Two Pneumatic TUBE sensors are laid over the road or bicycle lane, perpendicular to traffic flow. The system automatically monitors the speed and distance between the two bicycle wheels. With this information, the Pneumatic TUBE sensors are able to distinguish bicycles from motorized vehicles in mixed traffic, extract directional data and accurately count the number of cyclists in a group.

- Mobile or semi-permanent
- Battery powered
- Seamless data transmission

**General Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td>Piezoelectric</td>
</tr>
<tr>
<td><strong>Battery Life</strong></td>
<td>+ With automatic data transmission option: 2 years</td>
</tr>
<tr>
<td></td>
<td>+ With manual data collection: Up to 10 years</td>
</tr>
<tr>
<td><strong>Calibration</strong></td>
<td>Self-calibrating</td>
</tr>
<tr>
<td><strong>Covered Width</strong></td>
<td>Up to 9 m (354&quot;) (2 x 9 m (354&quot;) with stopper in the middle)</td>
</tr>
<tr>
<td><strong>Waterproofness</strong></td>
<td>IP 68</td>
</tr>
<tr>
<td><strong>Data Backup</strong></td>
<td>60-minute or 15-minute data recording interval</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>&gt; 20 Months</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>0,5 mW</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>± 3% with optimal conditions</td>
</tr>
</tbody>
</table>

**Physical Characteristics**

- **Pneumatic TUBEs**
  - Diameter: Classic TUBE (for installation on shared roads): 15 mm (0.5")
  - Mini-TUBE (for installation on greenways): 9 mm (0.35")
  - Waterproofness: IP 68
  - Material: Rubber

- **Stainless Steel Box**
  - Dimensions: l = 33 cm (13") / w = 23 cm (9") / h = 8 cm (3")
  - Weight: 5 kgs (11 lbs)
  - Material: Stainless steel

- Shack Absorber*
  - Length: 150 cm (59")
  - Diameter: 15 mm (0.5")
  - Material: Rubber

*Shock absorbers are supplied only with Mini-TUBE for greenways.

Mobile or semi-permanent < 3 months

Stainless steel box

Non-contractual documentation. Specifications subject to change without notice.
TECHNICAL SHEET

PNEUMATIC TUBES

TUBEs Greenways

+ Specifically designed to monitor bicycles on dedicated bicycle lanes and greenways
+ Mini-TUBEs to maximize cyclist comfort
+ Specific filter to ensure an accuracy of +/- 3%, even for groups of cyclists
+ Count bikes passing side-by-side or closely following each other

TUBEs Selective

+ Temporary monitoring of bicycles on roads in mixed traffic (bicycle lanes, shared bicycle/bus lanes)
+ Ignore motorized vehicles (fast scooters, motorbikes, cars, and buses)
+ Count only bicycles, even in heavy traffic
+ A special insert in the TUBE dismisses signal rebounds that may be generated by a fast car or truck

Installation Example