

ROBUST CONTROLLER

J1939 and NMEA 2000 supported

Divelbiss has introduced enhanced models of its HEC-P5000 family of controllers. They offer control capability in harsh environments and enable cloud communication with the Versa Cloud M2M platform.

PROGRAMMED USING THE NO-COST DIVELBISS EZ Ladder Toolkit in Ladder Diagram, Function Block and Structured Text, and based on P-Series PLC on a Chip technology, the family provides flexibility for controlling mobile equipment, communicating with various serial bus protocols, logging system data, or adding Internet of Things (IoT) capability to existing systems.

With a temperature range of -40 °C to +80 °C, the controllers are suitable for use in extreme environmental conditions (Photo: Divelbiss)

Two CAN ports are available and support the J1939 and NMEA 2000 protocols. These CAN ports may also be used for additional communications and networking using the Divelbiss proprietary OptiCAN network. Ethernet and Wifi ports can be used for Modbus TCP server and client communications, as well as IoT communications with the Versa Cloud M2M platform. The controllers have optional cellular capability for communicating with the [Versa Cloud M2M](#) platform. A GPS option is also available.

Featuring a sealed Nema 4 enclosure that is designed for the harsh duty commonly found in mobile environments, the controller family has 16 digital inputs, 3 high speed counter inputs, a quadrature encoder interface, 16 digital outputs rated for 2 A each (of which 12 are PWM capable), and 2 analog inputs which are user configurable as 0 V to 5 V, 0 V to 10 V, or 0 V to 20 mA inputs.

If additional I/Os are required, the CAN and serial ports may be utilized to communicate with expansion I/Os. The controllers feature two serial ports, which are user configurable as EIA-232 or EIA-485, and they support Modbus RTU/ASCII protocols as either a master or a slave device. The serial ports are also directly programmable via the Structured Text programming language, allowing the implementation of custom protocols, which makes them suitable for communicating to bar code scanners, RFID readers, or other serial devices.

For applications that require data logging, the family is available with a real-time-clock, 512 KiB of battery backed SRAM, and an internal SD card. These features give the user options for implementing data buffering and logging. When utilized with the Versa Cloud M2M platform, the controller family can communicate data to Versa Cloud, where it is date/time stamped and stored in the cloud database for later viewing, analysis, and export. The HEC-P5XXX family supports supply voltages from 8 VDC to 32 VDC and has an operating temperature range of -40 °C to +80 °C, making it suitable for use in applications with extreme environmental requirements.

The HEC-P5XXX family gives the user the ability provide machine control, data logging, and IoT connectivity to many applications in the mobile, industrial, environmental, agricultural, construction, and other markets. As a part of the Versa Cloud M2M connectivity solution, the controller family provides a flexible system to enable remote control and communications.