LTL-XL
Specifications

Optical specifications
Field of measurement:
- Width: 50 mm / 1.97 in
- Height: 185 mm / 7.28 in
Illumination angle R_\text{L} \text{ EN 1436}: 1.24°
Illumination angle R_\text{L} \text{ ASTM E 1710}: 88.76°
Observation angle R_\text{L} \text{ EN 1436}: 2.29°
Observation angle R_\text{L} \text{ ASTM E 1710}: 1.05°
Illumination angle Q_\text{d}: Diffuse
Illumination angular spread:
- Horizontal: / Vertical: 0.33 / 0.17°
Observation angular spread: ±0.17°
Equivalent observations distance: 30 m
R_\text{L} range (mcd \cdot m^{-2} \cdot lx^{-1}): 0 - 2000
Q_\text{d} range (mcd \cdot m^{-2} \cdot 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
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: Q_\text{d} or R_\text{L} 1 sec. / R_\text{L} + Q_\text{d} : 3 sec.

Standards
EN 1436 (R_\text{L} & Q_\text{d}), ASTM E-1710 (R_\text{L}), ASTM E-2177 (R_\text{L} wet), ASTM E-2302 (Q_\text{d})

Features
- Night time (R_\text{L}) and daytime (Q_\text{d}) 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

ROADSENSORS.COM
Downloads
To be downloaded from www.roadensors.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