



Everything you need for the physical security  
of business-critical infrastructures

**136 PAGES PHYSICAL IT SECURITY!**  
**CATALOGUE 2021**



# 360° Physical IT-Security made in Germany

We are Kentix, the specialist for holistic and scalable IoT solutions to protect business-critical infrastructures. From individual server racks to data center and large-scale infrastructures, our solutions monitor rooms in need of protection and detect physical threats preventively. Our in-house operating system KentixOS analyses, processes and manages the collected data to make it easily and intuitively available to the responsible personnel.

The easy-to-install hardware and software products based on IoT cover use cases in the areas of environment monitoring, intrusion detection, access control, video surveillance and energy monitoring, thus enabling the highest level of protection from a single source thanks to the all-in-one approach.

Companies from all sectors use Kentix products to protect their business against physical hazards and human error

and to comply with legal requirements. Development and production are carried out exclusively in Germany.

### As important as the firewall

Over 50% of IT failures are caused by physical factors such as defects, fire, weather or human error. Such failures are protracted and very expensive, and the organisations affected by them are highly vulnerable.

With our Kentix MultiSensor® technology, we have succeeded in developing much more efficient products than those available on the market. We have thus significantly improved and at the same time simplified the monitoring of business-critical IT infrastructures. We rely on technologies such as IoT, AI and modern IT standards, which make our products easy to network and thus provide information faster and more securely.

## Why you should choose Kentix



# KENTIX REPLACES 8 SYSTEMS




The Kentix All-In-One-Security-System integrates up to EIGHT systems (access control, intrusion alarm, early fire detection, environmental monitoring, alarm monitoring, network monitoring, video monitoring, PDU and power monitoring) in ONE and detects over 40 threats!

Our customers thus save up to 50% on investment and operating costs and no longer have to worry about interfaces.


ALL-IN-ONE SECURITY

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360°  



SMARTMONITORING

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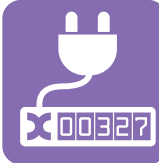
SMARTACCESS

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# Kentix solutions for your business

## DATA CENTER



From a simple server room to a complex data center, our SmartMonitoring products have been tried and tested ten thousand times and reliably secure the IT environments of our customers. In combination with SmartAccess and our robust SmartPDU we offer real 360° solutions with the best possible protection and early warning system.

## DISTRIBUTED INFRASTRUCTURE



The monitoring of distributed infrastructures is our top speciality. Our products show all the advantages of an IT-based 360° solution across all trades such as monitoring, access control and video. We will show you how our integrated solutions can save you massive costs and keep your infrastructure under control.

## OFFICE



Our SmartAccess solutions replace conventional access systems with all the advantages of a 100% IT-integratable system solution. Scalable from a small office to an office complex or co-working space. Web-based and easily networkable via radio or LAN for any door or gate, inside or outside, combinable with burglar alarm systems.

## INDUSTRY



Modern industrial plants must never fail. Failures cause high costs and image damage. Early detection and direct reporting of hazards is indispensable. Our SmartMonitoring fits seamlessly into the IT landscape and significantly increases plant availability. ISO27001 requirements are met.

## KRITIS



The smooth operation of critical infrastructures is based on a functioning IT infrastructure. From the monitoring of critical operating areas to complex access control. Our smart solutions are tried and tested in this environment and ensure security and data protection.

## LOGISTICS



Leading logistics companies use our SmartAccess and SmartMonitoring solutions to effectively manage and secure access to rooms, areas or warehouses. Integration into your own logistics applications is very easy thanks to our open Kentix|OS system architecture.





## Securing the entire mission-critical IT infrastructure with just one system

### Effective protection against physical risks in server and utility rooms

The Kentix MultiSensor® merges all important physical sensors in one device and monitors the entire IT infrastructure for up to 20 threats such as critical climate factors, fire or burglary. Thereby you lay the foundation for fulfilling regulatory IT security requirements such as the ISO 27001. The MultiSensor can be connected to a Kentix AlarmManager via radio (ZigBee) or alternatively directly via a network. The installation and commissioning are very easily done with standard patch cables; wiring is not necessary. This way, it is possible to securely remote control the AlarmManager using a smartphone, for example to arm/disarm the system.

### The advantages at a glance:

- Early detection of threats – short reaction times, low subsequent costs
- Low personnel costs due to automatic monitoring
- Relief for the system administrator – low liability risk
- Low operating costs due to remote monitoring
- Low investment costs – easy installation and launch
- ROI within one year – immediately if only one outage is prevented

### Easy installation and low system costs due to innovative all-in-one solution

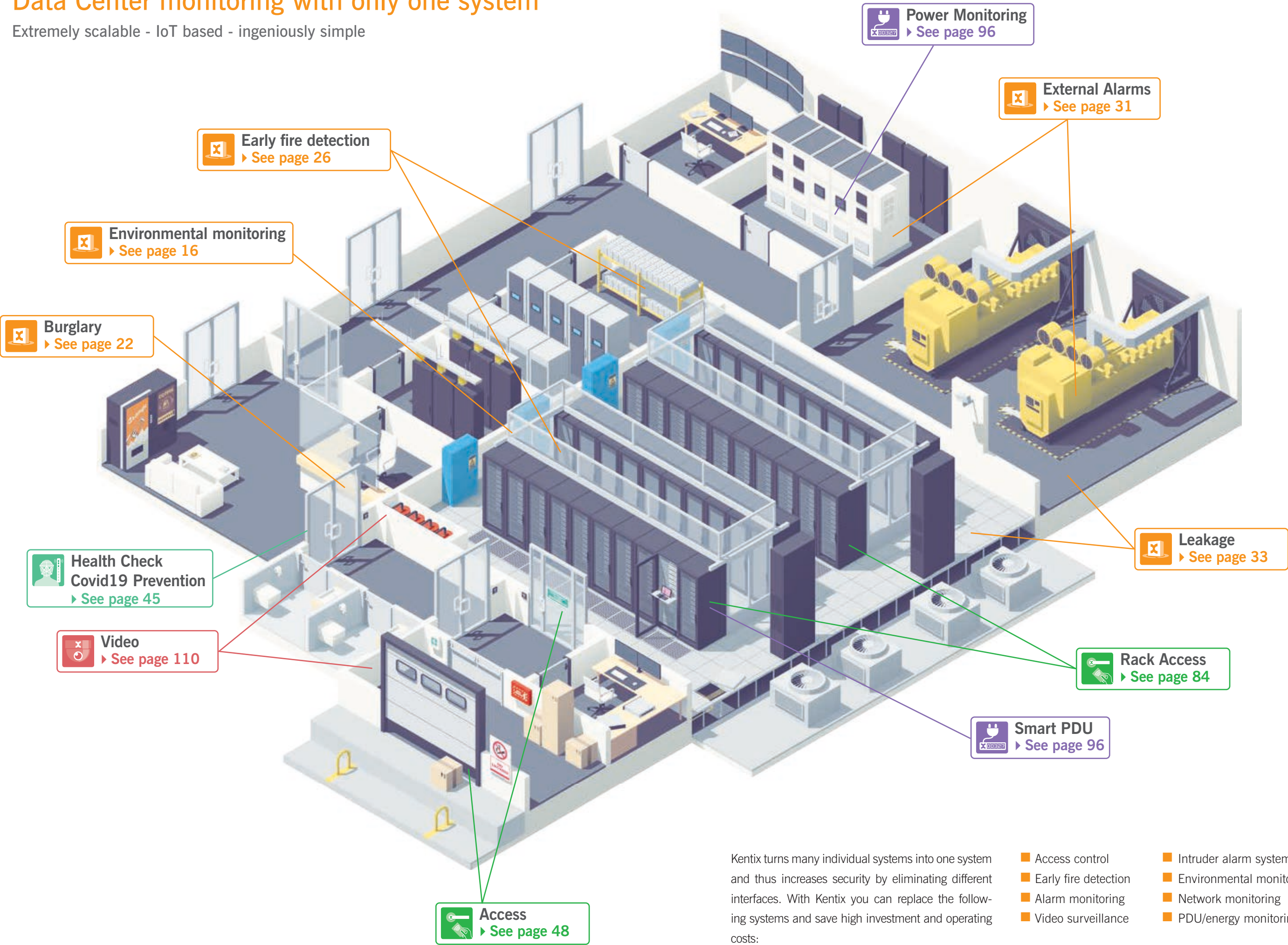
All data of the MultiSensors merge in the AlarmManager and are evaluated there. Moreover, the AlarmManager periodically monitors the sensor network and reports error states or manipulation. A 4G modem is integrated in the AlarmManager by default which transmits the alarm messages independently. Therefore, the responsible persons are informed about possible error states in real time. Messages can be transmitted via e-mail or SNMP trap as well. This way, it is possible to securely remote control the AlarmManager by means of any SMS-enabled mobile phone and, for example, arm/disarm the system.





# Data Center monitoring with only one system

Extremely scalable - IoT based - ingeniously simple

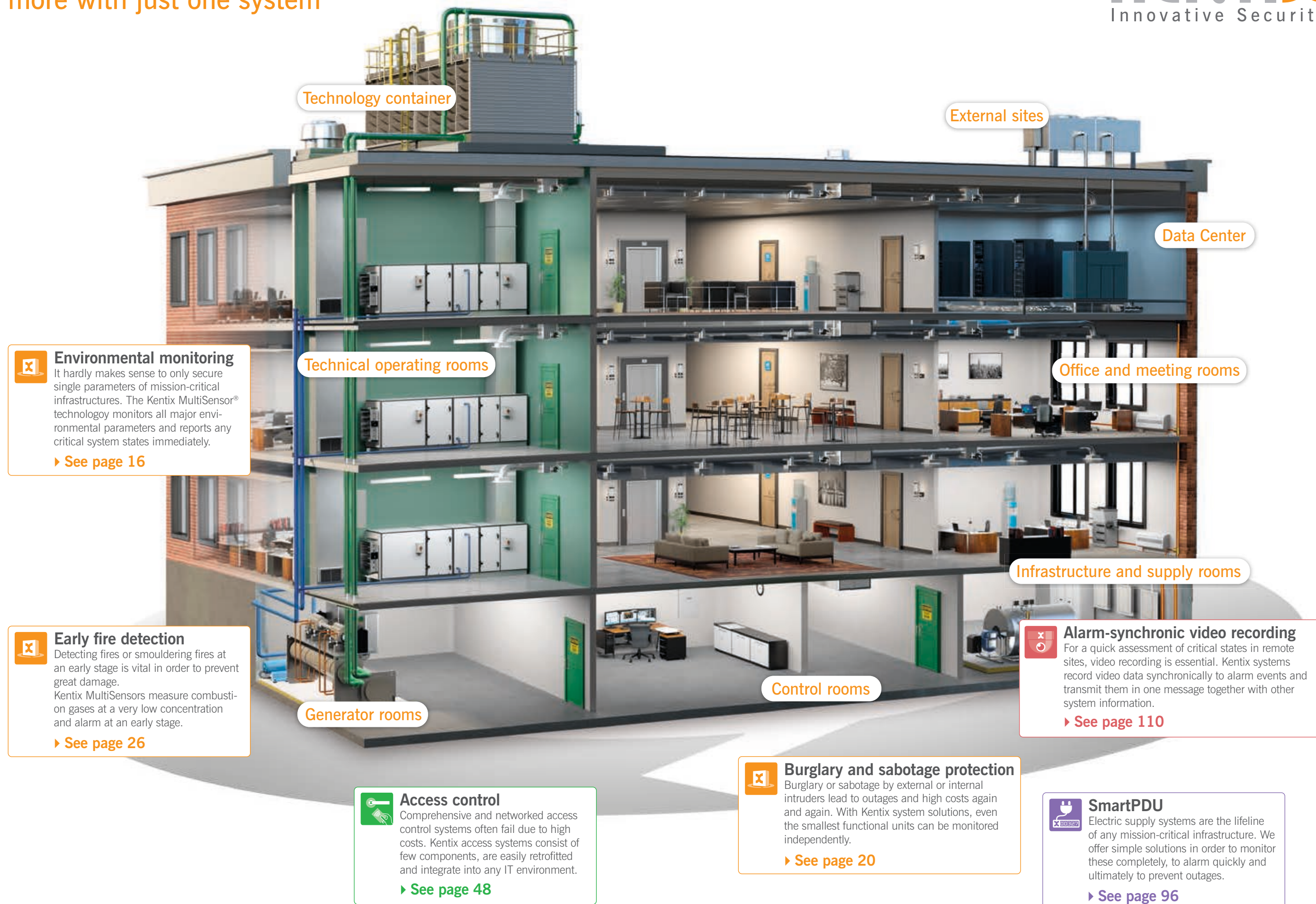


Kentix turns many individual systems into one system and thus increases security by eliminating different interfaces. With Kentix you can replace the following systems and save high investment and operating costs:

- Access control
- Early fire detection
- Alarm monitoring
- Video surveillance
- Intruder alarm system
- Environmental monitoring
- Network monitoring
- PDU/energy monitoring



# Monitor the entire IT infrastructure and more with just one system



## Environmental monitoring

It hardly makes sense to only secure single parameters of mission-critical infrastructures. The Kentix MultiSensor® technology monitors all major environmental parameters and reports any critical system states immediately.

