

Prevent

ENVIRONMENT
SMART CONTROLLER



ATRONIA

TECH THAT MAKES SENSE

atronia.eu

PREVENT

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PREVENT is an **all-in-one heating systems control and monitoring device**, specially designed to:

- **Monitor real-time** smoke, temperature and humidity conditions of the wind turbine generator and nacelle;
- Enable users to **program/force system modes**, such as "Humidity Control", "Temperature control" and others;
- **Provide several safety features**, from two smoke detectors to individual 16A protection and thermal relay for the outputs.

PREVENT's heating control is achieved by two external standard "Schuko" plugs, each using two different phases (to balance phase output) that accept up to 16A (230V) heaters on each.

An emergency button is also a standard safety feature.

Why?



Reduction of down time up to 60%

Estimated ROI: 1 year

Sensors & Alarms

FIREFLY was designed to work with **two ATR - EXT-SHT485**, one on the inside of the unit and one external, allowing for an accurate measurement of:



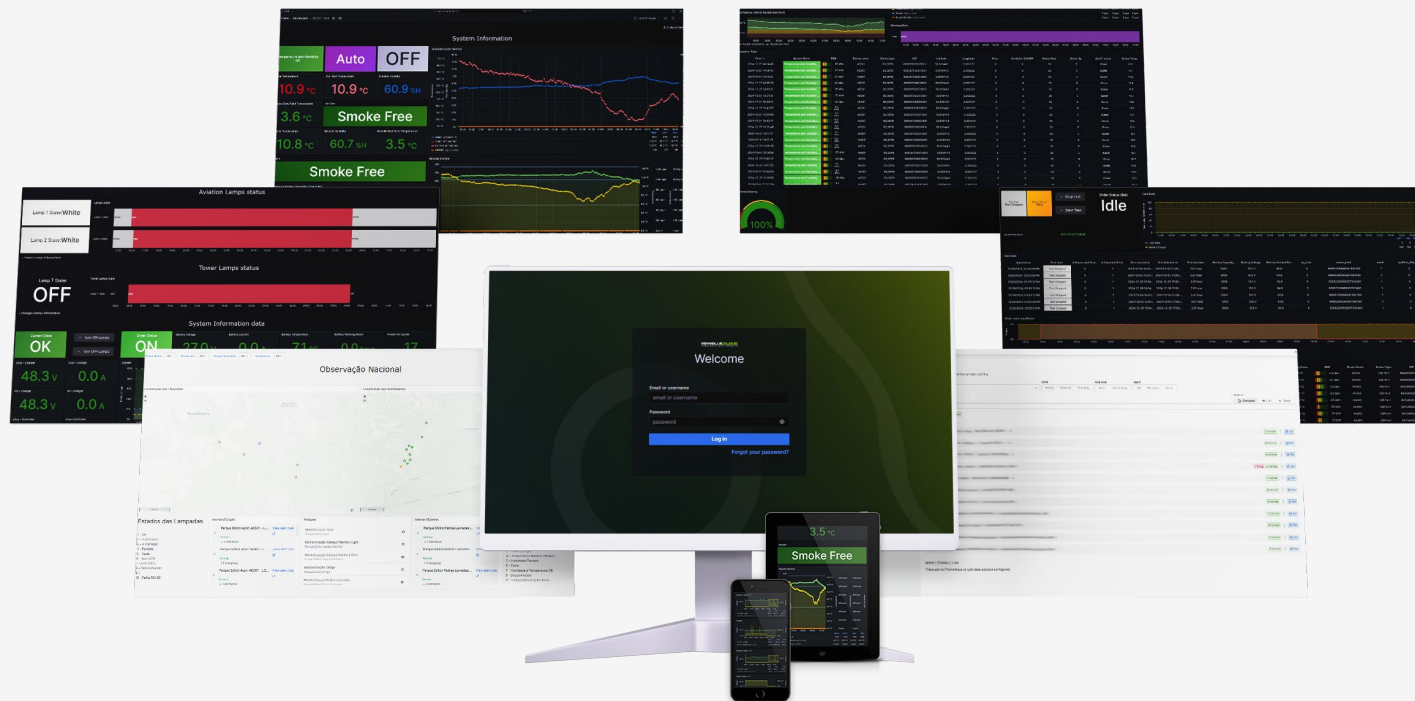
What	Measure	Accuracy
Temperature	-40°C to 80°C	+/-0.5°C
Humidity	0-100% HR	3% (at 25°C
Smoke	0-100000 ppm	10 pps + 5% fs & 2< response time

Dual Output

FIREFLY features two open contact relay outputs that **can be configured according to your needs:**

- **External Alarms** - Connection to Wind Tower or third-party alarm systems;
- **Specific Alarms** - High Temperature/Humidity, No Energy, etc.;
- **Automatic Mode** - Work in automatic with Web Configured thresholds;
- **Temperature control** - Of heating systems, used together with external humidity/temperature probes.





SENSBLUE.CLOUD

TURN DATA INTO INSIGHTS



SENSBLUE.CLOUD

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PREVENT is a part of our **SENSBLUE.CLOUD platform** which means that:

- **All data is seamlessly transferred** to the monitoring server network;
- **All data fees are already included in the product** (no need for external SIM cards) allowing for a quick installation and deployment*.
- You are **granted access to your FIREFLY system**, and user access level is configurable, such as each individual park/group can only be monitored by its person in charge.

