



Retrosign GR1

Specifications

Optical specifications GR1 ASTM

Geometry: ASTM E-1709, E-2540 & E-1809

- Entrance angle: -4°
- Observation angle: 0.2°
- Light source angular aperture: 0.1°
- Receiver angular aperture: 0.1°

Optical specifications GR1 CEN

Geometry: EN 12899

- Entrance angle: +5°
- Observation angle: 0.33°
- Light source angular aperture: 0.16°
- Receiver angular aperture: 0.16°

Optical specifications GR1 Safety

Special version for safety clothing:

Geometry: EN471

- Entrance angle: 5°
- Observation angle: 0.2°
- Light source angular aperture: 0.16°
- Receiver angular aperture: 0.16°

Other optical specifications:

Field of measurement, Ø: 30 mm / 1.2 inch / 15 mm / 0.6 in

Spectral responsivity: According to ASTM E-1709 & E-2540

Range (cd·lx⁻¹·m²): 0 – 2000

Instrument dimensions

Length: 295 mm / 11.6 in

Width: 83 mm / 3.3 in

Height: 324 mm / 12.8 in

Weight: 2.1 kg / 4.6 lbs

Regulatory compliance

EU

The equipment complies with the following directives of the European Parliament and of the Council:

- Directive 1999/5/EC of 9 March 1999 on radio equipment and telecommunications terminal equipment.
- Directive 2011/65/EU of 8 June 2011 on restriction of the use of certain hazardous substances (RoHS).

- Directive 2002/96/EC of 27 January 2003 on waste electrical and electronic equipment (WEEE).

The equipment is tested to the following standards:

R&TTE article 3.1a (health & safety):

- EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011

R&TTE article 3.1b (electromagnetic compatibility):

- EN 301489-1 V1.8.1:2008

- EN 301489-3 V1.4.1:2002

R&TTE article 3.2 (radio parameters):

- EN 300440-2 V1.4.1:2010

USA

The equipment complies with the following rule part of the Federal Communications Committee:

- FCC CFR 47 Part 15 Subpart B, Class A.

The equipment incorporates a separately certified Bluetooth radio module, FCC ID: S7APARANIESD200

The equipment complies with the following safety specification:

- IEC 60950-1:2005 (2nd Edition); Am 1:2009

Electrical characteristics

Power supply: Rechargeable and replaceable NiMH 9.6 V

External charger:

- Main: 230 V / 50 Hz
- Optional: 110 V / 60 Hz
- Charge time: approx. 15 minutes

Data:

Data memory: > 250.000 measurements

Interface: USB

Environmental specification

Temperature:

- Operating: 0°C to +45°C / 32°F to 113°F

- Storage: -15°C to +50°C / 5°F to 122°F

Humidity: 85%, non condensing

Barcode reader:

- Barcode reader: 617nm highly visible LED

- Scan angle: Up to 40°

- Reading distance: Up to 90 cm / 3 feet

Timing

Measurement time: 2 sec.

Standard delivery

Transportation box
Calibration standard
Software program
Battery charger
Ø15 aperture reducer
Small supporting plate
Lens cover
Communication cable
Quick guide
User manual on CD/USB memory stick

Options

Barcode reader
High precision GPS unit
Extension Pole Kit, 1.5-2.7 m / 4.9-8.9 feet
Extra battery
Ø10 aperture reducer
Lens attachment for additional entrance angles of 30° and 40°
Bluetooth

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:
http://www.madebydelta.com/delta/Business_units/LO/Reflectometer/certification.page?*

