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 Optronik Line



## RC 100 Reflex Checker

# RC 100 Reflex Checker



RC 100 total view

## Rapid and simple production control for reflex reflectors

The RC 100 Reflex Checker serves for rapid testing of the retro-reflecting characteristics of retro-reflectors and retro-reflecting materials used mainly for vehicle purposes in accordance with ECE R3.

Because of its compact design it can replace extensive and time consuming measurements in the photometric laboratory with goniometer.

The RC 100 follows a relative measurement method with the aid of a reference retro-reflection standard measured under laboratory conditions.

## Applications

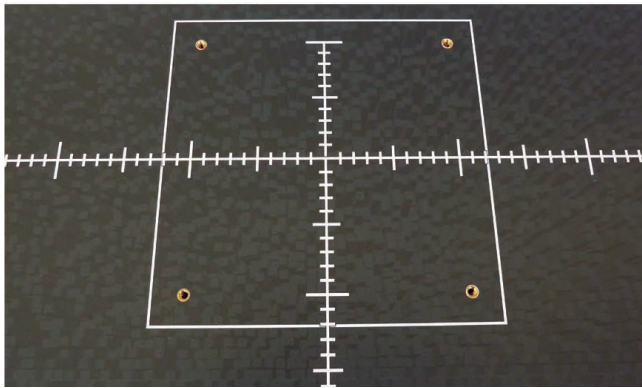
- Comparative measurement in mcd/lx
- Production control of reflex reflectors
- Supervision of the performance of injection moulding machines

## Special features

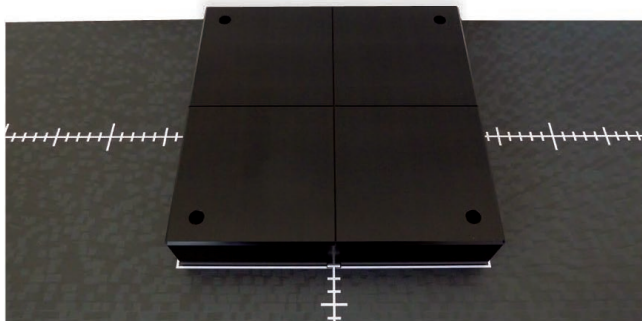
- Compact design: The RC 100 works with a measuring distance proportionally shortened to 1 meter at an observation angle of 20 angular minutes ( $0.333^\circ$ ). It is equipped with optics especially designed for simulating the conditions in the light channel proportionally. There are no special requirements referring to the installation place so that the device can be installed right at the assembly / production line, e.g. close to the injection moulding machine.
- No dark room or photometrical lab necessary: The system works independently from secondary light sources; the sample is being illuminated by an integrated powerful Xenon flash light source with extremely long life time. The triggered amplifier as well as the housing screening of the light enable the system to be used under conditions with normal workplace illumination.
- Short measurement time: There are no time consuming adjusting procedures necessary. The measurement time is extremely short – less than 0.1 sec.
- The device consists of the optical housing with test distance of 1 m. At the upper part, the housing contains a photopic detector and the electronic components. The optical housing is fixed to the test table. On the test table an optional adapter plate for interchangeable sample holders are located.
- The unit is equipped with a serial interface. Via a terminal program, values can be read out for further statistical analysis.
- Optionally there are available adapter plates and adapters individually designed for specific samples.



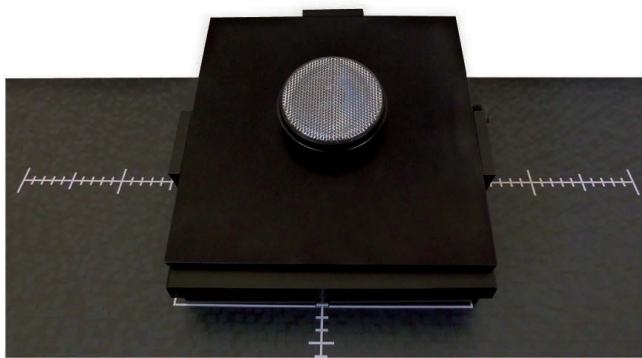
Typical test samples



Test table top



Adapter plate



Adapter with calibration reflector

## Technical specification

RC 100 Online Retroreflectometer	
Instrument type	RC 100 Reflex Checker
Concept	Stand alone unit independent from PC
Measurement principle	Relative measurement against reference sample, geometry compensation by separate calibrations for each reflector type
Control	Handheld operation terminal with touchscreen and easy menu guidance
Measuring receiver	V( $\lambda$ )- matched silicon detector
Reference receiver	V( $\lambda$ )- matched silicon detector
Illumination angle	0°
Observation angle	20 angular minutes (0.333°)
Field of view	Approx. Ø 90 mm
Power supply	90 V...265 V, 50 Hz...60 Hz
Power consumption	Max. 80 W
Ambient temperature	+10°C...+40°C
Relative humidity	10...90%, non condensing
Dimension	W 1000 mm x H 2330 mm x D 600 mm
Weight	Approx. 40 kg
PC interface	RS 232 (to read up values via terminate programm for statistical analysis)
Options	Adapter base plate to fix individually designed test adapters. Individually designed adapters

## Order Information

Article No.	Article description
RC 100-100	RC 100 basic instrument as described above
RC 100-200	Adapter base plate to fix individually designed test adapters
RC 100-XXX	Individually designed adapter based on technical sketches provided by client and calculated based on design and manufacturing effort
Online – Retro-reflectometer RC 100 Reflex Checker with light source, measuring optics and handheld control unit, RS 232 serial interface. Test table for positioning an adapter plate for adapters provided by the client. Instruction manual is included.	

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