



Product catalogue

OPÉRATEUR DE SERVICES IoT

nomosense

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1.Environmental sensor

1.1. Temperature and humidity measurement

Indoor :



The **Double Temp** sensor can be used to measure the temperature inside or outside buildings (storage rooms, cold rooms, etc.).

Main features

	-30° et + 70°
Battery life	Up to 10 years
Box	IP 68
Sizes (H x W x D)	132 x 62 x 34 mm
Communication	LoRa
Manufacturer	adeunis



The **ACW-TI-G** sensor allows to measure the temperature of a fixed or mobile equipment while localizing it.

Main features

	-20° and +55° in operation
Battery life	Up to 5 years
Box	IP 20
Sizes (H x W x D)	80 x 80 x 35 mm
Communication	LoRa
Manufacturer	

Outdoor :



The **weather station** can measure outdoor temperature and humidity, barometric pressure, precipitation, dew points, solar radiation, fine particles. It can also get wind speed and direction.





Main features

	-40° +65°
	to 0% at 100%
	0 at 6553 mm
	0 à 1800 W
	PM1, PM2.5, PM10
Battery life	On solar panel
Box	IP66
Sizes (H x W x D)	80 x 80 x 35 mm
Communication	LoRa
Manufacturer	enginko



The MCF16 sensor from Enginko measures temperature, humidity and pressure outside buildings.

Main features


	-10° +70°
	De 0% à 100%
	300 à 1100 hPa
Battery life	5 years
Box	IP67
Sizes (H x W x D)	150 x 150 x 40 mm
Communication	LoRa
Warranty	1 year
Manufacturer	

1.2. Water metering

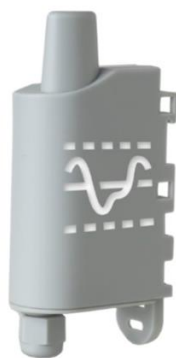


Water Leak Spot sensor allows you to detect a water leak at a specific sport and be alerted for a quick intervention. It is triggered on event.

Main features


Life battery	
Box	IP67
Sizes (H x W x D)	105 x 50 x 27 mm
Communication	LoRa
Manufacturer	

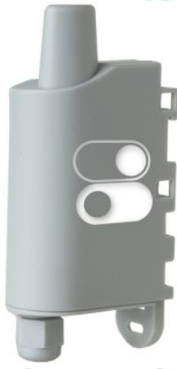
1.3. Digital and analog status feedback



The **Analog** sensor is a radio transmitter that can transform any type of 0-10V or 4-20mA sensor into a wireless communicating sensor. It allows to detect high or low threshold exceedances and to detect a change of state.

Main features

Trigger	On threshold overrun
Scope	Up to 10 km
Life battery	
Box	IP67 or IP68
Sizes (H x W x D)	132 x 62 x 34 mm
Communication	LoRa
Manufacturer	



This digital sensor is a ready to use radio transmitter allowing to get back events of TOR type (All or Nothing). It allows to detect high or low thresholds and to detect a change of status.

Main features

Trigger	On threshold overrun
Scope	Up to 10 km
Life battery	
Box	IP67 or IP68
Sizes (H x W x D)	132 x 62 x 34 mm
Communication	LoRa
Manufacturer	adeunis

1.4. Management of the waste filling rate



The **ACS-SWITCH-RANGE** sensor is autonomous, wireless and configurable to adapt to the environment where it is installed. It allows to manage the filling levels of containers (skips, garbage cans, tanks...) by sending an alert when a threshold is exceeded.

Main features

Trigger	On threshold overrun
Life battery	To 2 at 4 years
Box	IP54 or IP66
Sizes (H x W x D)	97 x 60 x 23 mm
Communication	LoRa
Manufacturer	ino-sense



The **Waste Bin** sensor measures the level of solid waste by ultrasound in containers (dustbins, skips...). This prevents overflows and helps to simplify waste collection.