► See page 16



## Early fire detection

Detecting fires or smoldering fires at an early stage is vital in order to prevent great damage. Kentix MultiSensors measure combustion gases at a very low concentration and alarm at an early stage.

► See page 26



## Access control

Comprehensive and networked access control systems often fail due to high costs. Kentix access systems consist of few components, are easily retrofitted and integrate into any IT environment.

► See page 48



## Burglary and sabotage protection

Burglary or sabotage by external or internal intruders lead to outages and high costs again and again. With Kentix system solutions, even the smallest functional units can be monitored independently.

► See page 20



## Alarm-synchronic video recording

For a quick assessment of critical states in remote sites, video recording is essential. Kentix systems record video data synchronically to alarm events and transmit them in one message together with other system information.

► See page 110



## SmartPDU

Electric supply systems are the lifeline of any mission-critical infrastructure. We offer simple solutions in order to monitor these completely, to alarm quickly and ultimately to prevent outages.

► See page 96





# Easy Setup Easy Operation Easy Deployment

The „heart“ of all our solutions is called KentixOS and is one of the most modern IoT platforms in security technology. It is extremely scalable, has no real system limits and can be organised decentrally or centrally in any system topology. This means you always have full control, regardless of whether you are monitoring a server rack or a global IT infrastructure.

With all our systems, the software for configuration and operation is already integrated. The state-of-the-art web GUI requires only a current web browser - communication is secured via TLS/HTTPS and data is encrypted. After selecting your language, you can immediately begin with the configuration.

Due to the high level of standardisation of the software modules, use is the same on all our devices. As an IoT specialist, we deliver a system that integrates seamlessly into your IT landscape. The spe-

cial feature: Updates are free of charge at any time and can be easily rolled out using integrated deployment tools.

In addition to the flexible web GUI, there are also corresponding apps for operation via smartphone.

These offer secure and fast remote access via Kentix 360, without time-consuming configuration. Open interfaces such as SNMP-V2/3, REST-API or Mod-Bus/OPC are a matter of course for us

## KentixOS & Artificial Intelligence

KentixOS already includes an AI architecture for machine learning. The applications run on the Kentix devices themselves, as so-called edge AI and not in a remote cloud application. This has many advantages, especially in to make autonomous and fast decisions on decisions on the spot.

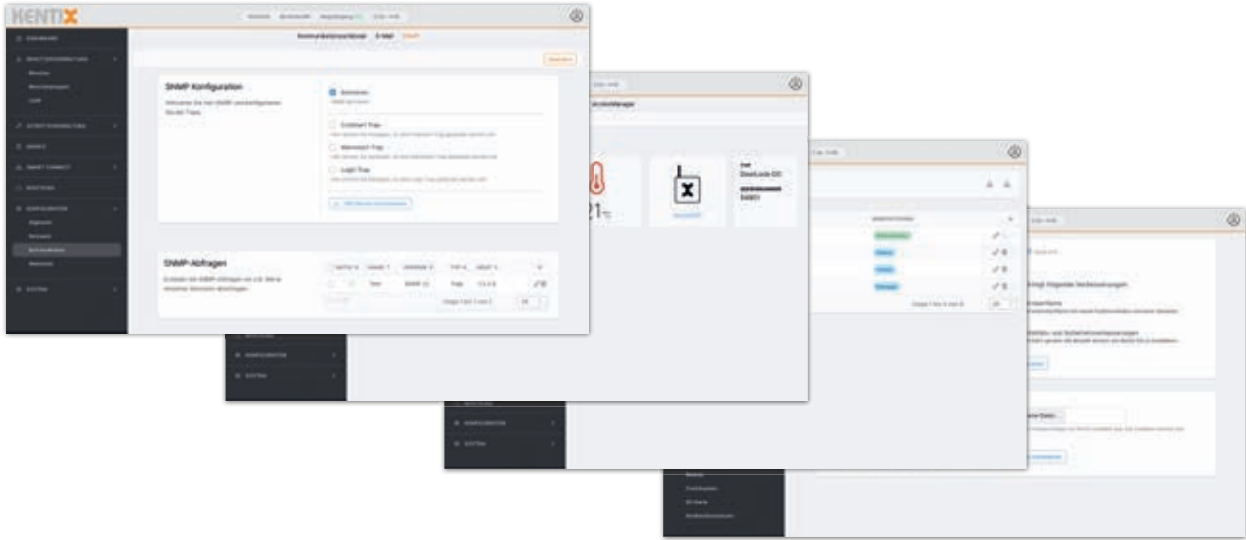
In the future, AI will be an integral part of many Kentix applications and will relieve you as a user of essential decisions and simplify the overgrowth of complex infrastructures. Kentix SmartXcan is one of the first applications based on AI for face and position recognition.



This avoids measurement errors and increases measurement accuracy.

### These functions are available in all Products with Kentix|OS:

- LDAP or AD-Integration
- HTTPS with server certificate
- SmartAPI - REST-API based on JSON
- WEBHOOKS - Server-based events (JSON, XML, CSV)
- SNMPv2/3 with standardized MIB
- Automatic backup to SMB or SD card
- E-mail notification
- User administration with authorization management
- Simple update function via Web-GUI
- Automatic software deployment



Kentix system solutions are consistently based on web technologies and IT standards. The range of functions and system scaling is already enormous by nature and is sufficient in many projects.

With the REST-API, the possibility of vertical integration is many times greater. In addition to the REST-API, SNMPv2/3 is also available as a standard interface for all products.

## What is REST-API?

The REST API is a programming interface based on the paradigms and behaviour of the World Wide Web (WWW). It has reached the status of an industry standard and is used by providers such as AWS, VMware, Azure and many cloud providers. Kentix systems thus

offer completely new integration possibilities and an enormous expansion of possible uses in digital business models and cloud solutions. The use of the Kentix REST API is free of charge.

## What are Webhooks?

In addition to the API query via HTTP POST request using JSON objects, so-called webhooks are available for the most important system events such as alarms, bookings and system messages. Webhooks are server-based events for the immediate transmis-

sion of events. The special thing about them is that they are arbitrarily configurable and independent of the data model. They can be JSON or XML based. The webhooks are simply created via the software interface (web GUI) of the respective devices.

More information and examples at [docs.kentix.com](https://docs.kentix.com)  
The complete documentation is available from our support.

## Complete IT Infrastructure Monitoring

In cooperation with our technology partners, we further develop our solutions continuously and offer uniform interfaces for an open system architecture with prospects.

### Simply integrate Network Monitoring Tools into environmental monitoring

The Kentix MultiSensor® technology monitors all major physical threats in rooms and racks such as critical climate factors, fire or burglary with just one system. The different measured and alarm values are made available via SNMP (v2/3) and can very easily be integrated into the according Network Monitoring Tool via the SNMP Management Information Base (MIB).

This way, the Kentix MultiSensor® technology provides the data for your network monitoring simply and reliably. Due to the combination of both systems, a gapless monitoring of your company-wide infrastructure is established – and it is ingeniously easy. Kentix devices support all major monitoring and DCIM (Data Center Infrastructure Management) tools.



#### SNMP Support

- Complete MIB for all integrated sensors
- Traps supported
- Query and integration of all measured values into network monitoring systems

#### HTTP Support

- Data exchange via XML
- HTTP commands for sending SMS (integrated SMS gateway)
- HTTP triggering of IP cameras

**We support all common Network Monitoring, DCIM and Building Management systems**



**and many more ...**

Nagios  
Icinga  
CA Unified Infrastructure Management  
GFI Network Server Monitor  
HP OpenView  
IBM Tivoli  
Ipswitch WhatsUp Gold (whatsupgold.com)  
Microsoft Operations Manager  
Adrem Software NetCrunch  
OpManager  
Quest Big Brother  
ruleIT Monitoring Server  
Spectrum Enterprise Manager  
SysLink Xandria

Further details on integration and the SNMP MIB for download

**[docs.kentix.com](https://docs.kentix.com)**





**Prevent system outages before they occur – network-based environmental monitoring for professional users**  
Our MultiSensor® technology protects your IT with just one system against up to 37 physical threats such as over temperature, burglary or fire – that is what makes Kentix so ingeniously easy.



CLIMATE    MONITORING    FIRE    E-MAIL/SMS/SNMP    BURGLARY    APP

IP environmental monitoring ingeniously easy – with the Kentix MultiSensor® technology

In contrast to outages that are caused by software errors, downtime due to physical defects is usually more expensive and lasts longer. The Kentix MultiSensor® technology offers the ideal solution for the physical protection of your IT infrastructure. With few components, it detects all major threats at an early stage and alarms before expensive outages occur. Real time information and redundant reporting channels such as SMS or PUSH messages are an integral part of our AlarmManagers. This way, you always receive alarms reliably and even if the company network is down.

Kentix devices are completely IT based and easy to integrate even in distributed IT infrastructures. The entire software is already included; therefore, no additional costs apply. The configuration and administration of the entire system happens centrally and comfortably per web interface. Close a gap in your IT security with Kentix and fulfill regulatory requirements such as BSI baseline protection and the ISO 27001. Avoid liability risks!

Kentix systems replace several single systems such as temperature sensors, burglar alarms or fire detection systems and therefore save about two thirds of the otherwise usual costs.

**The following systems are already integrated:**

- Climate monitoring
- Intrusion detection system
- Early fire detection
- Current/network monitoring
- Access system
- Server live check

**Application possibilities:**

- Server room, utility side rooms, IT cabinet
- Data center and container data center
- Mission-critical infrastructure
- Industry and distributed sites
- Warehouse, logistics, barrier systems
- Hospital, medical practice, medicine cabinets
- Office and administration buildings, branch offices



**StarterSet – Secures your IT rooms according to the ISO 27001**

**Monitors up to 37 threats!**

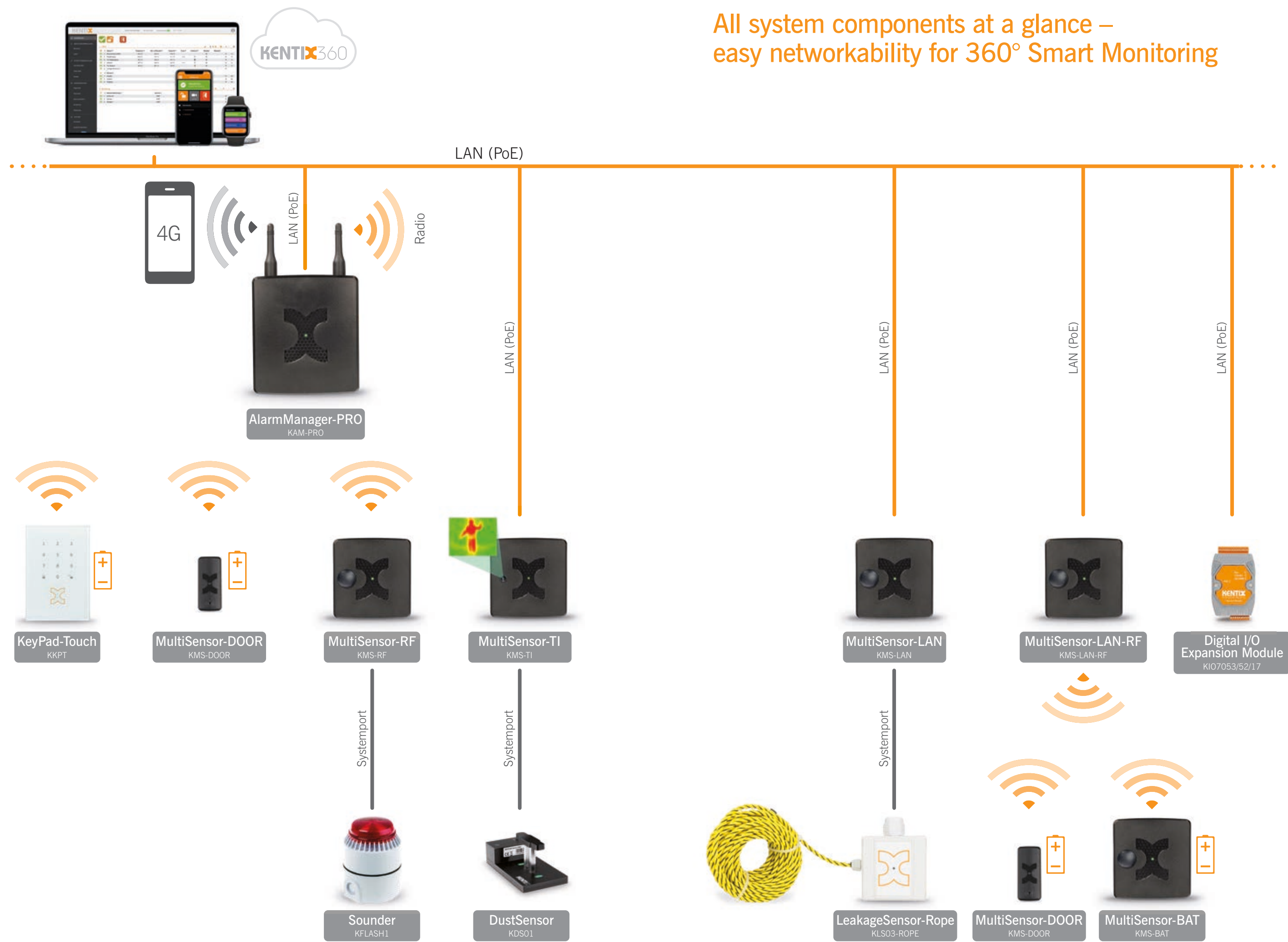
**AlarmManager, MultiSensor KMS-RF and MultiSensor-DOOR**

► For more info on the StarterSets see page 40

The ingeniously easy Kentix MultiSensor® technology detects the most important physical threats in rooms and racks with just one system.



