# PRODUCT SUMMARY























### **OFF-ROAD**













Dust, wind, water, sand, shock and vibration are no match for OTTO's line of switches, grips and joysticks made for demanding construction, agriculture and other Off-Road applications. OTTO controls are used all over the world in off-road vehicles and machinery such as trenchers, drillers, bulldozers, excavators, sprayers, tractors, harvesters, tillers and mowers.

#### **ELECTROMECHANICAL SWITCHES**



K1S: Sealed ON-ON-ON Triple Throw Rocker



P6-4: Sealed Commercial Grade Limit Switch



K5: Sealed Illuminated Rocker



<u>T7</u>: Lower Cost Sealed Toggle



P3: Sealed Momentary Action Pushbutton



LP30M: Large Sealed Illuminated Pushbutton



P7-D / P9: Sealed Momentary Action Pushbutton



<u>LP3V</u>: Ring Lit Vandal Resistant Pushbutton

#### **HALL EFFECT CONTROLS**



HTWS: Thumb Paddle Wheel with Seal Boot



HPL: Hall Effect Linear Output Pushbutton Switch



HTL2 / HTL4: 2-Way and 4-Way Single Axis Linear Finger Joysticks



HPW: Hall Effect Single Axis Paddle

#### **HALL EFFECT JOYSTICKS & GRIPS**



HJLG3-C/ HJLG3-M: JHL Joysticks with G3-C / G3-M Grips



HJLG3-D: JHL Joystick with G3-D Grip



JHT Z-Axis: Miniature Z-Axis Joystick



G3: Contour Grip















### **MILITARY / AEROSPACE**













OTTO specializes in precision controls for the most demanding military and aerospace applications, offering a wide variety of product offerings and configurations, such as actuator styles, circuitry configurations, electrical ratings, terminations, button styles, and standard grip shapes. Our controls feature high cycle life, extreme temperature ratings, fully sealed, and resistance to potentially harmful environmental elements.

#### **ELECTROMECHANICAL SWITCHES**



<u>B2-5</u>: Single Break Subminiature Basic Switch with Levers



P7: Subminiature MIL-PRF-8805/110 Pushbutton



T4-T: Tactile 4-Way Mini Trim



T9: Commercial and Military Toggle

#### HALL EFFECT CONTROLS



HTL2: 2-Way Single Axis Linear Finger Joystick



HTL4: 4-Way Single Axis Linear Finger Joystick



HTLT4: 4-Way Finger Joystick with Pushbutton Option



HTLT2: 2-Way Finger Joystick with Pushbutton Option

#### **TRANSDUCERS**



<u>J2-S1</u>: Strain Gauge Transducer



<u>J2-S2</u>: Strain Gauge Transducer



<u>J2-S3</u>: Full Bridge Transducer



<u>J4</u>: Hall Effect Transducer

#### **GRIPS**



G2: Commander Grip



G2: Flight Control Grips



<u>G2</u>: Helicopter Cyclic and Collective Grip Universal Grip



G2: Military Flight Control Grip















### **MATERIAL HANDLING**













Use OTTO's switches, grips and joysticks to control the movement, storage and protection of your material goods in machines like side loaders, forklifts, automated guided vehicles (AGV), container handlers, winches and cranes.

#### **ELECTROMECHANICAL SWITCHES**



K5: Sealed Illuminated Rocker with Legends



FNR: Rocker



CS: Capacitive Touch Switch



T3: Commercial and Military Miniature Toggle



<u>LP5</u>: Illuminated Alternate Action Pushbutton



P8: Momentary Sealed Subminiature Pushbutton



P7-D / P9: Sealed Momentary Action Pushbutton



<u>P3-D</u>: Sealed Momentary Action Pushbutton

#### HALL EFFECT CONTROLS



HTWF: Hall Effect Friction Actuation Thumbwheel



<u>HP7C</u>: Lower Cost Momentary Action Pushbutton Switch



HTWS: Thumb Paddle Wheel with Seal Boot



WP: Operator Control Module

#### HALL EFFECT JOYSTICKS



JHM: Medium Industrial Joystick



JHL: Cost Effective Sealed Joystick



HTL4: 4-Way Single Axis Linear Finger Joystick



JHT: Miniature Joystick











### **INDUSTRIAL**













Controls are the backbone of an industrial equipment environment, regulating how devices and systems operate in real time, both manually and automated. OTTO controls are used all over the world in industrial equipment applications like manufacturing, food processing, water treatment, communications, warehousing, electric transmission and power plants.

