

SMARTPILOT WIRE



The **SMARTPILOT WIRE** is a Class C LoRaWAN® actuator that monitors and controls up to 6 operating modes for any electric heater as well as any active load (ON/OFF) driven by a relay.

APPLICATIONS

- Smart Building – Electric heater and water heater remote management .
- Demand side management – Active load control (ON/OFF) of any device driven by a relay.
- Smart Lighting – Switch ON/OFF street lights.
- HVAC & building management – Monitor and control valves, pumps, fans, heaters/coolers, lights...

BENEFITS & KEY FEATURES

- LoRaWAN®, Class C
- Easy to use and deploy
- Active load monitoring and control
- Data compression for batch status report
- Class II protection

QUALITY & RELIABILITY

- RED, RoHS



The Class C LoRaWAN® **SMARTPILOT WIRE** from WATTECO is a long range, high performance and high quality wireless actuator with two specific operating modes:

- Smart pilot wire actuator to monitor and control electric heaters.
- Switched relay to monitor and control any device connected to the relay (street lights, residential lights, pumps, fans, valves, motors, generators, ...).

When operating as a **SMARTPILOT WIRE**, the actuator controls up to 6 heating modes:

- Comfort: track, monitor and report the temperature set point of the heater.
- Eco: temperature set and track 4°C below the temperature set point of the heater.
- Anti-freeze: maintain room temperature at +5°C.
- Stop: no heating.
- Comfort -1: Temperature set and track 1°C below the temperature set point of the heater.
- Comfort -2: Temperature set and track 2°C below the temperature set point of the heater.

The **SMARTPILOT WIRE** status can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduces the amount of data transmitted when reporting the status history of the **SMARTPILOT WIRE** output.

THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

TECHNICAL DATA

RADIOFREQUENCY	Frequency (MHz)	Transmit Power (dBm)	Receiver Sensitivity (dBm)
	EU: 863-870	+14	-140

FIRMWARE

Protocol	LoRaWAN®, Class A.
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
Application layer	ZCL (ZigBee Cluster Library) – to be interpreted by the remote server
Measurements & Transmission cycles	Configurable from 10 minutes to 24 hours
Data compression	Yes (differential coding)

ELECTRIC HEATER APPLICATION

Comfort	Track the temperature set point of the heater
Eco	Temperature set and track 4°C below the temperature set point of the heater
AntiFreeze	Maintain room temperature at +5°C
Stop	No heating
Comfort -1°C	Temperature set and track 1°C below the temperature set point of the heater
Comfort -2°C	Temperature set and track 2°C below the temperature set point of the heater

SWITCHED RELAY CONTROL

Switch ON / OFF	
-----------------	--

POWER SUPPLY

Power supply (V _{AC})	230V / 50Hz
---------------------------------	-------------

USER INTERFACES

LED indicator	3 LEDs for configuration and network pairing
Magnetic switch	Reset, ON/OFF

ENCLOSURE	Size (mm)	IP rating
	76 x 41 x 17	IP30

ENVIRONMENT	Operating temperature	Storage conditions
	-20°C to +50°C	+10°C to +30°C +20%rH to +60%rH

DIRECTIVES & STANDARD

Radio Equipment Directive 2014/53/EU, RoHS	  
--------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-027	LoRAWAN® SMARTPILOT WIRE SENSOR