

## Specification sheet

# Fire Pump Drive Engine

## Modbus<sup>®</sup> ProtoNode



### Description

Cummins optional Modbus<sup>®</sup> ProtoNode provides a proven technology that allows you to link into your building's Supervisory Control and Data Acquisition (SCADA) database and monitor your fire pump drive engine from any location.

Modbus<sup>®</sup> Protocol is a messaging structure developed by Modicon in 1979. It is used to establish master-slave client-server communication between intelligent devices. It is a de facto standard, truly open and the most widely used network protocol in the industrial manufacturing environment. It has been implemented by hundreds of vendors on thousands of different devices to transfer discrete/analog Input/Output (I/O) and register data between control devices.

It can also be used to perform maintenance and repair on remote devices using a PC and browser reducing support costs and improving customer service. Logging onto a fire pump controller from home allows the maintenance engineer to maximize his

plant's uptime and reduce time in the field. Managing geographically distributed fire pump controllers becomes easy using commercially-available internet/intranet technologies.

Communication performance depends on the network and the hardware. If you are running Modbus<sup>®</sup> TCP/IP over the Internet, you won't get better than typical Internet response times. However, when communicating for debug and maintenance purposes, this may be perfectly adequate and save you from having to catch a plane or go to site on a Sunday morning!

### Features

- Simple to use and easy to install and maintain.
- Minimal hardware requirements.
- Utilizes standard ethernet and hardwire connections.
- Low-cost diagnostics and troubleshooting support.
- Interoperable and compatible among a wide variety of devices and protocols.

The ProtoNode is an external, high-performance, low-cost building automation and industrial control IIoT gateway that provides connectivity to the cloud and instant multi-protocol deployment of field protocols, enabling new or legacy devices to easily interface with other protocols.

You can enjoy the benefits of the cloud connectivity through [FieldPoP™](#). The ProtoNode is FieldPoP-enabled, meaning all ProtoNodes can be registered to FieldPoP, Sierra Monitor's device cloud for the IIoT. The FieldPoP web interface lets users remotely access, in a secure fashion, the [FS-GUI](#) and custom web applications that are available locally on the ProtoNode. These applications offer functionality for configuration, monitoring, logging, security, diagnostics, and updates.

FieldPoP works with Sierra Monitor's FieldServer IIoT family of protocol gateways, routers, and explorers. Customers that use any FieldServer product are eligible to set up an account on and take advantage of FieldPoP's capabilities: field device and user management, service and support capabilities, and integration of data generated by the devices to business and analytics applications.

One of the distinguishing features of FieldPoP is that it implements a secure path from the cloud (FieldPoP) to the field (FieldServer). This allows a remote user to securely run web applications that are resident on the FieldServer products in the field. Unlike many device clouds that insist that all field data be sent to the cloud and that all intelligence reside in the cloud, the FieldServer – FieldPoP architecture is one that supports distributed control and recognizes that some applications are better run in the field. Some in the industry also refer to such local applications as “fog” applications to distinguish them from applications that run in the cloud. With this architectural philosophy that recognizes the importance of local applications; FieldPoP provides users a method to access these local applications through the cloud, no matter where they might be physically located.

The ProtoNode protocol gateway includes one RS-485 port and one Ethernet port, plus a third port that can be used for RS-485, RS-232, RS-422, KNX, or M-BUS and can be programmed in the field or pre-programmed in the factory. With the ability to automatically support multiple known controller profiles, as well as having access to Sierra Monitor's library to over 140 protocol drivers, the ProtoNode easily supports custom proprietary host serial or Ethernet protocols. It also has the ability to simultaneously be a protocol gateway and a BACnet MS/TP to BACnet/IP router.

The ProtoNode is BTL (BACnet Testing Laboratory) Certified. This approval assures our customers that we carry only the highest quality of products and performance.



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