FRAMOS VLG
Volume & Dimension Measurement System

INLINE VOLUME & DIMENSION MEASUREMENT SOLUTION FOR CONVEYOR SYSTEMS
- Quality Inspection for Inbound and Outbound Goods
- Classification for Sorting Applications
- Freight Rate Optimization

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FRAMOS VLG
Volume & Dimension Measurement System

Freight Rate Optimization
Volume & dimension measurement for load planning for vehicles or storages | Volume based billing | Improved efficiency (Revenue Recovery)

Classification for Sorting Tasks
Volume & dimension measurement for luggage sorting | Position & volume measurement for automated luggage loading

Master Data Acquisition
Storage Optimization | Parcel consolidation

Quality Inspection
Measurement of bulges, quality inspection and conveyability for inbound and outbound goods | Damage detection

“The VLG enables fast and straightforward logistics automation in order to maximize quality and decrease freight costs.”

Dr. Simon Che’Rose
Head of Engineering FRAMOS
**PRODUCT FEATURES**
- Measurement of length, width, height, position & orientation
- Calculation of BoundingBox dimension
- Calculation of pseudo volume (real volume approximation)
- Robust measurement technique invariant of target material, appearance & form
- Simple PLC integration
- Low maintenance, modular setup & very long MTBF

**BASIC CONFIGURATION**
- Easy-to-integrate self contained 'portal' for roller track & belt conveyors
- Plug & Play measurement system

**OPTIONAL**
- Barcode scanner / OCR reader
- Industrial camera(s) for scanning, reading & archival
- In-motion scales
- More options on request

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**FRAMOS VLG | ORDER INFORMATION**

<table>
<thead>
<tr>
<th>VLG-X-Y-R-S</th>
<th>horizontal measurement height in mm</th>
<th>vertical measurement width in mm</th>
<th>measurement resolution 2.5 mm</th>
<th>5 mm</th>
<th>10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST Standard Speed</td>
<td>BoundingBox [length, width, height, volume, orientation, center]</td>
<td>pseudo volume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS High Speed</td>
<td>Distance to conveyor edge</td>
<td>bulge size</td>
<td>neglection of protrusions</td>
<td>tolerance control</td>
<td>shape control</td>
</tr>
<tr>
<td>SHS Super High Speed</td>
<td>3 scan lines</td>
<td>Freeform</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfaces</td>
<td>RS232</td>
<td>TCP/IP</td>
<td>PROFBUS®</td>
<td>others on request</td>
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</tr>
<tr>
<td>Output data</td>
<td>BoundingBox</td>
<td>length, width, height, volume, orientation, center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output data optional</td>
<td>Distance to conveyor edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating voltage</td>
<td>230 V AC</td>
<td>115 V AC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Available measurement heights and widths:
- at 2.5 mm resolution: 38 | 78 | 1088 mm (38 + n x 40)
- at 5 mm resolution: 115 | 155 | 11475 mm (155 + n x 40)
- at 10 mm resolution: 390 | 470 | 3030 mm (390 + n x 80)

Example: VLG-515-595-5-HS
**FRAMOS VLG**

*Volume, Dimensions & System Extensions*

**VOLUME MEASUREMENT**

- Determining the length, width, height and volume of the smallest enclosing box for an object
- Measurement of any 3D object
- Measuring range – from 3030 mm wide to 3030 mm high (pallets)

**CUSTOMER VALUE**

- Automatic inline measurement system
- Robust, reliable & industrial
- Modular extensions
- Large measuring range
- All forms and surfaces can be measured robustly

**APPLICATIONS**

- Registering incoming goods
- Documenting outgoing goods
- Master data acquisition
- Measurement of cartons and pallets
- Freight rate optimization
- Optimizing storage

**VLG SYSTEM EXPANSIONS**

**Checking contours**

- Measuring object shape
- Measuring bulges on each side (deviations from smallest bounding box, 3D model)
- Classification of objects
- Sorting by form
- Differentiating object forms (bags & cartons identifiable by contours)

**FUNCTION**

**CUSTOMER VALUE**

- Ensure system availability
- Instant evaluation: can the object be conveyed?
- Avoidance of malfunctions

**APPLICATIONS**

- Registering incoming goods
- Registering goods to return
- Automatic sorting within conveyor system
- High bay racking, stacker cranes

**Weight determination & in-motion scales**

- Dynamic weight measurement
- Weighing and volume measurement combined

**APPLICATIONS**

- Master data acquisition of incoming goods
- Optimizing freight rates of outgoing goods
### Barcode reading

**FUNCTION**
- Automatic multiple side reading of up to 5 sides with permanently installed barcode readers
- Hand-held barcode readers

**CUSTOMER VALUE**
- Recording of consignments
- Reading supplier-barcodes
- Reading barcodes on labels
- Proof of functionality and processes by images
- Process diagnosis and improvements
- Claim management
- Return management

**APPLICATIONS**
- Registering incoming/outgoing goods
- Master data acquisition
- Identifying cartons & pallets
- Freight rate optimization

### Image documentation

- Saving images of goods on a network drive

### SOFTWARE

- Measurement software, 3D model generation
- Graphical user interface
- Interfaces to conveyor systems and ERP and WMS
- Easy integration in on-site IT

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![Automatic barcode reading of up to five sides - permanently installed or manual](image-url)
WE ENABLE IMAGING
solutions from sensor to system for all industrial applications

ABOUT FRAMOS  |  For FRAMOS, image processing is not just a technical discipline, but a fascination, the future and our mission all at the same time. Since 1981 FRAMOS is a leading technology provider in industrial, scientific and medical image processing. Headquartered in Munich and with 4 subsidiaries worldwide we enable manufacturers, system integrators and researchers to benefit from imaging technologies. Our team of approximately 100 associates offers a fully comprehensive portfolio of imaging components, technical consulting and support. Thanks to many years of experience in the industry, we offer engineering services for custom camera development as well as complete turn-key-solutions. We are proud of our participation in a revolutionary technology. The spirit of innovation and development of our early days has remained at the heart of our company.

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