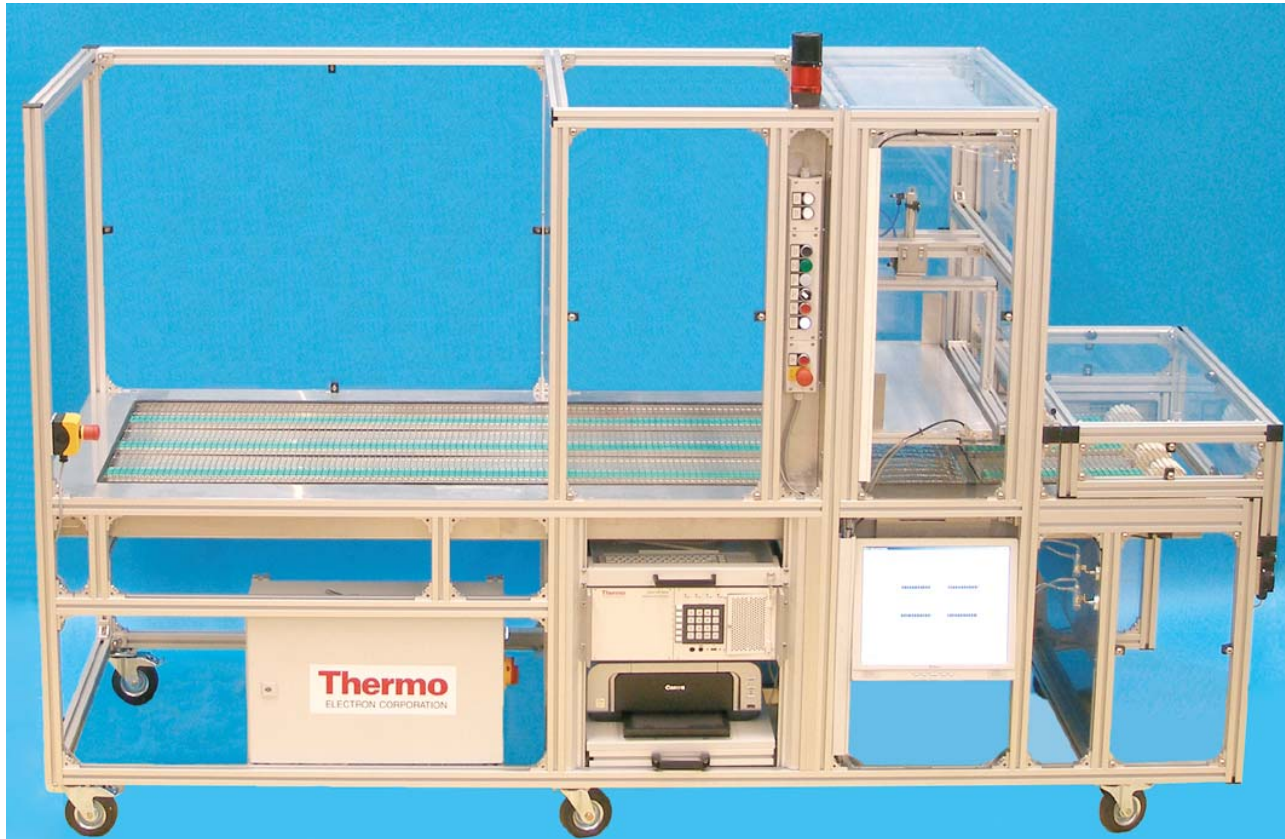



FHT 1320 series  
Laundry Monitors

- Laundry Monitors of the FHT 1320 family
  - FHT 1320 alpha-beta monitor
  - FHT 1320 SZ gamma monitor
  - General modular design