Main features

Trigger	On threshold overrun
Scope	Up to 15km
Life battery	Up to 14 years
Box	IP67
Sizes (H x W x D)	133 x 92 x 170.5 mm
Communication	LoRa
Manufacturer	Tekelek

1.5. Water level measurement



This device **ultrasonic non-contact distance measurement** allows remote monitoring of water levels (floods, wastewater, sewer, irrigation ponds...), tank filling level, waste container filling level, presence of objects or snow level.


Main features

Monitoring	In real time
Life battery	3 at 10 years
Box	IP67
Sizes (H x W x D)	170 x 81 x 70 mm
Communication	LoRa
Manufacturer	



The **piezoresistive pressure measurement** allows remote monitoring of water level and depth: tank filling level, groundwater level and measures water pressure and temperature.

Main features

Monitoring	In real time
Life battery	5 at 11 years
Box	IP66, IP67 or IP68
Sizes (H x W x D)	135 x 81 x 70 mm
Communication	LoRa
Manufacturer	

1.6. Temperature road



WISECOW P is an energy autonomous and communicating road temperature sensor with twice functionality: vehicle detection and road weather. This sensor can measure the traffic, detect the available places and measure the cold (frost, snow...).

Main features

Installation	No hindrance to snow removal or vehicles and high mechanical strength
Life battery	Up to 7 years
Box	IP67
Sizes (H x W x D)	57 x 54 mm
Communication	LoRa
Manufacturer	<u>TagMaster</u>



GLI Road is a sensor that measures the condition of the road surface. It can measure the freezing temperature, the height of the layer (water, snow, ice) and the adherence of the road.

Main features

Road condition indication	Dry, wet, snow, frost, ice, frost
Life battery	7 years on standby
Box	IP68
Sizes (H x W x D)	19 x 20 x 17,15 mm
Communication	LoRa
Manufacturer	

1.7. Air quality measurement

Indoor :



The Adeunis Comfort CO2 sensor allows periodic monitoring of temperature, humidity and CO2 concentration in enclosed spaces. Users can be directly informed of the CO2 level thanks to a light indicator on the housing.

Main features

	400 – 5000 ppm
	-40° +125°
	0 à 100 HR%
Box	IP20
Sizes (H x W x D)	111 x 61 x 40 mm
Communication	LoRa
Manufacturer	



The MCF LW12CO2 sensor measures temperature, humidity, pressure, light intensity, air quality and CO2 level inside buildings.

Main features


	-10° +60°
	de 0% à 100%
	300 à 1100 hPa
Life battery	5 years
Sizes (H x W x D)	120 x 80 x 25 mm
Communication	LoRa
Warranty	1 year
Manufacturer	

Outdoor :



The **INSAFE+ PMO** sensor is a particle, temperature, humidity and pressure sensor. It can be powered by a solar panel, preventing power failure during measurement and data transmission. It is mainly used to control the quality of outdoor air around the house and/or to monitor pollution near roads.

Main features


	PM10, PM2.5 et PM1
Life battery	On solar panel
Box	IP67
Sizes (H x W x D)	280 x 200 x 65 mm
Communication	LoRa
Warranty	2 years
Manufacturer	nexelec

1.8. Noise measurement



Powered by a solar panel, the **Ranos dB 2** noise sensor operates completely autonomously. It is used to measure decibels in indoor or outdoor areas.


Main features

Life battery	On solar panel
Box	IP67
Sizes (H x W x D)	193 x 246 x 252 mm
Communication	LoRa
Warranty	1 year
Manufacturer	



The **Ranos HD** noise sensor operates completely independently. It is used to measure decibels in indoor and outdoor areas.

Main features

Life battery	Lithium battery
Box	IP65
Sizes (H x W x D)	120 x 150 x 60 mm
Communication	LoRa
Warranty	1 year
Manufacturer	

1.9. Presence and light detection



The Adeunis Motion sensor optimises the comfort of occupants and the energy consumption of a building. It has 4 embedded functions: presence detection, luminosity detection, an alert button and a dry contact input.

