

Active safety systems

ABS 9 base and ABS 9 plus



BOSCH
Invented for life



Product benefits

- ▶ Product design specifically for two-wheelers, meets highest demands regarding box volume and weight
- ▶ Fits all vehicle classes, including small two-wheelers and scooters
- ▶ High vibration resistance
- ▶ Increased comfort through excellent brake lever/pedal feel
- ▶ Intelligent rear-wheel lift-up control
- ▶ Options include off-road control and traction control

Vehicle segments



- 1 Hydraulic unit
- 2 DC motor
- 3 Connector
- 4 Electronic control unit

26%*

of all two-wheeler-accidents in Germany involving a fall or collision could be **prevented** through ABS.*

*Based on a case-by-case analysis of 228 representative GIDAS cases (2001–2004)

enhanced **protection**

ABS 9 plus uses the **additional pressure sensor** to offer enhanced rear-wheel lift-up control.

additional **comfort**

ABS 9 base and ABS 9 plus allow the addition of value-added functions for **increased riding and safety performance**.

Task The Bosch antilock braking system (ABS) for two-wheelers assists the rider while braking in critical riding situations. It prevents wheel lockup and ensures vehicle stability and optimal deceleration while braking. ABS therefore significantly reduces the risk of falling and reduces stopping distance. Ninth-generation ABS base and ABS plus have been specifically designed to fulfill two-wheeler size and weight requirements. The ABS 9 base variant is suitable for all powered two-wheelers with hydraulic front- and rear-wheel brakes and already offers full antilock protection, even in case of sudden changes in road surface, caused for example by grit or oil. This allows even inexperienced riders to brake safely.

Function Speed sensors on both wheels register the rotational speed. If a wheel is at risk of locking due to intense braking or slippery road conditions, the ABS hydraulic unit reduces the braking pressure applied by the rider and controls wheel speed as well as vehicle deceleration. This preserves the gyrostatic effect of the wheel and keeps the vehicle stable, even on varying surfaces. This is how the rider can safely achieve the shortest possible stopping distance.

Variants The ABS 9 plus variant contains an additional pressure sensor. As the system takes effect even when pressure is being built up during emergency braking, it is especially suitable for powerful two-wheelers.

Value-added functions ABS base and ABS plus can easily be equipped with additional functions.

When combined with Bosch traction control, ABS can prevent the rear wheel from spinning during acceleration, and counteract front wheel lift. It can be integrated into all current 2-channel systems. If the two-wheeler manufacturer adds the Bosch inertial measurement unit to the system, traction control will also control the maximum possible driving power in bends.

Bosch off-road control can be integrated into the ABS 9 plus version and is designed for loose surfaces. This means all-terrain two-wheelers now have the benefit of additional safety. In the off-road control function, slip thresholds and other parameters have been adjusted to provide riders with optimum braking performance over rough terrain as well.

To prevent the rear wheel from lifting during full braking, all two-wheeler versions of the ninth-generation ABS use the rear-wheel lift-up control to evaluate how much each of the two wheels is slipping. If the two-wheeler is in danger of falling over, braking pressure on the front wheel is reduced. For earlier detection, Bosch has integrated an additional pressure sensor into ABS 9 plus.

Technical characteristics

Size (w × h × d)	89.6 × 59.7 × 92.7 mm
Weight	0.65 kg
Volume	0.496 liters
Channels	2
Pressure sensor	integrated (ABS plus)
Valve	2 × inlet, 2 × outlet
Exchangeable ECU	no
Connector	18 pins