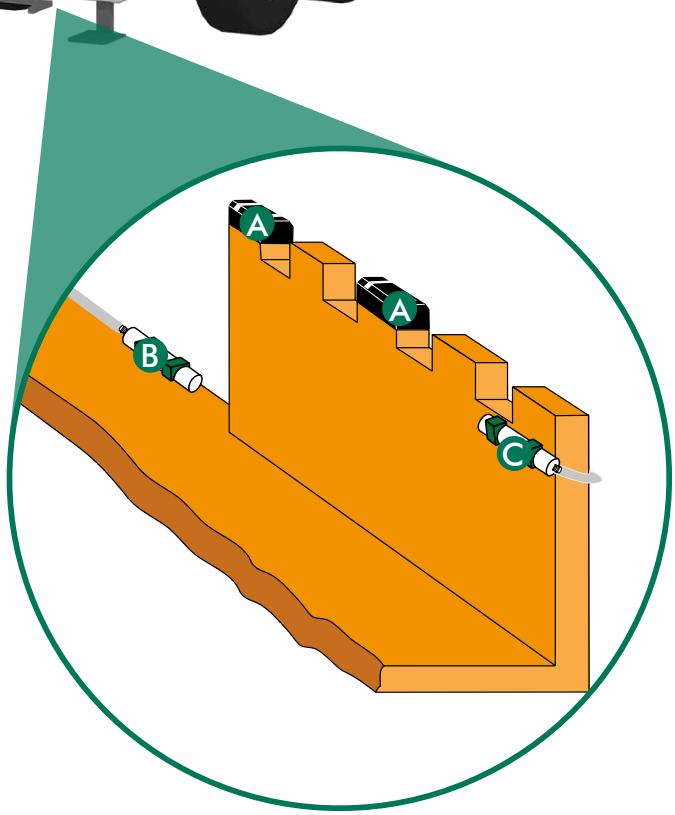
RFID - technology for: Rear, side and front loader

AT function

Patented technology

The AT (auto trim) function saves a lot of time during installation and service. It is also available for side and front loaders with UHF systems.

Should maintenance service be necessary, the tooth or body antenna can be replaced without manual re-trimming. The AT function ensures easy installation of the system even with different cable lengths.



A AZF
Tooth antenna mounted on the comb

B ABF
Body antenna for large plastic or metal containers

C ASF
Rear comb antenna mounted behind the dumping comb

❻ THH Handheld

LF, HF, UHF & barcode data collection

The Quadro Handheld is the latest generation of the rugged handheld scanner. It is equipped with LF, HF and UHF reading technologies. Optionally, a fourth reading technology, a QR/barcode scanner, can be retrofitted. After scanning the handheld is easily read via a USB interface. A special vehicle cradle is available for use in vehicles.

THH Handheld

BCH Vehicle cradle

Transponders

Best reading performance in all applications

The TBF and TSF 134 body-mounted transponders are suitable for large plastic or metal container types. The TCX 134 is ideal for chip nest mounting on all plastic containers, and the UDC 70 series is designed for large reading distances in the container area. The available frequencies are 134 kHz and 868 MHz. A robust and compact design (IP67) makes them insensitive to humidity and temperatures ranging from -25 °C to +85 °C.

3 4 6

TSF 134

3 4 6

TBF 134

2 4 6

TCX 134

5 6

UDC 70

5 6

UDC 70M

Solutions and applications

Ready-made solutions are available for these sectors

Access control and automatic weighing

Drivers and vehicles are consistently identified and authorised to enter. Data is digitised and assigned accordingly.

Automatic and secure vehicle locking system

Automatic opening and closing ensures security for the vehicle and cargo. The structure is freely scalable.

Manage operating materials securely

Tools and equipment are intelligently organised and managed. Access is logged.

Work wear as a service

Textiles for each work area are automatically managed and issued to the respective employees.

Areas of application in the waste disposal and recycling industry

RFID systems ensure smooth operation

Recycling centres and waste disposal sites

Authorise self-service drop-off of recyclables; manage automatic receipts and use.

Recycling facilities

Protect employees, monitor access to machinery and equipment; organise and track recyclables.

About deister electronic

deister electronic is an innovative, family owned global business with 40 years of experience in developing electronic and mechanical products for security and industrial automation. Widely acclaimed for our expertise and specialist implementation of RFID technology within practical applications, from key management and access control to logistics and process control.

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