

RFID TECHNOLOGY



UHF FOR BIG VOLUMES

RFID technology (Radio-Frequency Identification) enables contactless identification of objects via radio waves. A distinction is made between HF technology (High Frequency) for shorter distances and precise applications, and UHF technology (Ultra High Frequency), which is used for longer ranges and higher data volumes.

Compatible reader systems communicate with these transponders and open up a wide range of application possibilities.

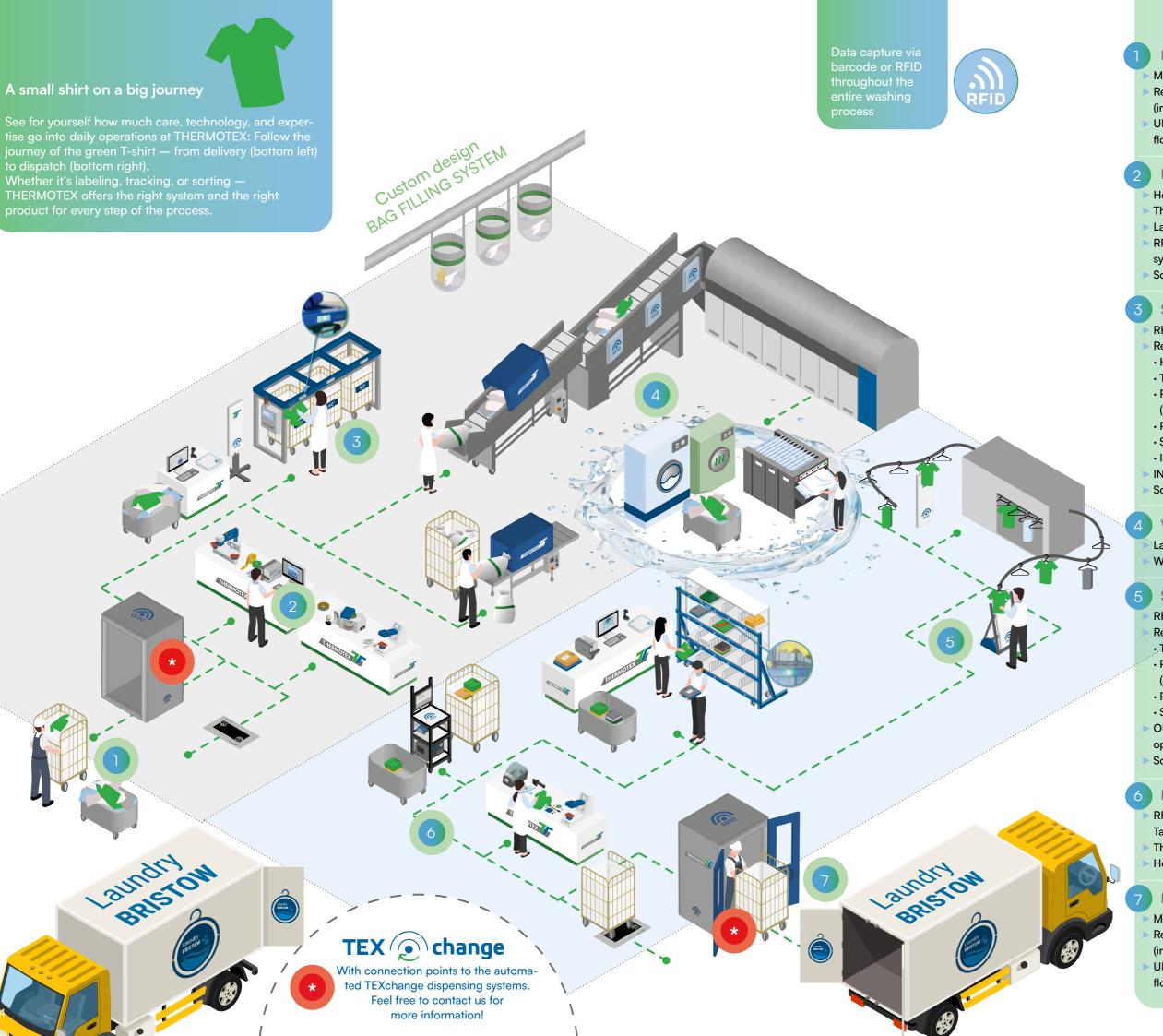
With our THERMOTEX products, we are ready for the future.

