

## PNEUMATIC TUBES

Two Pneumatic TUBEs 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 TUBEs 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



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| Technology           | Piezoelectric  |  |  |
|----------------------|--|--|--|
| Battery Life         | With automatic data transmission<br>option: 2 years With manual data collection: Up to 10<br>years |  |  |
| Calibration          | Self-calibrating   |  |  |
| Covered Width        | Up to 9 m (354") (2 x 9 m (354") with stopper in the middle)                                       |  |  |
| Waterproofness       | IP 68  |  |  |
| Data Backup          | 60-minute or 15-minute data recording<br>interval  |  |  |
| Memory               | > 20 Months  |  |  |
| Power<br>consumption | 0,5 mW   |  |  |
| Accuracy             | ± 3% with optimal conditions   |  |  |
|                      |  |  |  |

#### Physical Characteristics

| Es   |  |  |
|--|--|--|
| + Classic TUBEs (for installation on<br>shared roads): 15 mm (0.5")<br>+ Mini-TUBEs (for installation on<br>greenways): 9 mm (0.35") |  |  |
| IP 68  |  |  |
| Rubber   |  |  |
| Зох  |  |  |
| I = 33 cm (13") / w = 25 cm (9") / h = 8 cm (3")   |  |  |
| 5 kgs (11 lbs)   |  |  |
| Stainless steel  |  |  |
| •  |  |  |
| 150 cm (59")   |  |  |
|  |  |  |



Mobile or semipermanent < 3 months

Rubber \*Shock absorbers are supplied only with Mini-TUBEs for greenways

15 mm (0.5")

Diameter

Material



# 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

