



**MAKE YOUR  
JOB EASIER  
IN THE  
CONNECTED  
WORLD\***

\*Faciliter votre travail  
dans le Monde connecté.



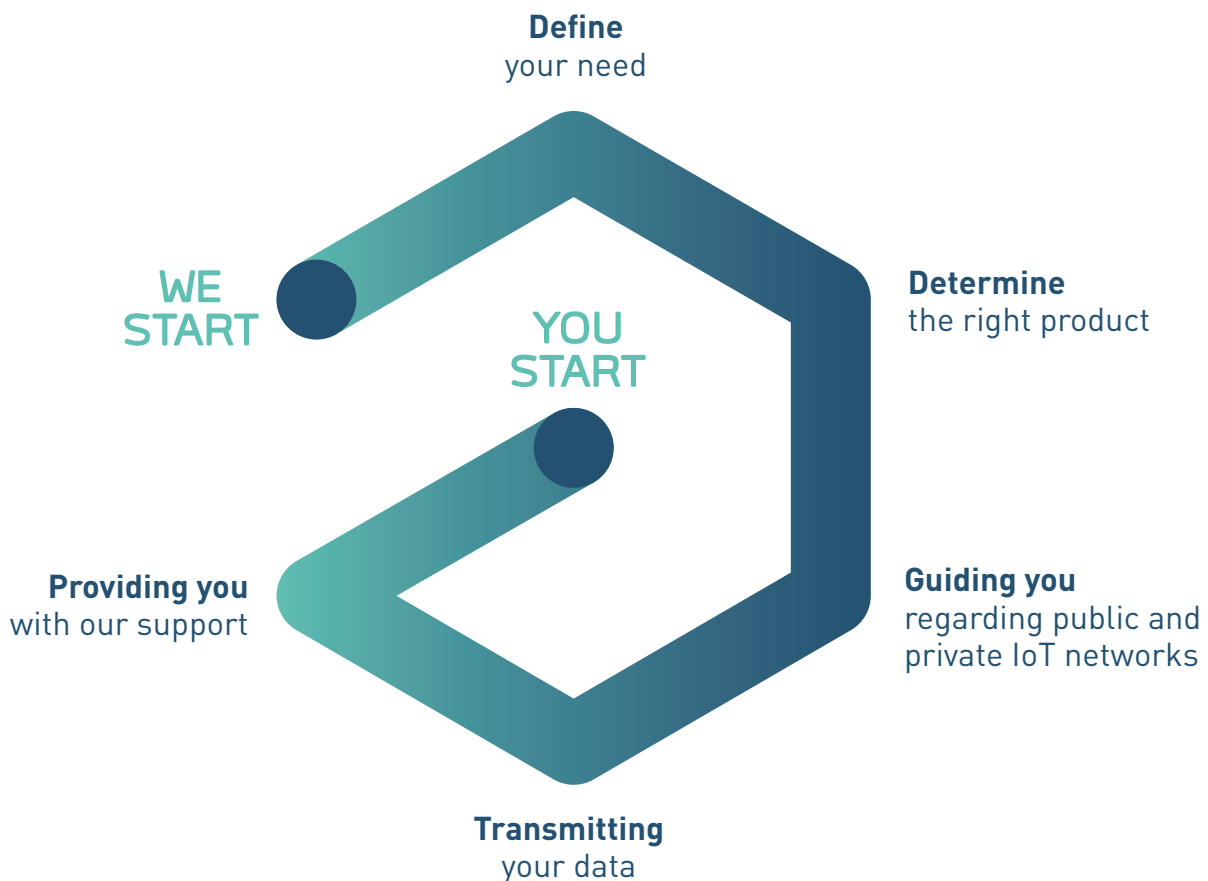
# adeunis®, a global offer for you

**As a manufacturer with over 20 years of experience in connected objects, adeunis® develops solutions adapted to your needs.**

We have set ourselves the mission of guaranteeing the full data transfer chain using our solutions, from the sensors through to your application.

Thanks to our experience and know-how, our teams design connected systems that enable you to optimise the management of your buildings and the processes and services relating to your activities.

**Your satisfaction, as well as your clients' satisfaction, is a point of pride for us.**







# BUILDING MANAGEMENT





## Monitoring energy efficiency

Make your building more efficient by analysing meter readings (power, gas and water) as well as other measurements (temperatures, heating, ventilation, lighting, etc.).



## Technical management

Monitor the smooth running of equipment items and automatic controllers in your building: boiler start-up, temperature, ventilation system operation, etc.



## Security

Identify access to a location, or to a machine. Analyse the ambient air.



## Multi-services management

Gather information concerning use of your building in order to develop and optimise linked services: cleaning, parking, occupation of meeting rooms, etc.



## Remote readings

Monitor changes in your power, gas, water and other consumption and easily detect a leak on the network.





## Decision-making tools

Monitor and analyse use of your assets and set up the most suitable preventive maintenance solutions: optimisation of rounds and interventions, collecting tanks, containers, etc.



## Industrial performance

Make use of the information from your industrial tools in order to guarantee productivity, flexibility, long service life and security: monitoring a machine's consumption, the temperature of a part, access to prohibited areas, etc.



## Management of equipment and remote control

Ensure that your processes are monitored and remotely control your equipment: opening valves, triggering actuators.



## Feedback on alerts and events

Be alert regarding an event in order to improve production and maintenance operations: detection of power cuts, equipment malfunctions, etc.