Your benefits:

- Fully automated textile identification
- ▶ Unique identification number
- ► Contactless reading
- Single, stacked, and bulk reading
- Suitable for heat-sealing or sewing in
- Suitable for industrial ironing
- ► Industrial-wash resistant







- LAUNDRY INTAKE
 - Mesh containers, laundry transport trolleys
 - Resident laundry bags, container covers (inner & outer), laundry bags and nets
 - UHF gate, TEXchange connection point, floor antenna
- 2 LABELING
- ► Heat-sealing machines
- Thermal transfer printing systems
- Labels and emblems
- RFID technology: transponders, reader systems
- ► Software: WinTexx 5, Saturn 3
- 3 SORTING INTAKE
- RFID technology: HF / UHF transponders
- Reader systems:
- HF tunnel antenna
- Table reader system
- · Panel antenna
- (ceiling-mounted or freestanding)
- Picking trolley (HF or UHF)
- Scanner
- Incline conveyor (HF or UHF)
- IN-SorTexx sorting system (with LED display)
- Software: Saturn 3
- 4 WASHING PROCESS
 - Laundry transport trolleys
- Washing, drying, industrial ironing
- 5 SORTING OUTGOING
- RFID technology: HF / UHF transponders
 Reader systems:
- Table reader system
- Panel antenna
- (ceiling-mounted or freestanding)
- Picking trolley (HF or UHF)
- · Scanner
- OUT-SorTexx sorting aid (with LED display, optional confirmation function)
- Software: Saturn 3
- FOLDING AND REPAIRING
- RFID technology: HF / UHF transponders,
 Table antennas, handheld scanners
- ► Thermal transfer printing systems and supplies
- ► Heat-sealing machines and repair emblems
- 7 LAUNDRY DISPATCH
- ► Mesh containers, laundry transport trolleys
- Resident laundry bags, container covers
- (inner & outer), laundry bags and nets
- UHF box, TEXchange connection point, floor antenna

RFID technology — UHF transponder

For Heat-sealing

Our transponders for heat-sealing offer a robust solution for the simple and fast identification of textile products. They are characterized by their high durability.

58 x 18.5 mm • Thickness: 0.5 mm < 2.5 mm in chip area





With Barcode

Item no. 67967



Article Blank Item i

Blank Item no. 67631 With EPC number Item no. 67582

With logo and EPC number Item no. 67966

With logo Item no. 67632

F20 70 x 15 mm • Thickness:1.7

mom mem

Article Blank Item no. 69349

- ► Application areas: Tracking of workwear, flat linen, and institutional laundry, e.g., in laundry intake/dispatch or cabinet and room inventory
- 70 x 15mm Thickness:1.7 ▶ Reading method: Bulk reading, e.g., in mesh trolleys
 - ▶ Reading range: Up to 6 meters
 - ➤ Compatibility: All common UHF reading systems such as Box, Gate, Shelf, Fix Shelf, Universal, Compact, TSL
 - ► Application method: Sewing in / heat-sealing



F10 TRANSPONDER ON ROLL

- ► All F10 variants available on roll
- ► Especially suitable for garment manufacturers
- ▶ Reading range: up to 6 meters
- ► Enables automated merging of transponders with, for example, flat linen

For Overpatching

Our transponders for overpatching ensure reliable and long-lasting identification. The transponders, which are attached using a patch, gain an additional protective layer through overpatching.



