

Stability. Control. Maximum Safety.

Electronic brake systems for motorcycles

Electronic brake systems for motorcycles 2 The Technologies

Accelerate. Enjoy. Brake like a pro.

Electronic brake systems prevent wheels locking – and can thus avoid a fall.

Anyone can accelerate fast. Only a few know how to brake properly. Yet for motorcycles in particular, every meter counts during speed reduction, in order to prevent a crash or quite simply to get round the next curve safely. The crux of the matter is that short stopping distances are mainly achieved by high braking pressure. And this is exactly what leads to wheels locking at some stage. This will almost inevitably lead to a fall if the driver does not release the brake very quickly.

Electronic brake systems with the antiblocking system ABS remedy the situation. These have already been in use in passenger cars for years. The driver retains control of the vehicle; obstacles can be safely driven around at a significantly reduced speed.

In the case of motorcycles, anti-locking brake systems have been reserved for high-end models for many years. Now, effective systems are available for all vehicle classes. From scooters to luxury touring cycles or even super sports versions.

For all motorcycles over 125 cubic centimeters, ABS will become mandatory in the European Union over the next few years. This applies to all new typeapproved model series from 2016 and for all new motorcycles from 2017. A step towards more stability, more control and thus significantly more safety for drivers.

More safety. More comfort.

The electronics of modern brake systems doesn't only offer motorcyclists considerably more safety, however. Depending on the equipment version, other functions which make driving much more comfortable can also be realized.

Would you like to be able to tighten your glove fasteners or use the sat nav while waiting at the traffic lights? This quickly becomes a balancing act, particularly with a heavy motorcycle. It's no problem with the Hold & Go function, however. The system holds the brakes without the driver having to do anything. And releases them automatically as soon as the motorcycle drives off.

Know-how from decades of braking expertise

Continental has been developing and producing anti-lock brake systems for motorcycles for ten years. Thanks to decades of experience in the development of state-of-the-art brake systems for passenger cars and commercial vehicles, our engineers' passion for driving motorcycles and excellent knowledge of their special driving dynamism, there is a solution available for motorcycle manufacturers which serves all vehicle classes: from simple one-channel ABS for scooters and small motorcycles through to the motorcycle integral brake system, which includes enhanced control functions such as sport and off-road ABS, optimized curve braking or the holding function Hold & Go.







Three brakes to choose from: the right one for everyone.

Tried-and-trusted components in a quality that does justice to one of the world's leading suppliers

Our product family



One-channel ABS MiniMAB

The small and lightweight solution for scooters and small motorcycles. The one-channel ABS MiniMAB can easily be applied to different vehicles. The system prevents the front wheel locking up and thus avoids a fall or the vehicle becoming instable.



Two-channel ABS MK 100° MAB

The two-channel ABS MK 100° anti-blocking system provides improved brake control and thus more driving safety through an optimized deceleration. The new generation is around 50 percent smaller and lighter than its predecessor, too.

Advanced and sturdier functions facilitate adaptation to the respective motorcycle type. Equipped with an optional pressure sensor, the system can work even more sensitively.

Standard functions:

- Anti-lock brake function for the front wheel and rear wheel
- Lift-off detection for the rear wheel for optimum deceleration and stability (Rear Wheel Lift-Off Protection, RLP)

Optional functions:

- > Sport ABS for the racing track
-) Off-road ABS for off-road driving



Integral brake system MK 100° MIB

With the Motorcycle Integral Brake system (MIB) the brake can be applied to both wheels even though the driver only presses the front wheel brake lever. The system recognizes the driver's desire to brake and builds up active pressure at the rear wheel, thus decelerating both wheels.

In order to achieve optimum deceleration, the electronics control the braking pressures at front and rear wheel in context. In other words, four pressure sensors determine the braking pressures at the main cylinders and on the wheels, not only making the particularly sensitive control of the braking forces possible but also allowing predictions of dynamic driving states to be made.

This guarantees that the maximum force is deployed both at the front wheel and the rear wheel, making the stopping distance as short as possible.