# OPTIMISATION OF PROCESSES AND SERVICES







01

# MAKE

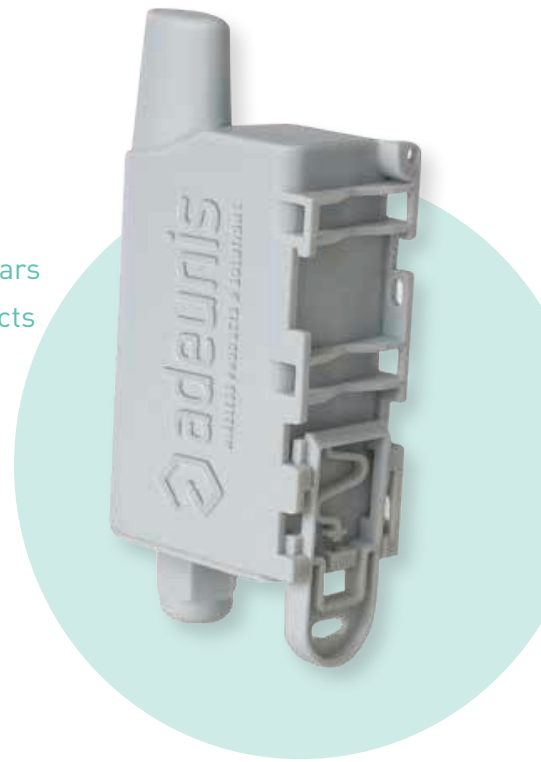


## > Experience:

- A manufacturer for over 20 years
- Over 5 million connected objects sold

## > Know-how:

- An expert R&D department
- Guaranteed security
- Assured quality



02

# CONNECT



## > Subscriptions

- Sigfox
- Objenious
- Orange
- SIM for WMBUS

## > Device Management

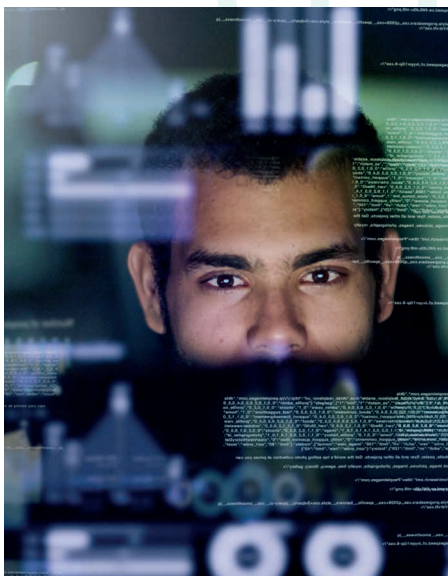
- Autonomy
- Network state
- Fleet management
- Subscription management
- Network status
- Lifetime simulation
- Remote configuration
- Data storage
- Products configuration & upgrades

## > Software offer

- Client application on demand

03

# SUPPORT



- > On-site radio mapping
- > On-site deployment
- > Training
- > Support & Premium-support





01



## MAKE

Manufacturing connected objects is our core business







## ACT

### **Take direct action on an equipment item:**

Restart, activate, or actuate machines or equipment items remotely.



## MEASURE

### **Determine a precise measurement of**

**numerical values** such as a humidity rate, a specific consumption amount, a power level, an intensity, or a temperature.



## MONITOR

**Monitor the changes in a data item** such as fluids consumption, changes in status, operating changes, etc.



## DISSEMINATE

**Broadcast a signal in order to extend the range of an existing network or to replace a wired network** in order to transmit data over a long distance.





## ALERT

**Provide a warning when a situation deemed to be critical or abnormal has been reached so that action may be taken accordingly:**

Provide feedback about faults, alerts regarding thresholds being crossed, carry out motion detection for intruders, control access, and handle break-ins.



## TEST

**Subject the network to an examination so**

you can verify the present coverage, select the most appropriate network, and make sure that your products are well-positioned.



## GATHER

**Gather data sent by transmitters on a network and make them available locally or remotely** as well as using them to optimise your activity.



# PRODUCTS RANGE



# DRY CONTACTS

Report 0-1 statuses and control relays.



ACT

- Activate or restart machines and equipment items remotely



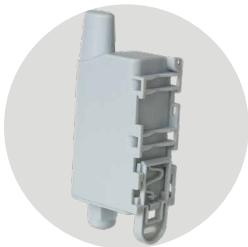
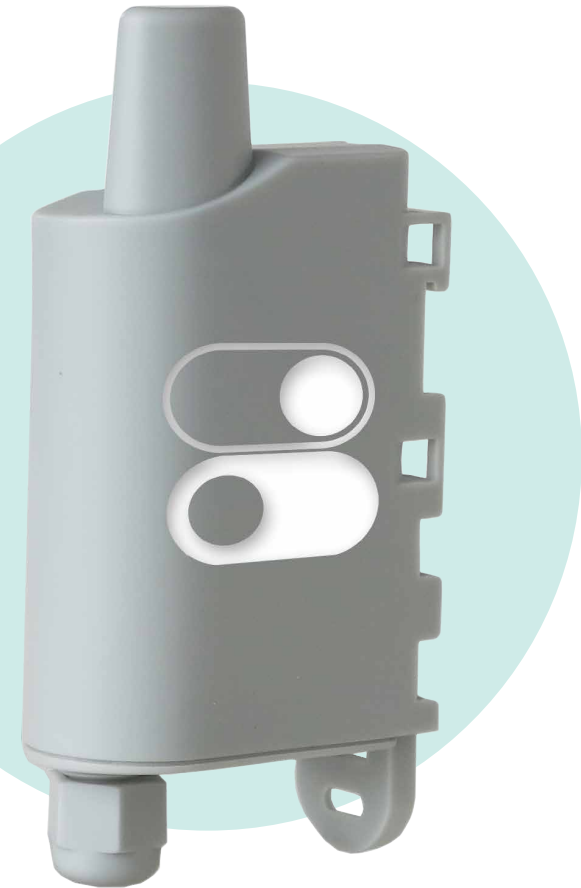
ALERT

- Provide feedback about faults, level alerts
- Detect an intruder's presence, or detect an action
- Control access and break-ins



MONITOR

- Count the number of changes in status



## FUNCTION

Dry Contact | 0-1 status

## TECHNICAL SPECS

- Periodic modes or event-based modes
- Replaceable battery
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrated fastening system: DIN rail, tube, wall, flange

## BENEFITS

- 4 configurable inputs/outputs
- Locally and remotely configurable
- Low power consumption for optimal autonomy
- Develop new preventive maintenance services, alerts services, or analysis services.



# ANALOG & ANALOG PWR

Give IoT connectivity to wired analog sensors.