Main features

Life battery	Up to 7 years
Box	IP20
Sizes (H x W x D)	111 x 61 x 50 mm
Communication	LoRa
Manufacturer	adeunis

1.10. Smoke detectors



The ISAFE+ Origin is a connected smoke detector that calculates an air quality index to alert you to smoke. It also incorporates temperature and humidity sensors.

Main features

Life battery	10 ans
Box	IP67
Sizes (H x W x D)	105 x 105 x 30 mm
Communication	LoRa
Warranty	5 ans
Manufacturer	nexelec

1.11. Water quality



Box

The XCI logger and transmitter will measure water quality with an integrated probe: conductivity, pH, dissolved oxygen, turbidity, temperature, ammonium/chloride/nitrate etc.

Main features

Temperature	-5° à 50°
pH	0 à 14 unités
Conductivity	5 à 350 000 µS/cm
Dissolved oxygen	0 à 20 mg/L
Turbidity	0 à 4000 NTU
Life battery	Panneau solaire ou batterie
Box	IP66 à IP68
Communication	GSM
Manufacturer	SDEC SOLUTIONS TECHNOLOGIQUES POUR L'ENVIRONNEMENT



Sonde

2. Counting sensors

2.1. Pedestrians and cyclists counting



CityRadar meter allows to count bicycles and pedestrian's way. It can also be used for non-intrusive counting of vehicles and motorcycle on one or two lanes. Thus, it is possible to know the speed, length classification, inter distance and to make individual or aggregated records.

Main features

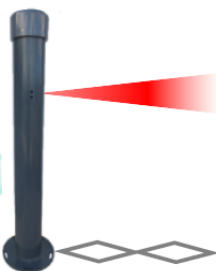
Use	Fixed or mobile, simultaneous detection of several moving parts
Hindsight	Up to 8 to 5 m wide for pedestrians and up to 15 m wide for vehicles
Life battery	On solar panel + 10 days on intern battrery
Box	IP66
Sizes (H x W x D)	36 x 32 x 23 cm
Communication	GSM
Warranty	2 years
Manufacturer	TagMaster



This MULTI counter will detect cyclists and pedestrians as well as their direction of travel thanks to the ZELT and PYRO electromagnetic loop sensors.

Main features

Hindsight	Up to 4 or 15 m for pedestrians and up to 7 m for bicycles
Life battery	2 years
Box	IP68
Communication	3G
Warranty	1 year
Manufacturer	



The PYRO sensor will detect cyclists and pedestrians and their direction of travel using the ZELT electromagnetic loop and infrared pyroelectric technology to detect the heat emitted by the human body.

Main features

Hindsight	Up to 4 or 15 m for pedestrians and up to 7 m for bicycles
Life battery	2 years
Box	IP66
Communication	3G
Warranty	1 year
Manufacturer	

2.2. Vehicles counting (trucks, two wheels, cars ...)



The **TrafficRadar** allows you to analyze and count two-wheelers, light vehicles and heavy vehicles on two lanes, one-way or bi-directional.

Main features

Recoil	To 15 m
Life battery	Solar panel + 10 days on internal battery
Box	IP66
Sizes (H x W x D)	36 x 32 x 23 cm
Communication	GSM
Warranty	2 years
Manufacturer	<u>TagMaster</u>



The **EchoRadar** will measure traffic for light and heavy vehicles in up to 12 parallel lanes and can also calculate vehicle travel times.

Main features

Recoil	To 70 m
Life battery	Solar panel
Box	IP66
Sizes (H x W x D)	
Communication	GSM
Warranty	2 years
Manufacturer	<u>TagMaster</u>

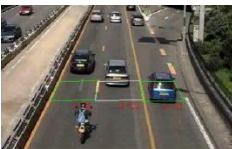
2.3. Traffic counting by camera



The **Axis camera** will analyze vehicles by length (3 measurement classes) up to 3 lanes uni or bidirectional. This makes it possible to measure the speed, the length of vehicles and the occupancy rate.