Standard functions:

- Coupled anti-lock function with controlled brake pressure distribution to front and rear wheel for optimum deceleration.
-) Particularly sensitive lift-off detection for the rear wheel for optimum deceleration and stability (Rear Wheel Lift-Off Protection, RLP)

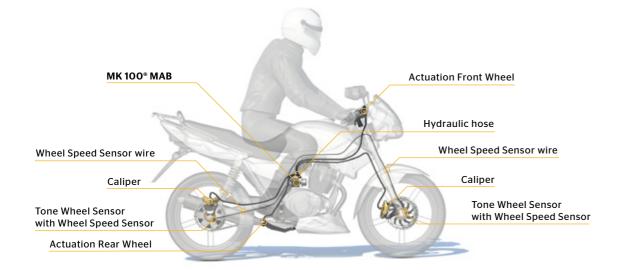
Optional functions:

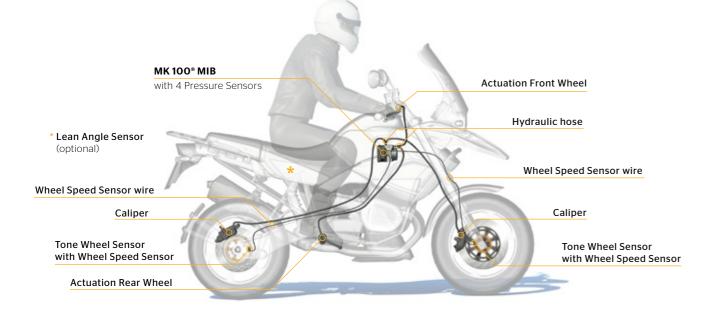
- > Sport ABS for the racing track
-) Off-road ABS for off-road driving
- Optimized Curve Braking (oCB) for more sensitive dosage of braking force when driving through curves
- Holding function Hold & Go for a safe stance without the driver having to actuate the brake

The System Architecture 4 Enhanced functions 5

System Architecture







Driving pleasure on two wheels: enhanced functions.

The increased safety provided by an anti-locking function is quite enough to justify investing in an electronic brake system. Manufacturers can use optional functions to additionally characterize their vehicles, offering drivers more comfort and increasing driving pleasure even further.

Enhanced functions in action: Mode settings, "Hold & Go" and oCB

Offroad, racing, rain settings ...

The different mode settings allow drivers to adapt the braking behavior of their vehicles even further. Depending on the weather, terrain, or the tires fitted, a mode can be chosen which is even better adapted to the respective circumstances. A wide range of parameters can be preset, such as brake force distribution of the integral brake, more sensitive control in wet conditions, deactivation of the lift-off detection function for racing, or special attunement to studded tires for off-road driving.



Motorcycle Hold & Go (MHG)

"Motorcycle Hold & Go" is a particularly convenient function. During a stop, drivers can put the brake in hold mode by briefly pulling the handbrake lever, giving them time to program the navigation system, adjust air vents on clothing or simply lean back and relax at the traffic lights. The brake holds the vehicle without the driver having to actuate the hand or foot brake.

When "Hold & Go" is actuated, the electronics permanently record the position of the accelerator handle, the engine speed and which gear is engaged, thus detecting when the motorcycle drives off – automatically releasing the brakes and clearing the way for more driving pleasure.

Optimized Curve Braking (oCB)

Drivers need to be particularly carefully when applying the brakes in curves or their ride will end abruptly with a fall. With optimized curve braking, the brake system takes the angled position of the motorcycle into account.

Depending on the incline, the ABS control becomes more sensitive and the pressure modulation more flexible in order to improve vehicle handling in curves. The Motorcycle Integral Brake system actively ensures that there is always an optimum ratio between the braking pressures on the front and rear wheels. The motorcycle becomes more stable overall and implements the driver's braking requirements without any great changes in load.

Continental

Division Chassis & Safety Guerickestraße 7 60488 Frankfurt am Main Germany www.continental-automotiv

Legal notice

The information provided in this brochure contains only general descriptions or performance characteristics, which do not always apply as described in case of actual use or which may change as a result of further devel opment of the products. This information is merely a technical description of the product. This information is not meant or intended to be a special guarantee for a particular quality or particular durability. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. We reserve the right to make changes in availability as well as technical changes without prior notice.