ALERT

- Provide warnings should thresholds be exceeded



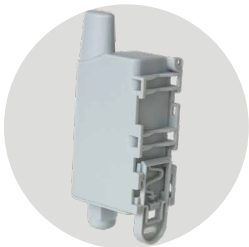
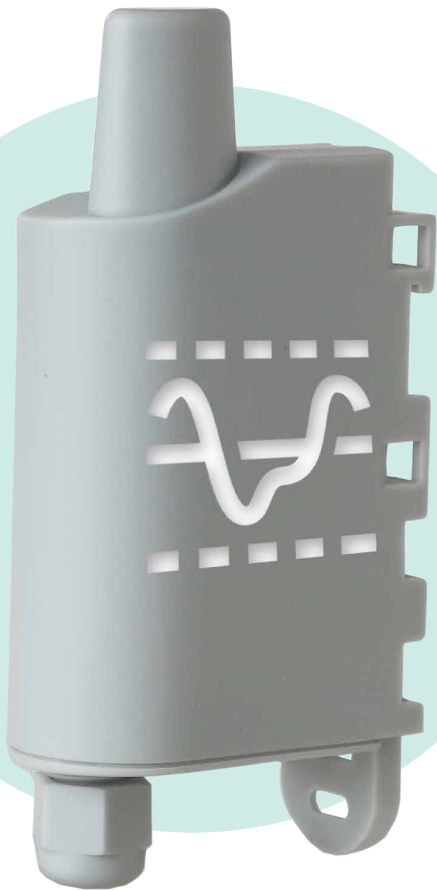
MEASURE

- Monitor the humidity rate, and machine consumption
- Measure a filling level
- Analyse the presence of gas



MONITOR

- Monitor changes in temperatures, the humidity rate, pressure, etc.



## FUNCTION

Analog interface

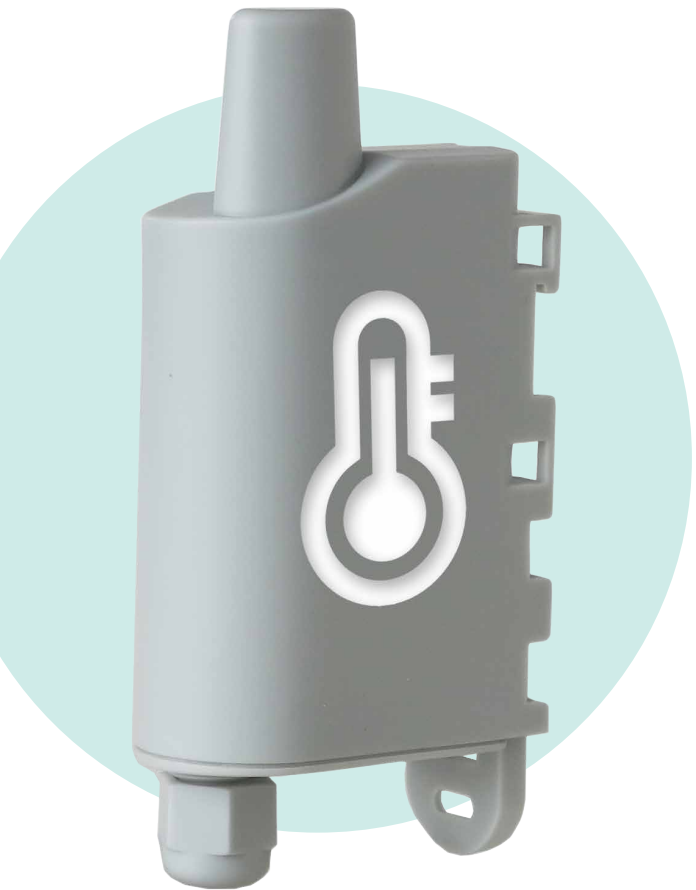
## TECHNICAL SPECS

- Periodic modes or event-based modes
- Replaceable battery/external power supply (PWR version)
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrated fastening system: DIN rail, tube, wall, flange

## BENEFITS

- 2 inputs: 0-10V or 4-20mA
- Possibility of triggering measurement via 2 dedicated inputs
- Locally and remotely configurable
- Low power consumption for optimal autonomy
- Develop new preventive maintenance services, alerts services, or analysis services.





# TEMP

## Measure temperatures.



ALERT

- Provide warnings should thresholds be exceeded



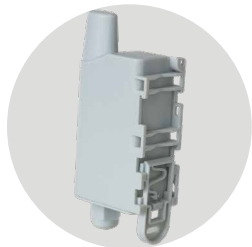
MEASURE

- Measure temperatures
- Identify temperature losses



MONITOR

- Monitor temperature changes



### FUNCTION

Temperature

### TECHNICAL SPECS

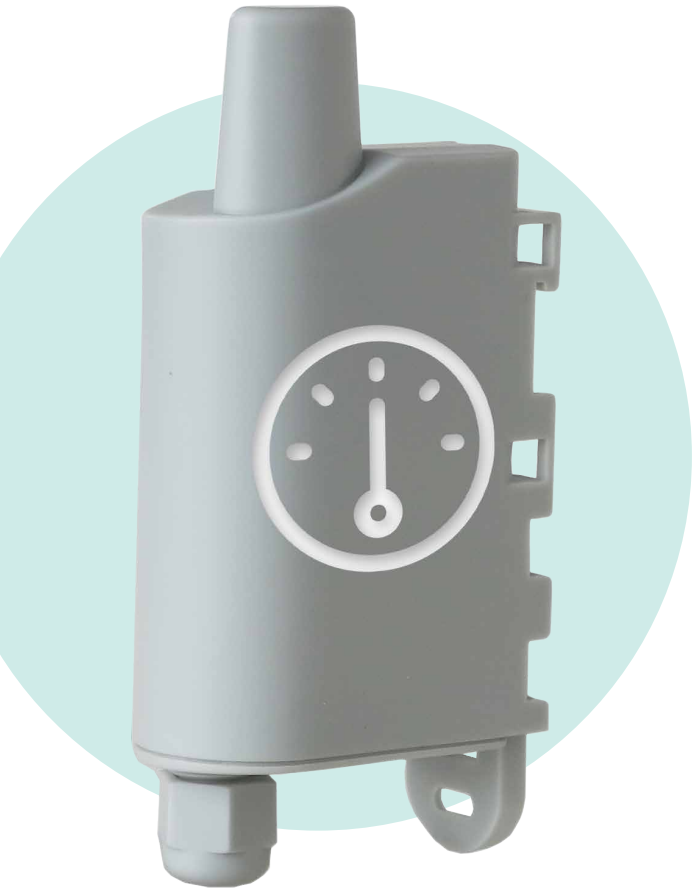
- T° range internal probe: -30 + 70 (+/-0.1)
- T° range external probe: -55 + 155° (+/-0.1)
- Periodic modes or event-based modes
- Replaceable battery
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrated fastening system: DIN rail, tube, wall, flange

## BENEFITS

- Integrated and remote temperature probe
- Sending an average of the values over a given period
- Locally and remotely configurable
- Low power consumption for optimal autonomy







# PULSE

Give all your meters communications capability.



