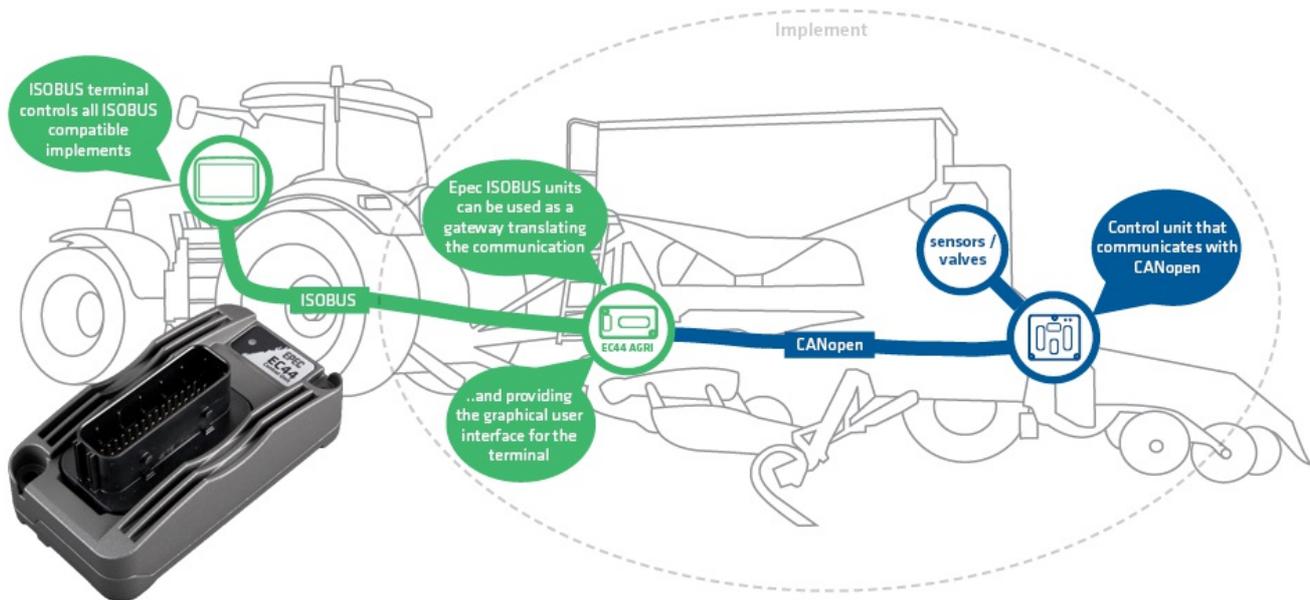# CAN *Newsletter Online*

ISOBUS CONTROL UNIT

For agriculture implements

EC44 Agri control unit by Epec (Finnland) enables Isobus communication for agriculture implements. Used as a gateway, it can upgrade implements to Isobus connectivity.

EC44 can be used to upgrade a non-Isobus compatible implement system to an Isobus-compatible one (Source: Epec)

Isobus-compliant devices enable plug-and-play compatibility between tractors and implements (e.g. seeders or fertilizers) from different manufacturers and brands. Former implements were operated via their own customized human-machine interfaces (HMI), i.e. several implements required several HMIs in the tractor cabin.

Due to standardized connectors and application data exchange, Isobus-capable displays are able to interact with all connected implements. This removes the need for extra HMIs and cablings enabling enhanced usability and visibility for the operator. Furthermore, the standardization offers means for a high automation level. The implements seamlessly work with the tractor, which improves the work efficiency and productivity as well as lowers the overall environmental impact. This also helps new machine operators to succeed effectively.

The EC44 Agri control unit can be deployed as an Isobus standalone unit or as a gateway between Isobus and other CAN-based networks communicating e.g. via CANopen. In the second case, it can be used to upgrade a non-Isobus compatible implement system to an Isobus-compatible one without re-designing the whole system.

The device features a 32-bit processor and a 1-MiB internal SRAM for the application, user interface, and parameters. It provides two CAN ports, 16 inputs and 16 outputs with high-side current measurement, and a status LED. The unit is based on Codesys 3.5 programming and can be used with company's PLC libraries. CANopen, J1939, and Isobus higher-layer protocols are supported. The full aluminum housing offers IP69K protection and a lever locking connector is designed especially for high vibration environments. Unit's set-up and application programming are streamlined with manufacturer's system development toolchain (Multitool, and CANmoon), including the needed Isobus libraries.

Further company releases

Epec also released the latest SDK 4.6 (software development kit) and Epec Multitool 7.4. The improvements in the SDK include, for example, support for archive file format and a possibility for cloning devices.

The company also added power supply and CAN cables for EC44, SL84, and GL84 control units to its portfolio. These cables simplify the connection of power supply and CAN interfaces to the control units, for example, with the Epec 3500 CAN Adapter box. The free Leavyseal connector pins have 2-m flying leads.

Epec is a system supplier for electrics and electronics used in non-road mobile machines (NRMM) and commercial vehicles. Founded in 1978, the provider cooperates with leading international OEMs (original equipment manufacturer) in mining, construction, forestry, agriculture, municipal, and material-handling industries.

Epec added power supply and CAN cables for EC44, SL84, and GL84 control units to its portfolio (Source: Epec)