SISTEMES ELECTRÒNICS PROGRÉS

Manual

Pressure sensor 16 bar 4-20 mA

CODE 06140257

Sensor for pressure reading, useful for many applications and easy to install.

It is equipped with a sensor plus a transmitter that provides an output signal of 4-20 mA for a reading range of 0 to 16 bar.

It can be connected to any equipment that has inputs for analogue sensors (Agrónic 4000, Agrónic 2500, Agrónic 5500, Agrónic Bit, Agrónic 7000 programmer) and external modules (Agrónic Monocable, Agrónic Radio, AgroBee and AgroBee-L).

Technical specifications

Power supply	8 - 30 Vdc
Output signal	4 – 20 mA (2-wire)
Reading range	0 – 16 bar
Precision	1% FE
Protection level	IP65
Electrical connection	DIN 43650 mini
Mechanical connection	Cylindrical thread "G1/4"
Gear motor	From ½ to ¼

Distance	
Maximum programmer-sensor distance [m]	*Minimum wire section [mm²]*
100	0.25
250	0.60
500	1.20
750	1.70
1000	2.25

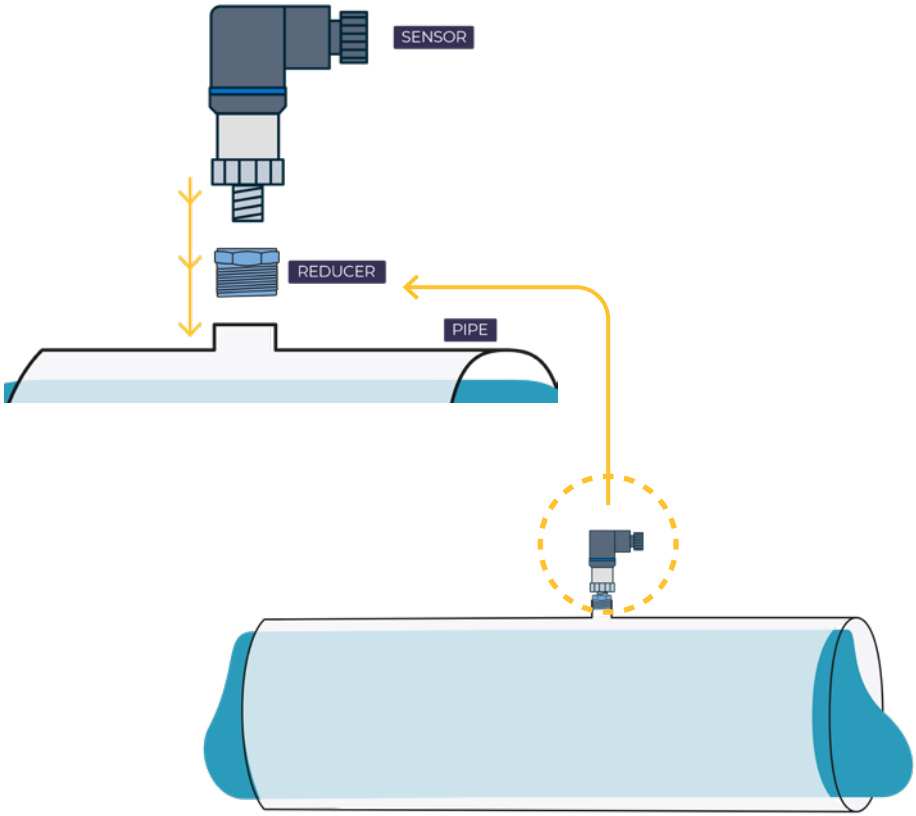
Installation

Next, two different methods to assemble and install it are shown.

- Option A (recommended)

  - The pressure sensor is screwed directly to the pipe through the adapter.