All system components at a glance –  
easy networkability for 360° Smart Monitoring







AlarmManager

The AlarmManager is the intelligent alarm central of the system; all the information of the MultiSensors merge here. The Alarm-Manager is mounted in the server room or rack and forwards all alarm or fault messages to the responsible persons. The configuration happens via a comfortable web interface. All system messages are filed in an internal database.



Products

| Type               | Housing color | Item number |
|--------------------|---------------|-------------|
| AlarmManager-BASIC | Black         | KAM-BASIC-B |
| AlarmManager-BASIC | White         | KAM-BASIC-W |
| AlarmManager-PRO   | Black         | KAM-PRO-B   |
| AlarmManager-PRO   | White         | KAM-PRO-W   |

Accessories

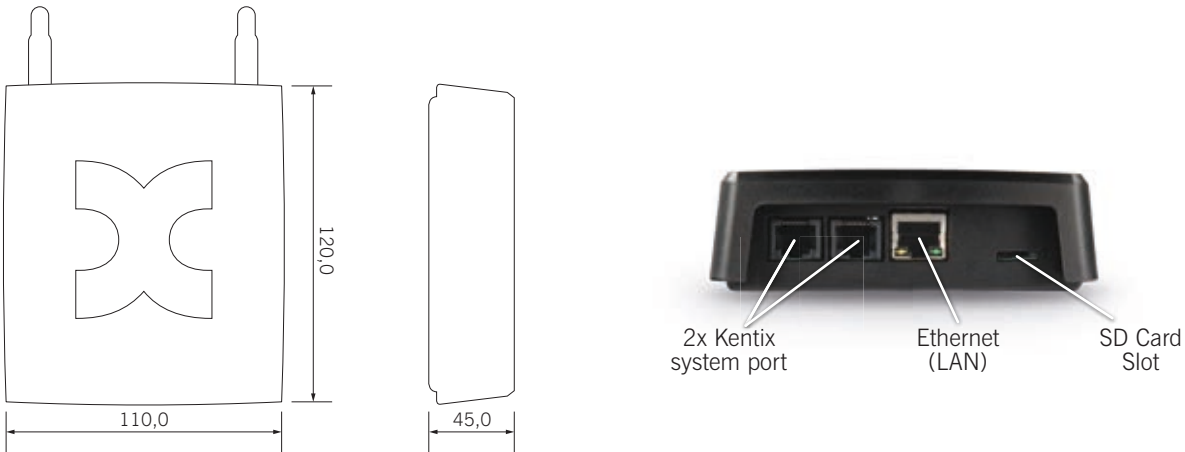
| Type                   | Item number |
|------------------------|-------------|
| PoE Injector           | KPOE100EU   |
| I/O Module with relays | KIO3        |
| Gain magnet antenna    | KMA3        |
| Antenna extension (5m) | KMA3-5      |
| Magnet Türkontakt      | KDC1-W      |

Technical Details

|                                   |   |
|-----------------------------------|---|
| Number of MultiSensors            | Up to 500 MultiSensors and devices total  |
| Integrated sensors                | Temperature -99 up to +99°C, humidity 0-100%, dew point °C  |
| Sabotage sensor                   | Internal vibration sensor (adjustable)  |
| Signal transmitter                | 85dB, 2.3kHz  |
| LED                               | GREEN/RED   |
| Radio                             | ZigBee® 2,4GHz ISM Band +3dBm output IEEE802.15.4, encryption AES 128 Bit                                   |
| SD card                           | Micro SD card slot for cards up to 128GB  |
| SNMP                              | SNMP V2/3, SNMP Traps (MIB)   |
| Ethernet                          | 10/100Mbit  |
| Integrated 4G modem               | Quad-Band 850/900/1800/1900MHz; integrated SIM card holder  |
| Power supply                      | PoE Class 3 or via external I/O Module KIO3 (accessories)<br>12-32VDC, power consumption approx. 5W         |
| Integrated emergency power supply | Autonomy time via internal super capacitor approx. 4 min., internal power monitoring                        |
| Kentix system port                | 2x RJ45, for the connection of external Kentix Plug'n'Play modules (accessories)                            |
| Alarm inputs (system port)        | 4x alarm input for potential-free wiring  |
| Switch outputs (system port)      | 4x Open Collector 0.1A/24V<br>Optional: I/O Module with relay (KIO3) for the connection of external systems |
| Housing                           | Protection class IP20, size 110 x 120 x 45 mm, weight approx. 300g, colors: white, black                    |
| Environmental conditions          | Temperature 0 – 50°C, humidity 5-95%, non-condensing  |
| Delivery contents                 | AlarmManager, antennas (ZigBee®, 4G), mounting bracket, SlimLine cable 3m, mounting material                |
| Approvals                         | CE  |

Function Overview - Device Variants

| Variant                             | KAM-PRO   | KAM-BASIC   |
|-------------------------------------|---|---|
| Function                            | 4G alarm and control<br>central for MultiSensor,<br>KeyPad, accessories | 4G alarm and control<br>central for MultiSensor,<br>KeyPad, accessories |
| Room/site size                      | up to approx. 10.000 m²   | up to approx. 4.000 m²  |
| Number of connectable MultiSensors  | 500   | 200   |
| MultiSensors with radio             | ✓   | ✓   |
| MultiSensors with LAN               | ✓   | ✗   |
| Configuration                       | Web server  | Web server  |
| Smartphone app                      | ✓   | ✓   |
| Integrated web server (HTTPS)       | ✓   | ✓   |
| Server monitoring (live check)      | ✓   | ✓   |
| IP video camera control             | ✓   | ✓   |
| SMS alarms                          | ✓   | ✓   |
| E-mail alarms                       | ✓   | ✓   |
| VDS 2465-S2 alarming (TCP)          | ✓   | ✗   |
| SNMP Trap (V2, V3)                  | ✓   | ✓   |
| SNMP MIB (V2, V3)                   | ✓   | ✓   |
| Data logger with long-term memory   | ✓   | ✓   |
| External I/O modules (ethernet)     | ✓   | ✗   |
| Switch outputs (Open Collector)     | 4   | 4   |
| Alarm inputs (isolated)             | 4   | 4   |
| Port LeakageSensor                  | ✓   | ✓   |
| PoE (Power over Ethernet, Class3)   | ✓   | ✓   |
| External power supply               | ✓   | ✓   |
| Integrated UPS (super capacitor)    | ✓   | ✓   |
| LAN port (10/100Mbit, IP-V4)        | ✓   | ✓   |
| ZigBee (radio)                      | ✓   | ✓   |
| Kentix system port                  | ✓   | ✓   |
| Sabotage monitoring                 | ✓   | ✓   |
| Sensor - Temperature (0-99°C)       | ✓   | ✓   |
| Sensor - Relative humidity (0-100%) | ✓   | ✓   |
| Sensor - Dew point (°C)             | ✓   | ✓   |
| Sensor - Vibration (shock)          | ✓   | ✓   |
| Voltage monitoring (PoE)            | ✓   | ✓   |
| Size (L x W x H in mm)              | 110 x 120 x 45  | 110 x 120 x 45  |

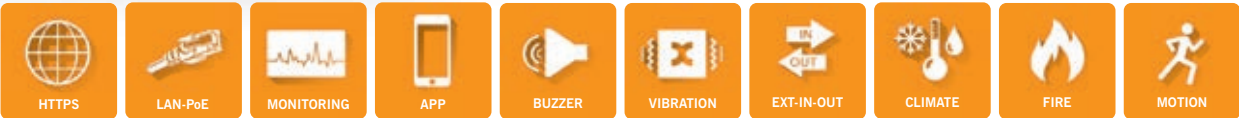


KENTIX<sup>OS</sup>



### MultiSensor

The MultiSensor is the ingeniously easy solution for server room monitoring. With just one device you monitor your IT infrastructure for up to 20 physical threats such as critical climate factors, fire or burglary and lay the foundation for fulfilling regulatory requirements according to BSI baseline protection and the ISO 27001.



The MultiSensors are available with Ethernet (PoE) or wireless connectivity. The network-compatible MultiSensors are stand-alone capable and can also be operated without AlarmManager.

Depending on the type, the MultiSensors with wireless connectivity are either powered by a power supply unit or battery operated. You always need an AlarmManager for administration.

### MultiSensors at a glance

All MultiSensors are available in the housing colours black and white!



| Type           | Item Number |
|----------------|-------------|
| MultiSensor-TI | KMS-TI-40-B |
| MultiSensor-TI | KMS-TI-40 W |
| MultiSensor-TI | KMS-TI-90-B |
| MultiSensor-TI | KMS-TI-90-W |

| Type            | Item Number |
|-----------------|-------------|
| MultiSensor-LAN | KMS-LAN-B   |
| MultiSensor-LAN | KMS-LAN-W   |

| Type               | Item Number  |
|--------------------|--------------|
| MultiSensor-LAN-RF | KMS-LAN-RF-B |
| MultiSensor-LAN-RF | KMS-LAN-RF-W |



| Type           | Item Number |
|----------------|-------------|
| MultiSensor-RF | KMS-RF-B    |
| MultiSensor-RF | KMS-RF-W    |



| Type            | Item Number |
|-----------------|-------------|
| MultiSensor-BAT | KMS-BAT-B   |
| MultiSensor-BAT | KMS-BAT-W   |



| Type             | Item Number |
|------------------|-------------|
| MultiSensor-DOOR | KMS-DOOR-B  |
| MultiSensor-DOOR | KMS-DOOR-W  |

## One device that detects all major physical risks – the Kentix MultiSensor®



**Temperature**

- Monitoring of room temperature
- Monitoring of cooling or heating

**Humidity**

- Monitoring of humidity
- Monitoring of room air-conditioning

**Dew point**

- Monitoring of the dew point
- Prevention of condensation

**Supply voltage**

- Monitoring of the external voltage
- Bridging and reporting of power failure

**Carbon monoxide (CO)**

- Early fire detection via highly sensitive CO sensor
- Detection of emerging fires

**PIR motion detection**

- Fast motion detection
- Secure detection of unauthorized persons

**External signal inputs**

- Enables the connection of external devices such as LeakageSensors
- Door contacts, fault messages of external devices

**Ext. alarm and switch outputs**

- Control of external alarm devices such as sirens, flashing lights
- Remote control of devices

**Acoustic signal transmitter**

- Integrated signal transmitter for acoustic alarming

**ZigBee radio transmission**

- Encrypted transmission of sensor data to the central unit
- High range and security due to automatic networking

**Sabotage monitoring**

- Continuous monitoring of possible manipulation and sabotage of MultiSensor and AlarmManager

**Air quality**

- Determination of air quality according to the IAQ Index (Indoor Air Quality)
- Combination with the integrated early fire warning sensors

**Air pressure (hPa)**

- Air pressure measurement to determine different pressure ranges or the height

**Thermal Image Sensor**

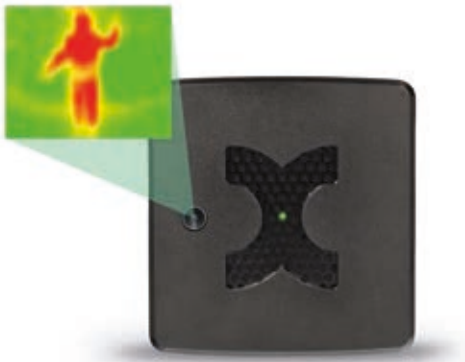
- Optimal detection of thermal hotspots
- Graphical image display

Integrated sensors depending on device type, see page 28



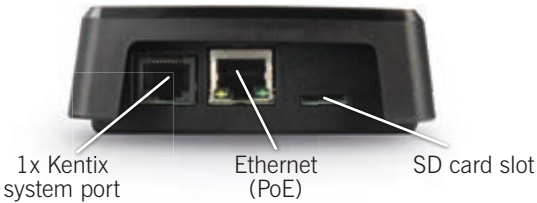
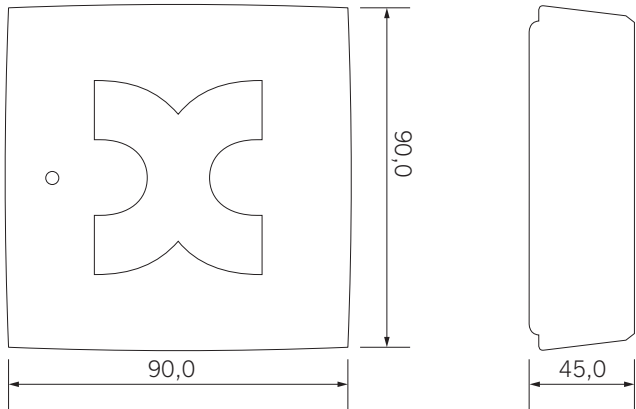
MultiSensor with thermal image

The MultiSensor-TI is the latest MultiSensor technology with integrated thermal image sensor for monitoring critical plant conditions and early fire detection. In addition to pure thermal monitoring, the sensor also enables motion detection of persons with direction of movement as well as the number of persons. Compared to thermal cameras, the sensor has the advantage that it is data protection compliant and links additional sensors with the thermal evaluation. For early fire detection, this means that up to four factors (thermal image, CO, air quality, room temperature) are evaluated for reliable detection.



