



The LTL-XL & LTL-X retroreflectometer features

The professional choice for measuring the retroreflectivity of road markings

LTL-XL and LTL-X measure all **types of road markings** at a simulated distance of 30 m with the **highest level of accuracy**. The instruments operate with a reproducibility of +/- 5% and a repeatability of +/- 2%.

LTL-XL and LTL-X measure, depending on the model chosen, **R_L** (nighttime visibility), **Q_d** (daytime visibility), visibility under **dry, wet and continuous rain** conditions.

LTL-XL and LTL-X are robust, long lasting and advanced instruments designed for professionals using the latest developments in **light and sensor technology**. Using DELTA's gradient index technology and patented optical system, the instruments can measure all types of flat and profiled markings. The sensor response, combining the CIE eye response and the CIE illuminant A, meets both **CEN and ASTM requirements** for profile capacity and colour.

LTL-XL and LTL-X measure **white and yellow markings** with no adjustment.

LTL-XL and LTL-X have automatic **stray light compensation** so daylight and other light sources will not affect the accuracy of the measurements.

LTL-XL and LTL-X can be fitted with **adjustable handle** and **wheels** to make the handling of the instrument ergonomic and easy. The adjustable handle will allow the operator to work in upright position, and the wheels make it easy to move the instrument to a new measurement location. All operations can be carried out single-handed with single-touch securing easy and safe use in traffic.

LTL-XL and LTL-X can be fitted with built-in precision WAAS **GPS** and printer. GPS makes it possible to determine exactly where any specific measurement has been carried out. The printer can provide you with immediate written proof of a measurement. The internal memory **automatically stores the measurements** with relevant support data.

The **Road Sensor Control (RSC)** software supplied with the instrument, combined with the **USB interface**, makes it easy to download data and generate reports like Excel reports. GPS data can easily be transferred to a GPS program like Goggle Earth for visual overview showing where measurements have been taken.

LTL-XL and LTL-X instruments are **calibrated at DELTA's DANAK-accredited laboratory** and are traceable in accordance with standards issued by PTB (Physikalish-Technische Bundesanstalt, Germany) and NIST (National Institute of Standards and Technology, USA). The recommended daily calibration of the instruments is simple and easy to carry out.

Contact and further information

For further information about DELTA's LTL-XL and LTL-X, please contact Market Manager Kjeld Aabye at +45 72 19 46 30 or e-mail: kaa@delta.dk.

The LTL-XL features in brief:

- R_L and Qd under dry and wet conditions
- Short measurement time of 1-3 seconds
- Measures plain and profiled markings up to 5 mm
- Large memory with a capacity of more than 200.000 measurements
- Multiple language menu
- Easy readable colour LED display
- Show and store day, time, humidity and temperature
- Facility for entering and storing road ID, marking type and user ID
- Facility for averaging measurements
- Wet timer to facilitate measuring wet road markings
- Comes with maintenance free LED light



LTL-XL complies with the following standards:
EN 1436 and ASTM E 1710

The LTL-X features in brief:

- R_L under dry, wet and continuous rain conditions
- Short measurement time of less than 1 second
- Measures plain and profiled marking up to 15 mm
- Memory capacity of 1.000 measurement
- Show and store day and time
- Facility for entering and storing road ID, marking type and user ID
- Facility for averaging measurements
- Wet timer to facilitate measuring wet road markings



LTL-X complies with the following standards:
EN 1436 and ASTM E 1710

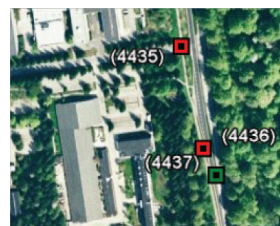
Add-ons



Adjustable handle



Wheels



GPS



Printer