

All-In-One Sensor Cables: AIO and AIO+

Monitoring CO₂, grain moisture, and temperature, Additionally the AIO+ monitors organic volatile gasses

The iGRAIN AIO Sensor Cables combine several different digital sensor technologies into one cable. Ensuring a cost efficient total monitoring system, the iGRAIN AIO Sensor Cables can be used as the only monitoring solution in a single silo. It can be supplemented with additional iGRAIN Temperature Sensor Cables.

All-In-One

- CO₂ monitoring for early infestation detection
- Moisture monitoring
- Temperature monitoring
- Headspace humidity monitoring
- Grain level monitoring
- Additional sensors according to customer needs
- AIO+ only: Organic volatile gasses monitoring

Advantages

- Advanced total monitoring system in one cable
- Intelligent use of sensor technology reduces the amount of monitoring cables needed
- Smart communication

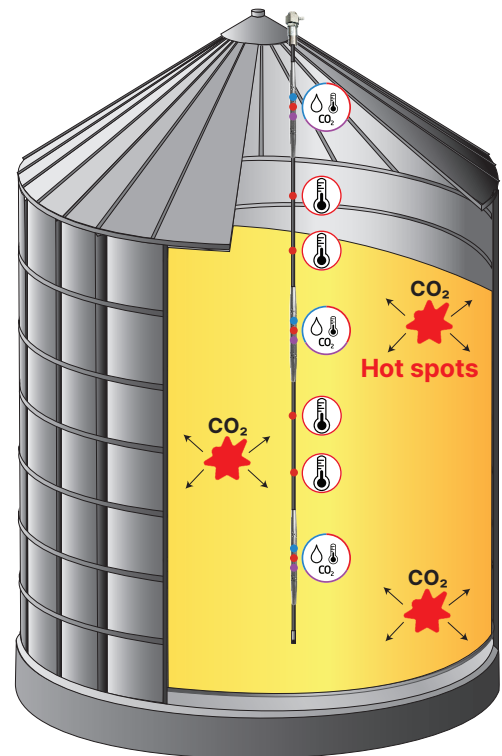
Interface / Software

- MODBUS communication
- Sensors connect directly to the iGRAIN control board or any PLC/SCADA system or other platforms
- Automatic aeration control including roof vent control
- Inventory management

Phosphine safe cables

The iGRAIN AIO Sensor Cables are available in a special phosphine safe version. This ensures that the sensors are not damaged during phosphine fumigation.

All-In-One Sensor Cable



Early detection of infestation

Technical specs.	AIO Sensor Cables	AIO+ Sensor Cables
Temperature sensors	One temperature sensor per 2.0 m, up to 30 sensors / cable	
Measure range	-20°C to +70°C, resolution +/- 0.2°C	
iGRAIN moisture sensor	8-24% H ₂ O, resolution 0.1% moisture	
Head space humidity	5-99% rH, resolution 0.1% rH	
CO ₂ sensor	0-40,000 ppm	
iGRAIN inventory management	Accuracy typically 2-4% (depending on number of sensor cables)	
Organic volatile gases *	NA	0-10,000 ppm / 0-10%
iGX sensor *	NA	0-100% (calibrated)

* The special iGRAIN AIO+ Sensor Cables can be calibrated to different applications. Standard calibrations exist for: Wheat ripeness, oil seed vapours, wood chips / pellets, or feed pellets.



Automatic monitoring with the iGRAIN Smart App