F 2 36 x 11 mm • Thickness: 0.5 mm • 2.4 mm in chip area

	Article	Application area	Reading method	Reading range	Compatible with	Application method
F22 36 x Thic	Blank Item no. 68163 (11mm • kness: 1.5 mm Blank Item no. 70268	Identification of resident laundry	Single or stacked reading	Up to 1 meter	Shelf, Fix Shelf, hand- held reader, Compact	Overpatching with a labeling tag — we recommend FixTexx in sizes 53 × 19 mm or 53 × 32 mm









F19 70 x 9 mm • Thickness: 2.5 mm

Article Item no. 70007

F21 75 x 12 mm • Thickness: 1.9 mm

Article Item no. 69606

Article Item no. 70014

74 x 10 mm • Thickness: 1.6 mm

- ➤ Application areas: Tracking of workweare, flat linen, and institutional laundry e.g., in laundry intake/dispatch or during cabinet and room inventory
- ▶ Reading method: Bulk reading, e.g., in mesh trolleys
- ▶ Reading range: Up to 6 meters
- ➤ Compatible with: All common UHF reading systems such as Box, Gate, Shelf, Fix Shelf, Universal, Compact, TSL
- ► Application method: Sewing in (primarily into the hem of a textile)

Our UHF stick transponders are industrial-wash resistant and suitable for industrial ironing!

For Sewing in

Our transponders for sewing in are the ideal choice for seamless integration into textile products. They provide a solution for product authentication without compromising comfort or aesthetics.

F13
70 x 25 mm • Thickness: 2.4 mm



Item no. 70370







Article

With EPC number Item no. 70371

With logo und EPC number Item no. 70373

With Barcode Item no. 70375

- ▶ Application areas: Tracking of institutional laundry, workwaer, and flat linen e.g., in cleanroom environments, laundry intake/dispatch, or inventory of cabinets and rooms
- ▶ Reading method: Bulk reading, e.g., in mesh trolleys

Blank

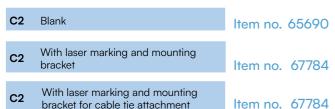
- ▶ Reading range: Up to 6 meters
- ▶ Compatible with: All common UHF reading systems such as Box, Gate, Shelf, Fix Shelf, Universal, Compact, TSL
- ▶ Application method: Sewing on (as a flag or all-around) and sewing in

- ► Robust and durable transponder
- ▶ Waterproof

UHF TRANSPONDER FOR LABELING TRANSPORT SYSTEMS

UHF container transponder C2

- ▶ Dimensions (LxWxH): 52 x 16 x 8.5 mm
- Max. read/write distance: 2 m
- ► For screwing onto containers







C2 with laser engraving and mounting bracket

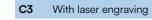




C3 mounted on the underside of the mesh container

UHF container transponder C3

- ▶ Dimensions (LxWxH): 95 x 35 x 8 ± 0.4 mm
- ► Max. read/write distance: 5 m
- Mounting on metal using rivets, screws, or industrial adhesive



Item no. 68872

UHF SELF-ADHESIVE LABELS

- ► Thermal transfer printable
- Adhesive: permanent
- ► Material: white PET, blank
- ► Format: on roll

Formats and versions available on request





ACCESSORY: WOVEN TRANSPONDER POUCH

- ► Available in various pouch sizes
- ▶ Quality: taffeta
- ▶ Tubular weave
- ▶ Heat-cut edges
- ▶ For sewing in





Custom weaving available

UHF-BOX

The UHF box version with self-opening and self-closing doors is the perfect solution for an optimized workflow. Your chipped textiles are captured efficiently and read without error. During the reading process, the doors automatically lock and reopen only once all textiles have been successfully recorded.

