2AR Groupe

MADE IN FRANCE

nke WATTECO

OUR EXPERTISE

Nke Watteco is one of the European leader in the design and manufacturing of smart sensors and multiprotocol remote data collection (GSM, LoRa, SigFox, Wireless MBus...) solutions.

Our leadership is backed by over 30 years of experience in the design, development, industrialisation and manufacturing of electronic instruments as thermostat and automat for harsh or highly secure environments.

OUR SKILLS

Our overall competence in electronics, industrial computing and boards, mechanical and softwares allows the design, within a controlled lead time, of a product with a level of reliability and performance in keeping with the customer's expectations.

We are a major player in the Internet of Things (IoT) thanks to our ideally suited range of sensors for:

- SMART METERING
- SMART BUILDING
- SMART CITY
- SMART AGRICULTURE
- SMART MANUFACTURING

- Low Power
- Digital electronic
- Radiofrequency
- Embedded system
- Electromagnetic measurements
- Mechanical design
- Plastics engineering
- IHM interfaces

LoRaWAN™

FUNCTIONS	VISUAL	DESIGNATION	CLASS	POWER SUPPLY & AUTONOMY - SF12	REFERENCE
		Harvesting THr sensor: Indoor Temperature, relative humidity, Luminosity measurement	A	3,6V- 1,1Ah lithium battery, solar cell Autonomy: 3 years without light - 1 measure/10 mn & 1 report/30 mn	50-70-007
		Indoor THr sensor: Indoor Tempertaure & relative humidity measurement	A	3.6V- 3600mAh lithium battery Autonomy: 9 years - 1 measure/10mn & 1 report/h (data compressed)	50-70-053
		Indoor Temperature sensor: Indoor Tempertaure measurement	A	3.6V- 3600mAh lithium battery Autonomy: 9 years - 1 measure/10mn & 1 report/h (data compressed)	50-70-085
		Remote temperature sensor: Temperature measurement to supervise hot spots, cold chain & buildings	A	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure/h & 1 report/day (data compressed)	50-70-043
		CELS'O sensor: Cold temperature measurement locallty store 30 days of data on the basis of 1 measure / h	A	3.6V- 3600mAh lithium battery Autonomy: > 7 years - 4 measures/h & 1 report/day (data compressed)	50-70-049
		ATM'O sensor: Outdoor Temperature, relative humidity & atmospheric pressure measurement	A	3.6V- 7200mAh lithium battery Autonomy: >5 years - 1 measure & 1 report/10mn; >8 years - 2 measures & 1 report/h	50-70-099
		Pulse S0 sensor AtEx: counting pulses generated by a water/gas meter any pulse meter in technical indoor column	A	3,6V / 1200mAh lithium battery AtEx Zone II compliant Autonomy: > 3 years for 1 measure/h & 1 report/day	50-70-001
		Pulse Sens'O sensor: Up/Down pulse couting for water/ gaz/electric/ energy meters. Capability to monitor up to 3 meters simultaneously. **Collection :** -Remote Outdoor Pulse SENS'O -Remote Outdoor Pulse SENS'O AtEx -Waterproof remote Pulse SENS'O -Waterproof remote Pulse SENS'O AtEx	A	3,6V / 3600mAh lithium battery Autonomy: >10 years: 1 measure/h & 1 report/day	50-70-014 50-70-072 50-70-039 50-70-051
		IN'O sensor: Transforming any type of binary I/O sensor into a remote wireless sensor report from 10 inputs & 4 outputs	A C	3,6V / 3600mAh lithium battery 9V-24V / 300mW external power supply Autonomy: No limit or 10 years for 1 measure/h and 1 report/day	50-70-016 50-70-087
		Press'O sensor: Two analog input transforming any gauge type of 0-10V, 4-20mA analog sensor into a remote wireless sensor	A	3,6V / 3600mAh lithium battery 9V-24V / 300mW external power supply; Autonomy: 5 years for 24 measurements & 1 report/day	50-70-017
Modbus		**ModBus RS485 sensor:** Data collection from any ModBus RTU slave equipment	A C	3,6V / 3600mAh –lithium battery or 9V-24V 100mW – external supply Autonomy: No limit or >10 years - 4 bytes every 30mn in SF12	50-70-080 50-70-109
		TIC Sensor: Remote reading of electronic & electricity meters from ENEDIS network, via the TIC output. Sensor collection : TIC Harvesting ; TIC +2S0; TIC +2S0 +2 Tores; PME PMI	A C	Harvesting- External 230 VAC - External 3,6V-24 VDC or 6V-18Ah battery; I1-A (Linky) Autonomy : No Limit	50-70-008 50-70-002 50-70-038 50-70-045

Temperature | Cold | Humidity | Water | Luminosity | Gas | Energy | State report & control | Analogy