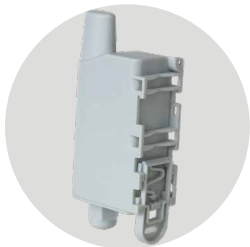
ALERT

- Monitor any leaks



MONITOR

- Receive readings feedback from gas and power meters
- Monitor over-consumption (gas, water and electricity)



## FUNCTION

Pulse-based interface

## TECHNICAL SPECS

- Periodic modes with log
- Soldered battery
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrated fastening system: DIN rail, tube, wall, flange

## BENEFITS

- Up to 2 connectable meters
- Detection of tamper and leaks
- Flow rate monitoring
- Locally and remotely configurable
- Low power consumption for optimal autonomy





# PULSE ATEX

Give all your meters communications capability in explosive atmosphere.



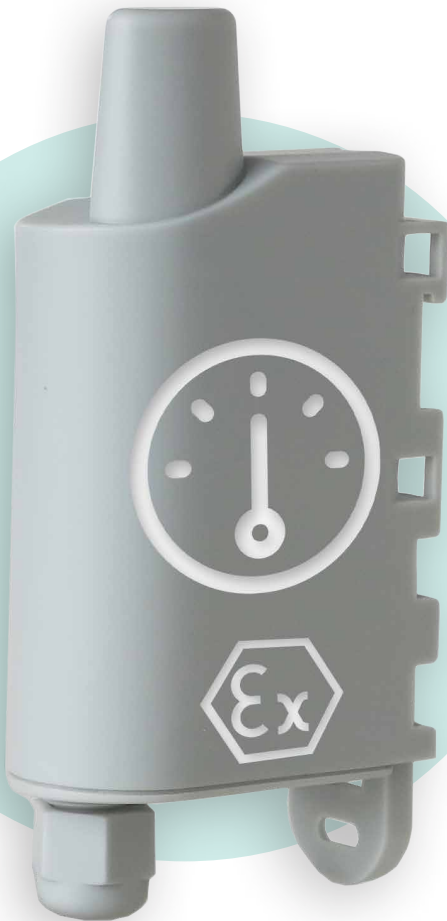
ALERT

- Monitor any leaks



MONITOR

- Receive values of the indexes from gas, water, electricity and heat meters
- Monitor over-consumption



## FUNCTION

Pulse-based interface

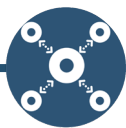
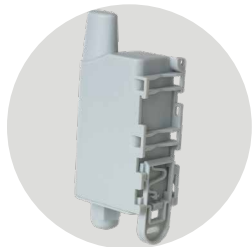
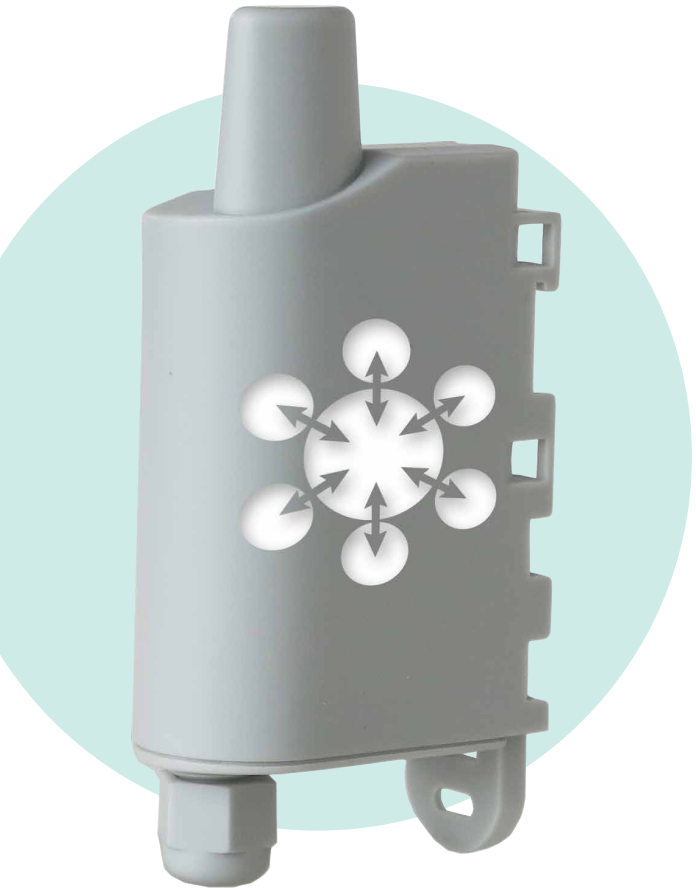
## SPÉ. TECHNIQUES

- Periodic modes with log
- Soldered battery
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrating fastening system: Rail-DIN, tube, wall, flange

## BENEFITS

- **ATEX** product: used in explosive atmosphere
  - Gas & steam
    - Zone 1 : immediate proximity to the sensitive area
    - Groupe C : hydrogen gases and vapors, acetylene ...
  - Dust
    - Zone 21 : immediate proximity to the sensitive area
- Up to 2 connectable meters
- Detection of tamper and leaks
- Flow rate monitoring
- Locally and remotely configurable





**FUNCTION**  
Serial interface

**TECHNICAL SPECS**

- Periodic modes or event-based modes
- 6-24V external power supply
- Dimensions: 105 x 50 x 27 mm
- Box: IP67 (IP68 on request)
- Integrated fastening system: DIN rail, tube, wall, flange

# MODBUS

Query one or more Modbus slaves.



