



The LTL-XL & LTL-X retroreflectometer features

The professional choice for measuring the retroreflection of road markings



LTL-XL & LTL-X instruments

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 comply with the following standards: EN 1436, ASTM E 1710, ASTM E 2176, ASTM E 2177, ASTM E 2302, ASTM E 2832



The LTL-XL features in brief

- R_L and Q_d 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
- Shows and stores day, time, humidity and temperature
- Facility for entering and storing of 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



The LTL-X features in brief

- R_L under dry, wet and continuous wetting
- Short measurement time of less than 1 second
- Measures plain and profiled markings up to 15 mm
- Memory capacity of 1,000 measurements
- Shows and stores day and time
- Facility for entering and storing of road ID, marking type and user ID
- Facility for averaging measurements
- Wet timer to facilitate measuring wet road markings

Features

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 wetting.

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 outside light sources will not affect the accuracy of the measurements.

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 MS-Excel reports. GPS data can easily be transferred to a GPS program like Goggle Earth for visual overview showing the results and where measurements have been taken.

Add-ons

LTL-XL and LTL-X can be fitted with telescopic 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.

Calibration standards

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:



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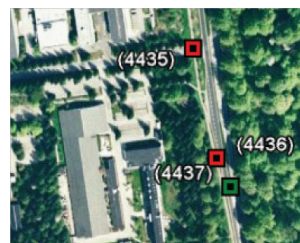
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Telescopic handle



Wheels



GPS



Printer

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