



BRIEF INFORMATION

Solar Sensor

Measurement of solar radiation intensity

- › Enhance comfort and interior well-being for commercial and luxury class vehicles with multi-zone climate control
- › Measures the solar radiation values on different areas of the vehicle
- › It supports the HVAC system to optimize the air flow in the cabin to ensure efficient air conditioning and pleasant climate
- › LIN Connection is robust and enables stable data transmission
- › Optional wide ambient light detection system can be integrated to optimize brightness of interior displays and lighting

PRODUCT FEATURES

Application

European countries are implementing safety laws, such as the Direct Vision Standard, which requires vehicle manufacturers to eliminate blind spots using cameras or increased cabin glass. However, more glass can lead to faster cabin heating from sunlight. To enhance comfort and interior well-being, FORVIA HELLA developed the solar sensor for commercial and luxury class vehicles.

Design and function

Mounted on the center of the dashboard, the solar sensor detects intense solar radiation from the driver and passenger side. It provides information about the sun influence upon the vehicle, recognizes at which seat the sunlight is particularly intense and

can therefore support the HVAC system to adjust the temperature control for this area. This ensures that the temperature difference is evened out.

The sensor-supported climate control optimizes energy use. An optional ambient light detection system enhances interior brightness. The Solar Sensor communicates via a cost-effective Local Interconnect Network (LIN), reducing installation and maintenance complexity while providing stable data transmission. Overall, the Solar Sensor with LIN technology provides optimized energy management for next-generation commercial vehicles.



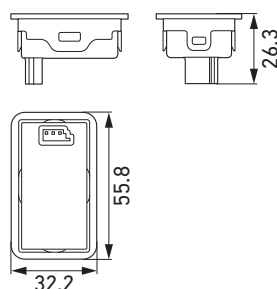
Watch the video

APPLICATION EXAMPLE


TECHNICAL DETAILS

Technical data	
Operating voltage range	Single-voltage (9 – 16 V)
Rated voltage	12 V
Current consumption	Max. 30 mA
Sleep mode	Max. 100 µA
Communication interface	LIN 2.0 / 2.1 bus protocol
Weight	< 10 g
Protection class	IP 50
Solar detection range	Up to 1,400 W/m ² , with 1 W/m ² resolution
Brightness detection range	Up to 7,500 Lux, with 5 Lux resolution
Wide field of view for solar detection	Multizone solar detection

Dimensional sketch



PROGRAM OVERVIEW

Product pictures	Description	Part number	VPE*
	Flat cover	on request	1

* Packaging unit