General data

- ➤ Application area: Identification of laundry items in mesh containers at laundry intake/dispatch
- ► Transponder types: F10, F11, F20 F21, F19, F31, F13
- ► Reading method: Bulk reading
- ► Fast reader control technology with intelligent antenna illumination ensures time-optimized data capture
- ▶ Interfaces: Ethernet, USB, RS 232
- ▶ Optional: With automatic door drive





UHF-Box suitable for mesh containers

► External dimensions (WxDxH): 1,500 x 1,000 x 2,260 mm

► Internal dimensions (WxDxH): 1,033 x 900 x 1,986 mm

UHF-Box with one double door Item no. 21595 UHF-Box with two double doors Item no. 21832

UHF Box L suitable for Euro pallets

External dimensions (WxDxH): 1,500 x 1,500 x 2,260 mm

► Internal dimensions (WxDxH): 1,033 x 1,400 x 1,986 mm

UHF box with one double door Item no. 21000 UHF box with two double doors Item no. 21822





UHF Box XL suitable for Euro pallets including pallet jack access

- ► External dimensions (WxDxH): 1,500 x 1,900 x 2,260 mm
- ► Internal dimensions (WxDxH): 1.033 x 1.800 x 1.986 mm

UHF-Box with one double door Item no. 21833 UHF-Box with two double doors Item no. 21834 More information about the UHF gate available on request Item no. 21587

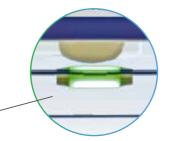
UHF GATE

Suitable for bulk reading

- ► For bulk reading of various types of laundry in the trolley (e.g. mops, bathrobes, dust control mats, flat linen, workwear, contract laundry)
- ► Reading during passage through the gate
- ▶ Prevents losses, resulting in cost savings
- ▶ For identification and tracking of trolleys and transport equipment
- ► Can be used in addition to HF and LF technology

For reading during passage





Status indicator for reading status green = "counting process completed"

General data

- ► Application area: Container identification in laundry intake (limited in laundry dispatch)
- ► Transponder use: All UHF transponders
- ► Reading: Bulk reading
- ▶ Interface: Ethernet, USB, RS-232
- ► Fast reader control technology with intelligent antenna illumination ensures time-optimized detection
- ► High container throughput thanks to intelligent light indicator

Item no. 21587

► Suitable for Euro pallets

Technical data

- ► External dimensions (W x H x D): 1,500 × 2,260 × 1,900 mm
- ► Internal dimensions (W x H x D): 1,033 × 1,986 × 1,800 mm

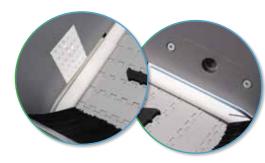
UHF conveyor with fixed shelf antenna

UHF-SYSTEM FIX SHELF

UHF special constructions, for example UHF inclined conveyor



The inclined conveyor is a transport belt for transfer to a loading conveyor while simultaneously detecting the laundry items. The laundry item including the transponder is read loosely in transit by the antenna and passed on to the next processing station.



Optiona

Light sensor barrier for the automatic start of the conveyor belt

UHF PICKING TROLLEY

The mobile and stationary solution

- ► The illustrated system includes:
- UHF antenna
- UHF reader
- Power strip, 4-way
- PC mounting bracket
- 2 fixed and swivel castors with brake, Ø125 mm, rubber-coated

Areas of application	At various stages of the process, mobile or stationary
Dimensions (L × W × H)	600 x 600 x 1400 mm
Interface	USB HID, USB Virtuell-Com, RS232, Ethernet
Transponder	All UHF transponders





UHF-SYSTEM SHELF: THE FLEXIBLE SOLUTION

With our shelf antenna, no requirement goes unmet. Whether in a standard system or a custom-built solution — you'll find exactly what you need here!

Application area	Desk workstation
Reading method	Single and stacked reading
Transponder types	All UHF transponders
Antenna dimensions (LxWxH)	400 x 400 x 30 mm
Interface	USB, optional: Ethernet, RS232

Shelf (1) Item no. 22276 Fix Shelf (2) Item no. 21689



UHF-SYSTEM LONG-RANGE UNIVERSAL

And industrial solution Universal I



Capture entire rooms:

system to identify entire rooms. Depending on the application — for example, in industrial environments