# FHT 1320 ( $\alpha$ / $\beta$ contamination detection)



# FHT 1320 – Description of components



- ① opto-acoustical alarm unit
- ② background counter tube
- ③ operator panel
- ④ lifting pneumatics
- ⑤ protection against contact
- ⑥ upper counter tube
- ⑦ conveyor belt
- ⑧ lower counter tube
- ⑨ sensor for laundry control
- ⑩ counting gas flow control
- ⑪ keyboard drawer
- ⑫ pressure air connection inside
- ⑬ measurement channel FH T8000
- ⑭ 17" Monitor
- ⑮ mains switch
- ⑯ electronics enclosure
- ⑰ printer drawer

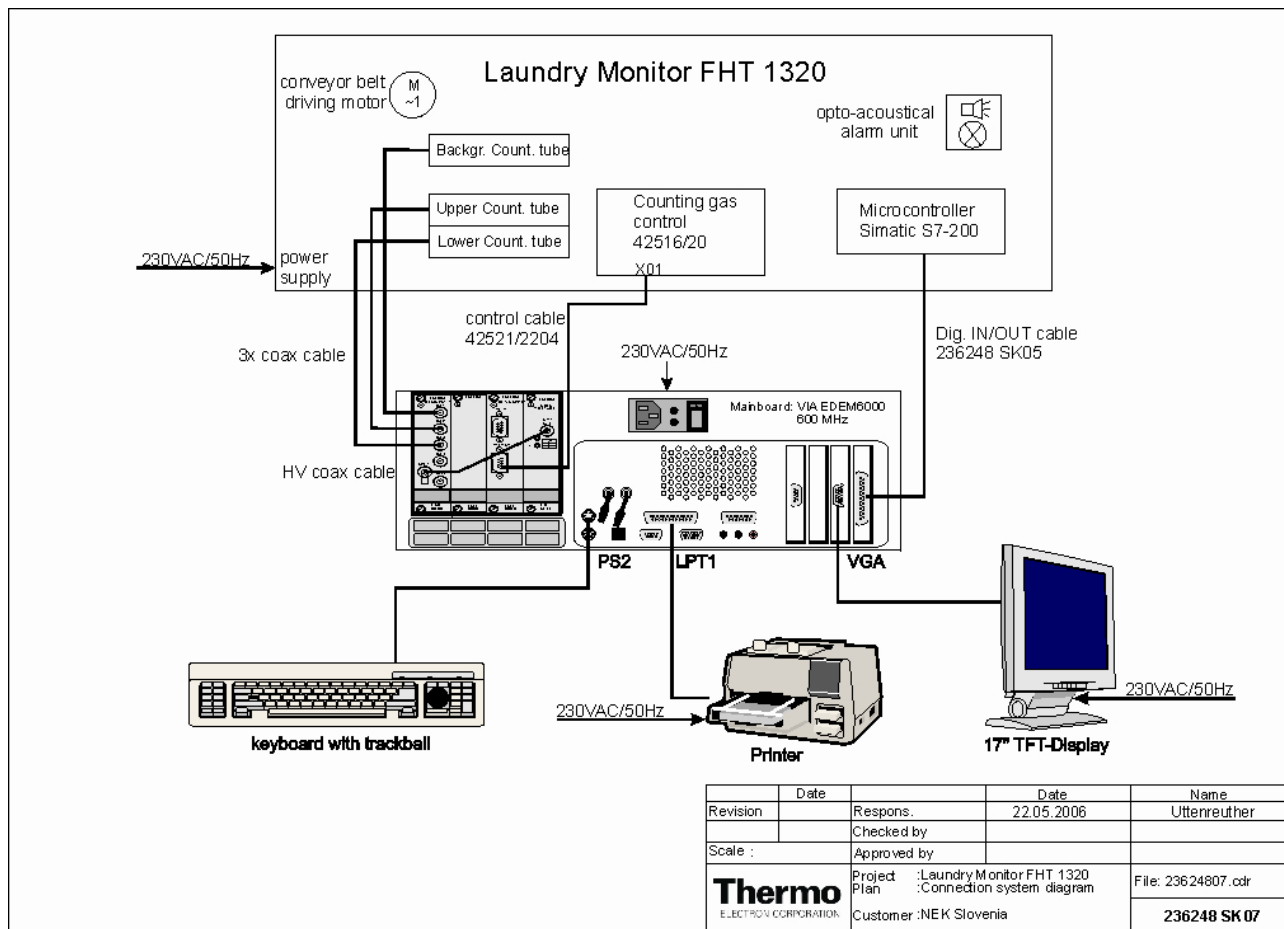
**Laundry Monitor FHT1320**

Revision	Date	Respons.	Date	Name
			04.07.2006	Uttenreuther
		Checked by		
Scale :		Approved by		
<b>Thermo</b> ELECTRON CORPORATION		Project	:Laundry Monitor FHT 1320	
		Plan	:FHT1320 Total view	
		Customer	:NEK Slovenia	
				<b>236248 SK 01</b>