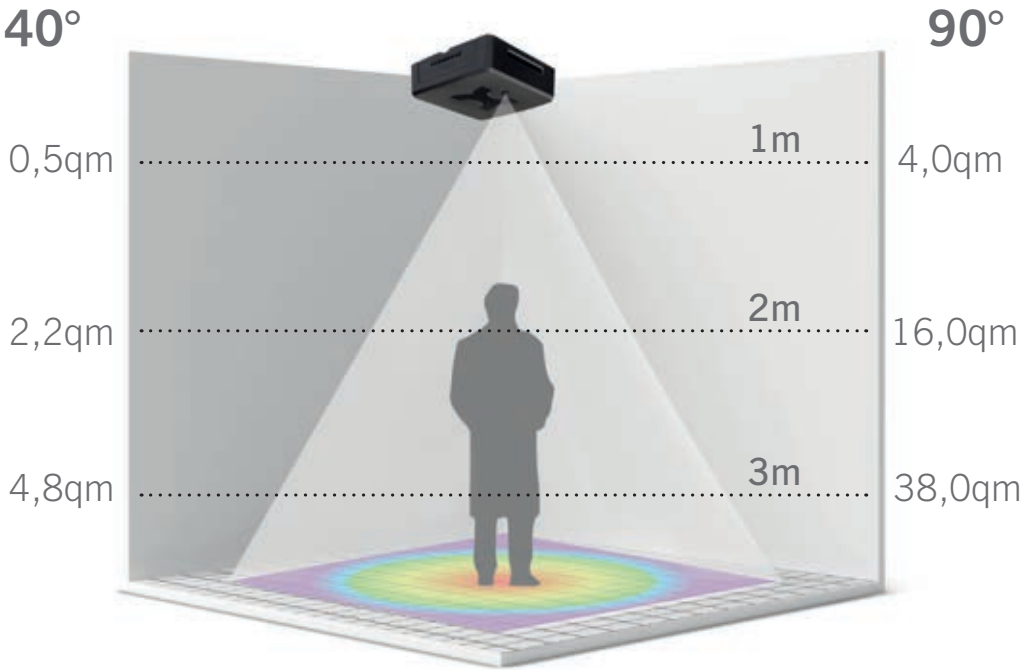
Sensor Matrix

|                               | Early firedetection | Movement | Climate | Sabotage | External Alarm |
|-------------------------------|---------------------|----------|---------|----------|----------------|
| Thermal image sensor (40/90°) | ✓                   | ✓        | ✓       | ✓        | -              |
| Carbon monoxide sensor (CO)   | ✓                   | -        | -       | -        | -              |
| Air quality (IAQ)             | ✓                   | -        | ✓       | -        | -              |
| Temperature                   | ✓                   | -        | ✓       | -        | -              |
| Humidity                      | -                   | -        | ✓       | -        | -              |
| Dew point                     | -                   | -        | ✓       | -        | -              |
| Air pressure                  | -                   | -        | ✓       | -        | -              |
| Vibration                     | -                   | -        | -       | ✓        | -              |
| External inputs               | -                   | -        | -       | ✓        | ✓              |



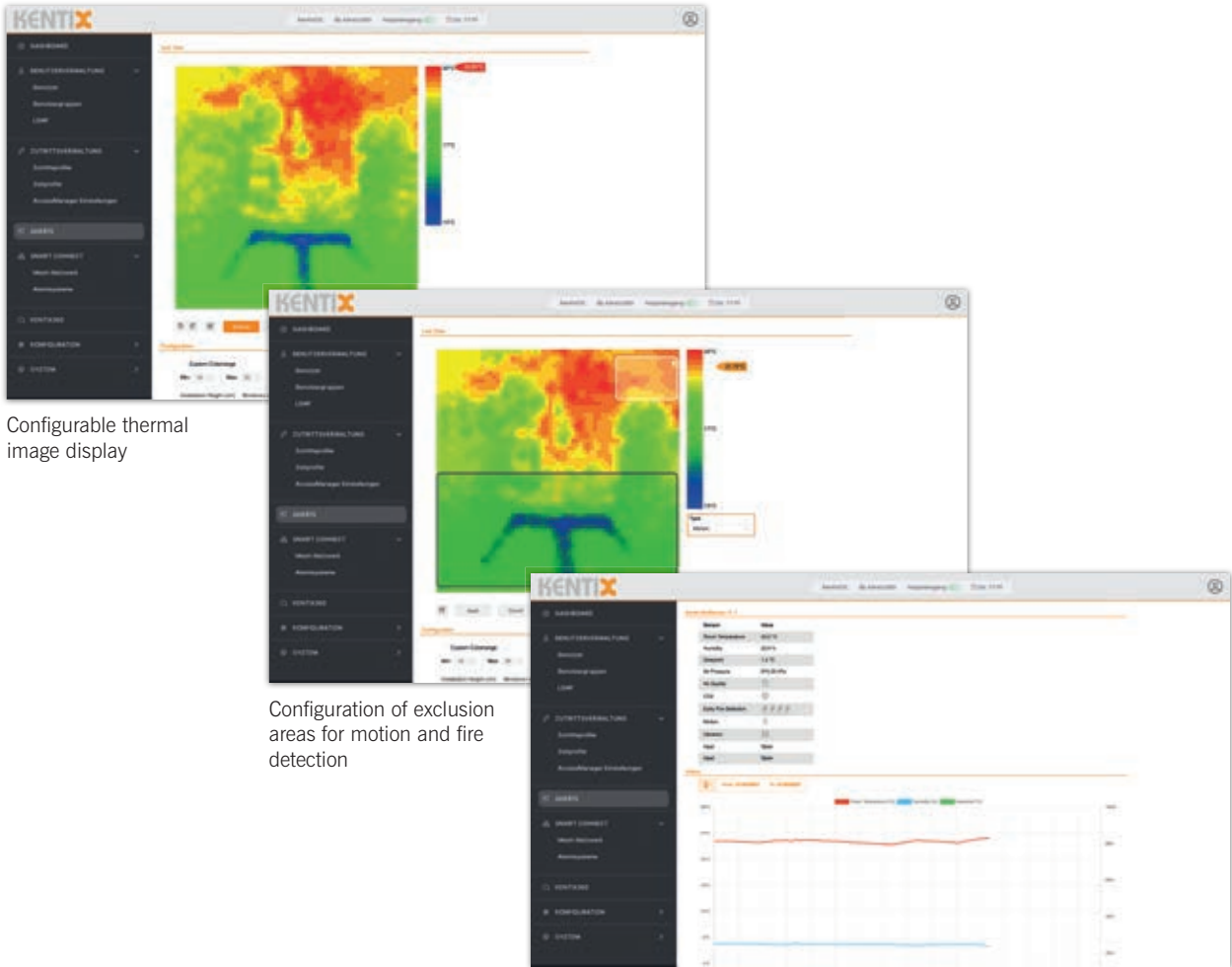
Configuration depending on type, Details see page 28

Monitored area by optics 40°/90°



Calculation tool at <https://docs.kentix.com>

Presentation in KentixOS WEB-GUI



Dashboard overview with all measured values




# Early fire detection with MultiSensor technology

Fires in technical installations are often (>50%) caused by electrical faults and can have many reasons such as insulation faults, overcurrents or improper maintenance. In addition, there are ever increasing power and packing densities which, especially in IT systems, require forced cooling for error-free operation. In most cases, such fires develop over a long period of hours or even days. In order to detect the actual fire or even just a „creeping defect“ at an early stage,

a sensitively responding sensor system optimized for fire parameters is required. The Kentix MultiSensor combines a large number of different sensors in one device, with the aim of detecting as many dangers as possible. In early fire detection, these are four factors in particular, which are evaluated. Here too, the primary goal is to detect and react to the initial fire at an early stage, before major damage occurs.


## The Kentix 4 factor early fire detection - detect fires before they start



**Thermal Image Sensor**

- Detects thermal hotspots and transmit images for localization
- High preventive effect, very early Message, requires direct view of object


1



**Air quality (VOC)\***

- Detects rapid changes or deterioration in air quality
- High preventive effect, very early Notification, does not require direct view of object


3



**Carbon monoxide (CO)**

- Very sensitive measurement of CO-salary. CO diffuses typically in the room. Measurement from 50ppm
- High preventive effect, very early notification, no direct view of object required

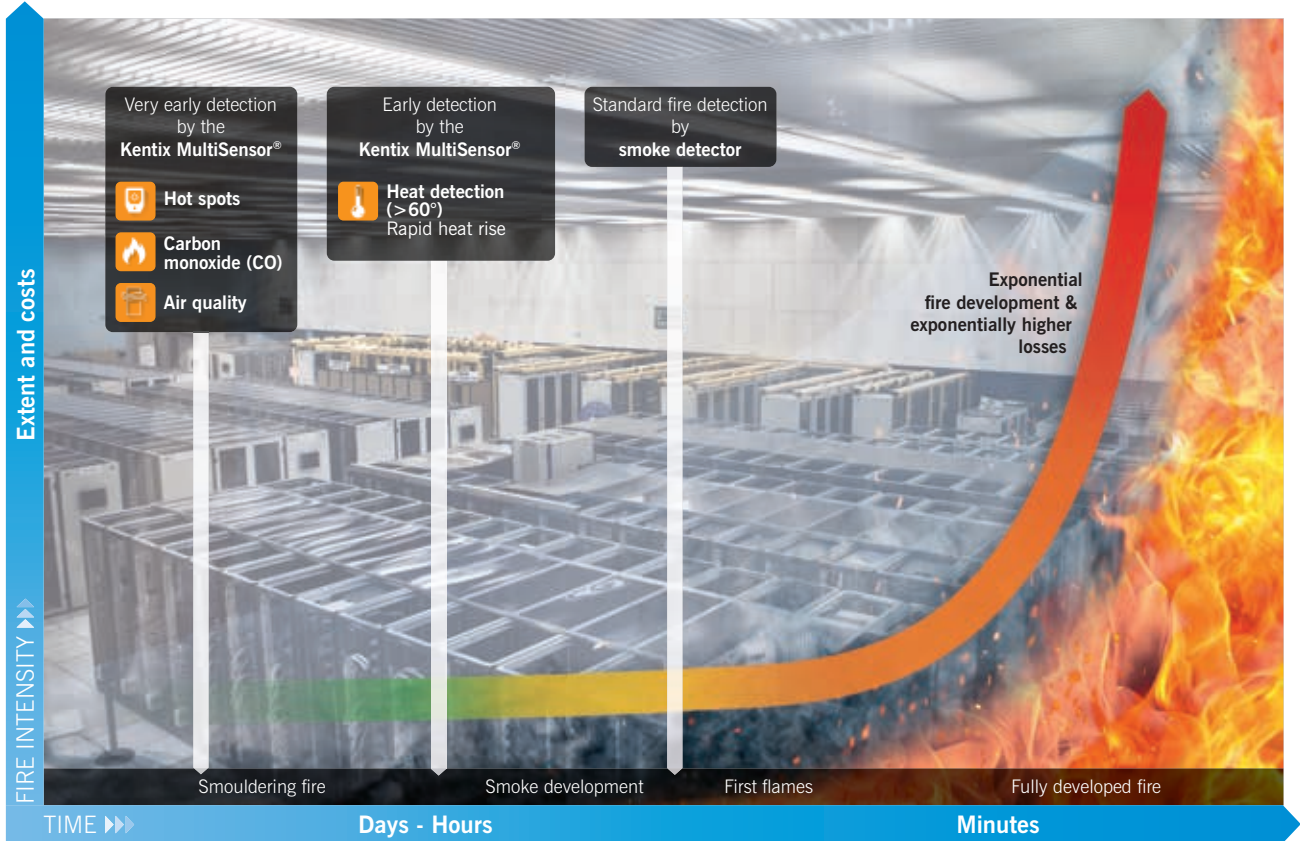
2



**Temperature-Heatsensor**

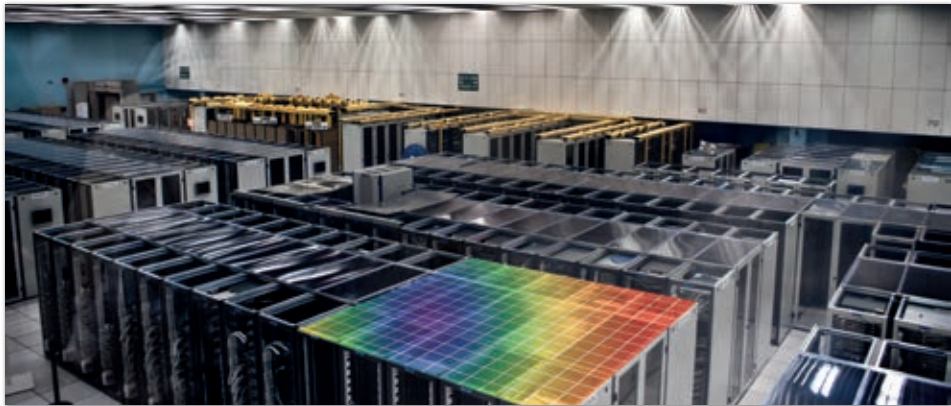
- Measures the steepness of the temp. rise and an upper threshold value (>60°C)
- Important value for estimating the Progress of fire, no direct view on object required

