

IOT Solutions for Off-Highway Equipment



Traditionally, software updates and support for a fleet vehicle or machine would require a trip into the field from a service technician or engineer. Today, that has changed. Through a partnership with Epec Oy of Seinajoki, Finland, HydraForce can now offer IoT and telematics products for mobile hydraulic equipment applications.

INNOVATIVE DESIGN

CUSTOMIZE TO APPLICATION

The IoT offerings include Epec's GlobE and GatE cloud-based service and a new ERAU-6200 remote access unit that can be paired with HydraForce electronic control units (ECUs).

Are you ready for IoT?

Mobile hydraulic equipment can be part of the Internet of Things, thanks to the development of IoT solutions that effectively connect your machine to the cloud (IoT) and to each other (M2M). It is now possible to have remote operation, machine performance telemetry, and analysis – all in real time. You're ready for IoT if you see a benefit to any of these possibilities:

- Log and analyze machine data
- Continuous condition monitoring of machinery
- Optimizing use of resources
- Machine tracking/geolocation
- Remote desktop control of machine calibration
- Smartphone access to machine controls, operator and service manuals

NebVisu

GatE Secure Access Solution

GatE is a remote access software package for machine code troubleshooting. It provides a secure, encrypted gateway for all your machine's data and enables remote monitoring, diagnostics and software updates.

Remote access of a machine's control system can help to reduce troubleshooting time, and reduce or eliminate the need for on-site visits by field service technicans.



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ERAU-6200 Remote Access Unit
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VNC

WebVig

GlobE Remote Management Platform

GlobE is a browser-based remote management package for control systems on machinery. Used in conjunction with HydraForce electronic control units, the GlobE IoT platform provides an easy way to monitor, log and store machine control data, adjust machine settings, and update control system software for the hydraulic systems on your machine. It is a proactive way to monitor, report, predict, prevent, and optimize hydraulic control systems for your machine.



ERAU Remote Access Unit

Designed especially for use on mobile machines, the ERAU-6200 is the communication link that processes data between GlobE and GatE and your machine/s. This versatile remote access unit has multiple use cases, including data collection, communication gateway, and remote access. It is fully compatible with the HydraForce line of electronic control units and supports the GlobE remote management platform and the GatE secure access solution. The ERAU-6200 remote access unit can be programmed with CoDeSys 3.5 and functions with WebVisu and PLCopen libraries.

Electronic Control Units (ECUs)

HydraForce ECU Electronic Control Units are at the heart of telematic solutions for hydraulic equipment, providing the "brains" behind all that connectivity. If you're looking for a simple control solution, the ECU-0809 has a single CAN interface. Larger I/O machine controls that require two CAN ports can be programmed with the ECU-0809A, ECU-0814A, ECU-2415A, ECU-2434A, or ECU-2820A. Four CAN ports are available on the ECU-3232A. Visit <u>www.hydraforce.com</u> for complete specifications on HydraForce ECUs.

ECU Model	CAN Interfaces	Inputs/ Outputs
ECU-0809	1	9/8
ECU-0809A	2	9/8
ECU-0814A	2	14/8
ECU-2415A	2	15/24
ECU-2434A	2	34/24
ECU-2820A	2	20/28
ECU-3233A	4	33/32



Order Information

Contact HydraForce to discuss IoT for your application.

In North America, Asia and South America, please call Customer Service at 1 800 682 6875 or e-mail <u>HydraForce Customer Service</u>.

In the U.K and Europe, please contact +44 121 333 1800 or email at orders@hydraforce.com.

OPTIMIZED for mobile machines

WHY CONSIDER HYDRAFORCE?



- World's largest privately owned cartridge valve manufacturer focused on EH system controls
- Broadest range of cartridge valves
- Designed EH systems for mobile equipment in every industry

SUPPORT FROM PROTOTYPE TO PRODUCTION

- Free design support
- Simulation software
- Fast prototypes



- Integrate sensors, fittings, ancillary valves, and other custom components into a single manifold
- Simplified circuit design
- Consolidated or distributed hydraulic systems

- All manifolds are end-of-line function tested
- Use of Lean and Six Sigma practices
- Five year warranty on valves and manifolds

REPUTATION FOR

ROHS HydraForce valve and manifold products comply with the European Council and Parliament RoHS directive 2002/95/EC limiting the use of COMPLIANT hazardous substances. For all other products, consult factory.

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