

Manual

4–20 mA Pulsed Signal Transmitter

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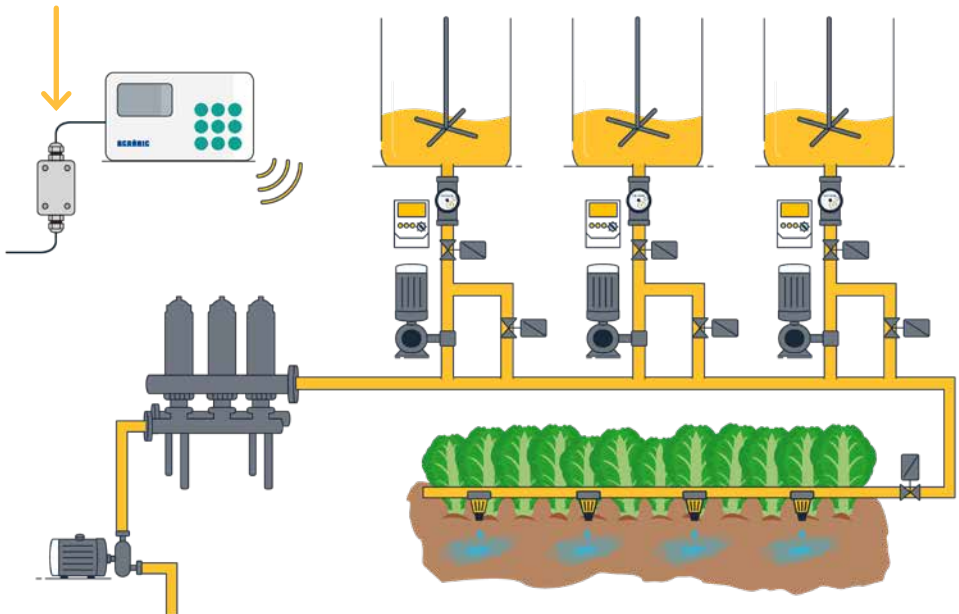
The transmitter converts the fertilizer or acid injection pulses into 4-20 mA outputs to control injectors with a frequency inverter.

Useful in controllers that does not have 4-20mA analogue outputs;
for example, the Agrónic 2500 or the Agrónic 5500.

It offers the following benefits:

- Reading and conversion of up to three different pulsed signals (**3 inputs**) to 3 4-20 mA outputs.

4-20 mA pulsed signal transmitter



Technical characteristics

Power supply

Power supply	12 Vdc to 20 Vdc	
Energy consumption	Less than 0.9 W	
Overtoltage fuse	Input	Thermal (PTC) 0.4 A at 25°C, self-resettable
Reverse Current Protection	Yes	

Outputs

Output signal	4 - 20 mA	3 outputs
IMPORTANT	The external output transformer ("R+ R-") of the Agronic 2500 or 5500 must be a 24 Vac transformer	

Inputs

Number	3
Type	Digital
Voltage	24 Volts in alternating current (50 Hz)

Environment

Temperature	-10 °C to +60 °C
Degree of protection	IP65
Moisture	< 95 %
Height	2000 m
Pollution	Grade II