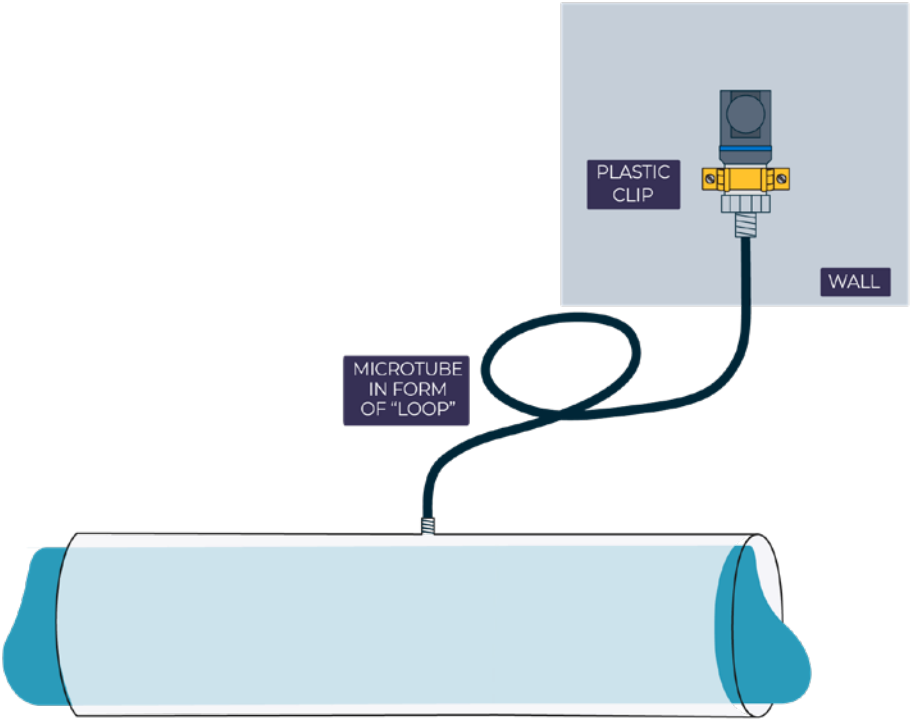
  - Along with the sensor, a **½ to ¼ inch "reducer" adapter** is supplied with which the sensor and the pipe can be isolated from any potential differences. The adapter must be installed as shown in the image.



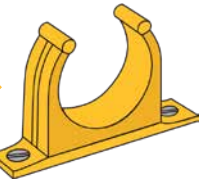
- Option B

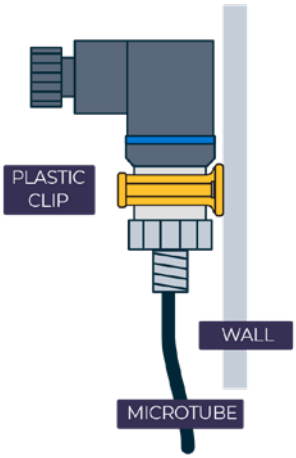
  - The pressure sensor is isolated from the pipe by a microtube.

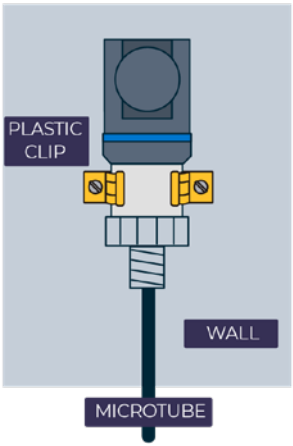
  - Below is a complete diagram of its assembly and installation where the sensor is connected to the pipe through a microtube and in the form of a "loop".