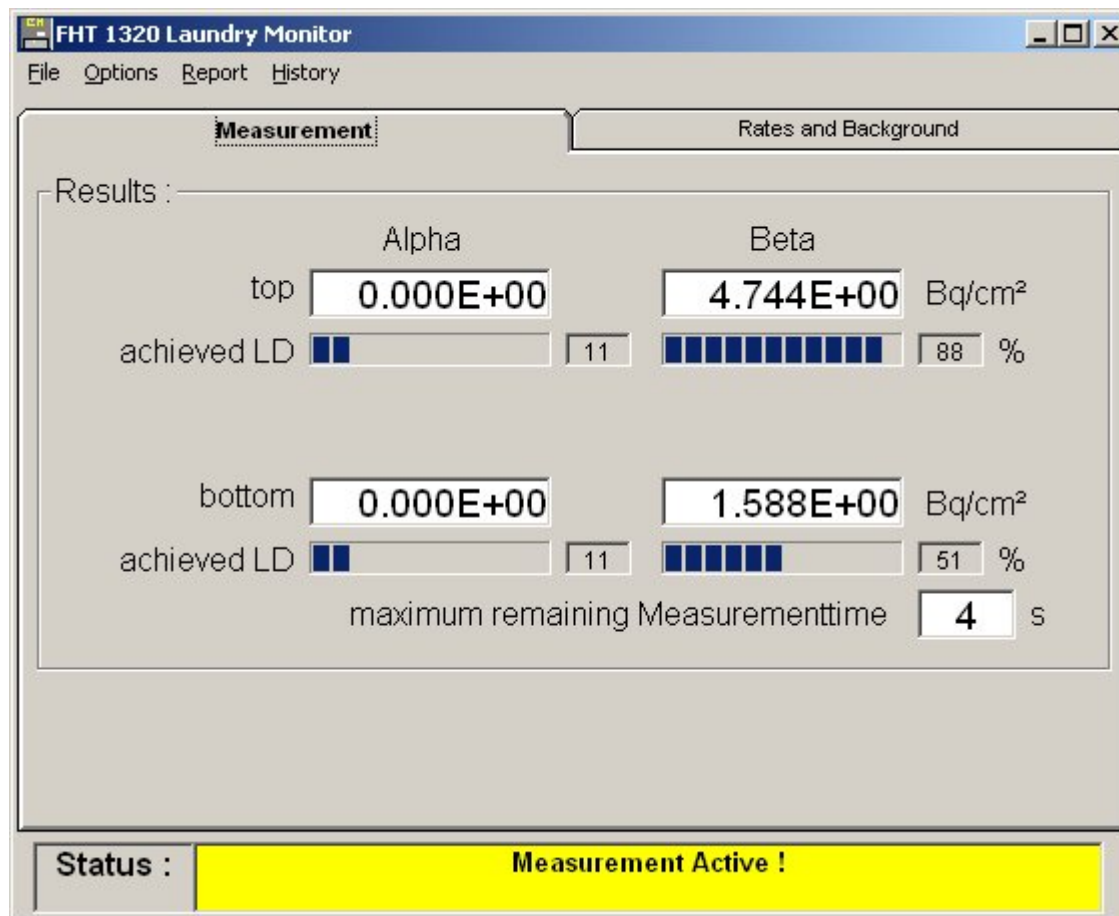
# FHT 1320 – Features

- automatic release measurement of a/b-contaminated laundry
- limit of detection:
  - $\alpha$  contamination: 0.05 Bq/cm<sup>2</sup> (other values presettable)
  - $\beta$  contamination: 0.5 Bq/cm<sup>2</sup>  
(measuring time varying with efficiency and background)
- automatic continuous update of background by additional detector
- one detector above and one below conveyor grid chain
- large area proportional counter tubes (ArCH<sub>4</sub> 90/10)
- measuring electronics FHT 8000 A
- integrated software for the evaluation of all count rates applying the relevant statistical criteria.
- interfaces to VGA-display, keyboard, mouse, printer and network
- step-mode operation