Main features

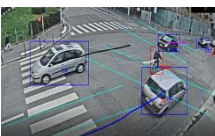
Box	IP66
Sizes (H x W x D)	Ø132 x 260 mm
Communication	GSM
Warranty	2 years
Manufacturer	<u>TagMaster</u>



The **Axis camera** will also be able to analyze bicycles, two-wheelers, light vehicles, heavy vehicles and buses in a parameterized area.

Main features

Box	IP66
Sizes (H x W x D)	Ø132 x 260 mm
Communication	GSM
Warranty	2 years
Manufacturer	<u>TagMaster</u>





The **LAPI camera** will read the license plates allowing to count the number of people and to determine the travel time of the vehicles on 25m of distance.

Main features

Box	IP66
Communication	GSM
Warranty	2 years
Manufacturer	TagMaster

2.4. Counting of parking spaces



The **Hybrid Magnetic Parking** Sensor detects and reports the occupancy of a parking space for active parking management (search, navigation or reservation).

Main features

Sensors	A magnetometer and a radar
Life battery	Up to 5 years
Box	IP67
Sizes (H x W x D)	145.4 mm and height max : 30.5 cm
Communication	LoRa
Manufacturer	BOSCH



The **ACS-Switch-Range** sensor detects the presence of a vehicle in a parking space. An ideal solution for counting in private parking lots thanks to the installation of a dynamic display that changes color according to the number of vehicles and the occupancy rate.

Main features

Life battery	From 5 to 7 years depending on the use case
Box	IP66
Sizes (H x W x D)	110 x 59 x23 mm
Communication	LoRa
Warranty	1 year
Manufacturer	ineo-sense



The Micro Pack Vario sensor is a self-contained, triggerless and easy to install license plate reading camera. The camera can read a plate in less than 20ms for vehicles up to 250 km/h. This solution is ideal for sites operating without barriers and without tickets.

Main features

Box	IP67
Sizes (H x W x D)	130 x 115 x 70 mm
Communication	GSM
Warranty	1 year
Manufacturer	SURVISION <small>ULTIMATE PLATE RECOGNITION</small>

2.5. Population counting via WiFi



Use the **cnPilot e410 or e600 wifi terminal** to count the population in public or private places. It is possible to know the number of people visiting the premises by capturing the Wifi connections from various terminals (smartphones, tablets, etc.).

Main features

Life battery	
Box	
Sizes (H x W x D)	e410 : 170 x 170 x 41 mm e600 : 180 x 180 x 42 mm
Communication	WiFi
Warranty	1 year
Manufacturer	Cambium Networks



Kerlink's Wanesy Wave sensor allows counting people or assets inside buildings. It integrates a scanning, counting and zoning application to know at any time the number of people present in a specific area, at any time of the day.


Main features

Life battery	On electrical outlet
Box	IP30
Sizes (H x W x D)	100 x 75 x 22 mm
Communication	LoRa
Warranty	1 year
Manufacturer	kerlink <small>COMPTES, LOGOS & BUSINESS</small>



The **Vector 4D** sensor from Irisys, counts people entering and exiting the building. The camera is 99% accurate, allowing the detection of employees and customers and measuring the waiting time of people.

Main features

Width of the field of view	1,6m to 5,1m
Sizes (H x W x D)	100 x 75 x 22 mm
Communication	Ethernet
Warranty	1 year
Manufacturer	 irisys

3. Geolocation sensor

3.1. Geolocation and equipment inventory



The Compact Tracker has a long-lasting battery associated with a high-performance GPS receiver that allows you to track equipment both inside and outside buildings.

Main features

Life battery	Up to 10 years
Box	IP67
Sizes (H x W x D)	76 x 145 x 42 mm
Communication	LoRa
Warranty	1 year
Manufacturer	

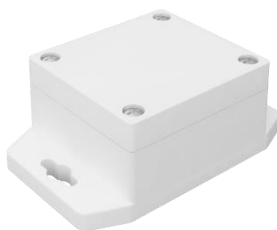
3.2. Geolocation equipment / equipment and inventory



The **Blue Puck ID** is a beacon adapted to industrial environments thanks to its robustness, compactness, and longevity. It can be used to identify and track equipment within a 500 m radius.