• Provide feedback about faults and alerts from Modbus slaves



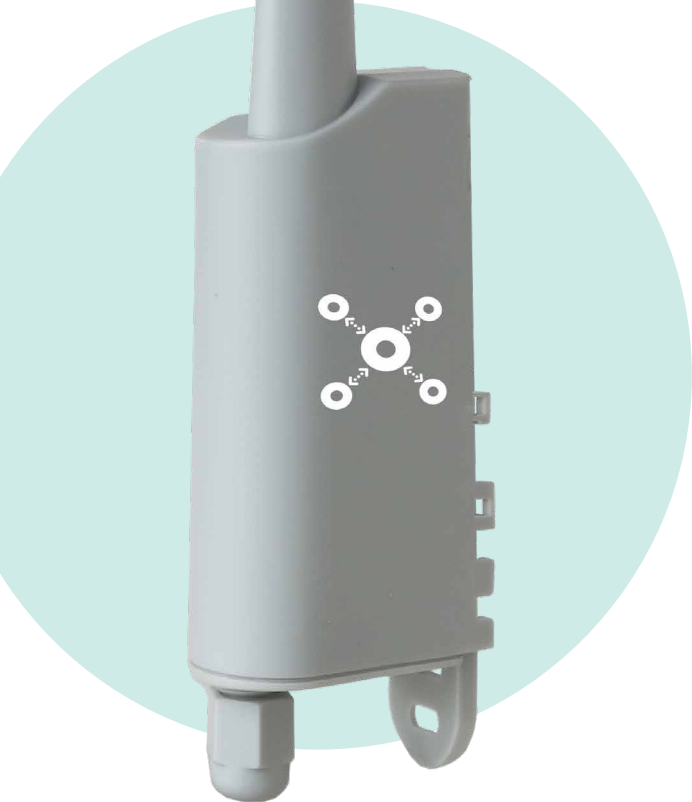
• Provide feedback about measuring data from Modbus slaves

## BENEFITS

- Modbus Master RS485/RS232
- Up to 10 slaves or 15 registers per slave
- Control and supply of power to the sensor
- Locally and remotely configurable







# TIC

## Connect your power meters.



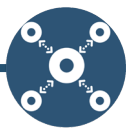
- Provide feedback about alarms emitted by a power meter



- Provide feedback about measuring data from power meters (index, power, intensity, etc.)



- Provide feedback about meters operational statuses



**FUNCTION**  
Serial interface

**TECHNICAL SPECS**

- Periodic modes or event-based modes
- Dimensions: 185 x 50 x 27mm
- Box: IP67
- Integrated fastening system: DIN rail, tube, wall, flange
- Zone: Europe only

# BENEFITS

- Interface compatible with TIC, PME-PMI and Linky
- Fully-parameterizable choice of values to be transmitted
- Self-powered without using a battery
- Locally and remotely configurable





# REPEATER

Extend sigfox network coverage.



**BROADCAST**

· Repeat a signal in order to extend a network



**FUNCTION**  
Network infrastructure

**TECHNICAL SPECS**

- Interchangeable battery
- Range: up to 300m outdoor and 50m indoor
- Dimensions: 185 x 50 x 27mm
- Case: IP67
- Integrated fixing system: Rail-DIN, tube, wall, flange

# BENEFITS

- Access all your products even in deep indoor
- Can be associated with any type of device
- Uplink service message repetitions (no downlink support)
- Definition of a list of products to be repeated
- Facilitated implementation procedure
- Consumption controlled for optimized autonomy
- No subscription required



# Field Test Device



Qualify and validate your network.



TEST

- Ensure the good positioning of your objects



## FUNCTION

Network infrastructure

## TECHNICAL SPECS

- Viewable data: UL/DL - Channels - RSSI/ SNR/PER - GPS - Temperature
- Self-powered and rechargeable
- Dimensions: 180 x 72 x 21 mm