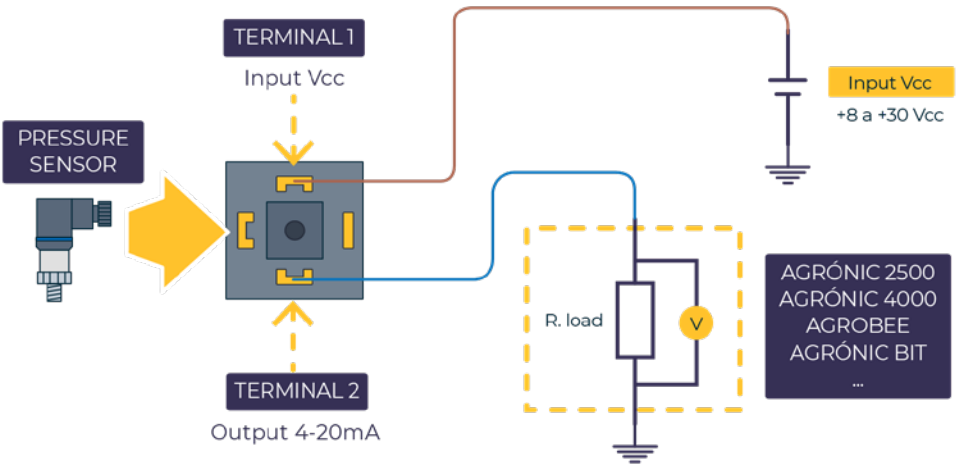
The sensor should be isolated from earth ⏚ through a plastic clip, or similar, as shown in the following image.





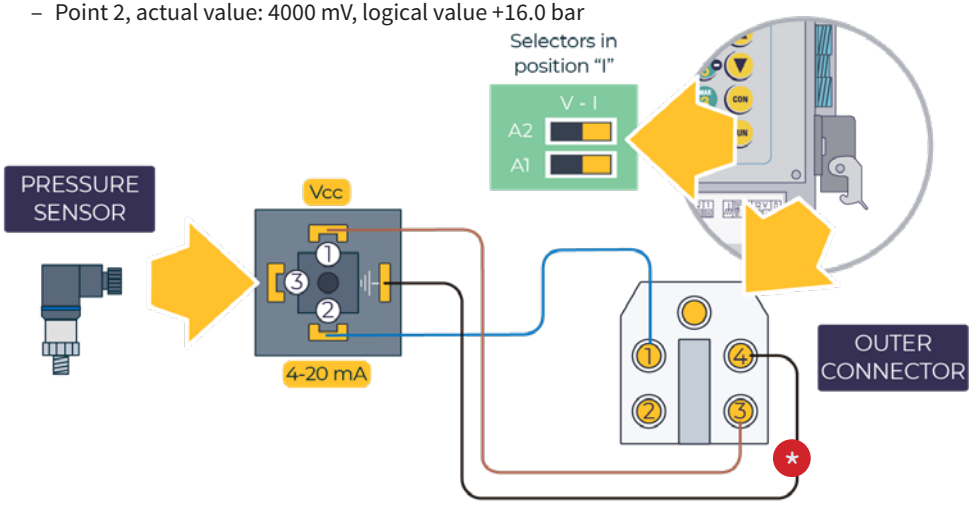


Connected



EXAMPLE OF A CONNECTION TO AN AGRÓNIC 2500 WITH OPTION FOR 2 ANALOGUE INPUTS:

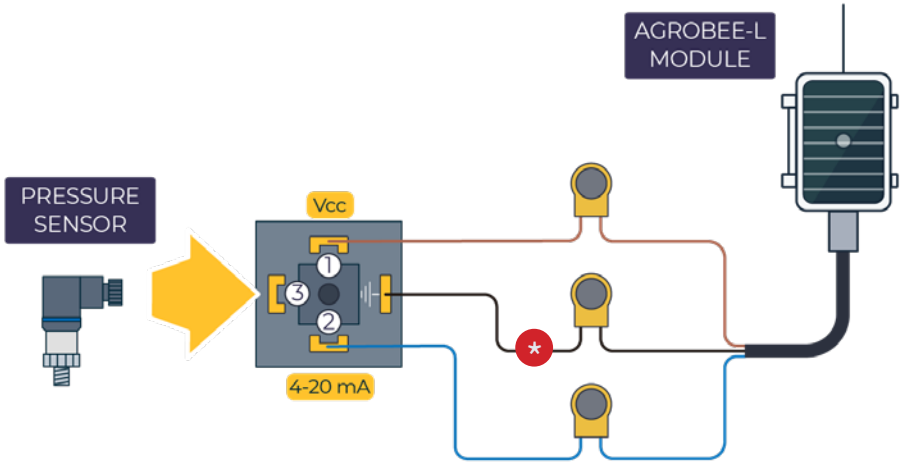
- Place the internal selector of the Agrónic 2500 in position "I" (current).
- Indicate in "Settings – Installer" that the input is going to measure current.
- Connect the sensor as shown in the figure.
- Configure a sensor and format with two calibration points:
  - Point 1, actual value: 0800 mV, logical value +00.0 bar
  - Point 2, actual value: 4000 mV, logical value +16.0 bar