4

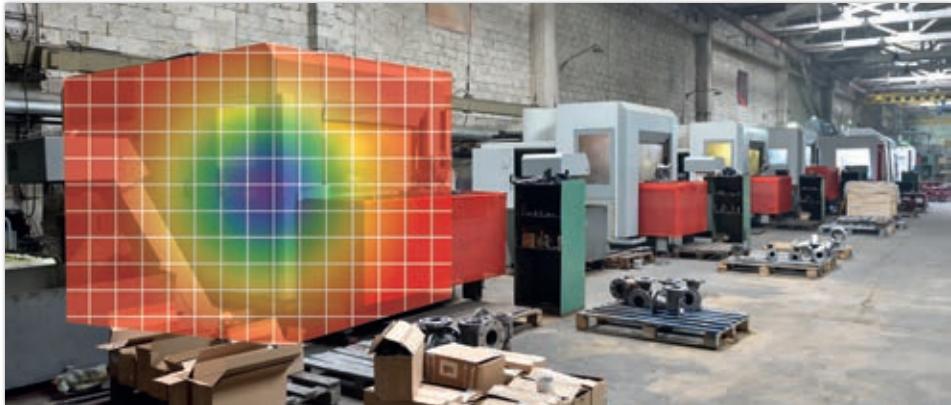


\* Volatile Organic Compounds (VOC) is the collective term for organic, carbon-containing substances. These are to an extent relevant for air pollution control. They change into the gas phase by evaporation and are therefore called volatile gases.

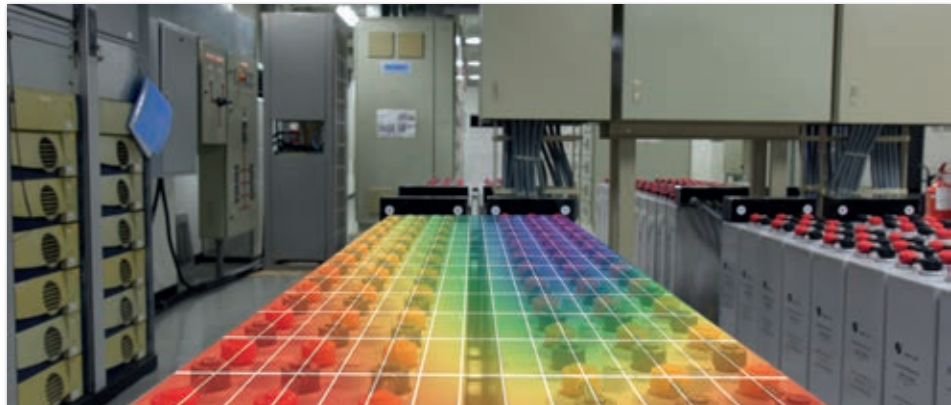
# Application examples



Data Center



Production facilities



Battery UPS systems



Generators, aggregates, electrical systems



Functional overview  
MultiSensor Types



| Device                                      | AlarmManager  | MultiSensor-TI                           | MultiSensor-LAN                    |
|---|---|--|------------------------------------|
| Type  | KAM-BASIC/ KAM-PRO                                  | KMS-TI                                   | KMS-LAN                            |
| Function                                    | 4G signalling and control Unit for Alarm monitoring | Multifunction sensor with thermal sensor | Multifunction sensor with Ethernet |
| Room or plant size                          | up to approx. 10.000 m²                             | 1-50 m²                                  | 20 m², IT Rack                     |
| Number of connectable MultiSensors          | 200 / 500   | -  | -                                  |
| Configuration                               | Web-Server (HTTPS)                                  | Web-Server (HTTPS)                       | Web-Server (HTTPS)                 |
| Smartphone app                              | ✓   | ✓  | ✓                                  |
| Integrated Web Server (HTTPS)               | ✓   | ✓  | ✓                                  |
| Integrated 4G modem                         | ✓   | ✗  | ✗                                  |
| Server monitoring (live check)              | ✓   | ✗  | ✗                                  |
| Stand-alone capability without AlarmManager | ✗   | ✓  | ✓                                  |
| Video recording IP camera (HTTP/S)          | ✓   | ✓  | ✓                                  |
| SMS alerts                                  | ✓   | ✗  | ✗                                  |
| E-mail alerts                               | ✓   | ✓  | ✓                                  |
| VDS 2465-S2 Alarm (TCP)                     | ✓   | ✗  | ✗                                  |
| SNMP V2/3, traps                            | ✓   | ✓  | ✓                                  |
| REST-API (HTTPS/JSON),Webhooks              | ✓   | ✓  | ✓                                  |
| Data logger with long-term memory           | ✓   | ✓  | ✓                                  |
| Switching outputs (open collector)          | 4   | 2  | 2                                  |
| Alarm inputs (potential-free)               | 4   | 2  | 2                                  |
| Connection leakage/dust sensor              | ✓   | ✓  | ✓                                  |
| PoE (Power over Ethernet)                   | ✓   | ✓  | ✓                                  |
| External power supply                       | ✓   | ✓  | ✓                                  |
| Integrated UPS                              | ✓   | ✗  | ✗                                  |
| Ethernet connection (10/100Mbit)            | ✓   | ✓  | ✓                                  |
| ZigBee (radio)                              | ✓   | ✗  | ✗                                  |
| ZigBee repeater function                    | ✓   | ✗  | ✗                                  |
| Kentix system port                          | ✓   | ✓  | ✓                                  |
| Sabotage monitoring                         | ✓   | ✓  | ✓                                  |
| Sensor - Temperature (0-99°C)               | ✓   | ✓  | ✓                                  |
| Sensor - Relative humidity (0-100%)         | ✓   | ✓  | ✓                                  |
| Sensor - Dew point (°C)                     | ✓   | ✓  | ✓                                  |
| Sensor - carbon monoxide (CO >20ppm)        | ✗   | ✓  | ✓                                  |
| Sensor - Motion PIR                         | ✗   | ✓  | ✓                                  |
| Sensor - Thermal image (1024 pixel)         | ✗   | ✓  | ✗                                  |
| Sensor - Vibration (shock)                  | ✓   | ✓  | ✓                                  |
| Sensor - Air quality                        | ✗   | ✓  | ✗                                  |
| Sensor - Air pressure                       | ✗   | ✓  | ✗                                  |
| Monitoring of the supply voltage            | ✓   | ✗  | ✗                                  |
| SD card slot (Micro SD)                     | ✓   | ✓  | ✓                                  |
| Protection class                            | IP20  | IP20                                     | IP20                               |
| Size (L x W x H in mm)                      | 110 x 120 x 45                                      | 90 x 90 x 45                             | 90 x 90 x 45                       |
| Approvals                                   | CE  | CE                                       | CE                                 |



| MultiSensor-LAN-RF  | MultiSensor-RF                         | MultiSensor-BAT                       | MultiSensor-DOOR   |
|---|--|---------------------------------------|--|
| KMS-LAN-RF  | KMS-RF                                 | KMS-RF-BAT                            | KMS-DOOR   |
| Multifunction sensor with Ethernet and ZigBee radio as repeater | Multifunction sensor with ZigBee radio | Multifunktions-Sensor mit ZigBee-Funk | Multi-function sensor to detect unauthorized access or entry |
| 20 m², IT Rack  | 20 m², IT Rack                         | 20 m², IT Rack                        | Door, Window, Rack   |
| 25 (Radio)  | -                                      | -                                     | -  |
| Web-Server (HTTPS)  | AlarmManager                           | AlarmManager                          | AlarmManager   |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✓ (KAM)                                | ✓ (KAM)                               | ✓ (KAM)  |
| 2   | 2                                      | ✗                                     | ✗  |
| 2   | 2                                      | ✗                                     | ✗  |
| ✓   | ✓                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✓                                      | Batterie (Li, 1/2AA))                 | Batterie (Li, 1/2AA))  |
| ✗   | ✓                                      | ✗                                     | ✗  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| ✓   | ✓                                      | ✓                                     | ✓  |
| ✓   | ✓                                      | ✗                                     | ✗  |
| ✓   | ✓                                      | ✗                                     | ✗  |
| ✓   | ✓                                      | ✓                                     | ✓  |
| ✓   | ✓                                      | ✓                                     | ✓  |
| ✓   | ✓                                      | ✓                                     | ✗  |
| ✓   | ✓                                      | ✓                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✗                                      | ✗                                     | ✗  |
| ✗   | ✓                                      | ✓                                     | ✓  |
| ✓   | ✗                                      | ✗                                     | ✗  |
| IP20  | IP20                                   | IP20                                  | IP20   |
| 90 x 90 x 45  | 90 x 90 x 45                           | 90 x 90 x 45                          | 27 x 27 x 62   |
| CE  | CE                                     | CE                                    | CE   |



### MultiSensor-DOOR

Ultra-compact MultiSensor for the detection of burglary attempts on doors, windows and moveable objects, including climate monitoring. It replaces classic door contacts and can very easily be mounted due to its magnetic contact that adapts to the conditions of the door or window respectively. The Multi-Sensor-DOOR is battery operated and has a very long battery life (up to 4 years).

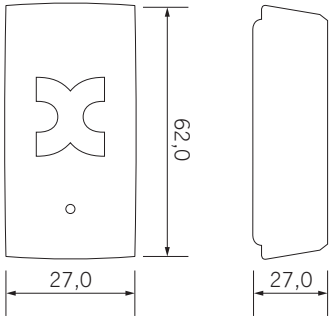


Products

| Type             | Housing color | Item number |
|------------------|---------------|-------------|
| MultiSensor-DOOR | Black         | KMS-DOOR-B  |
| MultiSensor-DOOR | White         | KMS-DOOR-W  |

Accessories

| Type          | Item number |
|---------------|-------------|
| Spare battery | KER14250    |



Technical Details

|                            |   |
|----------------------------|---|
| Connectivity               | AlarmManager-BASIC (KAM-BASIC); AlarmManager-PRO (KAM-PRO)  |
| Sensor – Temperature       | Measurement range -20°C/-4°F up to +99°C/210°F (accuracy +/- 0,5°C)                                     |
| Sensor – Relative humidity | Measurement range 0 up to 100% (accuracy +/- 3%)  |
| Sensor – Dew point         | Measured in °C/°F   |
| Sensor – Vibration         | 3 axis, sensitivity adjustable  |
| Sensor – Reed contact      | Magnetic sensor for door position (spacing up to approx. 1 cm)  |
| Sensor – Sabotage          | Sabotage message when disassembled  |
| Signal transmitter         | 65dB, 2.3kHz  |
| LED                        | Multicolor LED (Red/Green); ALARM (Red); Teaching-in (Green)  |
| Radio                      | ZigBee® 2,4GHz; ISM Band +3dBm; output IEEE8 02.15.4; encryption AES 128 Bit                            |
| Power supply               | Lithium-ion battery, 1/2 AA 3,6V (1.200 mAh); battery life up to 4 years (approx. 200.000 transactions) |
| Housing                    | Material: PS 62 x 27 x 27 mm; weight approx. 50g; colors: black, white                                  |
| Environmental conditions   | Temperature 0 – 45°C; humidity 5-95%, non-condensing  |
| Delivery content           | 1x Li-battery 3,6V/1.200mAh, mounting material, magnet for REED contact                                 |
| Approvals                  | CE  |



### Digital I/O Expansion Module

The I/O Expansion Module is connected to the AlarmManager-PRO and serves the connection of external alarm messages. It communicates via ethernet. This way, the module can be mounted in any arbitrary place. The configuration happens on the web interface of the AlarmManager-PRO. Via the integrated web server, the module offers an easy IP configuration and testing of the in/outputs without additional software. Up to 32 modules (500 alarm inputs max.) can be operated on one AlarmManager-PRO.

