



# LTL-M

## Specifications



### System overview

The LTL-M system consists of:

Sensor:	500 x 180 x 200 mm/19.7 x 7.1 x 8.0 in 12.5 kg/28 lbs
Processor:	400 x 170 x 200 mm/ 16.0 x 6.8 x 8.0 in 8 kg/18 lbs
Tablet PC:	290 x 180 x 15 mm/11.6 x 7.2 x 0.6 in 1.0 kg/2.2 lbs

The LTL-M light source is a flash system. The LTL-M measurement system consists of a digital camera and proprietary software.

### Optical specifications

Field of measurement:	1000 x 1000 mm / 39,4 x 39.4 in
Illumination angle to road:	1.24°
Observation angle to road:	2.29°
Illumination angular spread:	
• Horizontal:	0.33°
• Vertical:	0.17°
Observation angular spread:	±0.17°
Equivalent observation distance:	30 m
R <sub>t</sub> range (mcd·m <sup>-2</sup> ·lx <sup>-1</sup> ):	40-2000
RRPMs/Road studs:	2 % level for new (white), 0.14 CIL value

### Compliance

EMC:	EN 61326:2007
Low voltage:	Not applicable, battery driven
ROHS:	Compliance to the requirement of and its exception Directive 2002/95/EC; 2002/96/EC Annex 1A

### Electrical characteristics

Power supply:	12 V vehicle power, approx. 13.5 A
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### Environmental specification

Temperature:	
• Operating:	0°C to +45°C / 32°F to 113°F
• Storage:	-15°C to +55°C / 5°F to 131°F
Humidity:	non condensing

### Standards

EN 1436 and ASTM E-1710 for road markings  
EN 1463-1:1997 for RRPMs

### Features

Continuous measurement of night visibility (R<sub>t</sub>) of road markings at driving speed  
Automatic compensation for vehicle movements (Patent pending)  
Measures daylight contrast and line geometry  
Measures presence of road studs (RRPMs)  
Measures all types of plain and profiled markings  
Measures white and yellow markings  
Measures dry and wet markings  
Measures profiles up to 25 mm / 1 in  
Stop and mark function during operation  
Measured data are automatically stored  
Can be operated by one person  
Software for reporting and transfer of data to Excel  
Future software upgrades can easily be integrated

### Standard delivery

LTL-M retroreflectometer system (sensor, processor, user interface tablet PC)  
Software for data presentation  
Calibration standard  
Vehicle fixture  
User manual  
Carrying case

### Options

Overhead video camera  
DMI (Distance Measurement Instrument)

### DELTA

Venlighedsvej 4  
2970 Hørsholm  
Denmark  
Tel. +45 72 19 40 00  
roadsensors@delta.dk  
roadsensors.com