

ACC with 24 GHz radar technology



With the aid of 24 GHz radar technology, Hella has set itself the target of offering an alternative to the technologies currently available in the market.

In comparison with other technologies, the limitation of an ACC system based on 24 GHz radar technology is the shorter range of approx. 120 m. However, speed restrictions in many of our neighboring European countries and North America make the monitoring range of 150 – 200 m (designed for speeds of up to 200 km/h) unnecessary. This is where the cost advantage of 24 GHz radar sensors becomes important. Thanks to its modular design, the sensor can be adapted optimally to specific customer requirements and even integrated under difficult installation conditions.

Highlights

- Reduction of the accident probability, thanks to a safe distance being maintained automatically
- Stress reduction for the driver because of automatic speed adjustment
- Good price/performance ratio
- In the close range up to 30 m, a large opening angle of 40° ensures complete tracking of other vehicles – even in bends and merging traffic
- Expansion of additional functions is possible, such as ACC Stop & Go and pre-crash
- One-box design (no additional control unit is necessary)
- Modular structure

Technical data	
Frequency range	24,000 to 24,250 GHz (FMCW)
Control range	<120 m
Horizontal opening angle	40° close range, 20° long range
Vertical opening angle	10°
Horizontal angle precision	±0.5°
Speed interval	±140 m/s
Speed precision	0.18 m/s
Cycle time	60 ms
Specified operating temperature	-40 °C to 85 °C
Dimensions (W x H x D)	90 x 100 x 32 mm ²
Interface	High-speed-CAN-interface (500 kB/s)
Approval capability	Worldwide ISO conformity (Lane Change Decision Aid System)