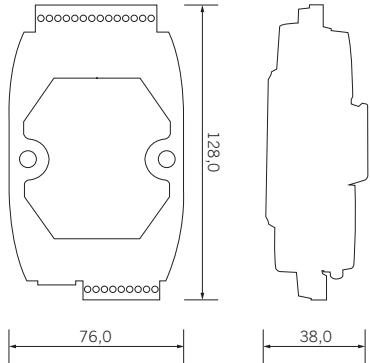


Products

| Type       | Inputs   | Outputs   | Configuration alarm outputs      | Item number |
|------------|--|---|----------------------------------|-------------|
| I/O Module | Digital inputs for voltage wiring; ON: +10-50VDC, OFF: +4DC; input impedance: 10kOHM, overvoltage protection 70VDC | Open-Collector outputs 10-40VDC, capacity 650mA (up to 1.1A overcurrent protection), overvoltage protection 47VDC | Openly assignable and switchable | KIO7052     |
| I/O Module | Digital inputs for potential-free wiring, ON: open, OFF: input switched to GND                                     | —   | —                                | KIO7053     |
| I/O Module | 8 analog inputs for measured values 0-10V, 4-20mA  | —   | —                                | KIO7017     |

Accessories

| Type  | Item number |
|---|-------------|
| PoE Injector  | KPOE100EU   |
| External Temperature Sensor (IP66) -50°C to 100°C       | KESAN1      |
| External cable Temperature Sensor (IP66) -50°C to 100°C | KESAN2      |



Technical Details

|                  |  |
|------------------|--|
| Connectivity     | External alarms of existing system components (air conditioners, UPS systems, generators, alarm systems) |
| AlarmManager     | Connection to Kentix AlarmManager-PRO  |
| Configuration    | Integrated web server (HTTP)   |
| Protocols        | KAM-IO-Communication per IP-Port: 502 (Default)  |
| Security         | ID, password and IP filter   |
| Terminal clamps  | Pluggable screw terminals for cables up to 1 mm²   |
| Isolation        | Ethernet 1,5kVDC, I/O 3,7kVrms   |
| Environment      | Operating temperature -20°C up to +60°C, relative humidity 10-90% non-condensing                         |
| Network          | LAN 10/100 Base-TX (PoE)   |
| Power supply     | PoE (Class 1) or external adaptor 12-32VDC, 3Watt  |
| Housing          | 76 x 128 x 38 mm (DIN rail assembly)   |
| Delivery content | KIO7052/KIO7053/KIO7017, 3m patch cable, terminal block, manual  |
| Approvals        | CE   |



RFID  
RADIO  
BATT



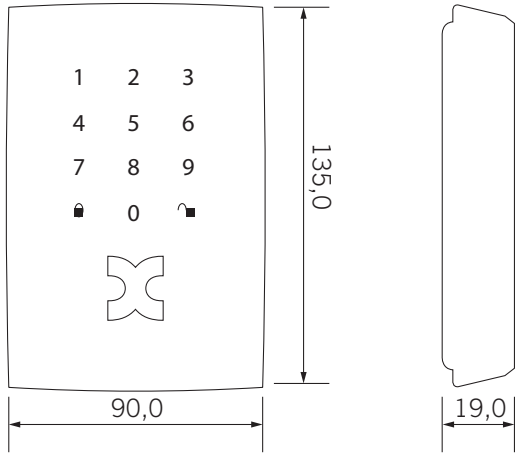
KeyPad-Touch

The KeyPad with glass-touch-pad is used to arm/disarm the AlarmManager and to control access. Each event is documented and saved in the log book of the AlarmManager. The KeyPad is easy to mount on the wall and is battery operated with two standard AAA batteries. By default, the KeyPad-Touch is equipped with an RFID card reader (MIFARE® DESFire®, LEGIC® advant).



Products

| Type         | Reader  | Item number |
|--------------|---|-------------|
| KeyPad-Touch | RFID reader 13.56MHz for MIFARE® and LEGIC® advant RFID mediums | KKPT        |



Accessories

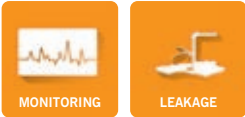
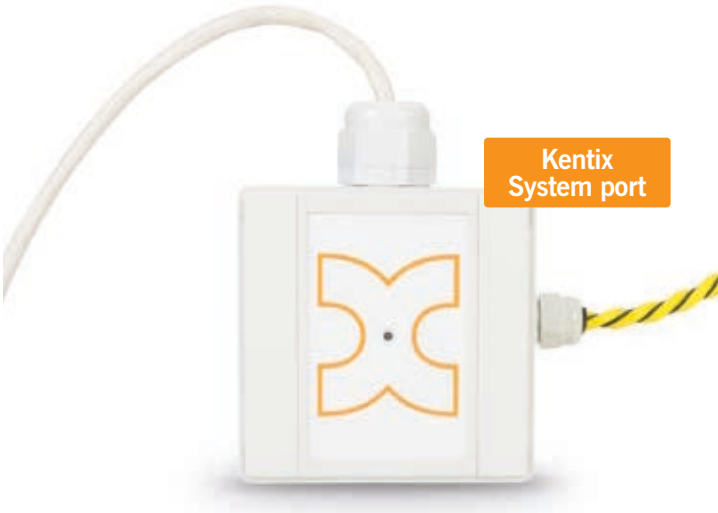
| Type             | Delivery content | Item number |
|------------------|------------------|-------------|
| RFID keyfob      | 1 piece          | KKT-M       |
| RFID keyfob      | 25 pieces        | KKT-M25     |
| Transponder card | 1 piece          | KKT-MC      |
| Transponder card | 25 pieces        | KKT-MC25    |

Technical Details

|                          |   |
|--------------------------|---|
| Connectivity             | AlarmManager-BASIC/PRO, MultiSensor-LAN-RF  |
| Signal transmitter       | 70dB, 2.3kHz  |
| LED                      | Zone (RED/GREEN), armed (RED/GREEN), disarmed (RED/GREEN)   |
| Radio                    | ZigBee® 2,4GHz ISM Band +3dBm output; IEEE8 02.15.4; encryption AES 128 Bit                             |
| RFID-NFC                 | Integrated RFID reader (13.56MHz); ISO14443A/B, ISO15693, ISO18092/NFC (MIFARE®DESFire®, LEGIC® advant) |
| Power supply             | Battery operation 2 x 1.5V/AAA; battery life approx. 2 years, depending on the number of read cycles    |
| Housing                  | Material: PS 90 x 135 x 19 mm; weight approx. 100g; color: white; protection class IP40                 |
| Environmental conditions | Temperature 0 – 45°C; humidity 5-95%, non-condensing  |
| Delivery content         | KeyPadTouch, 2x MIFARE® DESFire® RFID keyfob, 2x AAA batteries  |
| Accessories              | Spare battery 1.5V/AAA, 1000mAh   |
| Approvals                | CE  |

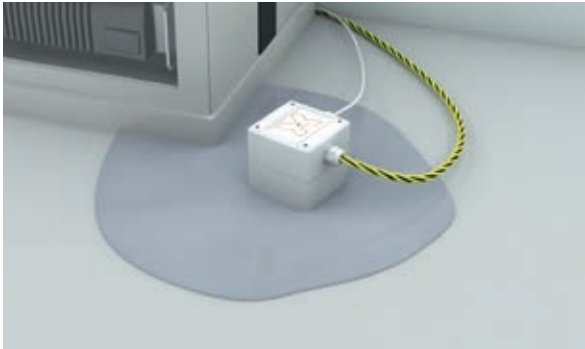
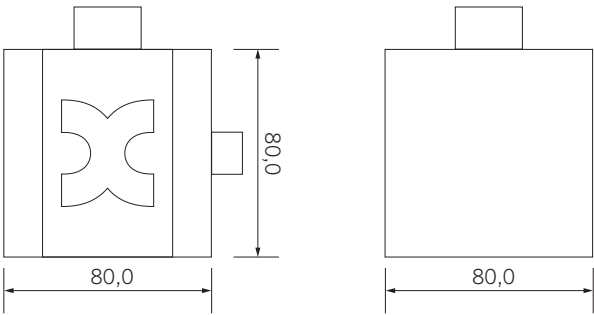
LeakageSensor

The LeakageSensor is connected to an AlarmManager or a MultiSensor-LAN/-RF per plug'n'play and continuously measures conductivity via several electrodes. It is connected with a standard patch cable and therefore can easily be „patched in“ to existing wiring. The LeakageSensor-ROPE additionally has a sensor cable. The integrated sensors in the cable detect water ingress all along the rope at an early stage. The LeakageSensor is cascable up to five times and therefore also suitable for large rooms.



Products

| Type               | Sensor cable length | Item number   |
|--------------------|---------------------|---------------|
| LeakageSensor      | —                   | KLS03         |
| LeakageSensor-ROPE | 10 meters           | KLS03-ROPE-10 |
| LeakageSensor-ROPE | 20 meters           | KLS03-ROPE-20 |



The LeakageSensor detects water ingress quickly and reliably

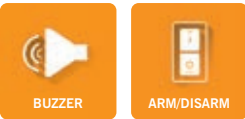
Technical Details

|                   |  |
|-------------------|--|
| Connectivity      | Kentix system port (RJ45)  |
| Power supply      | Via Kentix system port   |
| Status LED        | RED/GREEN  |
| Temperature range | -25°C up to 70°C / max. 85%rF, non-condensing                            |
| Connection cable  | 10m, RJ45 plug for Kentix system port                                    |
| Housing sensor    | Ni/Au, sensitivity: 1ml water  |
| Rope sensor       | Conductive polymer cable, sensitivity: 10ml water on approx. 20cm length |
| Housing           | Color white, protection class IP65 according to EN60529                  |
| Cable fittings    | M20  |
| Weight            | Approx. 200g (KLS03), 0,75kg (KLS03-ROPE-10), 1kg (KLS03-ROPE-20)        |
| Size              | 80 x 80 x 80 mm  |
| Delivery content  | LeakageSensor, 10m connection/patch cable, 1x case fitting for cascading |



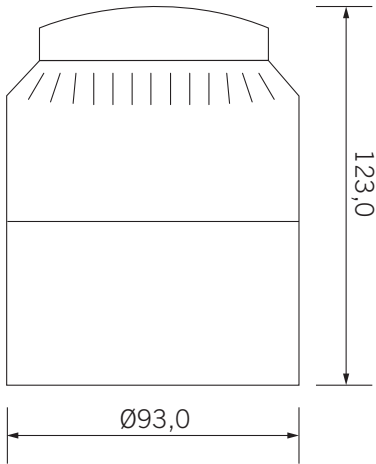
Sounder

The sounder can be mounted inside or outside of the building. It is a combination signaling device and a significant component of a fully functioning alarm chain. In case of an alarm, the sounder creates a very loud acoustic signal of up to 110 dB sound pressure. In addition to the acoustic signal, a visual alarm is generated by a colored flashing light (flash frequency: 1 Hz) that can be seen far into the distance. Due to its robust ABS housing, the compact alarm module can also be used in outdoor areas. It is connected directly to the Kentix system port via a RJ45 patch cable (10m included in delivery).



Products

| Type    | Item number |
|---------|-------------|
| Sounder | KFLASH1     |



Technical Details

|                    |  |
|--------------------|--|
| Connectivity       | Kentix system port via included patch cable 10 m (RJ45)                          |
| Power supply       | Via Kentix system port or included power injector                                |
| Sound pressure     | 110 dB   |
| Alarm flash LED    | Red, flash frequency 1Hz   |
| Monitoring         | Sabotage monitoring  |
| Temperature range  | -10°C up to +55°C / max. 95%rF, non-condensing                                   |
| Connecting cable   | max. 50 m  |
| Internal RJ45 plug | For Kentix system port   |
| Housing            | ABS, IP43  |
| Weight             | approx. 1kg  |
| Size               | Ø93 mm, H123 mm  |
| Delivery content   | Sounder, 10m connection/patch cable, 1x power adapter 24/1A, RJ45 adapter 3-fold |



Magnetic door contact

Opening detector for direct connection to Kentix system port via RJ45.

Products

| Type                  | Item number |
|-----------------------|-------------|
| Magnetic door contact | KDC1-W      |

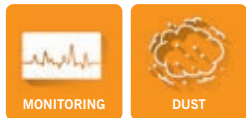
Technical Details

|                  |  |
|------------------|--|
| Connectivity     | At Kentix system port                    |
| Weight / Size    | ca. 0,1 kg / 11 x 12 x 48 mm             |
| Delivery content | Magnetic door contact, Mounting material |



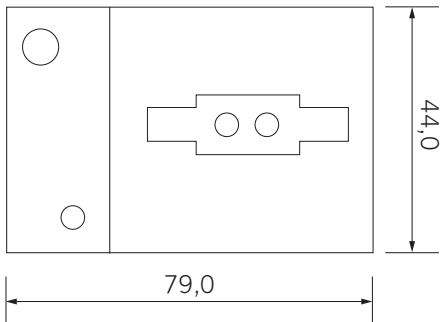
Dust-/Dirtsensor

The optical dust/dirt sensor is used to detect the degree of contamination in data centers, IT racks and distributors. It is connected directly to the Kentix system port via an RJ45 patch cable (5 m scope of delivery). The sensitivity is adjustable.



Products

| Type             | Item number |
|------------------|-------------|
| Dust-/Dirtsensor | KDS01       |



Technical Details

|                   |   |
|-------------------|---|
| Connectivity      | At Kentix system port via included patch cable 5 m (RJ45) |
| Power supply      | Via Kentix system port                                    |
| Monitoring        | pollution   |
| Temperature range | 0°C to +60°C  |
| Weight            | approx. 0,1 kg  |
| Size              | 79 x 44 mm  |
| Delivery content  | Dust-/Dirtsensor, 5 m connection cable                    |



Mounting example in IT rack

Installation info

The installation is typically carried out on surfaces where increased dust/dirt deposits are to be expected, such as the floors of IT racks, raised floors in data center. A magnetic tape is attached to the bottom of the sensor. This allows the sensor to be easily fixed to the surface to be monitored. Select an area where most of the dust and dirt deposits occur or are expected to occur as a mounting location. After a release due to dirt, the sensor can be cleaned again with a slightly moistened cloth. The dust catchers can also be replaced after triggering.