#### **ELECTROMECHANICAL SWITCHES**



K1: Sealed Rocker



<u>B3S-5</u>: Sealed Subminiature Basic Switch with Levers



P7-D / P9: Sealed Momentary Action Pushbutton



<u>K4</u>: Sealed Snap-In Rocker



<u>LP3</u>: Illuminated Sealed Momentary Action Pushbutton



<u>LP5-V</u>: Vandal Resistant Alternate Action Pushbutton



LPL: Indicator Light



T71: Narrow Single
Pole Toggle

#### **HALL EFFECT CONTROLS**



HP7: Hall Effect Momentary Pushbutton



HPW: Single Axis Paddle



HTWS: Smaller
Proportional Output
Thumbwheel



HTWF: Hall Effect Friction Actuation Thumbwheel

#### **HALL EFFECT JOYSTICKS & GRIPS**



JHS-F: Friction Hold Single Axis Joystick



JHT Z-Axis: Miniature Z-Axis Joystick



G3-C: Universal Grip



G3-E: Control Grip









AZLA: ISO/IEC 17025



### **MEDICAL**













Our control solutions meet the stringent demands of medical-related equipment, providing superior performance and high cycle life – up to 10 million cycles. Precision testing ensures that our glove-friendly controls are rated up to IP69K and can handle demanding applications. Quality adheres to ISO 9000 standards and our products are designed to be easy-to-clean, disinfected and are highly customizable.

OTTO has been a responsive partner in the fight against the Covid-19 pandemic, creating products for critical medical applications such as ventilators, laboratory test equipment, mobility equipment, remote surgical equipment, and disinfecting devices.

#### **ELECTROMECHANICAL SWITCHES**



<u>B3S-5</u>: Sealed Subminiature Basic Switch with Levers



P6-3: Subminiature Sealed Single Pole Limit Switch



K1: Sealed Rocker



T8: 8-Way Mini Trim



<u>P7</u>: Subminiature Sealed Pushbutton



<u>P5-V</u>: Vandal Resistant Sealed Alternate Action



<u>LP5-V</u>: Illuminated Vandal Resistant Alternate Action



P3: Sealed Momentary
Action or Push-Pull
Button

#### **HALL EFFECT CONTROLS**



HPL: Linear Output Pushbutton



HTL4: 4-Way Single Axis Linear Finger Joystick



HTLT4: 4-Way Finger Joystick with Pushbutton Option



J4: Hall Effect Transducer

#### **HALL EFFECT JOYSTICKS**



JHT: Miniature Joystick



JHT Z-Axis: Miniature Z-Axis Joystick









### SPECIALTY APPLICATIONS













Dust, wind, water, sand, shock and vibration are no match for OTTO's line of switches, grips and joysticks made for demanding applications. OTTO serves numerous specialty markets with standard, yet highly-customizable solutions for industries such as marine, communications, security, sporting and recreation.

#### **ELECTROMECHANICAL SWITCHES**



R2: Sealed Rotary Switch with Illumination Options



<u>B5-7</u>: Double Break Miniature Basic Switches



CS: Capacitive Touch Switch



FG: Flip Guards



LP3S: Shorter Behind Panel Pushbutton



<u>LP3-V</u>: Fully Illuminated Vandal Resistant Pushbutton



<u>LP9</u>: Illuminated Sealed Momentary Action Pushbutton



<u>P3-D</u>: Sealed Momentary Action Pushbutton

#### **HALL EFFECT CONTROLS**



HTWS: Thumb Paddle Wheel with Seal Boot



<u>HP7C</u>: Lower Cost Momentary Action Pushbutton Switch



<u>HPL</u>: Hall Effect Linear Output Pushbutton



HPW: Hall Effect Single Axis Paddle

#### **HALL EFFECT JOYSTICKS & GRIPS**



JHT: Miniature Joystick



JHT Z-Axis: Miniature Z-Axis Joystick



G3-CK: Universal Grip



G3-B: Universal Grip













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OTTO designs and manufactures precision switches, grips, joysticks, operator control modules transducers and custom solutions for the most demanding applications, including a broad range of standard and unique offerings from snap action switches to Hall effect technology to capacitive sensing, incorporating USB, PWM, CANopen® and J1939 communication protocols.

In business for over 60 years, OTTO's products perform in some of the toughest industries including off-road, military, aerospace, material handling, industrial, medical, consumer and marine. We are ISO 9001, ISO 14001 and AS9100 registered, A2LA accredited to ISO/IEC 17025, TS 16949 and QS 9000 compliant, Far Part 145 Repair Station & EASA Part 145 certified and ITAR registered—maintaining the highest quality standards.



Far Part 145 Repair Station



EASA Part 145



ISO 14001:2015 ISO 9001:2015



AS9100:2016



A2LA ISO/IEC 17025

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