



SENSING AND CONTROL

Sensor and Switch Solutions

Transport



ation Applications

One company's switch and sensor innovations keep transportation moving ahead.

It's Honeywell Sensing and Control (S&C), the driving force behind unbeatable flexibility, quality and reliability.

We're a proud part of the Honeywell 100-plus year commitment to imagination, innovation and technology development. What's more, Honeywell S&C's superior switch, sensor and vehicle control solutions have powered the transportation industry for three-quarters of a century, with high-end parts and applications. From heavy trucks and agriculture equipment to ATVs, snowmobiles, motorcycles, construction vehicles and lawn and garden equipment, Honeywell S&C manufactures a multitude of solutions for engine and transmission applications, as well as temperature sensors, ignition switches, turn signals, headlights — everything you need.

A comprehensive line and cutting-edge design, all to keep you competitive. Honeywell S&C is your one-stop, full-service choice, unparalleled as the gold standard and

unquestioned as your best value. Offering global service, sourcing and manufacturing. Industry-leading engineers. Value-added assemblies and solutions. Construction to your needs.

Honeywell S&C is driving the innovation that fuels the transportation industry.



Whether it's Honeywell S&C's design centers of excellence, global design centers or sales offices, we maintain engineering excellence and create strong working relationships with our customers.



Transport your business to a better place: leading the race.

Honeywell S&C can help you outperform the competition at every turn, whether you need clean slate development or simple modifications to an existing design. Our expertly engineered solutions meet your most stringent demands or requirements by delivering world-class product designs, technology integration and customer-specific packaging and manufacturing. It's the ultimate in insight and innovation, from right out-of-the-box to continuous, lasting performance.

Comprehensive Portfolio: Honeywell S&C serves the on- and off-highway transportation industry in its entirety, with a sensing or control product for most any application or terrain. Our amazing breadth of solutions and technology platforms eliminate the need for multiple suppliers —

you've always got one contact — and it helps provide solutions that work together.

Global Footprint: Honeywell S&C delivers expert thinking, everywhere. Our global workforce offers sales, application and service support right where you do business — with over 70 sales, support and distribution locations from continent to continent.

High-performance Products: Honeywell S&C products are backed by continual technology advancement, with products designed to survive the harshest environments. You can bank on sensors, switches, vehicle controls and lighting products withstanding more than dirt or grime, meeting and beating any extreme weather, shock, vibration or electromagnetic condition.

Honeywell S&C's extensive and exceptional manufacturing environment and testing facilities helps provide quality and superior, lasting performance down the line.



Extraordinary expertise and resources, driving cost-effective, customized products and solutions.



Honeywell S&C meets any basic or complex customer requirement:

Products and Technologies *Best-in-class engineering ...*

Controls: Include shifters, turn signal switches, proportional retarder, intermittent windshield wipers and custom handlebar controls for ATVs and motorcycles.

Control Valves: Control fuel delivery to the cylinder, optimizing fuel economy, emissions and performance. Offers Combi control valves: integration of a pressure, temperature or position sensor into a control valve, reducing component parts and weight and eliminating an electrical connection and leak path.

Hour Meters: Track engine hours and runtime for stationary vehicles.

Instrumentation Products: Dash indicator panels combine four to six indicator lights, plus battery display indicators that measure battery life and engine hours.

Key Switches: Custom-engineered, environmentally-sealed sliding contact switches, matching existing keys or as six-tumbler mechanisms with unique combinations (as an on/off or starter switch).

MICRO SWITCH™ Limit Switches: The industry-defining name, and the broadest and deepest limit switch portfolios with rugged, dependable position detection solutions for industrial equipment, process, material handling and surface and transportation applications. MICRO SWITCH™ Heavy-Duty Limit Switches (HDLS) and Global Limit Switches. Hermetically and environmentally sealed switches.

Position Sensors: Produce an output proportional to the field strength when detecting the presence or interruption of a magnetic field. Offering cam and crank, probe and vane, gear-tooth position, Hall-effect rotary position, linear position and angular position sensors.