Main features

Life battery	More than 20 years
Box	IP68
Sizes (H x W x D)	20 x 57 mm
Communication	Bluetooth
Warranty	1 year
Manufacturer	



The **Tough Beacon TB18-2** has a robust box that resistant changing outdoor and indoor environments. It allows you to keep track of equipment anywhere at any time.

Main features

Life battery	More than 7 years
Box	IP65
Sizes (H x W x D)	58 x 94 x 35 mm
Communication	Bluetooth
Warranty	1 year
Manufacturer	


4. Sensors for personnel safety

4.1. Geolocation people and equipment inventory



The **Micro Tracker** combines low-power GPS and WiFi for precise geolocation outdoors or indoors. It has a SOS button ideal for monitoring people.



Main features

Life battery	Up to 1 year with rechargeable battery
Box	IP68
Sizes (H x W x D)	34 x 58 x 12 mm
Communication	LoRa
Warranty	1 year
Manufacturer	 Abeeway



The **Smart Badge** is a portable tracker in credit card format allowing to geolocate a person outside or inside a building. It is ideal for proximity detection and personal safety monitoring. It is available in ATEX version.

Main features

Life battery	1 and half year with rechargeable battery
Box	IP65
Sizes (H x W x D)	90mm x 65 mm x 11 mm
Communication	LoRa
Warranty	1 year
Manufacturer	 Abeeway
Available	

4.2. Geolocation in ATEX zone



The **Loc-EX 01** beacon makes it possible to locate workers in ATEX zones easily. It sends warning signals and is equipped with software that allows for distance analysis and detection while localizing.

Main features

Scope	30m indoors and 200m outdoors
Life battery	Up to 4 years after use
Box	IP64
Sizes (H x W x D)	111 x 102 x 48 mm
Communication	Bluetooth
Warranty	1 year
Manufacturer	 ecom A PEPPERL+FUCHS BRAND



5. Sensors dedicated to the railway world

5.1. Temperature measurement

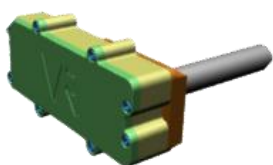


The EATEMP sensor measures the temperature of a metal by conduction. It is used to monitor the temperature of the rail, its algorithm allows to monitor heat or cold alerts.

Main features


	-40° / +70°
Box	IP65
Sizes (H x W x D)	120 x 65 x 54,5 mm
Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.2. Tightening measurement

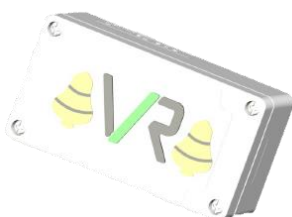


The EATORK sensor measures a torque or a clamping force. It allows the tightening value to be determined at the installation on various elements such as the splice bar, the clamping wedges or in places that are difficult to access.

Main features


Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.3. Detection of passing train

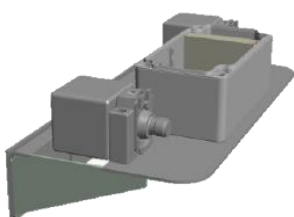


The EAGONG sensor will detect the passage of a train and inform the agent remotely. It can detect the passage, the direction of passage, the stop and the stopping time of a train on the tracks.

Main features

Box	IP65
Sizes (H x W x D)	50 x 50 x 54,5 mm
Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.4. Axle counter

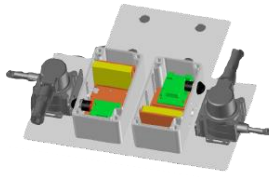


The EAPARK sensor will monitor the passage of the axles of a train, allowing the direction of passage of the train on a double track to be known, as well as the availability of the tracks and the number of passages.

