



LTL-XL

Specifications



Optical specifications

Field of measurement:

- Width: 50 mm / 1.97 in
- Height: 185 mm / 7.28 in

Illumination angle R_L EN 1436: 1.24°

Illumination angle R_L ASTM E 1710: 88.76°

Observation angle R_L EN 1436: 2.29°

Observation angle R_L ASTM E 1710: 1.05°

Illumination angle Qd: Diffuse

Illumination angular spread:

- Horizontal: / Vertical: 0.33 / 0.17°

Observation angular spread: $\pm 0.17^\circ$

Equivalent observations distance: 30 m

R_L range ($\text{mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$) 0 - 2000

Qd range ($\text{mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$) 0 - 318

Instrument dimensions

Length: 573 mm / 22.56 inch

Width: 222 mm / 8.74 inch

Height: 538 mm / 21.18 inch

Weight: 7 Kg / 15.5 lbs

Construction:

Structural parts: Aluminum

Housing: Polymer

Keyboard: Silicone rubber

Circuit boards: Epoxy glass

Regulatory compliance

Radio: EN 300440-1 V1.6.1:2010

EMC: EN 301489-1 V1.8.1:2008, EN 301489-3 V1.4.1:2002

Safety: EN/IEC 60950-1 :2006, EN/IEC 60950-22 :2006

FCC: 47 CFR, FCC Part 15B, Class A

Electrical characteristics

Power supply:

Battery: Built in 12 volt / 2.1 Ah NiMH or 12 volt / 4.5 Ah NiMH

High Power

Charging time: Approx. 1 hour 30 min / 3 hour 30 min

External charger power supply: Friwo FW7530/15

(100-240 VAC / 15VDC)

Charger fuse (5*20 mm): T3.15A

Power supply fuse (5*20 mm): T3.15A

Data

Data memory: >200.000 measurements

Data transfer: USB 2.0

Typical repeatability: +/- 2%

Typical reproducibility: +/- 5%

Environmental specification

Temperature:

- Operating: 0°C to +60°C / 32°F to 140°F
- Storage: -15°C to +60°C / 5°F to 140°F
- Humidity: <85%, non condensing

Timing

Measurement time: Qd or R_L 1 sec. / R_L + Qd : 3 sec.

Standards

EN 1436 (R_L & Qd), ASTM E-1710 (R_L), ASTM E-2177 (R_L wet), ASTM E-2302 (Qd)

Features

- Night time (R_L) and daytime (Qd) visibility measurement
- Ergonomic and easy-to-use lightweight design.
- Single handed operated and user-friendly
- Air humidity and temperature recorded
- Safeguarded for the future with seamless connection to any system, such as PCs and PDAs
- Measures plain and profiled markings up to 5 mm / 0.2 inch
- Measures dry and wet markings
- Measurement statistics
- ID functions (road, operator, line type, colour)
- Multilingual menu
- Data storage and communication
- Software for PC downloads
- Stray light compensated

Standard delivery

- LTL-XL Retroreflectometer
- Transportation box on wheels
- Calibration standard with DANAK certificate
- Battery charger
- Quick guide

Downloads

To be downloaded from www.roadsensors.com under 'Products':

- LTL-XL user and PC software manuals
- LTL software pack. Provide automatic download of driver and RSC software

Options

- Built-in GPS
- Adjustable telescopic handle
- Wheels
- Built-in printer

Approval

StrausZert, Test no 0913-2010-07

Warranty

2 years

R&TTE Declaration of Conformity (DoC) and US Attestation of Conformity (AoC) can be supplied by DELTA upon request or viewed on: roadsensors.madebydelta.com/technical-background/certification

