

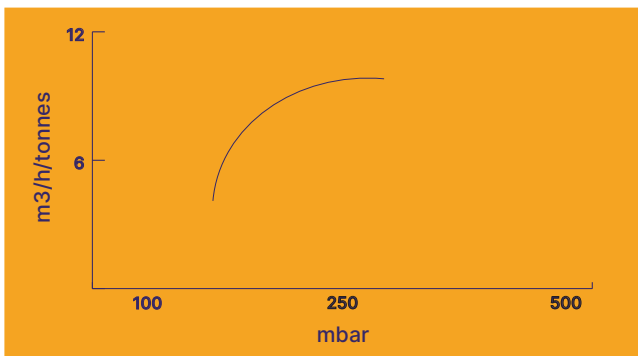
# iGRAIN Plenum Pressure Sensor

For aeration monitoring and air flow calculation

The iGRAIN Plenum Pressure Sensor confirms that the aeration control occurs at the right time. Situated in the silo plenum space or in the transition box from the aeration fan, the pressure sensor confirms that the aeration fan is running, which is necessary because when the iGRAIN dashboard software determines that the fans should run, then an alarm will be triggered if it does not happen. And vice versa, if the fan is running when the software has calculated it is not advantageous, then another alarm will be triggered.

The air flow through the grain during aeration is also important. The aeration control depends on the silo size, the commodity, and the climatic zone etc. and must be matched with the air flow. When the pressure-flow diagram is provided to iGRAIN the software is set up to show the real air flow through the silo; shown as m3/tonnes/hours or CFM per tonnes. This enables a better aeration control.

### Pressure Flow Diagram:

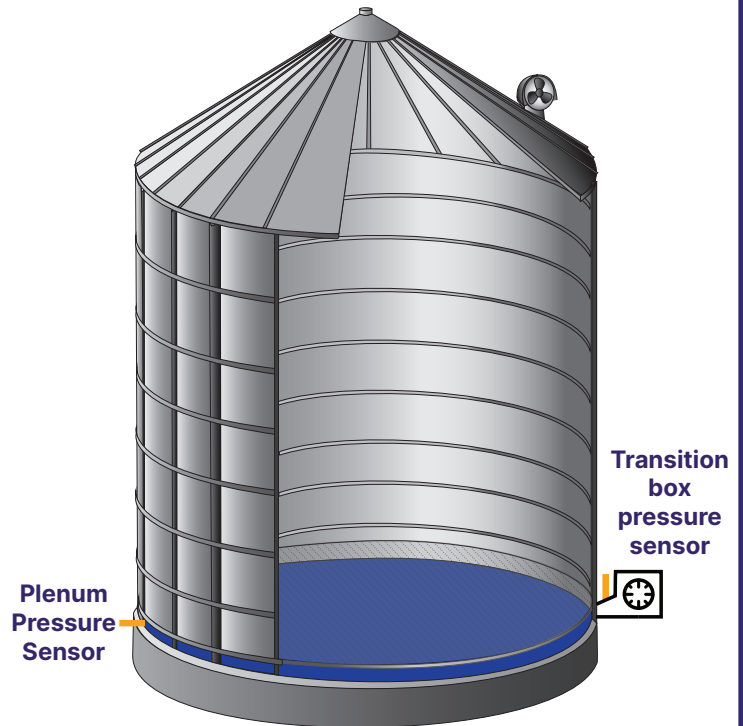


The advanced automatic iGRAIN aeration control system makes use of the flow rate calculating when to start/stop the fans.

This is important to reach the moisture and temperature target for the grain condition in the most efficient way.

The pressure sensors are connected to the iGRAIN AIO-Hub. A CAT6 cable can be used for both power and the MODBUS data communication.

The AIO-Hub can be connected to other sensors in the AIO family since they share the 24 VDC and the universal MODBUS communication protocol.



Mount the sensor on the aeration fan transition box or directly in the plenum space

### Sensor specifications

Part no.	1044-000
Range	-1 bar - +1 bar
Communications protocol	MODBUS RTU
Power input	24 VDC



Plenum Pressure Sensor



Power supply and signal hub

