

*Note: This enclosure describes the rain-light sensor on the E60, E61, E63, E64.*

The contents apply accordingly for the rain/light sensor on the E65, E66 and E70, E81, E87, E90, E91, E92, E93.

Differences are described in the relevant section.

The rain-light sensor detects water on the windscreen and the ambient brightness. The signals of the rain-light sensor control the wiper function, the automatic driving lights control and the adaptive headlights control unit.

## Installation location

The rain-light sensor is located on the windscreen in the base of the interior mirror.



The illustration shows the interior mirror on the E60.

- 1) Rain-light sensor in base of interior mirror.

## Construction

The rain-light sensor is an optical system consisting of the rain sensor, the driving lights sensor and an electronic evaluation unit.

The driving light sensor consists of 2 photodiodes and an electronic evaluation unit.

## How it works

The following description only describes how the rain-light sensor for the automatic driving lights control and for the adaptive headlight works.

The driving light sensor works as follows:

- The two photodiodes record ambient light as follows:
  - Front light: Light at front of vehicle
  - Ambient brightness: Light from above
- The photodiodes work when terminal R is ON, regardless of whether or not the automatic driving lights control is switched on.
- If the ambient light changes, the driving-light sensor will send a signal to the light module (footwell module on the E70, E81, E87, E90, E91, E92, E93 ).
- The light module (footwell module on the E70, E81, E87, E90, E91, E92, E93) switches the driving lights on and off. To do this, the automatic driving lights control must be activated (light switch in switch position "A").
- The adaptive headlights are also activated when the rain-light sensor detects darkness. The headlights are turned in bends.

The threshold values from which the rain-light sensor detects "darkness" are stored in the rain-light sensor.

The sensitivity of the driving light sensor can be set in the Car and Key Memory. On some vehicles, the sensitivity of the rain/light sensor can be changed in the Personal Profile.