



# E-Bikes

## Brake detection

**E-bikes are all the rage. Whether cutting back on carbon emissions or fuel costs, e-bikes offer many green benefits with the same conveniences of traditional bicycles. Easy maneuverability and parking are especially important if your daily commute is to a congested city. While e-bikes have been around since the late 1800's, recent popularity, government regulations and the advent of new sensor technologies have fueled new improvements.**

European standard EN 15194, aimed at safety and reliability, recommends that the electric auxiliary drive motor be shut off as soon as the brakes are applied. This safety improvement uses a reed switch sensor and magnet to detect the movement of the hand brake lever. The reed sensor is positioned in the brake housing while the permanent magnet is fixed in the hydraulic piston. The slightest movement of the brake lever brings the magnet into proximity with the sensor and switches off the engine. Reed sensors can carry out other e-bike safety switching functions such as activating the brake light, sensing seat occupancy, etc.

Reed sensors from Standex-Meder are hermetically sealed to withstand harsh environments and therefore are ideally suited for e-bike applications. Moreover, they can achieve over one billion reliable switching cycles using a permanent magnet and they do so with little to no power consumption. These products are designed to meet the customers requirements for the magnetic sensitivity and assembly.

Standex-Meder Reed products make an excellent contribution for an optimal interaction between driving and braking force.

[www.standexmeder.com](http://www.standexmeder.com)



### 3 good reasons:

- No power consumption
- Small switch size
- Hermetically sealed