MEASURE

- Check your network's coverage
- Choose the most appropriate network

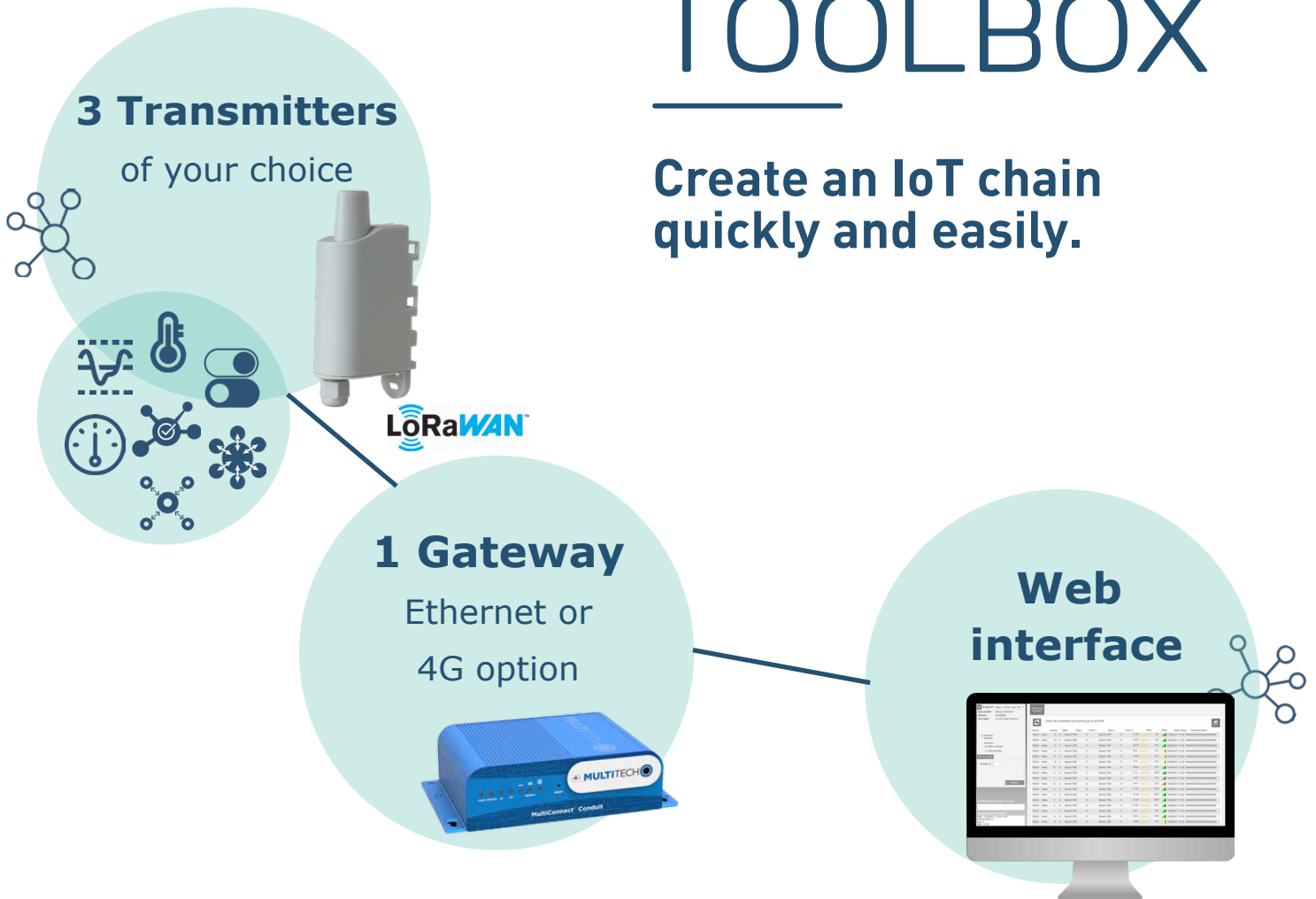
## BENEFITS

- Immediate viewing of network coverage data
- Geolocation of measuring points
- Dedicated Web application
- A benchmark product widely praised by public network operators



# IOT TOOLBOX

Create an IoT chain  
quickly and easily.



## OPTIONS

- Transmitters can be added
- On-site support
- Additional Training/Support

## CONTENTS OF THE KIT

- 3 transmitters (EU868 only)
- 1 Gateway: Ethernet/4G option
- 1 adeunis or personal Web interface
- 1 hr of support
- 1 antenna kit
- 1 SIM (if using a 4G Gateway) + 6-month subscription included

## BENEFITS

- Adapted to your use
- End-to-end IoT channel
- Ready to use
- 1 hour of support included for easy implementation





# AMBIENT SENSOR

Read temperatures.



## Description

The Ambient Sensor is one of the most compact ambient temperature sensors on the market, enabling discreet integration, even in individual homes.

It is equipped with an LCD screen that displays the temperature measured for real-time reading of the values.

A lithium battery provides a power supply guaranteeing 11 years of autonomy with a sending interval of one measurement every 4 minutes, with the display being refreshed every 2 minutes.



MEASURE

- Measure a room's temperature



## FUNCTION

Temperature

## TECHNICAL SPECS

- Mode: periodic
- W-Mbus mode: T1 (other modes available as options)
- Temperature range: -30°/+85°C
- Measurement accuracy: 0.1 to 0.5°C
- Version with remote sensor
- Dimensions: 78 x 39 x 30 mm

## BENEFITS

- Room temperature radio transmitter
- LCD display
- Low power consumption for optimal autonomy
- Tamper detection (opening of the box)







# REPEATER

Extend the network's capacity.



## Description

This product is a ready-to-use system enabling repeating of metering data from Wireless M-Bus AMR transmitters.

It enables the range of Wireless M-Bus AMR transmitters to be doubled, thereby ensuring error-free transmission of radio frames in difficult environments or when the data concentrator is a long way away from the transmitters.

Combining products in the adeunis® AMR enables an independent ecosystem to be created enabling the sending, transmission and gathering of the consumption index to be carried out.



**DISSEMINATE**

· Repeat a signal in order to extend a network



## FUNCTION

Network infrastructure

## TECHNICAL SPECS

- Mains power or self-powered
- Dimensions: 145 x 100 x 40 mm
- Box: IP65
- Range: Up to 600 m

## BENEFITS

- T1+C1 mode (S1, R1 as options)
- Extremely quick and simple to install
- Repeating for up to 200 products (T1 mode)
- Low power consumption for optimal autonomy





# RECEIVER

**Gather data from transmitters.**



## Description

This product is a ready-to-use system enabling metering (index) data from Wireless M-Bus AMR transmitters or a Wireless M-Bus AMR repeater to be retrieved.

This receiver enables Wireless M-Bus frames to be received and have them transitted to all devices for gathering and/or making use of data equipped with an RS232 or RS485 serial ports or a USB port.

Combining adeunis® AMR range products enables an independent eco-system to be created that can carry out sending, transmitting and gathering consumption indices.



• Gather data from transmitters



### FUNCTION

Network infrastructure

### TECHNICAL SPECS

- Mains power supply
- Dimensions: 145 x 100 x 40 mm
- IP65 box
- Range: Up to 1,000 m
- Remote antenna

## BENEFITS

- Extremely quick and easy to install
- RS232, RS485 or USB serial port
- T1 + C1 Mode (S1, R1 as options)





# DONGLE

**Gather data from transmitters locally.**



## Description

This product is a ready-to-use system enabling radio frames to be sent and received in Wireless M-Bus format.

This product's power is supplied by the device it is connected to and enables the gathering of data transmitted in T1, T2, R1, R2, S1, S1-m and S2 mode.

Combining adeunis® AMR range products enables an independent eco-system to be created that can carry out sending, transmitting and gathering consumption indices.



· Gather data from transmitters locally



· Send radio frames

**DISSEMINATE**



## FUNCTION

Network infrastructure

## TECHNICAL SPECS

- Self-powered
- Dimensions: 80 x 20 x 14 mm
- Range of up to 200 m

# BENEFITS

- Quick and easy to install
- Radio frames transmitter and receiver
- T1, T2, R1, R2, S1, S1-m, and S2 modes
- USB stick format





# GATEWAY

Gather and transmit data.



## Description

This product is an autonomous concentrator enabling metering data to be received from meters (Wireless M-Bus protocol) and enabling the data to be transmitted to a GPRS network.

The compact reinforced box (IP67 & IK8 standards) enables use in severe environments: outdoors, in humid conditions, in places exposed to impacts, etc.

Our Wireless M-Bus solution ensures full compatibility with EN 13757-4: 2005 standards and therefore interoperability with all the other products using the Wireless M-Bus protocol.



GATHER

- Gather data from transmitters



DISSEMINATE

- Disseminate data on a remote server



## FUNCTION

Network infrastructure

## TECHNICAL SPECS

- Configuration software
- Dimensions: 138 x 80 x 58.5 mm
- Box: IP67 and IK8

## BENEFITS

- Transmission via GPRS
- For use indoor or outdoor
- Range of up to 1,000 m
- T1 + C1 mode
- Extremely quick and easy to install
- Autonomous in terms of power





# ARF868 LR

Set up a radio transmission for dissemination over long distances.