Universal unit in control cabinet

For industrial use with up to eight antennas



- ▶ Up to 4 antennas can be connected in the standard system
- ► Enables room-level identification
- ▶ Special industrial solution: 4 to 8 external SAT antennas (depending on application) with Universal I control cabinet
- Standard system consists of:
- UHF long-range reader
- 1 to 4 external SAT antennas (depending on application)
- ▶ UHF long-range reader integrated into the control cabinet

application area	Flexible integration into laundry processes
Reading method	Single, stacked, and bulk reading
ransponder types	Compatible with all UHF transponders
ntenna dimensions LxWxH)	130 x 130 x 39 mm
nterface	USB, Ethernet, RS232

UHF IRONING STATION FIX SHELF

For sorting units

Application area For reading hanging garments in a conveyor Reading method Single and stacked reading All UHF transponders Transponder types Antenna dimensions 1,472 x 10 x 486mm (Housing independent (LxWxH) of number of antennas) Interface Ethernet







- UHF reader

- UHF Fix Shelf antennas (1-4, depending on configuration)

- Flexible mounting bracket

UHF-SYSTEM COMPACT PLUS

Desk workstation for laundry sorting in laundry dispatch

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Application area	Desk workstation for laundry sorting in laundry dispatch or for intermediate inspection during the process
Reading method	Single reading, limited stacked reading
Transponder types	All UHF transponders
Antenna dimensions (LxWxH)	310 x 260 x 30.5 mm
Interface	Ethernet, USB, RS-232

Item no. 22488







- USB cable

- Power supply

BLUETOOTH TSL 2128P



Application areas: Mobile data capture, intermediate control, verification, inventory

- ► Reading method: Single and stacked reading
- ► Transponders: All UHF transponders, optionally: 2D barcode capture
- ▶ Dimensions (WxHxD): 98 x 170 x 158 mm
- ► Weight: 445 g
- Interface: Bluetooth virtuell COM, Bluetooth HID
- ▶ Power supply: Battery-powered
- ► Reading range:

UHF: up to 9 m | Barcode: up to 90 cm

Bluetooth TSL 2128P 2D-Bluetooth TSL 2128P Item no. 23061

23058

Item no.

THERMOTAG

UHF handheld reade to go.

Pro version:





► Barcode Reader





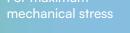
| RFID technology — HF RFID technology — HF accessories

TRANSPONDER

7, 11, 16 mm according to DIN ISO 15693

▶ For fully automated identification of textiles

- ▶ With unique identification number ("UID")
- ► Single, stacked, and bulk reading
- ► For heat-sealing (with heat-seal material) or sewing in (with woven pouches)
- ► Suitable for industrial ironing
- ▶ Industrial-wash resistant









Article	HF I-Transponder Ø 7 mm	HF I-Transponder Ø 11 mm	HF I-Transponder Ø 16 mm	HF I-Transponder Ø 16 mm
Applications	Residents' laundry	Residents' laundry, workwear, flat linen	Workwear, mops / dusters, flat linen, bathrobes, towels etc.	Workwear, mops / dusters, flat linen, bathrobes, towels etc.
Reading	Single	Single, pile	Single, pile, bulk, tunnel	Single, pile, bulk, tunnel
Thickness	2.0 mm	2.4 mm	2.8 mm	2.8 mm
Reading distance	up to 16 cm	up to 28 cm	up to 42 cm	up to 42 cm
Laser engraved	No	No	No	Yes (customer-specific logo possible)

Item no. 64336 Item no. 62236

Item no. 64445

Item no. 64446

TRANSPONDER ATTACHMENT

Patches, labels, and woven transponder pouches



Format	Item no.
x (Ø 25 mm)	61680
x (Ø 50 mm)	58434
x (35 x 35 mm)	58034

Additional formats available on request





- ▶ Self-adhesive labels
- These labels allow for pre-positioning and precise alignment of the transponder underneath the label before heat-sealing.