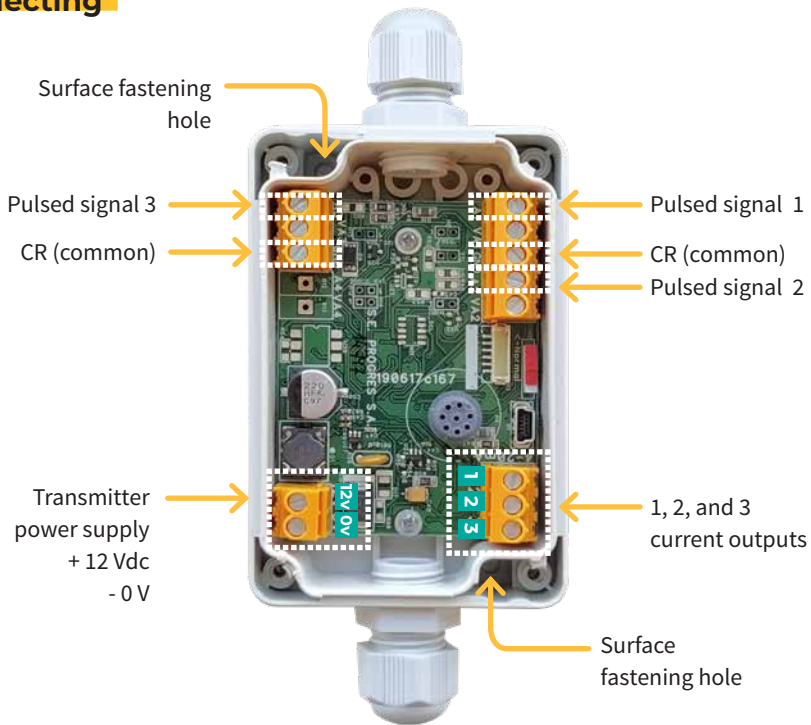
Transmitter box dimensions

Height	99 mm
Width	65 mm
Depth	39 mm
Weight (approx.)	0,4 Kg



This symbol indicates that electronic devices should not be disposed of along with household waste at the end of its useful life. The product must be taken to the corresponding collection point for recycling and properly treating electronic equipment in accordance with the national legislation.

Connecting








NOTE

You must connect the 0V of the transmitter to the 0V of the converter. It is recommended that you use a shielded cable (with the grid connected to the grounding wire) for cables that go to the converter (current and 0V outputs).

Configuration



The transmitters are generally configured at the factory. However, it is possible to make consultations or configurations by using a “Module Reader,” consisting of a screen and four keys that are connected to the transmitter through the only visible connector inside.

Press the  key to enter the main menu. With the  and  keys, you can change the options within the menu. With the  key, you can enter the selected menu option. With the  key, the previous hierarchy.

Within the main menu, you can see the following options:

- Consultation
- Configuration

CONSULTATION MENU

Transmitter general reference menu, where you can view:

- Controller firmware version No.
- Type of transmitter
- Conversion of pulsed signal cycle in %
- Consultation of the 4-20 mA current value being delivered (output 1 to 3)

CONFIGURATION MENU

Transmitter parameter configuration menu. You can configure:

- Number of entries to read (from 1 to 3)
- Mode: “uniform fertilization” or “PID regulation”
If the chosen mode is “PID regulation”, the modulation cycle value can be configured (from 1.0 to 9.9”). By default it is 1.5”

NOTE

All transmitter inputs will belong to the same type of mode: uniform fertilization or PID regulation.

IMPORTANT

UNIFORM FERTILIZATION MODE

If working with uniform fertilization, you must configure a “**modulation cycle**” of **50 seconds** in the A2500 or A5500 controller. At the end of the fertilization, the transmitter can maintain the injection order for a maximum of 50 seconds. To avoid this, the converter can be ordered to stop by using the general fertilizer unit or cutting the common signal (0V).

If the configured modulation cycle is not 50 seconds, the transmitter will not properly convert the signal.

- **In an Agrónic 2500** Go to FUNCTION | PARAMETERS | INSTALLER PARAMETERS | 5. VARIOUS: Uniform fertilization, cycle: 50”
Section 6.10 of the “1751 - Agronic 2500 PLUS Manual”
- **In an Agrónic 5500** Go to FUNCTION | PARAMETERS | INSTALLER PARAMETERS | 3. FERTILIZATION | 2. UNIFORM FERTILIZATION | Cycle: 50”
Section 6.12.3 of the “2001 – Agronic 5500 Manual”

PID REGULATION MODE

The pH and EC regulation is done with a PID-type control. It's necessary that in the A5500 controller a “**modulation cycle**” of **1.5 seconds** is configured, both in the pH and the EC regulation. If the set modulation cycle is not 1.5 seconds, the transmitter will not convert the signal correctly. This value can be modified with a Module Reader.

- **In an Agrónic 5500** Go to FUNCTION | PARAMETERS | INSTALLER PARAMETERS | 3. FERTILIZATION | 1. PID EC Regulation Modulation cycle: 1.5” | PID pH regulation Modulation cycle: 1.5”
Section 6.12.3 of the “2029 – Agronic 5500 Manual”

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