



TWILIGHT SENSOR

Automatic Headlight Control

WHAT'S EASIER THAN TURNING ON A SWITCH? AUTOMATIC HEAD- LIGHT CONTROL.

Sensata's Twilight Sensor is that extra set of eyes when drivers need them most. During dusk and dawn, the Twilight Sensor has the ability to sense when headlights should be on or off. Providing maximum safety for drivers, passengers, and pedestrians. Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Our twilight sensor has the ability to sense when a vehicle's headlights should be turned on at dusk and off at dawn; it can also sense when headlights should be turned on or off due to changes in sky conditions.

The Twilight Sensor's advanced optical technology improves driver safety by making the vehicle more visible to other vehicles and pedestrians. Our patented diffuser technology provides uniform horizon-to-horizon sensor response.

Custom photo ASICs and proprietary optical plastics allow the sensor to respond to light like the human eye. The sensor generates an output directly proportional to the ambient light level.

Features and Benefits

Accurate Light Measurement

- C.I.E. photopic response gives human eye-like reaction
- Responds to color and light variations that accompany different sky conditions
- Custom Photo ASIC provides increased output current compared to standard photo detectors
- Output current proportional to ambient light level
- Functions as a light dependent current sink
- Surface mount and chip-on-board technology
- Remains stable over temperature and time

Flexible Integration

- Customized configuration to meet specific mounting and cosmetic requirements
- Customizable output
- Custom interconnect
- Capable of adding additional functions such as solar sensing, tunnel sensing, interior fog sensing and an LED indicator

Applications

Safety

- Provides output used for automatic headlight control, driving lights, markers and tail light control

Convenience

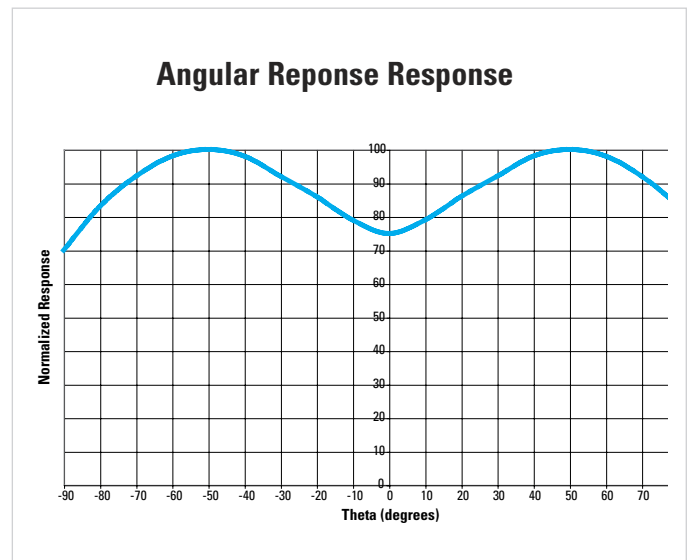
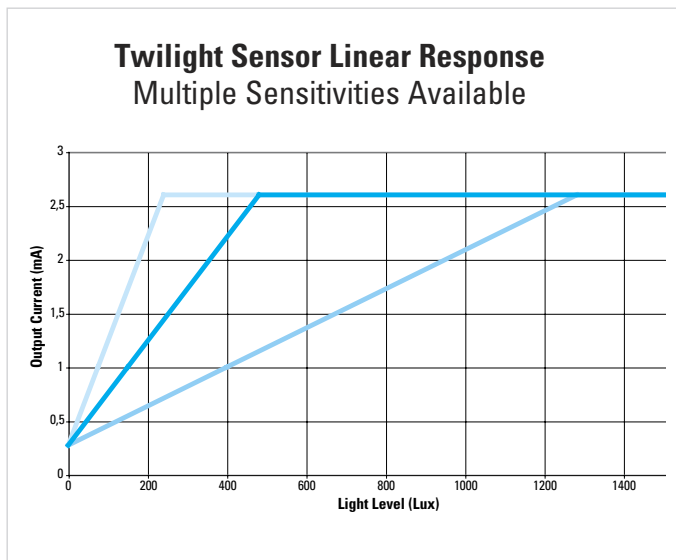
- Output used for instrument lighting controls and dimming of control panel and radio

TWILIGHT SENSOR

Automatic Headlight Control

Technical Specifications

Configuration/Package		Performance		Electrical Characteristics	
Package material	PBT or PC+ABS	Non-linearity	< 0.5 %	Supply voltage	5 ± 0.5 V
Size	(outer dimensions)	Temperature coefficient	1 $\mu\text{A}/^\circ\text{C}$	Quiescent current	0.3 mA
Weight	< 6 g	Power supply rejection	13 $\mu\text{A}/^\circ\text{C}$	Saturation current	2.6 mA
Connector	2 pin typical	Input response time	10 ms	Reverse voltage protection	-14 V
Output type	analog currents easily converted to voltage inputs with load resistors	Operating Environment			
		Operating temperature range -40 °C to +125 °C			
		Storage temperature range -40 °C to +125 °C			



The World Depends on Sensors and Controls

Sensata Technologies

529 Pleasant Street, MS B41
Attleboro, MA 02703-2964
Phone 1-508-236-3800

email: autosensors@sensata.com
www.sensata.com

IMPORTANT NOTICE: Sensata Technologies (Sensata) reserves the right to make changes to or discontinue any product or service identified in this publication without notice. Sensata advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current. Sensata assumes no responsibility for infringement of patents or rights of others based on Sensata applications assistance or product specifications since Sensata does not possess full access concerning the use or application of customers' products. Sensata also assumes no responsibility for customers' product designs.