Keep your data up to date.

Our servers are in Europe and **each partner is attributed to an independent machine**, further increasing data safety and backup.

All data is backed up every week and available for viewing and downloading at all times.

Secured communications via HTTPS POST are standard. VPN connection is available upon request.



** EU countries only. After one year, conditions may apply.*





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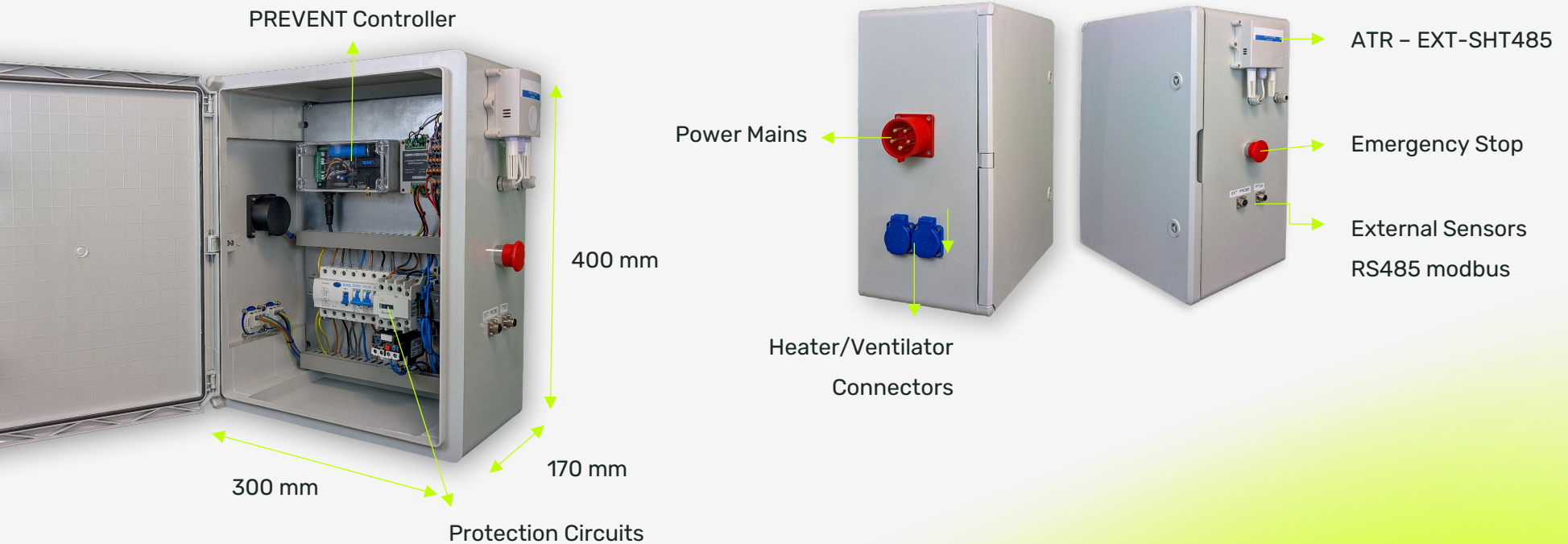
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installation & specs



Installation & Specs

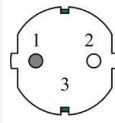
PREVENT was designed with size in mind. Developed for very limited space requirements in Wind Turbines, its size is just **300x400x170 mm** and weighting less than **5 kg**.



System Specifications

PREVENT was developed with highly demanding requirements and to be able to adapt to different wind turbines.

System specs		
Protection rating	IP65	--
Humidity (Relative)	up to 95 (non condensating)	%
Measurement Interval	1	minute
Internal Battery duration (1h Tx, LiPo)	700	hours
Working Temperature	-30 .. 80	°C
Storing temperature	20 .. 80	°C
Max output power (single output)	3500	W
Output voltage	220	VAC
Main Input	Three Phase	--
External sensors' power	12 V @ 1 A Max.	--
Radio specs		
Radio frequencies	QUAD-BAND (850/900/1800/1900)	MHz
Radio power	Class 4 (2w@850/900) Class 2 (1w@1800/1900)	--

Connections	
Heater connection	
1 - L	
2 - N	
3 - Earth	
Power In (cable)	
1 - L1 (GREY) - ELECTRONICS (<10W)	
2 - L2 (BLACK) - Max. 3500W	
3 - L3 (BROWN) - Max. 3500W	
4 - N (BLUE)	
5 - EARTH (GREEN/YELLOW)	
External MODBUS PROBES (cable)	
1 - RS485 A (YELLOW)	
2 - RS485 B (BLUE)	
3 - GND (BLACK) 4 - 12VDC (RED)	

Compliance
EN 61326-1:2013 IEC 61000-4-4 IEC 61000-4-2 IEC 61000-4-5 IEC 61000-4-3
<i>Please refer to ATRONIA for an updated compliance status.</i>



A low-angle, close-up photograph of a white wind turbine against a dark, overcast sky. The turbine's blades and nacelle are visible, with one blade extending towards the top right corner of the frame.

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