



Retrosign GR3

Specifications

Optical specifications GR3 ASTM

Geometry:	ASTM E-1709, E-2540 & E-1809
• Entrance angle:	-4°
• Observation angle:	0.2°, 0.5°, 1.0°
• Light source angular aperture:	0.1°
• Receiver angular aperture:	0.1°

Optical specifications GR3 CEN

Geometry:	EN 12899
• Entrance angle:	5°
• Observation angle:	0.33°, 0.5°, 1.0°
• 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:	Spectral responsivity: According to ASTM E-1709 & E-2540
Range (cd·lx ⁻¹ ·m ⁻²):	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/2,6 Ah

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

Timing

Measurement time:	2 sec.
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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
Bluetooth
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°

Barcode reader:

- Barcode reader: 617nm highly visible LED
- Scan angle: Up to 40°
- Reading distance: Up to 90 cm / 3 feet

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?*

