

# FMB6YX ISOBUS

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## Description

ISOBUS (ISO 11783) is a standardized communication protocol used in agriculture to enable seamless data exchange between tractors, implements, and other farm equipment from different manufacturers. It simplifies the control and monitoring of equipment, allowing operators to manage everything from a single control panel inside the tractors' cabin. Essentially, ISOBUS ensures that all machines "speak the same language," reducing compatibility issues and improving the efficiency of agricultural operations.

ISOBUS communication systems are used in:

- **Tractors and Combines:** Central systems where ISOBUS-compatible control terminals are installed.
- **Implements:** Attachments like plows, seed drills, balers, sprayers, and more, which exchange data with the tractor through the ISOBUS interface.

In agriculture, ISOBUS plays a role similar to **OBD-II** (On-Board Diagnostics) in cars and **FMS** (Fleet Management Systems) in trucks. Just like OBD-II allows mechanics to access standardised vehicle data to diagnose issues, and FMS allows accessing standardised data to monitor and optimize truck operations, ISOBUS provides a standardized communication platform for tractors and implements. It enables different machines, regardless of manufacturer, to "speak the same language" and exchange vital operational data.

Our new hardware solution connects directly to the ISOBUS connector and reads CAN data from the tractor and implement systems, helping farmers improve efficiency, monitor equipment performance, and optimize their fieldwork

## ISOBUS data

ISOBUS transfers essential **CAN data** between the tractor and the implement. Our hardware solution is designed to capture key operational data through this connection. Below are the types of data that can be gathered via ISOBUS:

- **PTO (Power Take-Off) Data:**

**PTO Status:** Whether the PTO is engaged or disengaged.

**PTO Speed:** The rotational speed at which the PTO shaft is transferring power from the tractor to the implement.

- **Hitch Position Data:**

**Hitch Height:** The vertical position of the implement attached to the tractor’s hitch.

- **Auxiliary Valve Data:**

**Hydraulic Flow and Pressure:** Information on the flow rate and pressure in auxiliary hydraulic circuits used to control attachments.

## ISOBUS configuration



- **ISOBUS periodic record timeout** - time in seconds, that it takes the device to generate a record, containing the values of selected ISOBUS parameters.

**Include ISOBUS data into regular record:**

- **Disable** - Disables the sending of ISOBUS parameters in regular data packets.
- **Enable** - Enables the sending of ISOBUS parameters in regular data packets.

## ISOBUS Data Parameter List

### ISOBUS

Property ID in AVL packet	Property Name	Bytes	Type	Value range Min Max	Multiplier	Units	Description	HW Support	Parameter Group
12400	Groundspeed Of The Vehicle	2	Unsigned	0 64255	0.001	m/s	Groundspeed of the vehicle	<a href="#">EMC650</a> <a href="#">EMM650</a> <a href="#">EMB641</a>	
12401	Ground based distance	4	Unsigned	0 4211081215	0.001	m	Ground based distance	<a href="#">EMC650</a> <a href="#">EMM650</a> <a href="#">EMB641</a>	
12402	Ground based direction	1	Unsigned	0 3	-	-	00 - Reverse 01 - Forward 10 - Error indication 11 - Not Available	<a href="#">EMC650</a> <a href="#">EMM650</a> <a href="#">EMB641</a>	
12403	Wheel Speed Of The Vehicle	2	Unsigned	0 64255	0.001	m/s	Wheel Speed Of The Vehicle	<a href="#">EMC650</a> <a href="#">EMM650</a> <a href="#">EMB641</a>	