



Precision Farming Solutions

HIGH-TECH SYSTEMS

PRECISION FARMING



Air Drills, Planters, Sprayers

HIGH-TECH SYSTEMS

PRECISION FARMING



PRECISION FARMING SOLUTIONS

MC Elettronica is specialized in design and manufacturing of sensors and “high tech” electronic components for agricultural machines, dedicated to PRECISION FARMING, able to accompany the user in all passages from sowing to harvesting. MC Elettronica is still an independent family-owned company, which, with over 40 years of experience, dedicates its efforts to the development and manufacture of innovative standard or custom components for precision farming.

The company, thanks to its great flexibility when it comes to the market’s various needs, has a target of an high-quality service to customers. In fact we could together challenge new markets, creating innovative and competitive products. The high degree of innovation of the MC Elettronica product range has offered the Company the opportunity to provide its services to many International Machine Manufacturers of the Agricultural sector.



ESD SYSTEM FOR PLANTERS



VIRTUAL TERMINAL 7"
Touch-screen and keyboard



ECU GATEWAY
for ESD modules



ENCODER SENSOR
high speed incremental



ESD MODULE
(brushless motor + electronic driver)



UNI-SEEDER (bracket version)
seed counter photocell



UNI-SEEDER (tube version)
seed counter photocell

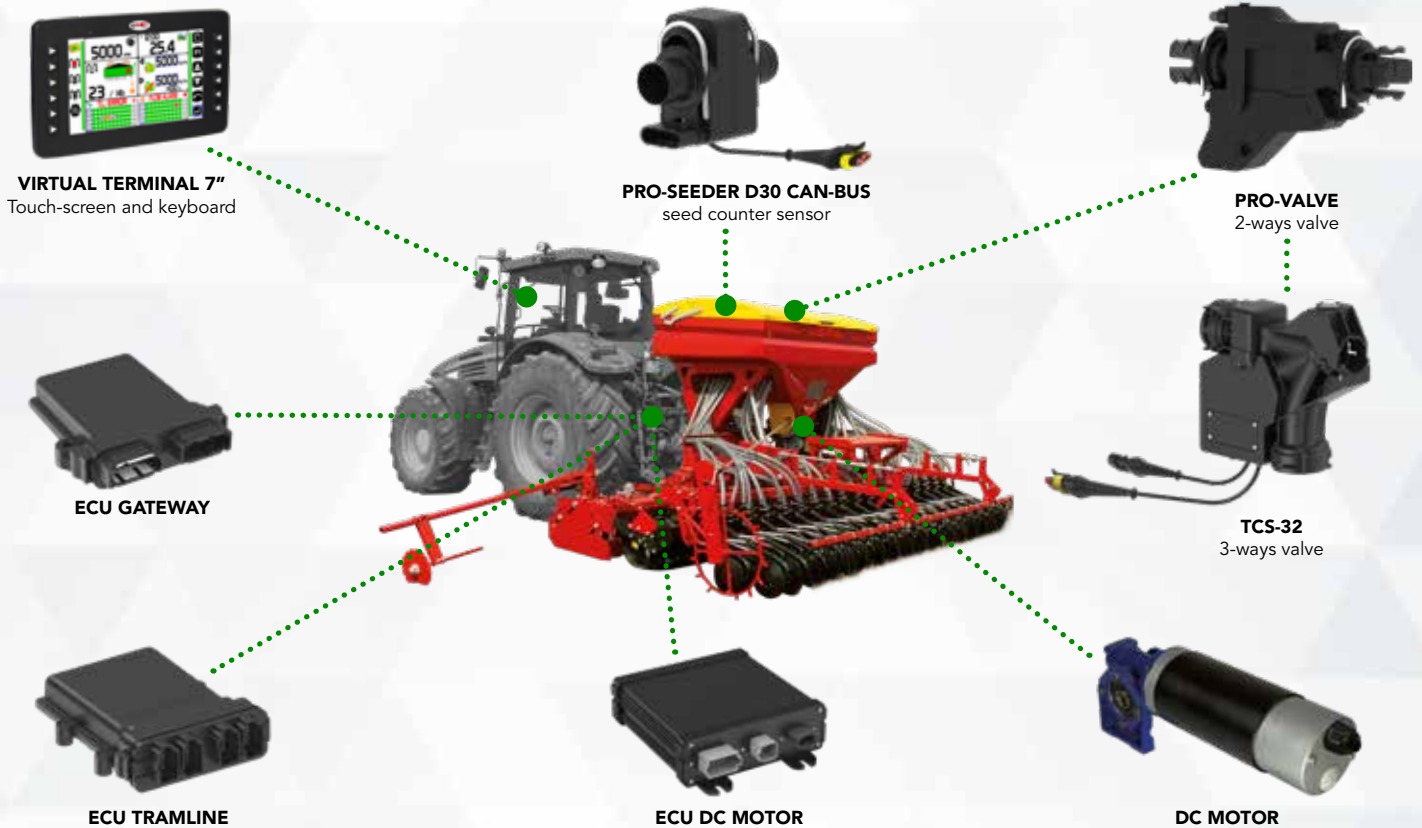
ESD (Electronic Seed Driver) is a simple and modular system for integrated high-tech control and monitoring of the electrification of planters (one per single row) and fertiliser distributors (one for every two rows), by means of Brushless motors: **thus eliminating all mechanical seed drill transmission.**

The sowing control and monitoring system can be managed via dedicated VT or to be ISOBUS interfaced with the most popular GPS on the market, guaranteeing the functionalities envisaged by the Tractor's ISOBUS system.