Pressure Sensors: A complete offering of absolute, differential, gauge and vacuum gauge pressure sensors.

Pressure Switches: Designed for sudden pressure spikes and high pressure in any air or oil system.

Speed and Direction Sensors: Respond to the presence or interruption of a magnetic field by producing an output proportional to the field strength. Hall-effect digital position sensors provide contactless measurement with no moving parts.

Temperature Sensors: Provide physical parameter changes, such as resistance or output voltage corresponding to temperature variance (can be combined with pressure, air flow, or speed and direction sensors).

Wheel-Speed Sensors: Enable vehicle OEMS and systems companies to add ABS system features.



POTENTIAL TRANSPORTATION APPLICATIONS

Honeywell S&C is ready to deliver cost-effective, custom solutions:

• Agriculture equipment, construction vehicles, medium/heavy-duty trucks

- Actuator for hitch and tool control
- Brakes and chassis: SMART position sensor, speed sensors, temperature sensors, silicon pressure sensors, stainless steel media isolated pressure sensors, keyless sensors, pressure switches, turn signal controls, wireless position sensors
- Hydraulics: pressure switches, stainless steel media isolated pressure sensors, speed sensors, temperature sensors
- Hydraulics control and monitoring
- Hydraulic RAM positioning
- In cab: hour meters, turn signal switches, shifters, multi-function panels and controls, flashers, push/pull switches, dome lights, temperature sensors, toggle switches, key switches, stainless steel media isolated pressure sensors, keyless access sensors, infrared sensors, Hall-effect sensor ICs, limit switches, shifters
- Key and push/pull switches
- Transmission: liquid level sensors, circuit breakers, exhaust temperature sensors, temperature sensors, cam/crank sensors, pressure switches, vacuum switches, speed sensors, thermostats, stainless steel media isolated pressure sensors

• Recreational vehicles — snowmobiles, jet skis, ATVs

- Engine oil pressure/temperature sensors
- Hour meters
- Indicator strips
- Multifunction handlebar controls
- Sealed key, emergency stop and brake pressure switches
- Throttle controls

• Lawn and garden equipment

- Hour meters
- Indicator strips
- Engine oil pressure and temperature sensors
- Multifunction handlebar controls
- Sealed key, emergency stop and brake pressure switches
- Throttle controls

• Motorcycles

- Engine oil pressure and temperature sensors
- Engine timing
- Ignition switches
- Multifunction handlebar controls
- Speed sensors
- Warning light panels



• Railroad equipment

- Locomotive in-cab controls, traction control
- Transit compartment door systems and driver controls
- Transit compartment air flow and HVAC
- Refrigerated freight compartments
- Railwheel sensors and sensor interface modules



Honeywell is driven to transform the industry with every part and every composition we create.

Our transportation solutions are customized to exacting specifications, yet flexible to every need. Designed to withstand harsh environments, including the most competitive marketplace. From high-intensity discharge lighting, pressure sensors, custom controls, lighting meters and key switches to anything you need for backhoes, tractors, snowmobiles, dump trucks or most any off-highway vehicle — including custom control solutions for agricultural, construction and sport vehicles.

Put your trust in a company with the drive and innovation to put it together better. A company always focused on a safer, more secure world.

Part Innovation. Part Engineering. Total Solutions.

Products:

- Custom controls
- Hour meters
- Hall-effect sensor ICs
- Keyless access sensors
- MICRO SWITCH™
 - Limit switches
 - Toggle switches
- Pressure sensors
- Pressure switches
- Push-pull switches
- Shifters
- Speed sensors
- Temperature sensors

Applications:

- Heavy Duty Vehicles (HDV) (agriculture, bus, construction, trucks, marine)
- Industrial/Utility/Specialty (commercial mowers, lawn/garden, shredders, snow blowers, tillers)
- Material handling (cranes, forklifts, industrial trucks)
- Rail
- Recreation/sports (ATVs, golf, motorcycles, racing, snowmobiles, watercraft)

Find out more

To learn more about Honeywell's sensing and control products, call

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info.sc@honeywell.com, or visit

www.honeywell.com/sensing

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Warranty. Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