# FHT 1320 – Block diagram



# FHT 1320 - Program



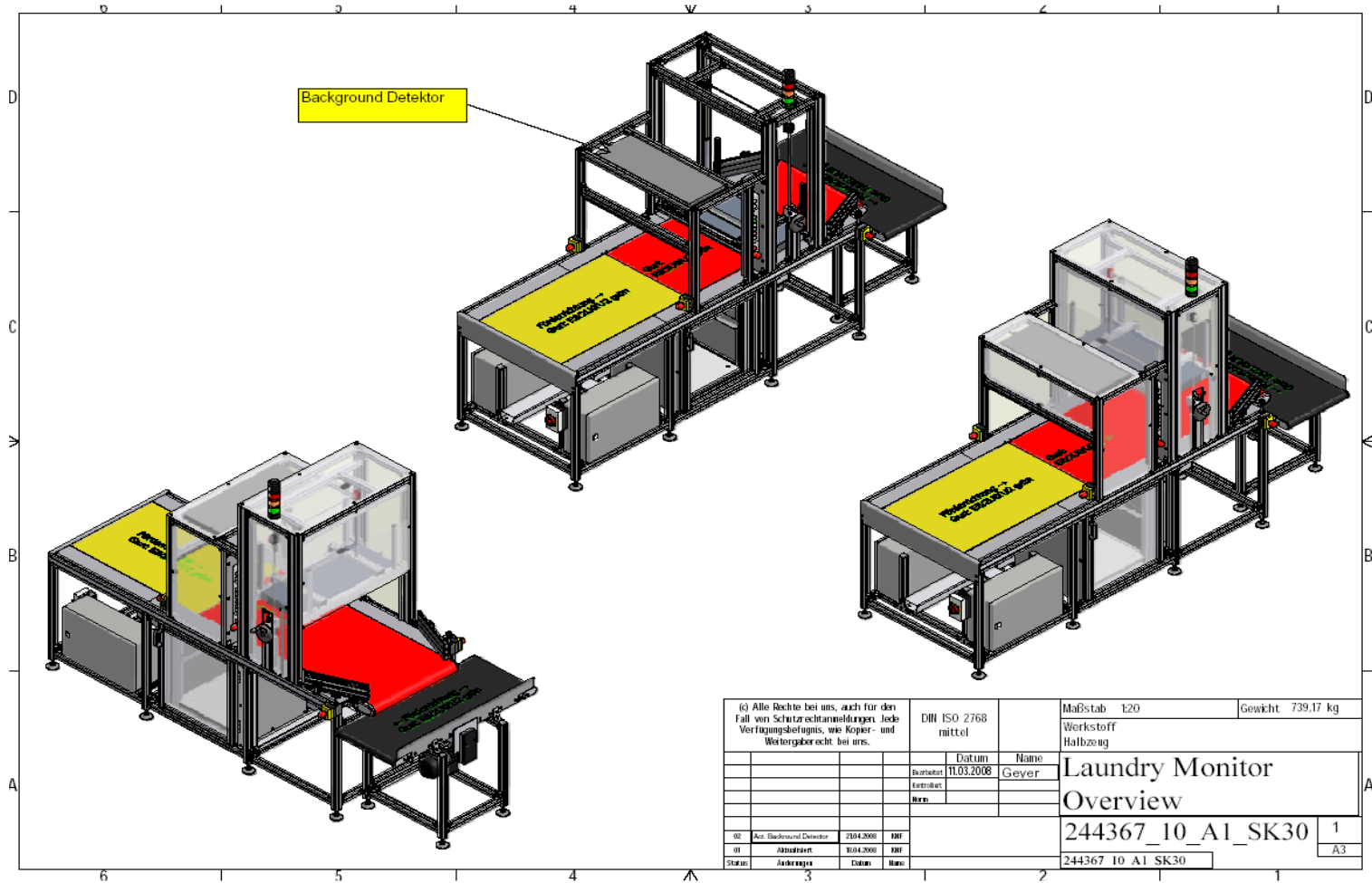


# FHT 1320 SZ ( $\gamma$ contamination detection)



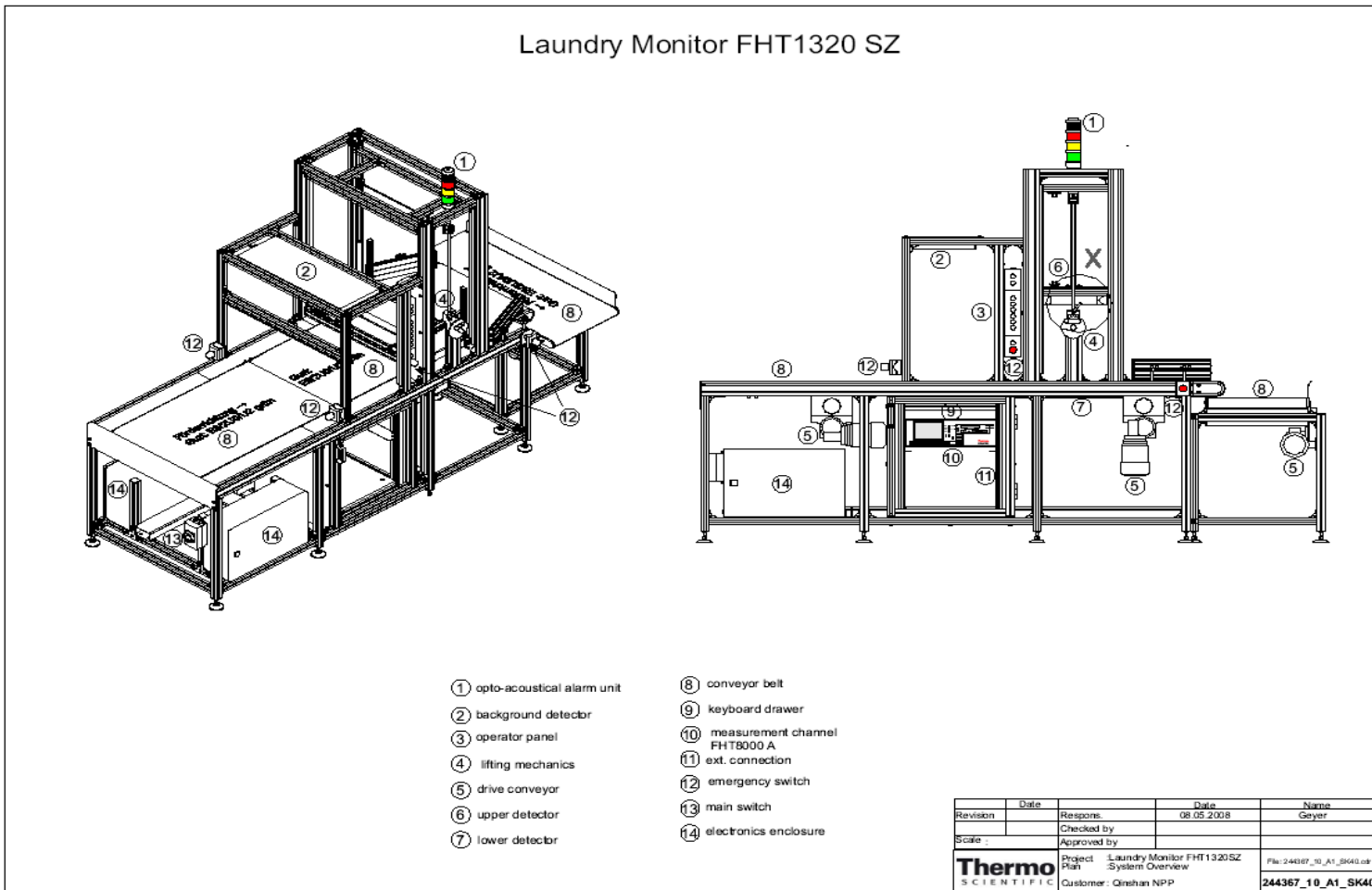


# FHT 1320 SZ – Description of principle



(c) Alle Rechte bei uns, auch für den Fall von Schutzrechtsanmeldungen. Jede Verfügungsbefugnis, wie Kopier- und Weitergaberecht bei uns.		DIN ISO 2768 mittel	Maßstab E20	Gewicht 739,17 kg
		Datum 11.03.2008	Name Geyer	Workstoff Halbzug
		Beurteilt		<b>Laundry Monitor Overview</b>
		Entwickelt		
		Prüft		244367_10_A1_SK30
02	Act. Background Detector	2004.2000	MMF	1
01	Abstrahiert	2004.2000	MMF	A3
Status	Anforderung	Datum	Name	244367_10_A1_SK30

# FHT 1320 SZ – Description of components



# FHT 1320 SZ - Features

- automatic release measurement of  $\gamma$  contaminated laundry
- automatic separation of contaminated objects
- limit of detection:
  - *3900 Bq at  $1\mu\text{Sv/h}$  Co60 background*
