

## Harsh environment controllers

**Divelbiss announced the introduction of the HEC-P6000 family of controllers, offering control and communications capability for harsh environments. J1939 and NMEA 2000 are supported.**

The controllers are programmed using the Divelbiss EZ Ladder Toolkit in Ladder Diagram, Function Block, and Structured Text, and based on the on-chip P-Series PLC (programmable logic controller). The product enables controlling mobile equipment, communicating with various serial buses and communication protocols, logging system data, or adding Internet of Things (IoT) capability to existing systems with the Divelbiss Versa Cloud M2M platform.

Featuring a sealed enclosure that is designed for the harsh duty commonly found in mobile environments, the controllers have an I/O count with 14 digital inputs, three counter inputs, a quadrature encoder interface, 14 digital outputs rated for 2 A each (of which 12 are PWM capable), and more analog I/O than any previous HEC controller, said the company. This includes four analog inputs which are user configurable as 0 V to 5 V, 0 V to 10 V, or 0 mA to 20 mA inputs and two analog outputs which are 0 V<sub>DC</sub> to 10 V<sub>DC</sub>.

If additional I/O is required, the CAN and serial ports may be utilized to communicate to expansion I/O or additional controllers. The controllers feature two serial ports, which are user configurable as EIA-232 or EIA-485, and supports 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 ideal for communicating to bar code scanners, RFID readers, or other serial devices.

Two CAN ports are available and fully support the J1939 and NMEA 2000 protocols. Ethernet and Wi-Fi ports can be used for Modbus TCP Server and Client communications, as well as IoT communications with the Versa Cloud M2M platform. A GPS option is also available.

For applications that require data logging, the controllers are available with a Real-Time-Clock, 512 K of battery backed SRAM, and internal Micro SD card socket. When utilized with the Divelbiss Versa Cloud M2M platform, HEC-P6000 family controllers 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 controllers support supply voltages from 8 V<sub>DC</sub> to 32 V<sub>DC</sub> and have an operating temperature range of -40 °C to +80 °C, making them suitable for use in applications with extreme environmental requirements. According to the company, the controllers give the user the ability to provide machine control, data logging, and IoT connectivity to virtually any application in the mobile, industrial, environmental, agricultural, construction, and other markets.



*The HEC-P6200 (Photo: Divelbiss)*

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