Pneumatic TUBEs

- Accuracy +/- 3%
- Waterproof
- Battery Powered

How it works

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.

Features & Benefits

- **Selective counting on shared roads**
- **Precise for groups of cyclists**
- **Battery powered (10 years)**
- **Bidirectional detection**

- **Easy and versatile installation**
- **Instant data collection**
- **No engineering work**
- **Mobile**

Mobile or Semi-permanent
< 3 months

Shared Roads: TUBEs Selective

- Temporary monitoring of **bicycles on roads in mixed traffic** (bicycle lanes, shared bicycle/bus lanes)
- Ignores motorized vehicles (scooters, motorbikes, cars, and buses)
- Counts 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
- High accuracy (+/- 3%, even in heavy traffic)

Bicycle Boulevard Network

Over 30 **TUBEs Selective** sensors have been installed on the bicycle boulevard network of Vancouver, Canada.

Shared Bicycle/Bus Lanes

On Milwaukee Avenue, Chicago, **TUBEs Selective** sensors have been installed to monitor bicycles on a shared bicycle/bus lane.

Mobile or Semi-permanent
< 3 months

Groups of Cyclists: 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**
- Counts bikes passing side-by-side or closely following each other

1.6 Million Cyclists

Over 1.6 million cyclists a year use the Hawthorne Bridge linking East Portland to the city center.

Research

McGill University in Montreal, Canada, uses **TUBEs** sensors to monitor the cycling networks of Montreal and Quebec.