Rack mounting frame

1-U mounting frame made of sheet metal for mounting up to four Kentix devices in a 19" IT rack. The following devices can be mounted KAM-BASIC/PRO (1-piece), KXP-16, KMS-LAN, KMS-LAN-RF, KMS-RF, KMS-RFB (4-pieces). By placing them in the rack, the devices are protected against unauthorized access and additional cabling in the server room is also not required.

Products

| Type           | Item number |
|----------------|-------------|
| Mounting frame | KRA-01      |

Accessories

| Type                | Item number |
|---------------------|-------------|
| Gain magnet antenna | KMA3        |



Technical Details

|                  |                                     |
|------------------|-------------------------------------|
| Mounting         | Directly in the 19" rack            |
| Weight           | approx. 0,4 kg                      |
| Heght            | 44 mm                               |
| Delivery content | Rack mounting frame, screw set 3 mm |

Magnetic mounting bracket

Magnet holder for mounting a Kentix device on metallic surfaces, e.g. in a 19" IT rack. Suitable for KAM-BASIC/PRO, KXP-16, KMS-LAN, KMS-LAN-RF, KMS-RF, KMS-RF-BAT, KMS-TI.

Products

| Type                      | Item number |
|---------------------------|-------------|
| Magnetic mounting bracket | KRA-02      |

Technical Details

|                   |  |
|-------------------|--|
| Mounting          | On metallic surfaces, e.g. in a 19" rack |
| Weight approx.    | 0.4 kg                                   |
| Height            | 40 mm                                    |
| Scope of delivery | magnetic mounting bracket, screw set 3mm |

Rack mounting bracket

1-U Mounting bracket made of sheet metal for mounting Kentix MultiSensors in 19" IT rack. Suitable for mounting KMS-LAN, KMS-LAN-RF, KMS-RF, KMS-RFB, KAM, KPM-100 The sensor is mounted in the optimum downward orientation. The devices are protected against unauthorised access by being housed in a rack. Additional cabling in the server room is also not required.

Products

| Type                  | Item number |
|-----------------------|-------------|
| Rack mounting bracket | KRA-03      |

Technical Details

|                  |                                       |
|------------------|---------------------------------------|
| Mounting         | Directly in the 19" rack              |
| Weight           | approx. 0,15 kg                       |
| Height           | 44 mm                                 |
| Delivery content | Rack mounting bracket, screw set 3 mm |

Threat-Matrix – Which device monitors which functions?

|  |  MultiSensor-RF |  MultiSensor-LAN |  MultiSensor-TI |  StarterSet-BASIC |  StarterSet-PRO |
|--|--|---|--|--|--|
| Number of monitored threats                                | 20   | 19  | 20   | 30   | 37   |
| TEMPERATURE - CLIMATE - ENVIRONMENTAL ISSUES               |  |   |  |  |  |
| Overtemperature  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Undertemperature - frost                                   | ✓  | ✓   | ✓  | ✓  | ✓  |
| Defective air-conditioning                                 | ✓  | ✓   | ✓  | ✓  | ✓  |
| Defective dehumidification                                 | ✓  | ✓   | ✓  | ✓  | ✓  |
| Defective climate control                                  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Clogged filters  | ✓  | ✓   | ✓  | ✓  | ✓  |
| General malfunction of air-conditioning                    | ✓  | ✓   | ✓  | ✓  | ✓  |
| Bad air quality  |  |   | ✓  |  |  |
| SMOULDERING FIRE - FIRE                                    |  |   |  |  |  |
| Smouldering fire on cables, devices                        | ✓  | ✓   | ✓  | ✓  | ✓  |
| Smouldering fire in electricity distributors               | ✓  | ✓   | ✓  | ✓  | ✓  |
| Charred, defective electronic components                   | ✓  | ✓   | ✓  | ✓  | ✓  |
| Fire - Combustion gases                                    | ✓  | ✓   | ✓  | ✓  | ✓  |
| Battery degassing (H-hydrogen)                             | ✓  | ✓   | ✓  | ✓  | ✓  |
| BURGLARY - THEFT - SABOTAGE                                |  |   |  |  |  |
| Unauthorized access  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Intrusion  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Attempted intrusion - securing perimeters                  |  |   |  |  |  |
| Access to unauthorized sections (racks, cabinets)          | ✓  | ✓   | ✓  | ✓  | ✓  |
| HARDWARE FAILURE   |  |   |  |  |  |
| Power loss - defective cables                              |  |   |  | ✓  | ✓  |
| Loss of active system components                           |  |   |  | ✓  | ✓  |
| Loss of services (HTTPS, SMTP, VPN, DB, etc.)              |  |   |  | ✓  | ✓  |
| Performance loss   |  |   |  | ✓  | ✓  |
| Sabotage/theft of active components                        |  |   |  | ✓  | ✓  |
| Defective fans   |  |   |  | ✓  | ✓  |
| General malfunction of active components                   |  |   |  | ✓  | ✓  |
| WATER INGRESS - MOISTURE (optional LeakageSensor required) |  |   |  |  |  |
| Open windows   | ✓*   | ✓*  | ✓*   | ✓*   | ✓*   |
| Defective plumbing in the room                             | ✓*   | ✓*  | ✓*   | ✓*   | ✓*   |
| Defective plumbing in adjoined rooms and floors            | ✓*   | ✓*  | ✓*   | ✓*   | ✓*   |
| Leakage - climate or heating systems                       | ✓*   | ✓*  | ✓*   | ✓*   | ✓*   |
| POWER - VOLTAGE - NETWORK QUALITY                          |  |   |  |  |  |
| Power failure  | ✓  |   |  | ✓  | ✓  |
| Overvoltage - peak   |  |   |  |  | ✓*   |
| Flickering - short term power loss                         |  |   |  |  | ✓*   |
| Undervoltage   |  |   |  |  | ✓*   |
| Deviation of power/UPS frequency                           |  |   |  |  | ✓*   |
| Overcurrent - overload                                     |  |   |  |  | ✓*   |
| UPS operation  |  |   |  | ✓  | ✓  |
| UPS defect/malfunction                                     |  |   |  | ✓  | ✓  |
| UPS battery failure  |  |   |  | ✓  | ✓  |
| UPS residual maturity and capacity                         |  |   |  | ✓  | ✓  |

\* Additional sensors required

System components  
Accessories



| Device                             | KeyPad-Touch                                      | Sounder  | DustSensor                                |
|------------------------------------|---|--|---|
| Type                               | KKPT  | KFLASH   | KDS01                                     |
| Function                           | Touch keyboard for access control via PIN or RFID | Flashing alarm siren for optical-acoustic signalling of alarms | Sensor for the detection of deaf deposits |
| Installation site                  | Door, Room  | Room   | Rack, raised floor                        |
| Room/system area                   | per door  | 500 m²   | -   |
| Configuration                      | AlarmManager                                      | AlarmManager, MultiSensor-LAN/TI                               | AlarmManager, MultiSensor-LAN/TI          |
| Connection to Kentix system port   | ✗   | ✓  | ✓   |
| ZigBee (radio)                     | ✓   | ✗  | ✗   |
| RFID (MIFARE® DESFire, Legic®)     | ✓   | ✗  | ✗   |
| Integrated Web-Server (HTTP)       | ✗   | ✗  | ✗   |
| Ethernet connetction (10/100Mbit)  | ✗   | ✗  | ✗   |
| PoE (Power over Ethernet)          | ✗   | ✗  | ✗   |
| SNMP MIB (V2/3)                    | ✓ (KAM)   | ✓ (KAM)  | ✓ (KAM)                                   |
| SNMP Trap (V2/3)                   | ✓ (KAM)   | ✓ (KAM)  | ✓ (KAM)                                   |
| External power supply              | Battery (AAA)                                     | ✓  | ✗   |
| Alarm inputs (potential-free)      | ✗   | ✗  | ✗   |
| Alarm inputs (potential-loaded)    | ✗   | ✗  | ✗   |
| Analog inputs (4-20 mA, 1-10 V)    | ✗   | ✗  | ✗   |
| Switching outputs (open collector) | ✗   | ✗  | ✗   |
| Sabotage monitoring                | ✓   | ✗  | ✗   |
| Approvals                          | CE  | CE   | CE  |
| Size (L x W x H in mm)             | 90 x 135 x 19                                     | Ø93, H123  | 79 x 44                                   |



| I/O-Modul   | I/O-Modul   | I/O-Modul   | LeckageSensor                           |
|---|---|---|---|
| KIO7052   | KIO7053   | KIO7017   | KLS03                                   |
| Extension module for connecting external alarm messages | Extension module for connecting external alarm messages | Extension module for connecting external alarm messages | Sensor for the detection of water leaks |
| Distribution  | Distribution  | Distribution  | Floor, raised floor                     |
| -   | -   | -   | up to 100 m², cascable up to 500 m²     |
| AlarmManager Web-Server                                 | AlarmManager Web-Server                                 | AlarmManager Web-Server                                 | AlarmManager, MultiSensor-LAN/TI        |
| ✗   | ✗   | ✗   | ✓                                       |
| ✗   | ✗   | ✗   | ✗                                       |
| ✗   | ✗   | ✗   | ✗                                       |
| ✓   | ✓   | ✓   | ✗                                       |
| ✓   | ✓   | ✓   | ✗                                       |
| ✓   | ✓   | ✓   | ✗                                       |
| ✓ (KAM)   | ✓ (KAM)   | ✓ (KAM)   | ✓ (KAM)                                 |
| ✓ (KAM)   | ✓ (KAM)   | ✓ (KAM)   | ✓ (KAM)                                 |
| ✓   | ✓   | ✓   | ✗                                       |
| ✗   | 16  | ✗   | ✗                                       |
| 8   | ✗   | ✗   | ✗                                       |
| ✗   | ✗   | 8   | ✗                                       |
| 8   | ✗   | 4   | ✗                                       |
| ✗   | ✗   | ✗   | ✗                                       |
| CE  | CE  | CE  | CE                                      |
| 72 x 123 x 35   | 72 x 123 x 35   | 72 x 123 x 35   | 80 x 80 x 80                            |



StarterSets

With the Kentix StarterSets, you get a complete package for quick and easy access to the innovative Kentix monitoring technology. This way, you can monitor all critical physical threats with just one system. Kentix devices offer the administration of up to 1.000 user accounts for the alarming.

The StarterSet-BASIC contains everything you need in order to monitor racks and IT rooms of up to 20m²: an AlarmManager-BASIC and wireless MultiSensor-RF. The

set can be expanded with additional MultiSensor-RF (up to 200). Updating to the PRO-version is also possible later on, in case network-enabled sensors (MultiSensor-LAN) should be required for the expansion.

The StarterSet-PRO contains all the components you need for the monitoring of rooms and racks from 20m² up to 10.000m² in size as well as for distributed sites. Due to the included AlarmManager-PRO, the system can be expanded with additional MultiSensors immediately.

StarterSet-BASIC

Security for small IT rooms with 4G alarm center



- Delivery content
- StarterSet-BASIC:**
- 1 AlarmManager-BASIC (LAN-PoE)
  - 1 MultiSensor-RF with adapter
  - 1 SlimLine patch cable 5m
  - 1 Kentix360 SIM-Karte

Upgrade to AlarmManager-PRO possible any time!