Quality	Format	Labels	Item no.
Fixtexx 2026	84 x 23.4 mm	~ 2,000	56942
Fixtexx 2026	84 x 36.1 mm	~ 1,300	56941
Fixtexx 2041	53 x 19 mm	~ 2,300	65431
Fixtexx 2026	53 x 32 mm	~ 710	FX2026-53x3225
Fixtexx 2041	53 x 32 mm	~ 710	FX2041-53x3225

Additional formats available on request



Versions Available blank or with woven-in design, with or without transponder Transponder Max. 16 mm Material Polyester **Dimensions (WxH)** 24 x 40 mm (standard format)

Item no. 62218

Additional formats and versions available on request

PATCH DISPENSER AND HAFTEX PATCHES



▶ With the patch dispenser, your transponder patches are always within reach. Self-adhesive patches enable efficient working.

Haftex-Patches	Format	Item no.
1,000 labels per roll	Rectangular, 35 x 35 mm	58034
1,000 labels per roll	Round, Ø 50 mm	58434

Patch dispenser Item no. 15627

TRANSPORT CONTAINER LABELING



- ► For plastic transport containers
- ► Suitable for cleaning gates

Printing method	Thermal transfer	
Туре	HF, ISO 15693, ICode SLI	
Material	White PET, blank	
Adhesive	Permanent	
Presentation	On roll	
Dimensions (WxH)	50 x 50 mm, single-lane	

HF-SYSTEM COMPACT PLUS



- ► Top surface made of antistatic material
- ► Specifically designed for metal tables
- ▶ Integrated LED indicates operating status

Reading method Single reading, limited stacked reading Transponder size 0 - 7 cm 0 - 12 cm 0 - 1 (in mm) and			
reading range	5 cm		
Antenna dimensi- 310 x 260 x 30.5 mm ons (LxWxH)	310 x 260 x 30.5 mm		
Reader dimensions Integrated in antenna	Integrated in antenna		
Interface Ethernet, USB, RS-232	Ethernet, USB, RS-232		

Item no. 23320

HF-SYSTEM MID-RANGE TABLE



- ▶ The system shown includes:
- HF reader
- HF antenna
- ► Also available as an under-table system

Application areas	Resident laundry, workwear, mops / cleaning cloths, bathrobes, towels, and much more		
Reading method	Single and stacked reading		
Transponder size (in mm) and reading range	0 - 5 cm	0 - 15 cm	0 - 20 cm
Antenna dimensi- ons (LxWxH)	300 x 250 x 12 mm		
Reader dimensions	170 x 105 x 45 mm		
Interface	RS232, Ethernet, USB		

Item no. 18533

HF-SYSTEM MID-RANGE LOOP



- ► The system shown includes:
- HF reader
- HF antenna
- ► Also available as an under-table system

Application areas	Workwear, mops / cleaning cloths, bathrobes, towels, and much more		
Reading method	Single and stacked reading		
Transponder size (in mm) and reading range	•	0 - 13 cm	0 - 28 cm
Antenna dimensions (LxWxH)	430 x 450 x 23 mm		
Reader dimensions	170 x 105 x 45 mm		
Interface	RS232 Ethernet	USB	

Item no. 17027

HF-SYSTEM LONG-RANGE TABLE



Application areas Resident laundry, workwear, mops / cleaning cloths, bathrobes, towels, and more Reading method Single and stacked reading 0 - 16 cm 0 - 42 cm Transponder size 0 - 28 cm (in mm) and reading range Antenna dimensi- 430 x 450 x 25 mm ons (LxWxH) Reader dimensions 420 x 200 x 120 mm RS232, Ethernet, USB Interface

Item no. 21476

HF-SYSTEM LONG-RANGE LOOP



Application areas
Resident laundry, workwear, mops / cleaning cloths, bathrobes, towels, and much more

Reading method
Single and stacked reading

Transponder size (in mm) and reading range

Antenna dimensions (LxWxH)

Resident laundry, workwear, mops / cleaning cloths, bathrobes, towels, and much more

0 - 28 cm
0 - 42 cm
430 x 450 x 23 mm

RS232, Ethernet, USB

Reader dimensions 420 x 200 x 120 mm

- HF reader
- HF antenna

- HF antenna

Item no. 17274

HF-/UHF-SYSTEM COMPACT PLUS

Interface



- ► Top surface made of antistatic material
- Specifically designed for metal tables
- ▶ Integrated LED indicates operating status

