

# SWITCHES, SYSTEMS & TRENDS

➤ OFF-ROAD VEHICLES



MARQUARDT



➤ WHERE SOPHISTICATED TECHNOLOGY  
ALLOWS ROBUST APPLICATIONS.



**Rocker switch 1838/1930**

- ➔ With dust and water protection IP 67
- ➔ High currents up to 16 A
- ➔ Mechanical life of more than 1 million switching cycles
- ➔ Wide range of options available

**Rocker switch 3250**

- ➔ Reliable, self-cleaning snap-action switching system
- ➔ With dust and water protection IP 66/IP 68 (on demand also from terminal side)
- ➔ Wide variety
- ➔ Up to four built-in LEDs
- ➔ Wide range of accessories
- ➔ Individual rocker design possible



**LIN-rocker switch**

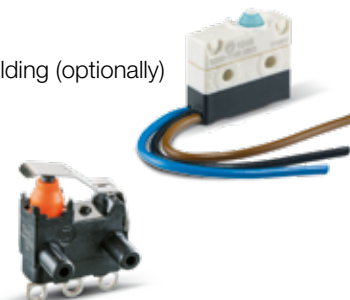
- ➔ With LIN-interface
- ➔ Installation compatible to series 3250
- ➔ Dust and water protection IP 69K frontside
- ➔ Wide variety
- ➔ Up to six built-in LEDs
- ➔ Wide range of accessories
- ➔ Individual rocker design possible



**Snap-action switch 1045**

**Micro-signal switches 1065**

- ➔ With dust and water protection IP 67
- ➔ Built-in separating aid to prevent contact welding (optionally)
- ➔ Possible with cable assembly
- ➔ Versions with center off position (1065)
- ➔ Diagnostic capability (1065)
- ➔ Wide rating range





## ➤ BECAUSE INTELLIGENCE OPENS DOORS TO NEW POSSIBILITIES.

### BLE Gateway and FOB 3559

- ➔ Consisting of BLE Gateway with CAN J1939 interface and BLE FOB
- ➔ With dust and water protection IP 67
- ➔ Range up to 50 m
- ➔ Also suitable for retrofit
- ➔ Standard two inputs and one output



### Keypad 3584

- ➔ 2x3 buttons with CAN J1939 interface
- ➔ With dust and water protection IP 67
- ➔ Up to three functional illuminations per button



### Central control panel 3583

- ➔ With CAN J1939 interface
- ➔ Design and functional range can be customized
- ➔ Jog dial with four-way tilt function
- ➔ With dust and water protection IP 67
- ➔ Six buttons for quick access
- ➔ Touch function in the jog dial with character recognition (optional)
- ➔ RGB lighting (optional)

### Drive authorization system

- ➔ Consisting of control module, key, antenna and start-stop-switch
- ➔ With CAN J1939 interface
- ➔ With dust and water protection IP 67
- ➔ Also suitable for retrofit

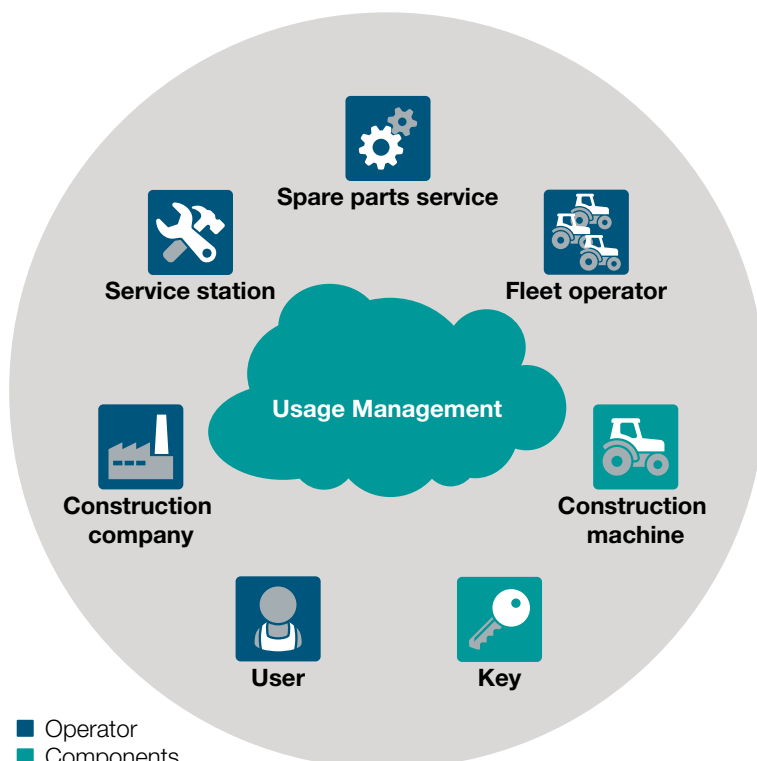




## ➤ WHEN DECADES OF EXPERIENCE DEVELOP THE FUTURE.

### Batteries and subsystems for electro-mobility

- ➔ Battery management systems for 12V, 48V and high voltage applications
- ➔ Different cell types can be used
- ➔ Suitable for different bus-systems (CAN, LIN)
- ➔ Option of integration of AUTOSAR standard software and customer software modules
- ➔ Functional safety up to ASIL level D



### Usage Management

- ➔ Fleet management
- ➔ Authorization management
- ➔ Operating data collection

# BECAUSE CUTTING-EDGE TECHNOLOGY IS BASED ON KNOWLEDGE AND INGENUITY.

The Marquardt Group was established in 1925 and, in spite of becoming a Global Player, has remained an independent family enterprise. With its two product areas – Automotive and Switches, Sensors & Controls, the Marquardt Group of companies is active all over the world in all the important markets. We have offices at 19 locations with more than 9,300 employees in all.

Every year, we invest more than ten percent of our turnover in research and development – not to mention the use of modern development tools, simultaneous engineering and an efficient testing system. Moreover, our corporate culture offers ample scope for unfolding the inventive genius of our employees. As a result, new ideas come up time and again, which are materialized into marketable cutting-edge technologies

The Switches, Sensors & Controls division develops, produces and sells its products in a number of industries and applications. Apart from industrial applications, our products are used in power tools, household appliances, cleaning systems, drive technology, heating and air-conditioning technology as well as off-road vehicles. We have the necessary technical know-how, innovative strength, long-term experience and comprehensive manufacturing expertise required in these fields.

This yields innovative and reliable products that feature promising designs tuned to individual requirements. Our products range from the standard switch to complex customer-specific systems. They are suitable for small-scale and large-scale production. With distinct production engineering, worldwide manufacturing options, high quality standards and durability of our products, we achieve customer satisfaction and thereby ensure our competitive ability.

These customer- and market-specific solutions have made Marquardt a strong partner of the power tool and electrical industry as well as a technology leader. We are at your service in all the international markets

Off-road vehicles have to prove their functional ability under extreme conditions. Drivers expect absolute reliability and maximum user-friendliness from the components and modules used.

Marquardt switches and solutions contribute greatly to this. They feature a robust technology, reliable quality and individual designs. Thus, they guarantee maximum reliability, safety and individuality.

Decades of experience in the automotive industry and many new product developments make us a strong partner, who understands your requirements and transforms them into intelligent solutions.

# MARQUARDT INTERNATIONAL