FEATURES AND ADVANTAGES

- It is possible to add the **ECU BRIDGE** module to standard components of the system making **the seed drill ISOBUS 11783 compatible** by using the Universal Terminals on the tractors.
- **Reduction in set-up times** during seed drill preparation according to the crop to sow.
- **More precise and even sowing** as a result of eliminating mechanical tolerances.
- **VARIABLE RATE sowing**, with prescription maps.
- **Regulation of the sowing distance** directly from the monitor without getting out of the tractor.
- **Elimination of sowing overlap.**
- **Automatic row closing** with GPS interface.
- **Increase in yield and economic performance.**
- **Reduction of maintenance costs and times**, thanks to the elimination of the transmission.

USC-PRO SYSTEM FOR AIR DRILLS



USC-PRO (Universal Seed Control) is a modular and highly technological control and monitoring system for pneumatic row seed drills that makes it possible to manage and control all functions of the machine: **monitor blockage (with blockage sensors), variable rate (prescription map) and tramline (with shut-off valve).**

Fitting the USC-PRO system, the new **PRO-SEEDER seed sensors**, which make it possible to count with precision and check the seed flow; **seed drill calibration is no longer required.**

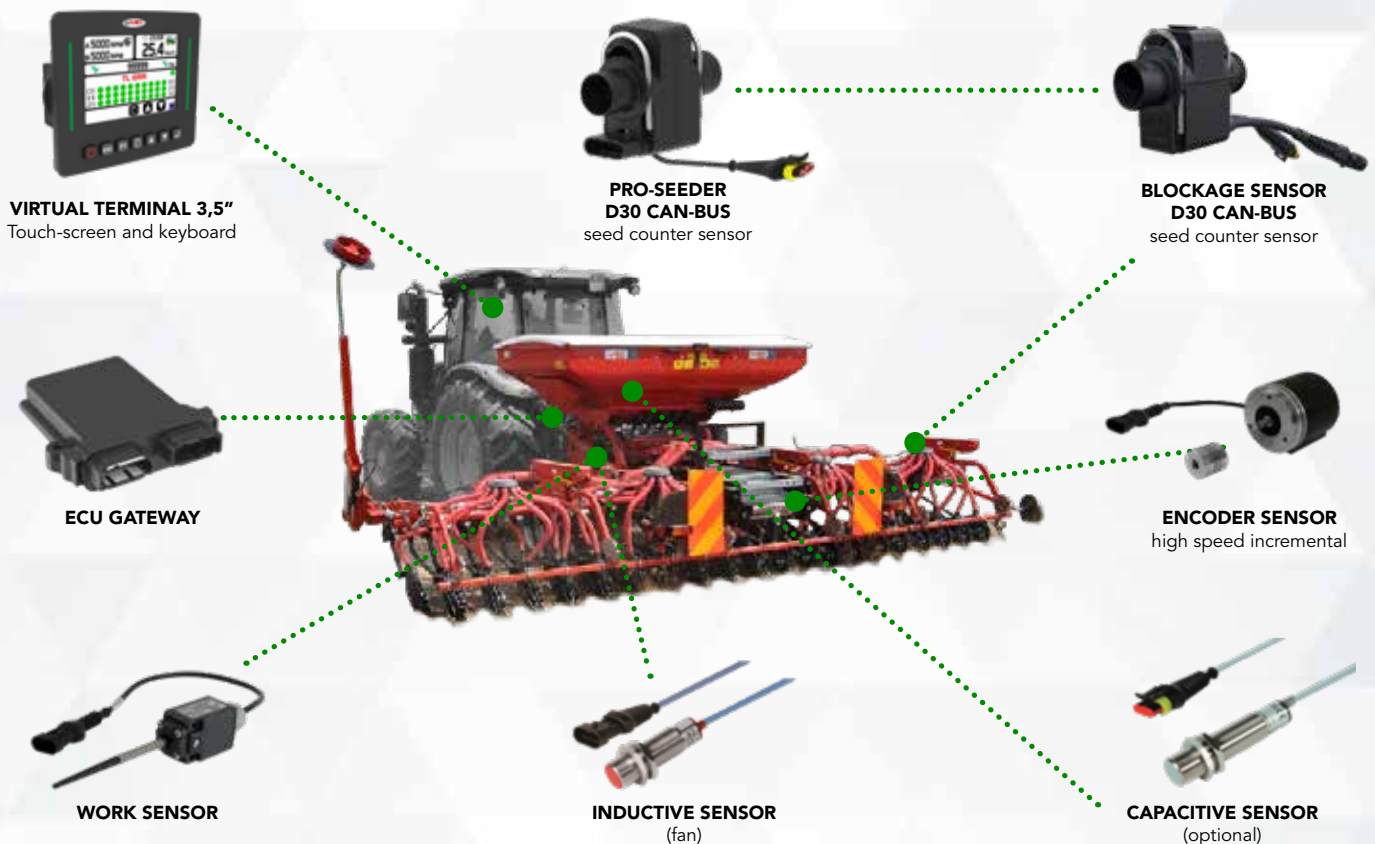
FEATURES AND ADVANTAGES

- Full management of all possible functions in the use of the pneumatic row seed drill (blockage, variable rate, calibration, and tramline).
- Adding the **ECU Bridge** module to standard components of the system **makes the seed drill ISOBUS compatible** by using Universal Terminals on the tractors.
- **Increased seeding precision**, thanks to the possibility to verify the actual number of seeds falling to the ground.
- **Reduced machine set-up times** thanks to the counting

function that constantly monitors the value envisaged.

- **The modularity** offered by the system **enables you to select the desired components**, connect them to the network and **interface them with the MC Elettronica system**, or other systems on the market.
- **Total reliability** thanks to the design that takes into account the field's operating conditions.
- **Guaranteed sowing** and almost total elimination of seed waste at the beginning of each pass.

BMC SYSTEM FOR AIR DRILLS



The **Blockage Monitor Counter (BMC) losses monitoring and control system for row seed drills**, in **CAN BUS** and **ISOBUS** technology, makes it possible to **monitor in real time the product's passage** (seeds or granular fertiliser) through the Blockage sensors.

By replacing the Blockage sensors for seed drills with the new **PRO-SEEDER seed sensors**, it is possible to **count the seeds distributed**, setting the monitoring in seeds/m², as well as the standard Kg/ha.

FEATURES AND ADVANTAGES

- The control system for air drills offers the possibility of **switching from the Virtual Terminal to the ISOBUS version** by inserting the ECU BRIDGE ISOBUS.
- **System communication in CAN-BUS** with connection of the network in Daisy Chain, with simplified cables.
