



For specialty vehicle applications

Eaton offers a wide range of innovative, flexible and high-performance vehicle controls and sensor products that withstand the harshest environments to meet the needs of specialty vehicle applications.

Innovation

Did you know that the harness is one of the most complex and costly assemblies in a vehicle? Eaton's multiplexing solution eases configuration, decreases costly harness wires and the number of connection points by using digital communications, thus reducing the weight of the vehicle, the complexity of assembly, and simplifying debugging. Less wiring means more space in the cab, as well as increased cost savings for installation.

With the increased demand of multiplexing, there is an increased need for low current electromechanical switches that communicate to vehicle body controllers. Eaton offers efficient electromechanical switches complementary in style to the multiplex switch module designs.

In addition, sensors with embedded logic can reduce the cost and complexity of vehicle control systems. The onboard logic capability of modern sensors can diminish cabling complexity and control system I/O count, reducing the overall installed cost of a sensing and control solution. Such innovative Eaton solutions include:

- Electronic multiplex switch module (eSM)
- Electronic vehicle display (eVu)
- AccuProx®
- iProx
- Sealed Vehicle Rocker (SVR)

Flexibility

The specialty vehicle market requires products to be flexible to meet many varied needs with a quick turn-around time. These include the option to purchase switch and labels separately, a broad spectrum of graphics and various colored frames and rockers. In addition, a broad range of sensor connectivity options, a variety of sensor types in industry-standard housing and easy-to-install sensors are in high demand. Eaton engineers ergonomic total flexible control and sensor solutions with these needs in mind, including,

- New Generation Rockers (NGR)
- eSM
- Euro SR
- Full-size Euro
- Industry-standard tubular and NEMA®-style sensor products
- Inductive proximity sensors with auto-configure outputs

Sealing

In the specialty vehicle market, it's necessary to have versatile and dependable switch enclosures and connector designs to protect electrical conductors against harmful damage from the surrounding elements.

Eaton designs switch enclosures and robust sensors that can survive extreme environments anywhere on board the vehicle.

- SVR
- Euro SR
- Full-size Euro
- eSM
- NGR
- Mechanical limit switches
- Inductive proximity sensors



High performance

Specialty vehicles demand durable, reliable products for maximized machine uptime, increasing productivity and reducing warranty costs. To address this, Eaton offers switches that are designed to survive the harshest and most difficult applications and sensors that have long operating ranges, increasing the survivability of the device.

- eSM
- SVR
- NGR
- Mechanical limit switches and inductive proximity sensors
- Inductive and optical sensors with some of the longest detection ranges available

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Powering Business Worldwide

Product Name	Product Features
Electronic Multiplex Switch Module (eSM) 	Available in above or below panel rocker styles with accessories including matching indicator caps and dummy plugs
	Modules are J1939 standard with a master module and up to seven expansion modules per CANbus Node
	Can be reprogrammed in the field
	Requires only one panel cutout instead of three, saving panel space and installation time
	Top, center and bottom LED lighting with software that offers unlimited circuit and lighting flexibility via J1939 CANbus communication
	Mechanical and electrical life of 200,000 operations minimum
Electronic Vehicle Display (eVu) 	Dashpanel display that simplifies viewing, selecting, inputting of equipment/status, such as temperature, pressure, speed, distance and capacity
	Standard internal warning alert buzzer, backlit legend display, sunlight-readable LCD characters
	Designed to meet SAE-1455
New Generation Rockers (NGR) 	Versatile electromechanical switch with up to 12 terminals available complementary to eSM below panel design with options available for low current switching
	Offers inventory savings and field assembly flexibility
	LED and incandescent bulb lighting available, with replaceable bulbs
	Mechanical life of 250,000 operations and an electrical life of 200,000 operations with an operating temperature range of -40°F to 185°F (-40°C to 85°C)
	Standard sealing rated to IP42; Optional added protective seal rates switch to IP67 (above panel only)
	Available accessories include matching indicators, gang mounting systems, palm guard frames, panel plugs and connectors
AccuProx Analog Inductive Sensor 	Unique design ensures absolute linearity from one end of the sensing band to the other
	Simplify the control system and logic associated with monitoring the position of a moving part of the vehicle with great precision and repeatability
	Available in industry-standard tubular package in a variety of sizes and connectivity options to fit in any onboard application
iProx Sensing Technology 	Available in a wide variety of industry-standard product enclosures, including tubular, cube style and long-range pancake housing
	Allows a controls engineer to program logic directly into the sensor itself
	Allows operator to program a range band
	Can be programmed as a speed sensor
	Can be programmed to ignore metal objects that may interfere with the proper operation of an inductive sensor
Euro SR 	Sleek, compact European switch style with up to six available terminals
	Customizable frame and rocker colors, or choose from standard white, black or red actuator options
	Actuators include decorative pad-printed rockers and snap-in lens rockers with optional palm guard protection feature
	Accessories include customizable harnesses, standard connectors, dead back covers, panel plugs and external straps
	Easy snap-in mounting design with optional seal prevents moisture and dust resistance rated to IP67 (above panel only)
Full-Size Euro 	Durable full-size European switch style with up to six available terminals
	Customizable frame and rocker colors, or choose from standard white, black, red or grey frame and rocker options
	Easy snap-in mounting design with seal option sealed to IP54 (above panel only)
	Accessories include customizable harnesses, standard connectors, matching indicators, gang mounting systems, dead back covers, panel plugs and external straps
	Actuators include decorative pad-printed rockers and snap-in lens rockers
Sealed Vehicle Rockers (SVR) 	Sealed to IP68 above and below the panel with optional sealed harness or connector
	Complementary in style to the above panel eSM design
	Accessories include indicators, gang mounting systems and palm guards
	Ten available terminals with actuator styles including above and below panel rockers and a paddle design
	Mechanical and electrical life of 250,000 operations for low current applications as low as 2 mA with an operating temperature range of -40°F to 185°F (-40°C to 85°C)
Vehicle Power Management (VPM) 	Patented vehicle power management to help manage electrical system more efficiently
	Use to work lights, tools, fans and HVAC without bulky external generator
	Battery-only mode saves fuel, and has low emissions and silent operation
	Sealed unit saves valuable cabinet space
	Integration with vehicle and hybrid systems improves uptime and reliability

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Printed in USA
Publication No. PA07001002E / Z9392
February 2010



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