



## Pantograph and overhead line measuring systems Stationary Uplift Measurement System

The experts from DB Systemtechnik developed the measurement system from 2000 onwards to conveniently measure the contact wire uplift as a measurement train passes. The system is tried and tested in the field and it was developed to meet the requirements of EN 50317. The system is entirely immune to electromagnetic interference, due to its design.

### Our Services:

- Monitoring of vehicles in regular operations
- Approval of contact line types
- Approval of pantographs

### Your benefits:

- Minimization of maintenance costs: During the operation of the measurement system, the maintenance costs per pantographs for long distance traffic can be reduced by up to 30%.
- Prevention of malfunctions: Up to 60 incidents can be reduced every year, by operating three measurement systems.
- Fewer delay minutes: Up to 18.000 delay minutes can be avoided per year, by operating three measurement systems.
- Minimization of the number of moving parts

## Technical Details:

- Installation of cable traction sensor over the contact wire on high-voltage potential
- Installation of accelerometer on the contact wire
- Data transmission to server via wireless modem (LTE/UMTS/GSM) or Ethernet
- 230 V power outlet required
- Measured variable: uplift at the overhead line mast
- Accuracy: +/- 5 mm ( $2 \sigma$ )
- Auxiliary measured variable: train speed (if at least two cameras are set up)