DISSEMINATE

· Replace cables so that data can be transmitted by radio over a long distance



## FUNCTION

Modem

## TECHNICAL SPECS

- Power: 500 mW
- 19 channels @27dBm
- Over 500 channels @14dBm
- External power supply

## BENEFITS

- Range of up to 7 km
- High transmission reliability
- RS232/RS485 or USB serial port
- RF rate of 2.4 to 57.6 kbps
- Communication multi-mode: transparent, addressed, repeater

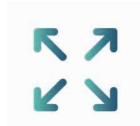






# ARF868 ULR

Set up a radio transmission for dissemination over long distances.



DISSEMINATE

- Replace cables so that data can be transmitted by radio over a long distance



## FUNCTION

Modem

## TECHNICAL SPECS

- Power: 500 mW
- 19 channels @27dBm
- Over 500 channels @14dBm
- External power supply

## BENEFITS

- Range of up to 20 km
- High transmission reliability
- RS232/RS485 or USB serial port
- RF rate of 2.4 to 57.6 kbps
- Communication multi-mode: transparent, addressed, repeater





# ARF868 LP

Set up a radio transmission for dissemination over long distances.



DISSEMINATE

· Replace cables so that data can be transmitted by radio over a long distance

## FUNCTION

Modem



## TECHNICAL SPECS

- Power: 25mW
- Over 500 channels @14dBm
- Box: Up to IP67
- External power supply

## BENEFITS

- Range of up to 1 km
- High transmission reliability
- RS232/RS485 or USB serial port
- RF rates of 2.4 to 57.6 kbps
- Communication multi-mode: transparent, addressed, repeater





# ARF868 MR

Set up a radio transmission for dissemination over long distances.



DISSEMINATE

· Replace cables so that data can be transmitted by radio over a long distance



## FUNCTION

Modem

## TECHNICAL SPECS

- Power: 25mW
- Over 500 channels @14dBm
- Box: Up to IP67
- External power supply

## BENEFITS

- Range of up to 4 km
- High transmission reliability
- RS232/RS485 or USB serial port
- RF rates of 2.4 to 57.6 kbps
- Communication multi-mode: transparent, addressed, repeater

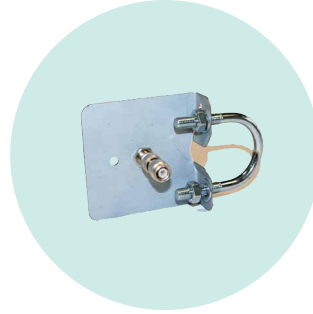


## ANTENNA ADAPTORS AND SUPPORTS



### CONVERSION KIT TNC

**Type of connector:**  
1 Male/Male + 1 Female/  
Female  
**Ref.: ACC1400AM**



### FASTENING SYSTEM ANTENNA

**Type of connector:**  
Male/Female adapter  
Size: 10 x 10 x 3 cm  
**Ref. : ACC1400AN**

## ANTENNA CABLES



### ANTENNA CABLE 100 CM

**Type of connector:**  
Male/Female  
**Ref. : ACC1400AH**



### ANTENNA CABLE 300 CM

**Type of connector:**  
Male/Female  
**Ref. : ACC1400AI**



### ANTENNA CABLE 500 CM

**Type of connector:**  
Male/Female  
**Ref. : ACC1400AJ**



## IP PROTECTION

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**IP53 PROTECTION**

Ref.: ACC1500AD



**IP67 PROTECTION**

Ref.: ACC1500AE

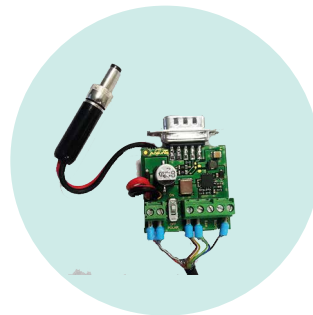
## MISCELLANEOUS ACCESSORIES

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**LOCKABLE  
JACK CONNECTOR**

Ref.: ACC1500AA



**RS485 ADAPTER  
SCREW TERMINAL**

Ref.: ACC1500AH



**SERIAL/USB  
ADAPTER**

Size: 150 cm  
Ref. : ACC1500AB



**POWER SUPPLY UNIT  
230V - 50/60HZ - 1A/12V**

Size: 200 cm  
Ref. : ACC1500AC





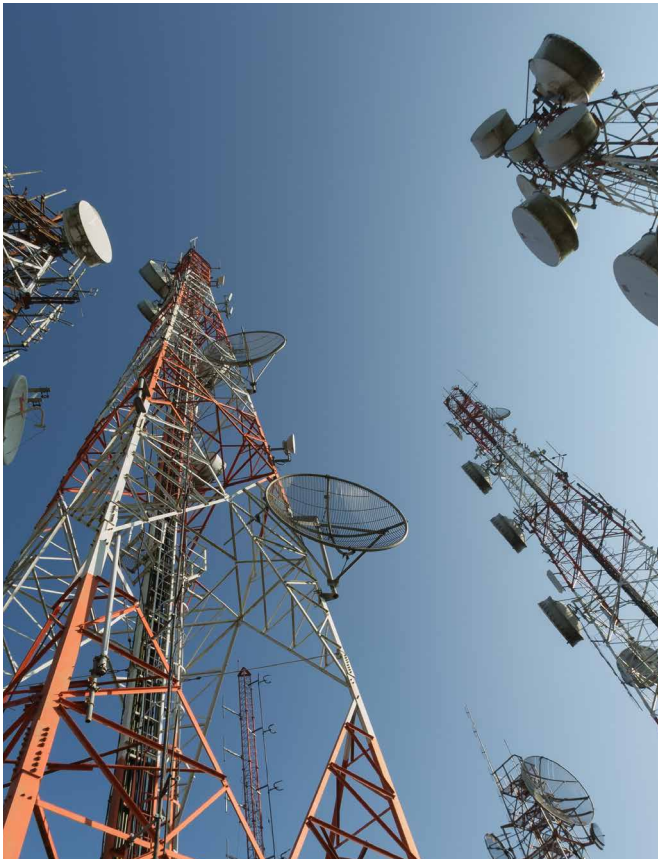
02



# CONNECT

Integrate connectivity  
to make it easy





adeunis® will support you with choosing and setting up the connectivity best suited to your IoT solution.