LoRaWAN™

FUNCTIONS	VISUAL	DESIGNATION	CLASS	POWER SUPPLY & AUTONOMY - SF12	REFERENCE
		Flash'O sensor: transmitting the accumulated flash LED numbers from any pulse meters: water/gas/electricity/energy	A	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure & report/day; >8 years - 1 measure/h & 1 report/day	50-70-071
		Intens'O sensor: measures the intensity of electrical power and determines the state of the equipment	A	3,6V / 3600mAh –lithium battery Autonomy: 10 years - 1 measure/mn & 1report/h; 7 years - 1 measure/2 sec. & 1 report/4h	50-70-098
		Smart Plug: Measure & report the energy, control the connected load, measure the quality of electrical network	C	230VAC. +10%/-15% ; 50Hz Autonomy: No limit	50-70-003
		Smart pilot wire: capability to control electric heater ; relay control; actuator status report	C	230VAC. +10%/-15% ; 50Hz Autonomy: No limit	50-70-027
		Triphas'O sensor: Measurement for active & reactive energy and power with rogowski coil; feedback of load curve	C	230VAC.- 400VAC +10%/-15% Autonomy: No limit	50-70-105
		Ventil'O sensor: Measure and transmit over long distance air depression in the centralized ventilation chambers, sanitary, gas	A	3,6V / 3600mAh lithium battery Autonomy: >10 years: Pressure only - 1 measure/h & 1 report/day > 10 years: 1 measure/15 mn &1 report/6h	50-70-101
		Clos'O sensor: Help to determine if a door is properly closed; tamper detection	A	3,6V / 3600mAh lithium battery Autonomy: > 7 years with 1 report/day	50-70-108
		Magneto sensor: Door opening detection (Indoor)	A	3,6V / 1200mAh lithium battery Autonomy: > 3 years for 1 transmission per day	50-70-001
		Water meter sens'O: Direct & reverse flow counting for ARAD Gladiator water meter; Water leakage detection	A	3,6V / 3600mAh lithium battery Autonomy: 15 years with 1 report/day	50-70-011
		Lev'O sensor: Measurement of the absolute pressure of liquid (water, oil, etc.)	A	3.6V- 7200mAh lithium battery Autonomy: >10 years - 1 measure/day & report/day	50-70-089
		VAQA'O sensor: Ambient temperature measurement, hygrometry, atmospheric pressure, lux. and VOCs (volatile organic compounds) + CO_2 & détection de présence	A	3,6V / 7500mAh lithium battery 9V-24V / 300mW external power supply Autonomy: >3 years - 1 measure/10 mn & 1 report/h	50-70-074
		Hub'O gateway: Dedicated to communications with connected objects with low energy consumption. Hub'O integrates a LoRaWAN 1.0 EU network server and communicates with an external application server or an automation equipment according to the protocols HTTPS- JSON or ModBus RTU / TCP with internal decoding of the data; transmission 3G & Ethernet	C	230VAC, 50Hz 9V battery for transmitting a power failure alarm	50-70-075

Level of liquid | Atcive & reactive energy | Air quality | Open/Close detection | Air depression | Meter reading | Pressure | Power | Gateway

sigfox
Make Things Come Alive

FUNCTIONS	VISUAL	DESIGNATION	POWER SUPPLY & AUTONOMY - SF12	REFERENCE
		Indoor temperature sensor: measures and transmit over long distance indoor temperature in buildings or houses	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure/h & 1 report/day; 9 years - 1 measure/h & 1 report/day (data compressed)	50-09-037
		Indoor THr sensor: Indoor temperature & relative humidity measurement in buildings or houses	3,6V- 3600mAh lithium Autonomy: 9 years - 1 measure/h & 1 report/day (data compressed)	50-09-036
		Outdoor temperature sensor: transmits over long distance and in real time accurate temperature measurements; measures UDD (min, max, average)	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure/h & 1 report/day ; 9 years - 1 measure/h & 1 report/day (data compressed)	50-09-039
		Remote temperature sensor: Temperature measurement with a remote probe (5 meters) in buildings, temperature-controlled rooms, and cooling towers	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure/h & 1 report/day (data compressed) ; 9 years - 1 measure/h & 1 report/day (no data compression)	50-09-065
		Pulse S0 sensor: transmits data from any pulse meters: water, gas, electricity, energy. Sensor collection **:** Outdoor Pulse S0; Outdoor Pulse S0 AtEx; Waterproof Pulse S0	3.6V- 3600mAh lithium battery Autonomy: 9 years - 1 measure/h & 1 report/day (data compressed)	50-09-038 50-09-041 50-09-063
		Flash'O sensor: counts and measures the light pulses of any electronic meter: water, gas, electricity, energy	3.6V- 3600mAh lithium battery Autonomy: >10 years - 1 measure & 1 report/day; 8 years - 1 measure & 1 report/h (data compressed)	50-09-072
		Alarm report sensor: transforms any dry contact sensor into a remote wireless sensor that monitors industrial equipment status	3.6V- 3600mAh lithium battery Autonomy: >10 years- 1 input state change reporting/day	50-09-046
		VMC gas ventilation sensor : measures air depression & temperature in building ventilation chambers with a remote probe **Sanitary ventilation sensor :** detects the position On/Off of the equipment by depression measurement	3.6V- 3600mAh lithium battery Autonomy: >8 years - 1 measure/h & 1 report/day (data compressed)	50-09-080 50-09-034
		Skydome sensor: verifies that a roof window is properly closed and detects a change of position thanks to an onboard inclinometer	3.6V- 3600mAh lithium battery Autonomy: > 8 years- 1 measure / 10 secondes & 1 report/day	50-09-078

They trust us:

Distributor's stamp:

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