

## DIMETIX APPLICATION EXAMPLE

AE-0401

### TRUCK POSITION MEASUREMENT

**Industry:** Transportation  
**Application type:** Position measurement

#### Brief description



*Pic 1: HGV vehicle being checked*

In times of increasing traffic and ever more demanding tasks where time is of the essence, a system was developed to speed up customs checks on HGV vehicles. This device helps to significantly reduce time consuming check ups on vehicles since the positioning of the trucks is done with sensors.

Customs uses mobile X-Ray scanners to check the content of trucks and containers. During the scanning process the movement of the scanner must be determined precisely.

Three sensors measure the position of the moving scanning device. With this three distances the exact position of the scanner is determined. The Laser Distance Sensors are used in an outdoor application. Therefore they need to be robust, while the precise

measurement needs to be fulfilled at all times. Due to the extended temperature Dimetix Laser Distance Sensors are the best solution for this application.

#### Customers advantages

- Temperature Range from +50C° to as low as -40C°
- Precision  $\pm 1$  mm
- Easy installation due to visible laser beam
- Plenty of measurement range means that lasers do not have to be adjusted for various truck sizes
- Measurements can be acquired by a PLC or PC
- Maintenance free application– no moving parts to wear or string cables to break
- Economical, rugged and compact package



## Products used

### DLS-C series

The DLS-C distance measuring device measures absolute distances up to 500 meters on reflective foil without contact. Due to most innovative laser technology the DLS-C has a unique accuracy of  $\pm 1.5$  mm. A further advantage of the DLS-C is the quick determination of the positions of moving objects.

The DLS-C is an optical distance measuring device. It measures, maintenance-free, distances up to 65m on natural surfaces. It determines positions of objects that are difficult to access or may have very high surface temperatures. Just as easily, it accurately measures distances in hazardous environments.

The DLS-C is designed to be suitable for both, heavy industrial and outdoor applications. It is constructed of a solid metal case and provides class IP65 environmental protection. **It represents a cost efficient solution even at extreme environment temperatures as high as +50° C.** Furthermore, various features make it flexible for multiple applications in numerous industries such as automotive, paper, metal and textile.

### Specification

- Measuring range 0.05 up to 500m
- Accuracy  $\pm 1.5$  mm
- Repeatability  $\pm 0.4 - \pm 1.5$  mm
- Extended operating temperature
- Solid metal case IP65
- Supply voltage



For new projects we recommend our **D-Series**. Further information can be found [here](#).

For more information please contact us on [application@dimetix.com](mailto:application@dimetix.com)