Main features


Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.5. Needle position monitoring

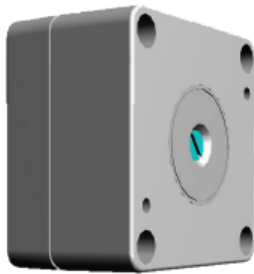


The EAPARK Needle sensor will monitor the needle position by means of the track vibrations. It will allow to control the needle position and to know the redundancy of the needle monitoring.

Main features


Measurement	From 0 to 120 m
Box	IP65
Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.6. Position measurement of derailer cleats



The EAPARK derailer cleat sensor allows the exact position and location of the derailer cleat to be determined (horizontal or vertical). It is also used for route control and to detect the position of the barrier at level crossings.

Main features


Measurement	Horizontal / vertical
Box	IP65
Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

5.7. Track dance monitoring



The EAFLEX sensor measures the dance of the train passage and the rail movements.

Main features

Box	IP65
Communication	LoRa
Warranty	1 year
Manufacturer	Vapé Rail 

6. Network equipment for connectivity

6.1. Inside LoRa gateway



The **Conduit Gateway** is configurable, manageable and scalable for various IoT solutions. Connected in LoRa, it benefits from low power consumption, long distance and is ideal for sensors transmitting periodically.

Main features

Scope	Between 2 to 5 km in urban areas and 10 km in rural areas
Life battery	Up to 10 years
Box	IP66
Sizes (H x W x D)	161.3 x 107.4 x 42.8 mm
Communication	LoRa
Warranty	2 years
Manufacturer	MULTITECH

6.2. Outside LoRa gateway



Geolocation version



Standard version

The **Conduit Station** is a gateway designed for the deployment of private or public LoRa networks. It exists in standard version and in geolocation version, specially designed for a deployment in a constraining environment (humidity, dust, wind, snow, heat...). This flexible solution allows an extended, durable and low consumption connection.

Main features

Life battery	Up to 10 years
Box	IP67
Sizes (H x W x D)	262 x 91 x 257 mm
Communication	LoRa
Warranty	2 years
Manufacturer	MULTITECH

The Cloudgate LTE WW is a multi-protocol gateway with GPS functionality for use in demanding environments such as railways.



Main features

Sizes (H x W x D)	115 x 105 x 45 mm
Communication	LoRa
Warranty	1 year
Manufacturer	OPTION
Certifié	



The Cisco gateway is a robust, carrier-grade product designed specifically for outdoor deployments, although it can be used indoors. It will provide LoRa wireless connectivity to sensors and other equipment.

Main features

Box	IP67
Sizes (H x W x D)	281 x 206 x 100 mm
Communication	LoRa
Warranty	1 year
Manufacturer	CISCO

6.3. Routers



The RUT240 industrial cellular router allows low-speed networks such as LoRa to be connected to the internet via 4G.

Main features

Box	IP30
Sizes (H x W x D)	25 x 83 x 74 mm
Communication	Wifi, 4G, LTE
Warranty	2 years
Manufacturer	TELTONIKA

6.4. Switches



Switches allow multiple network devices such as LoRa gateways to be connected. The GS1350 range has IoT specific features to connect antennas with RJ45 cable up to 250 linear meters.

Main features


Sizes (H x W x D)	26 x 193 x 84 mm
Warranty	1 year
Manufacturer	ZYXEL NETWORKS

7. Displays



This box allows you to display a real time indication of the number of places available. It is a variable message display, you can choose to indicate: the number of places, closed, open, full etc. It can be mounted on a wall or on a pole. Other sizes and types of display can be proposed, contact us.

Main features

Box	Lacquered aluminum profile, polycarbonate front panel, aluminum back panel
Sizes (H x W)	300 x 800 mm
Manufacturer	



This aluminum profile pole allows to support the display box. The length of the mast can be ordered to measure.

Main features

Box	IP or RS on protocol
Sizes (H x W x D)	3000 x 90 x 5 mm
Manufacturer	