- automatic continuous update of background by additional detector
- conveyor belts made of polyurethane elastomer (PUR)  
easy to de-contaminate
- double detector assembly, one above, one below conveyor
- large area scintillation plastic detectors
- programmable logic control for the conveyor drives
- frequency inverters for motor speed control
- height adjustable support frame, extruded aluminum profiles

# FHT 1320 SZ – Features (2)

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- object sensor
- emergency switch off
- signaling beacon
- operator control panel
- measuring electronics FHT 8000 A
- integrated application software FHT1320SZ.exe
- interfaces to VGA, keyboard, mouse, printer and network
- continuous (forward) flow operation mode

# FHT 1320 SZ – Program

**FHT1320 SZ Laundry Monitor**

File Options Report History

Measurement Background Gross - Rate

Results

	Low Energy	High Energy	
Top	<input type="text"/>	<input type="text"/>	s-1
Percent of Alarm	<input type="text" value="0%"/>	<input type="text" value="0%"/>	
<div style="background-color: #004d40; height: 40px; width: 100%;"></div>			
Percent of Alarm	<input type="text" value="0%"/>	<input type="text" value="0%"/>	
Bottom	<input type="text"/>	<input type="text"/>	s-1
Time constant	<input type="text" value="2"/> s	Belt Speed	<input type="text"/> m/min.

Object number  Actual Result file

**Status:** Please press Start button

# FHT 1320 family – Modular approach

Virtually any combination of the features of the FHT 1320 and FHT 1320 SZ shown before can be chosen to build a customer specific Laundry Monitor

## Modules

- $\alpha / \beta$  or  $\gamma$  detectors
- with or without separate background detector
- with or without lead shielding
- grid chain or solid PUR belt
- constant speed or speed control
- step mode or continuous flow operation mode
- fixed height, manual or electrical height adjust for upper detector
- with or without automatic separation of contaminated laundry