Your fast solution for higher security

Post offices in companies and public authorities alike are the departments most vulnerable to attacks via mail. In most cases, its staff is unprotected to those potentially severe incidents. To minimize the likelihood of such an event, HÜBNER Photonics developed an innovative bench-top system enabling you to check letters and small parcels: The T-SENSE visualizes hidden objects and hazardous substances in your mail.

With terahertz radiation being harmless for living tissue, T-SENSE can be operated without any safety precautions that are often necessary with conventional devices. Due to its intuitive graphical user interface, T-SENSE can be operated by everybody – no special training is required at all.

The T-SENSE permits effective and safe mail inspection to improve the security of people.
**T-SENSE**

**User-friendly**
Thanks to easy-to-understand and intuitive modes of operation and interface, the T-SENSE can be used immediately after startup. It is not necessary to hold long staff trainings. The output log can be varied for individual customer requirements.

**Fast, mobile and flexible**
Based on its lightweight and small dimensions, the T-SENSE can be handled easy, only a main connection is necessary. Quick scans detect hidden objects and materials such as drugs and explosives in letters and small parcels. The terahertz imager rapidly displays the objects to be examined, uncovering potentially dangerous contents. Since the device is highly sensitive, it even visualizes powders and adhesives!

**Safety for health and work**
Unlike x-rays, there is no health risk with the terahertz-based imager T-SENSE. Typical safety precautions for conventional imaging devices are not needed – outside the casing, the terahertz waves are barely detectable.

![T-SENSE user interface with different filters side by side. All parameters are intuitively customizable.](image)

**Operation Principle**
Terahertz waves essentially stand for the frequency range of the electromagnetic spectrum, ranging between 0.1 THz and 10 THz. Numerous nonconductive materials such as plastics, compounds, ceramics, paper or clothing appear almost transparent on THz frequencies. The T-SENSE makes use of the varying absorption levels of the objects being illuminated.

In addition, it measures the time range of the signal being emitted. It can recognize the smallest difference, regardless of whether this is due to varying levels of moisture or a deliberate or accidental alteration of the composition of the product in question.
**Workload capacity**

<table>
<thead>
<tr>
<th>Envelopes/hour</th>
<th>C4</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Envelopes/hour</td>
<td>C5</td>
<td>2000</td>
</tr>
<tr>
<td>Envelopes/hour</td>
<td>C6</td>
<td>3000</td>
</tr>
</tbody>
</table>

* Value for standard resolution

**Maximum dimensions of scanned objects**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Width</td>
<td>275 mm</td>
</tr>
<tr>
<td>Height</td>
<td>50 mm</td>
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</tbody>
</table>

**Surroundings & electrical supply**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature range</td>
<td>10 - 45 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>100 - 230 VAC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt; 100 W</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 - 60 Hz</td>
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</tbody>
</table>

**Dimensions & weight**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>1365 mm</td>
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<tr>
<td>Width</td>
<td>586 mm</td>
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<tr>
<td>Height</td>
<td>667 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>100 kg</td>
</tr>
</tbody>
</table>

**Visualizing the invisible without any risk to human health.**
Headquarters

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