

LoRaWAN™ SMART PILOT WIRE



The SMART PILOT WIRE is a Class C LoRaWAN™ actuator that monitors and control up to 6 operating mode 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 devices driven by a relay
- Smart Lighting – Switch ON/OFF street light
- 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

- CE Compliant
- RoHS compliant
- Radio-equipment directive 2014/53/UE



The Class C LoRaWAN™ SMART PILOT WIRE from nke Watteco is a long range, high performance and high quality wireless actuator having two specific operating mode:

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

When operating as a SMART PILOT WIRE, the actuator control 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 SMART PILOT WIRE status can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduce the amount of data transmission when reporting the status history of the SMART PILOT WIRE output .

NKE WATTECO, YOUR PARTNER IN SMART SENSORS & ACTUATORS

We are a European leader in designing and manufacturing highly reliable and low power consumption smart sensors, actuators and multiprotocol remote data solutions.

nke Watteco is an adopter member of the LoRa® Alliance

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TECHNICAL CHARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 863-870 US: 902-928 (On demand)
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-140
Antenna	embedded
FIRMWARE	
Protocol	LoRaWAN™, Class C
Transmission cycles	10mn, 1h, 12h or defined by network
Activation method	Activation by Personalization (ABP) Over-The-Air Activation (OTAA)
Data encryption	AES128
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	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
SWITCHED RELAY CONTROL	
ON	Switch ON
OFF	Switch OFF
POWER	
Power supply (V _{AC})	230
INTERFACE	
LED Indicator	3 LEDs for Configuration, Network pairing & Activity on inputs
Magnetic Switch	Reset, ON/OFF
MECHANICAL FEATURES	
Dimension (mm)	76 x 41 x 17
Operating temperature (°C)	-20 / +50
DIRECTIVES & STANDARD	
EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1	
CE and RoHS recommendation compliant	
NF EN 55014-1 and 2, NF EN 55022 (June 2012), EN 60335 Class II	



ORDERING INFORMATION

REFERENCE	MODEL DESCRIPTION
50-70-027	LoRaWAN™ SMART PILOT WIRE