Application areas	Desk workstation for laundry sorting in laundry dispatch or for intermediate process control		
Reading method	Single reading, limited stacked reading		
Transponder size (in mm) and reading range	0 - 6 cm	0 - 12 cm	0 - 15 cm
Antenna dimensions (LxWxH)	310 x 260 x 30.5	mm	
Reader dimensions	Integrated into th	e antenna	
Interface	Ethernet, USB, RS-232		

HF-SYSTEM LONG-RANGE-PANEL

- ▶ With flexible mounting bracket
- ▶ For reading hanging garments in a conveyor system
- ▶ The system shown (1) includes:
- HF industrial reader
- HF antenna
- ▶ Suitable for pressing stations and folding robots (4)
- ▶ The system shown includes either:
- Mounting bracket with 4 adjustable feet (3), or
- Floor bracket with adjustable tilt angle (2)

Application areas	Sorting systems or single reading stations
Multi-tag	Compatible
Dimensions (LxWxH)	1,150 x 280 x 30 mm
Interface	RS232, Ethernet, USB

1 HF-System Long-Range-Panel Item no. 17275 20145 2 Floor stand for panel Item no.

Item no. 3 Base stand for panel





HF PICKING TROLLEY



- Advantages of the picking trolley
- Mobility and flexibility
- Robust design with mounting options for notebooks or all-in-one touchscreen systems
- Integration of RFID reader systems in HF, UHF, or as a hybrid solution
- Configurable and adaptable to customer requirements (custom-built)
- Optional: Standalone operation possible through integration of UPS units with ACD Powerrack 250V / 60Ah — 300W
- Optional: Preconfigured, fanless all-in-one touchscreen system
- The system shown includes:
- Loop antenna
- Industrial reader
- 4-socket power strip
- PC mounting bracket

- Two fixed and swivel castors with brakes, Ø 125 mm, rubberized

Application areas	At various stages of the process, mobile or stationary	
Dimensions (LxWxH)	600 x 600 x 1,400 mm	
Interface	USB HID, USB Virtuell-Com, RS232, Ethernet	

Item no. 18260

Also available as UHF version

and custom-built solution

HF SYSTEM TUNNEL ANTENNA

With conveyor belt

▶ Ideal for integration into existing conveyor systems

▶ Reading of entire packages, bags, or laundry stacks

Significant time savings

▶ 100 % reliability

Interface

- ▶ The system shown includes:
- Tunnel antenna, conveyor with belt mat
- Long-range reader, antenna multiplexer
- Control unit with frequency converter
- Adjustable belt speed up to 13 m/min

Application areas	Workwear, mops / cleaning cloths, bathrobes, towels, and much more
Reading method	Stacked reading, bulk detection (bags, stacks, individual items)
Transponder size	16 mm
External dimensions Tunnel (LxWxH)	800 x 550 x 550 mm
Tunnel opening	1,904 x 710 x 1,361 mm

Ethernet, optional: RS232, USB

Our innovative HF reader systems are built to the highest

transponders, ensure optimal laundry identification.

Entire packages, bags, or laundry stacks can be read

within seconds — delivering significant time savings!



THERMOTEX

Custom-built solutions

Custom-built systems from THERMOTEX are tailored to specific processes and individual customer requirements. They are ideal for integration into existing conveyor systems and are manufactured to your exact specifications.

INCLINE CONVEYORS

- Two systems in one: The incline conveyor is a transport belt for transferring items to a batch loading belt while simultaneously reading the laundry items.
- The laundry item, including the transponder, is read by the antenna either in a transport bag or loose as it passes through, and is then transferred to the next processing station.
- ▶ The system shown includes:

HF Reader Systems

- Belt mat conveyor with ergonomic loading funnel and side guides
- HF long-range reading system
- Control cabinet with operating elements









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