- **Monitoring** of up to a maximum of **100 Blockage sensors or Pro-Seeder CAN-BUS per ECU**, and up to 2 ECUs that can be connected to the same monitor.
- **Modular system** with the possibility of inserting additional ports by selecting the desired components.
- **Increased sowing quality**, through monitoring in seeds/m² that significantly increases work precision compared to the kg/ha dose.
- **Product savings and reduced maintenance times** thanks to the easy detection of sowing anomalies and of partial flow decreases.
- **Extreme reliability of the system** thanks to the specific design of each component for the most extreme use conditions.

HYDRA SYSTEM FOR SPRAYERS



HYDRA is an advanced control and monitoring system for sprayers, atomizers and self-propelled or towed inter-row cultivators. It is developed in **CAN-BUS and ISOBUS** technology, and enables proportional distribution of the product (DPA), hydraulic management and water management.

Of importance is the presence of the "Task Control" or "Section Control" function that can be guided by ISOBUS systems connected to our system through the optional "Bridge" ECU.

FEATURES AND ADVANTAGES

- **Ease of use:** the components of the HYDRA control and monitoring system are the same in the standard and in the ISOBUS version.
- **Versatile:** transition from the standard to the ISOBUS version is simplified thanks to the innovative ECU BRIDGE.
- Possibility of managing product dosing manually and automatically, management of the hydraulic commands and of the air sleeve, all in a single solution.
- **Modular:** the HYDRA control and monitoring system makes it possible to manage up to 9 water sections and 5 hydraulic functions through one main ECU while, it is possible to manage 2 supplementary hydraulic functions on request.
- **Reliable:** the Hydra system has been tested and proved to its limits in the most severe working conditions in laboratories and in the fields with outstanding results.

HIGH-TECH COMPONENTS

FOR PLANTERS



"SMART" PHOTOCELLS RANGE

The new «SMART» photocells range of MC Elettronica for planters was born to create a high-tech product, able to offer a superior seed detection quality. This fact will generate an higher seeding precision and consequently a reduction in seeding time and wasted seeds during operations.

FOR AIR DRILLS

PRO-SEEDER COUNTER PHOTOCELL

Precise, modular and versatile photocell, allows **COUNTING and testing the seeds passage for each single row for air drills**, with automatic dust compensation.

For proper operation of the seed count sensor, it is necessary to set the seed type before starting processing. In addition, the PRO-SEEDER photocells are connected to the respective electronic control unit and perform an automatic test of correct functionality.



PRO-VALVE 2-WAYS ROWS SHUT-OFF VALVE

The new **PRO-VALVE** is the latest generation shut-off valve with the possibility of integrating an optical sensor to detect and count the passing seeds. The advantage is to have a single component with two functions, reducing the overall dimensions and costs.



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