

Vehicle and commercial controls
electronic products

Complete family of **flexible solutions** for your applications










EATON

Powering Business Worldwide


A complete family of flexible CAN-based solutions for your applications

Markets



		E30 Series	E31 Series	E32 Series	E33 Series	eVU Series
	Truck	●		●		●
	Construction		●		●	
	Agricultural		●		●	
	On-road specialty vehicle	●	●	●	●	●
	Motor coach / bus	●		●	●	●
	Mining equipment		●		●	
	Emergency vehicles		●	●	●	●
	Material handling		●		●	

Key features

		E30 Series	E31 Series	E32 Series	E33 Series	eVU Series
	Voltage	12V	9–32 Vdc	12V and 24V options	9–32 Vdc	9–32 Vdc
	Master	SAE J1939 CAN 2.0b	SAE J1939 CAN 2.0b	SAE J1939 CAN 2.0b	SAE J1939 CAN 2.0b	SAE J1939 CAN 2.0b and SAE J1708
	Expansion	Sub bus	Lin 2.0	Lin 2.0	Lin 2.0	N/A
	Front	IP42	IP68	IP53	IP68	IP68 ①
	Rear	IP40	IP68	IP50	IP68	SAE J1455 4.7.3
	Life cycle	250k	1M+	500k	Up to 1M	N/A
	Late-point definition	Yes	Quick turn	Yes	Yes	N/A
	Customizable	Yes	Yes	Yes	Yes	Yes

① Assumes panel sealing



eVU

Working in sync with existing controllers and networks, customized displays provide the driver with valuable feedback on vehicle status and performance. eVU displays offer a great deal of flexibility, which can include:

- Internal warning/alert buzzer
- Backlit legend displays
- Sunlight readable LCD characters
- Internal power supply
- Analog or discrete switch inputs
- Up to 2.5 digit character display
- 8-segment bar graph
- Individual LED control

Advantages of Eaton electronic multiplexed switch modules (eSM)

- Reduced assembly labor due to ease of installation, allowing for mounting and connection of switch banks versus individual switches
- Reduced wire harness complexity, using one harness to a controller to accommodate up to seven expansion modules using a three- or four-wire harness to expansion modules
- Reduced harness size offers an overall reduction in weight, improving operational efficiency of the equipment
- Increase in switch life cycle over traditional electromechanical switches (up to one million cycles)

Key features and benefits of eSM

- Master Expansion architecture minimizes impact on controllers
- Fully compliant with J1939 messaging
- Immune to SAE J1455 and J1113 power disturbances
- Operating voltages between 9 and 32V



E30

- IP42 degree of protection from the front
- Master Expansion architecture allows for up to 24 switches per CAN node
- Easily customizable icon backlighting colors to meet application-specific requirements
- Below-panel rocker styling matches the Eaton NGR electromechanical rocker series for high current switching applications
- Separate input for dimming control from 0 to 10 Vdc analog input and keyswitch power on
- Standard diagnostics for CAN-active, sub-bus active and switch state change allows for quick startup



E31

- IP68 degree of protection from front and rear of module
- Rocker and keypad expansion module capability
- Exceptional illumination characteristics
 - LED backlighting of icons
 - Four-color daylight visible indicators per switch
 - Message-controlled dimming and flash rates
- Large switch surface area and alignment ridges for ease of gloved-hand use
- Exceptional tactile and audible feedback of switch
- Customizable application specific graphics



E32

- IP53 degree of protection from the front
- LED lighting in top, center and bottom positions
- Late-point definition of rocker and circuit to maximize flexibility
- Front panel removable for ease of maintenance
- Sleep mode available to reduce current draw on the battery
- Wake on switch change configurable
- Decorative-style rocker with matching indicator option available
- CAN controlled digital logic output—500 mA



E33

- IP68 degree of protection front and rear
- LED lighting in top, center indicator and bottom position
- Late-point definition of rocker and circuit to maximize flexibility
- Top, bottom and full guard option available
- Locking rocker available
- Front panel removable for ease of maintenance
- Sleep mode available to reduce current draw on the battery
- Wake on switch change configurable
- Decorative-style rocker with matching indicator option

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