IMPORTANT

Required assembly to connect * to AgroBee, AgroBee-L, Monocable, Radio modules and in controllers powered at 12 V without ground reference.

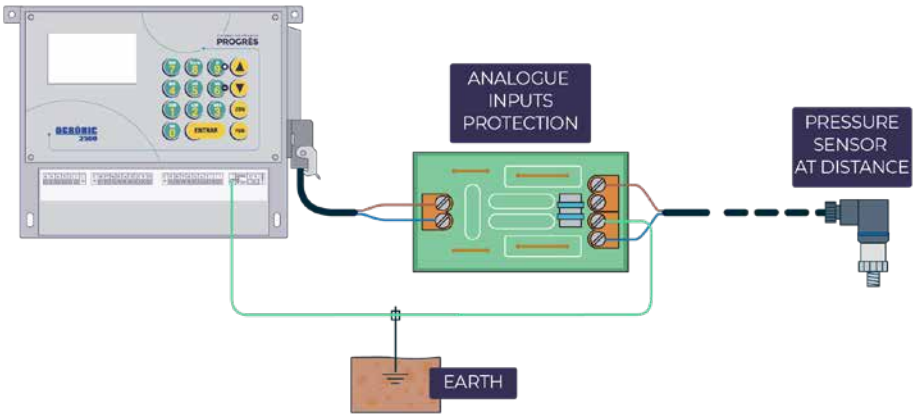
EJEMPLE OF A CONNECTION TO AGROBBE-L MODULE:



Sensor installation over long distances

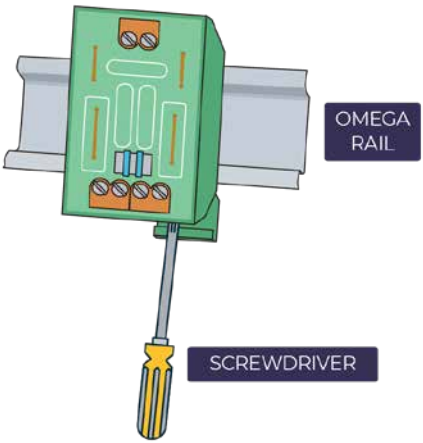
In installations where the pressure sensor must be located at a certain distance from the reading point, it is recommended to install an "Analogue input protection, code 06140188", which protects the equipment against the effects generated by storms with electrical surges. If the distance is short or because the sensor is located at the same point of the reading, protection is not necessary, although it is recommended.

The protection must be placed next to the programmer or reader and in the correct direction, as shown in the figure. An earthing spike must be placed next to the protection so that it can divert power surges. Connect the programmer's earth connection to the same earth rod.



The protection is installed inside a box in which the tightness is ensured and it is close to the earth spike.

The circuit has a base to be mounted on a DIN rail. To assemble it, first place one end of the base anchor and then apply light pressure so that the other end enters. To remove it, lever with a screwdriver to release the anchor.



Compatibility table

A2500	A4000	A5500	A7000	ABIT	AGROBEE-L	AGROBEE	MONOCABLE	RADIO
✓	✓	✓	✓	✓	✓	✓	✓	✓

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