We have made a choice to remain open-minded and totally impartial regarding the various existing connectivity solutions. We are experts in public and private LPWAN networks: LoRaWAN, sigfox, and WMBUS, with all our products being developed by our R&D teams working on each of these technologies.

## SUBSCRIPTION

Based on our experience, we were able to note that handling management of your subscription entails a real advantage for you, so that you can remain focused on your core business.

What we propose for you is assessing the type of subscription that best suits you as well as handling setting it up and managing it. Whether you were wanting to use a public network or set up a private network, we will be able to orient you towards the subscription offer that best matches your expectations.

Our professionalism and our knowledge and skills have enabled us to form real relations with the various entities involved in private and public networks on the market, who offer various subscription offers, and who are therefore real partners for adeunis®.



## DEVICE MANAGEMENT



Thanks to our **Device Management Platform: KARE**, we offer the opportunity of maintaining your adeunis® product park in **operational condition throughout their lives**.

### Monitor your fleet

- Create site, zone and subzone
- Multi-technology network / operator (Sigfox, LoRaWAN)

### Monitor the health of your fleet

- Lifetime
- Reception / non-reception
- Quality of the radio link

### Control the use of your fleet

- Subscription
- Radio regulation

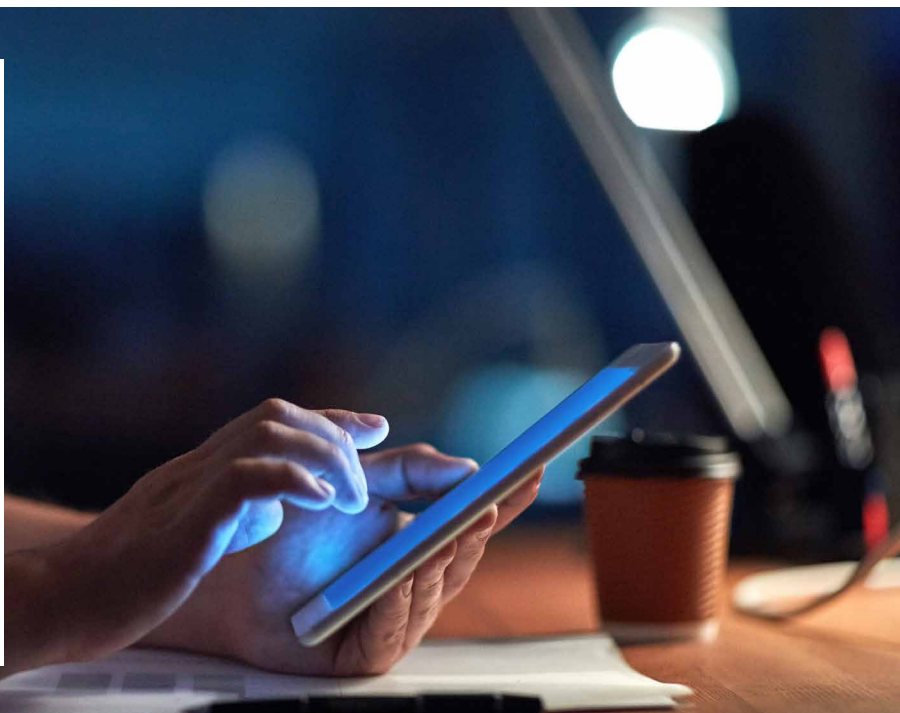
### Act on your fleet

- Simulation of lifetime
- Remote configuration change

## SOFTWARE OFFER

Are your needs prompting you to want to have your processed data at your disposal?

The **adeunis®** connectivity offer includes the possibility of developing an application on request, and that is customised, thereby enabling you to analyse the raw data.









# 03



## SUPPORT

Support for ensuring  
you have optimal  
solutions



adeunis® offers you **long-term support** as part of the **deployment of your installations and monitoring of the systems setup**. To do this, we commit:

- Providing you with **dedicated technical expertise**
- **Sharing our experience** to ensure successful deployment of your project
- **Regularly improve our support services**, processes and tools using your feedback.

## On-site radio mapping

Our teams are setup to **study the connectivity on your sites** and **make recommendations about the right network for** your projects.

## On-site deployment

We come on your sites to assist you on the **implementation** of your projects. We advise you **to ensure the best installation** for your products and solutions. We support you in **the deployment of products on your sites**.





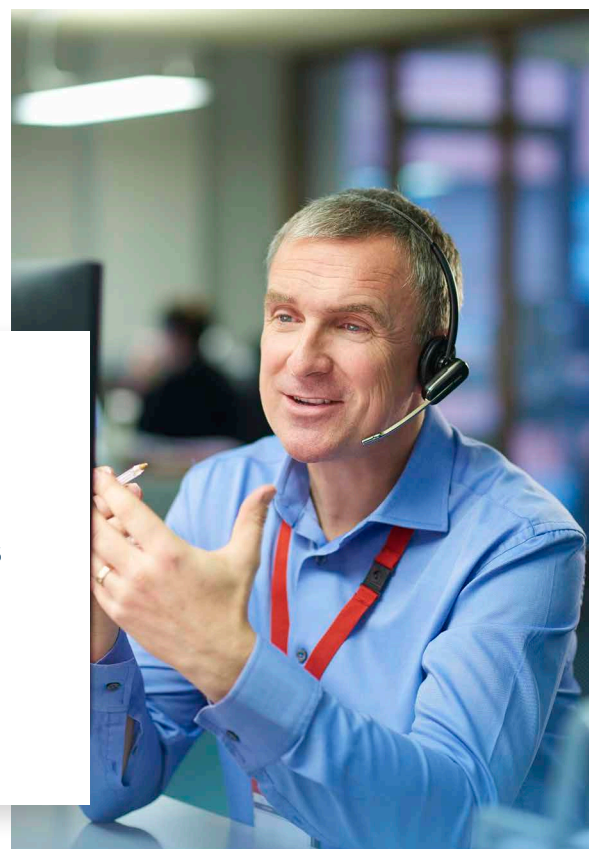
## Training

### **The world of IoT**

**adeunis®** offers **generic training around IoT themes** to help everyone understand the world of connected devices.

### **IoT applied to your business**

We also offer **support dedicated** to the development of your own technical and business solutions.



## Premium support

**adeunis®** remains at your side during the life of your products thanks to a **premium technical support contract**. Together we build to your needs **customized services** that will ensure total satisfaction.



**adeunis®**

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