

## MARQUARDT INNOVATIONS # SWITCHES AND SOLUTIONS FOR OFF-ROAD VEHICLES





#### CONSTRUCTION MACHINERY



## WHERE SOPHISTICATED TECHNOLOGY ALLOWS ROBUST APPLICATIONS.

#### **Push-button switch 1683**

- → Versions with dust and water protection IP 65/IP 67
- → Single- and double-pole in the same compact design
- → Optionally with illumination (LED, glow lamp, bulb)
- → Double lifting, powerful switching system for currents up to 16 A



#### **Rocker switch 3230**

- → Externally reliable, self-cleaning snap-action switching system
- → Wide variety
- → Up to four built-in LEDs



#### **Snap-action switch 1045**

- → With dust and water protection IP 67
- → Built-in separating aid for contact welding
- → Rating range of DC signal currents up to 10 (3) A 250 V AC





#### **Rocker switch 1838**

→ With dust and water protection IP 67

- → Innovative sealing
- → High currents up to 16 A
- → Mechanical life of more than 1 million switching cycles

#### Micro-signal switches 1065/1075

- → For signal currents
- → Self-cleaning, redundant contact system
- → Noiseless switching system with large overtravel
- → Versions with center off position, cable assembly or diagnostic capability
- → With dust and water protection IP 67





#### AGRICULTURAL MACHINERY



## ↗ WHERE PRODUCT VARIETY ALLOWS TAILOR-MADE DESIGNS.

#### **Rocker switch 1930**

- → With dust and water protection IP 67
- → Innovative sealing
- → Wide range of options available
- → High currents up to 16 A
- → Optionally with function lighting







#### **Snap-action switches 1055**

- → Compact design
- → With dust and water protection IP 67
- → Long overtravel
- → Wide variety
- → Customer-specific cable assembly possible
- → Mechanical life of more than 1 million switching cycles





#### Tact switch 3006

- → SMT-compatible
- → Low height, short stroke
- → Versions with built-in LED
- → Excellent haptics due to distinctive pressure point
- → Different color and operating force versions



#### Push-button switch 1660/1670

- $\rightarrow$  High-quality and robust design
- → Dust and water protection IP 54
- → Distinctive (marked) actuating characteristics



## ↗ WHERE RELIABLE QUALITY IS FUN.

#### **Snap-action switch 1022**

- $\rightarrow$  With dust and water protection IP 67
- $\rightarrow$  High switching reliability due to large switching forces
- $\rightarrow$  Variable fastening possibilities



#### Key switch 3000/3003

- → Distinctive actuating characteristics
- → One or two operating positions
- → For direct or indirect actuation
- → Long actuating paths
- → Optionally with LED







#### **Rocker switch 3250**

- → Extremely reliable, self-cleaning snap-action switching system
- → Dust and water protection IP 66/IP 68
- → Wide variety
- → Up to four built-in LEDs
- → Wide range of accessories
- → Individual rocker design possible





#### Rocker switch 1830

- → Broad rating range
- → Very wide variety
- $\rightarrow$  Optionally with covered switching system
- → Designer versions available

#### Push 'n' Drive

- → Standard Keyless-System suitable as original equipment or retrofitting equipment
- $\rightarrow$  With dust and water protection IP 67
- → Power supply 8 16 V
- → Two standard I-O as well as one CAN-Bus outputs
- → Range adjustable up to 4 m
- → Secure HITAG2 encryption

# 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 business 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 11 locations with more than 6,000 employees in all.

Every year, we invest more than seven 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 cuttingedge 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 knowhow, 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. Our rocker switches have a high level of dust and water protection, up to four built-in LEDs and a wide range of rocker 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.**



## **SWITCHES, SENSORS & CONTROLS LOCATIONS.**

#### >>> GERMANY

Marquardt Mechatronik GmbH Schloss-Straße 16 78604 Rietheim-Weilheim Phone +49 (0) 74 24/99-0 Fax +49 (0) 74 24/99-2399 marquardt@marquardt.de Sales and Development

www.marquardt.com

#### >>> SWITZERLAND

Marquardt Verwaltungs-GmbH Niederlassung Schaffhausen Ernst-Müller-Straße 7 Post Box 952 CH-8201 Schaffhausen Phone +41 (0) 52/644 30 00 Fax +41 (0) 52/644 30 60 marquardt@marquardt.ch Sales, Development and Production

#### >>> FRANCE

Marquardt France S.A.R.L. 520, avenue Blaise Pascal – Lot n° 5 77557 Moissy Cramayel Cedex Phone +33 (0) 1/64 13 60 70 Fax +33 (0) 1/64 13 60 71 info@marquardt.fr Sales

#### >>> USA

Marquardt Switches Inc. 2711 Route 20 East Cazenovia, N.Y. 13035-0465 Phone +01 (0) 315/6558050 Fax +01 (0) 315/6558042 info@marqswitch.com Sales, Development and Production

#### >>> CHINA

Marquardt Switches (Shanghai) Co., Ltd. No. 650 Qingda Road Heqing Industrial Zone Shanghai (Pudong) 20 12 01 Phone +86 (0) 21/5897-3302 Fax +86 (0) 21/5897-2399 mscsh@marquardt.com.cn Sales, Development and Production

#### >>> TUNISIA

Marquardt Mécatronique Tunisie SARL 104 Avenue de l'U.M.A. 2036 La Soukra, Tunis Phone +216 (0) 70/681-333 Fax +216 (0) 70/682-110 info@marquardt-tn.com Production

#### >>> INDIA

Marquardt India Pvt. Ltd. 21, Govt. Industrial Estate Kandivali (West) – Mumbai 400 067 Phone +91 (0) 22/28 68 45 19 Fax +91 (0) 22/28 68 85 10 sales@marquardtindia.com Sales, Development and Production