- Rack and room monitoring up to 4.000m²
- Up to 200 RADIO sensors
- SMS / E-mail / SNMP
- Up to 10 alarm recipients



Products

| Type             | Housing color | Item number |
|------------------|---------------|-------------|
| StarterSet-BASIC | Black         | KSS-BASIC-B |
| StarterSet-BASIC | White         | KSS-BASIC-W |

Accessories

| Type         | Item number |
|--------------|-------------|
| PoE Injector | KPOE100EU   |

StarterSet-PRO

Security for distributed IT rooms with 4G alarm center



- Delivery content
- StarterSet-PRO:**
- 1 AlarmManager-PRO (LAN-PoE)
  - 1 MultiSensor-LAN-RF
  - 1 MultiSensor-DOOR
  - 1 SlimLine patch cable 5m
  - 1 Kentix360 SIM-Karte

- Rack and room monitoring up to 10.000m², expandable for distributed sites
- Up to 500 sensors (RADIO and LAN)
- SMS / E-mail / SNMP / Push
- Up to 1.000 alarm recipients



Products

| Type           | Housing color | Item number |
|----------------|---------------|-------------|
| StarterSet-PRO | Black         | KSS-PRO-B   |
| StarterSet-PRO | White         | KSS-PRO-W   |

Accessories

| Type         | Item number |
|--------------|-------------|
| PoE Injector | KPOE100EU   |

Technical Details

See integrated products of the StarterSets

|                    |         |
|--------------------|---------|
| AlarmManager-Basic | Page 21 |
| AlarmManager-PRO   | Page 21 |
| MultiSensor-LAN-RF | Page 29 |
| MultiSensor-DOOR   | Page 38 |

More info on the system components on pages 28+29

Application example:  
Data center with adjoined utility rooms

Central monitoring of a data center with 300 sqm and several server racks as well as UPS and climate systems that are to be integrated via existing signal contacts

For the data center, a Kentix AlarmManager-PRO and several MultiSensor-LAN are required. The MultiSensors are connected to a PoE switch via the existing infrastructure and are mounted on the server room ceiling with mounting brackets. All measured values are sent to the AlarmManager via the network. One MultiSensor-LAN covers an area of up to 20sqm. In each utility room, one MultiSensor-LAN is used. In order to monitor

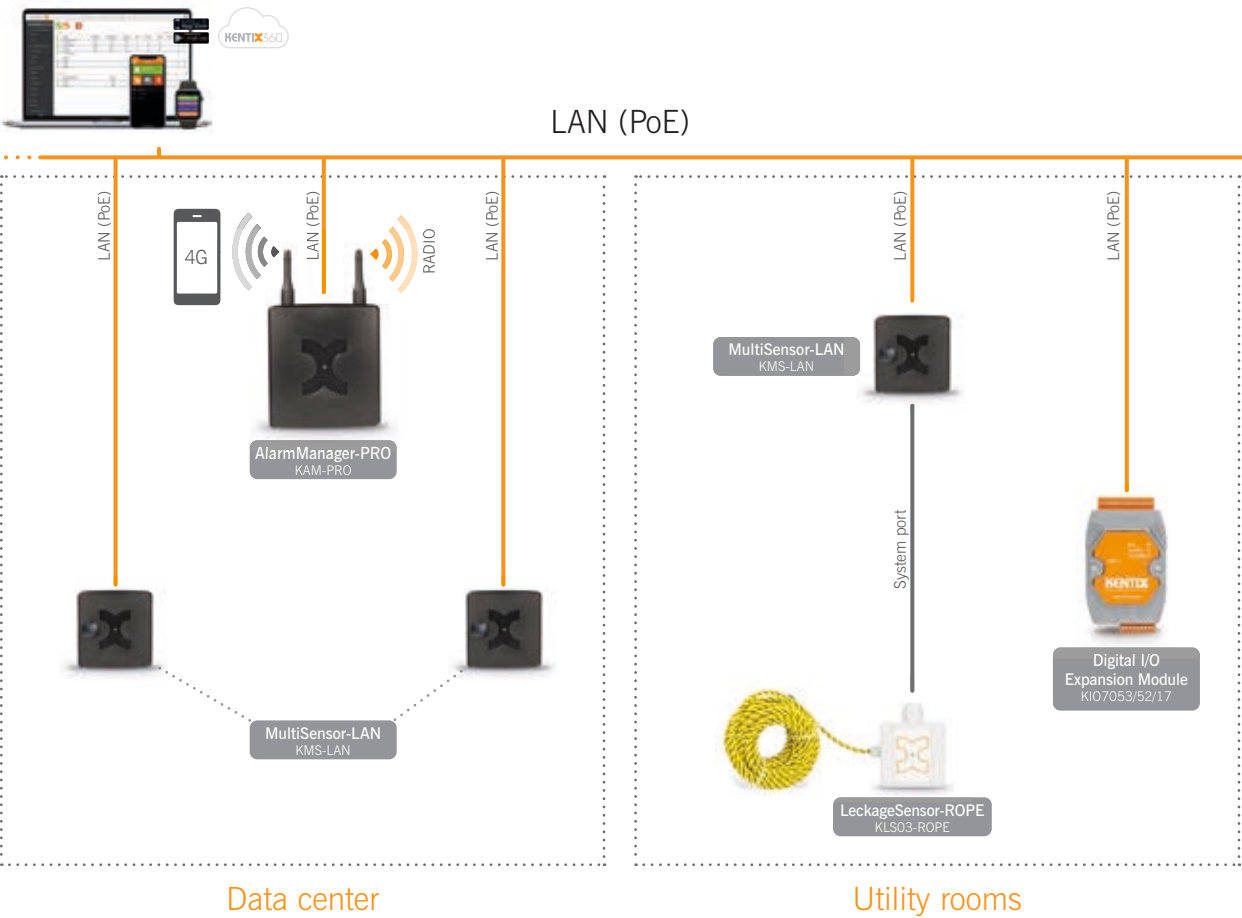
potential water ingress, a LeakageSensor is connected to the MultiSensor. External sites such as climate or UPS systems are integrated via an I/O Module. The monitoring can also happen via external network monitoring if desired. In this case, the AlarmManager provides all measured values and system states via the SNMP interface.

Parts list/Order assistance  
Data Center

| Type             | Item number | Quantity |
|------------------|-------------|----------|
| AlarmManager-PRO | KAM-PRO     | 1        |
| MultiSensor-LAN  | KMS-LAN     | 15       |

Parts list/Order assistance  
Utility rooms

| Type            | Item number   | Quantity |
|-----------------|---------------|----------|
| MultiSensor-LAN | KMS-LAN       | 1 each   |
| LeakageSensor   | KLS03-ROPE    | 1 each   |
| I/O Module      | KIO7053/52/17 | 1 each   |



Application example:  
Container data center

Scalable monitoring solution for container or outdoor data centers in which systems with high availability requirements are operated

For the first container, an AlarmManager-PRO plus a MultiSensor-RF are required. The MultiSensor is supplied with power via a separate power adapter and mounted on the container ceiling with mounting brackets. It is connected to the AlarmManager with a patch cable. All measured data are transmitted via radio to the AlarmManager. A LeakageSensor monitors potential water ingress and a KeyPad on the interior logs all access to the container. Additional containers

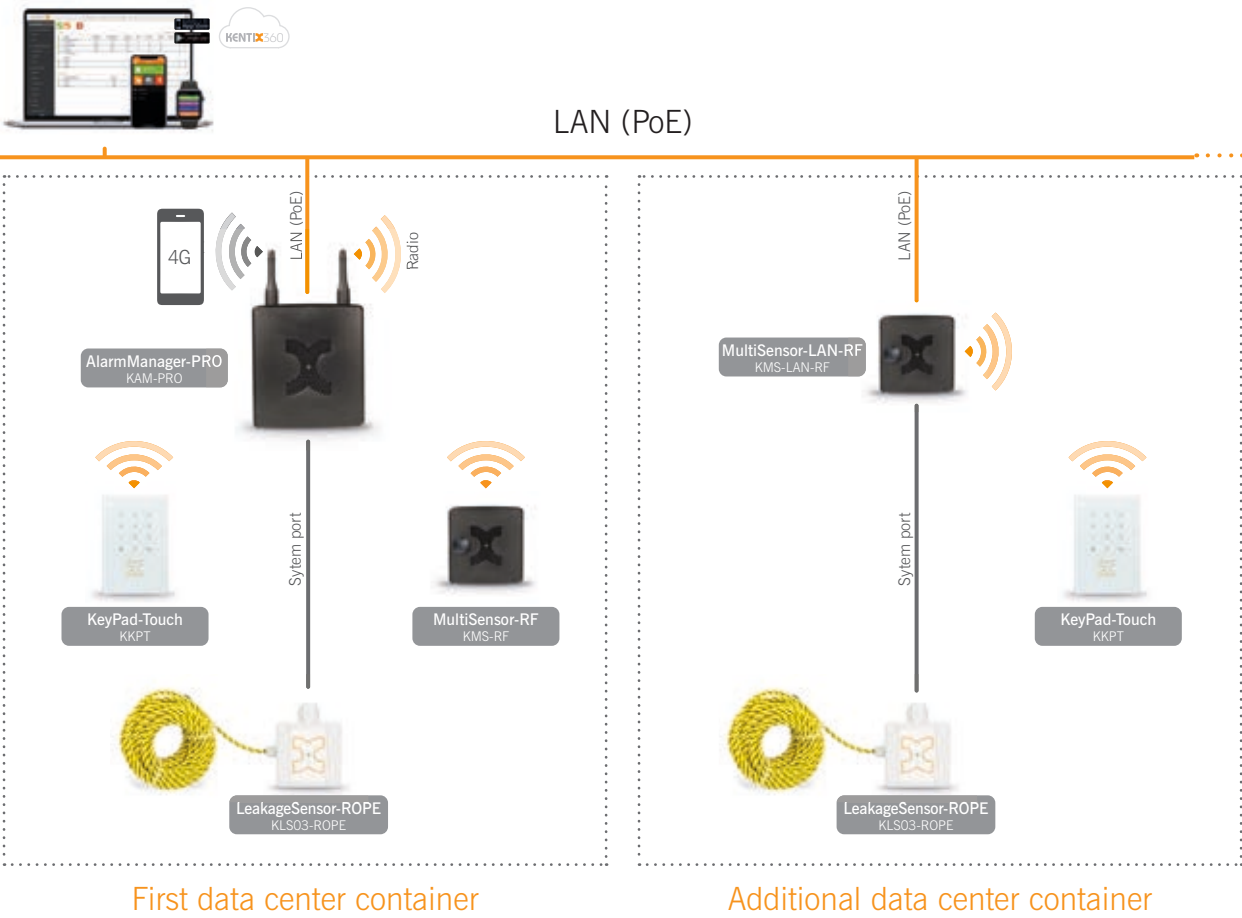
that are connected via the infrastructure can easily be integrated into the system. In each one of them, a MultiSensor-LAN-RF plus LeakageSensor and KeyPad is used. The MultiSensor is connected via the network to a PoE-enabled switch. The monitoring of the entire system happens centrally via the AlarmManager. Integrating it into a central monitoring tool is also possible.

Parts list/Order assistance  
First Container

| Type             | Item number | Quantity |
|------------------|-------------|----------|
| AlarmManager-PRO | KAM-PRO     | 1        |
| MultiSensor-RF   | KMS-RF      | 1        |
| LeakageSensor    | KLS03-ROPE  | 1        |
| KeyPad-Touch     | KKPT        | 1        |

Parts list/Order assistance  
Additional containers

| Type               | Item number | Quantity |
|--------------------|-------------|----------|
| MultiSensor-LAN-RF | KMS-LAN-RF  | 1 each   |
| LeakageSensor      | KLS03-ROPE  | 1 each   |
| KeyPad-Touch       | KKPT        | 1 each   |





Artificial intelligence ensures best protection against manipulation and high measuring accuracy



**Kentix SmartXcan: Wirksamer und DSGVO konformer Schutz vor Virenverbreitung**

SECURE

INTUITIVE


FAST

- **secure:** exact, contactless measurement, EU-GDPR conform operation possible
- **intuitive:** Self-explanatory user guidance
- **fast:** Throughput up to 700 persons/hour
- Tamper-proof through artificial intelligence
- Stand alone operation or manual or automated inlet control possible
- Provision of anonymous measurement data for hotspot detection
- efficient plug & play installation through PoE connection

Detect infected persons and avoid hotspots early

**Identification of infected persons is crucial**

In order to permanently reduce the risk of spreading viral diseases (COVID-19, influenza, etc.) in public areas and at the same time to make a better forecast of emerging geo-hotspots, it is necessary to carry out an early identification of infected persons. The access of these persons to crowds of people of any kind must be prevented and it must be possible to supply collected data in real time, in compliance with EU-GDPR, to AI-supported analysis databases.



**Fever measurement as effective and pragmatic method**

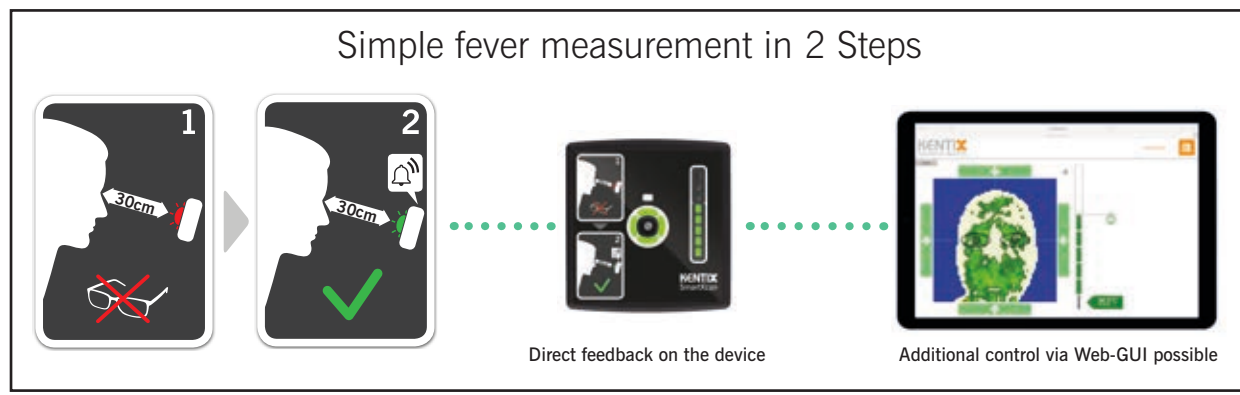
Fever is a non-obligatory, non-specific symptom, but it is a very useful screening tool for infections such as the corona virus. Any infection that is detected early can potentially save several lives. For this reason, fever measurement plays an important role in the detection of potentially infected persons, because:

- Fever is one of the most common initial diagnoses of COVID-19. (according to WHO, Robert Koch Institute, Johns Hopkins University)
- the body temperature due to the increasing immune defence already rises before the onset of usual symptoms
- detection can usually take place even with a low virus load

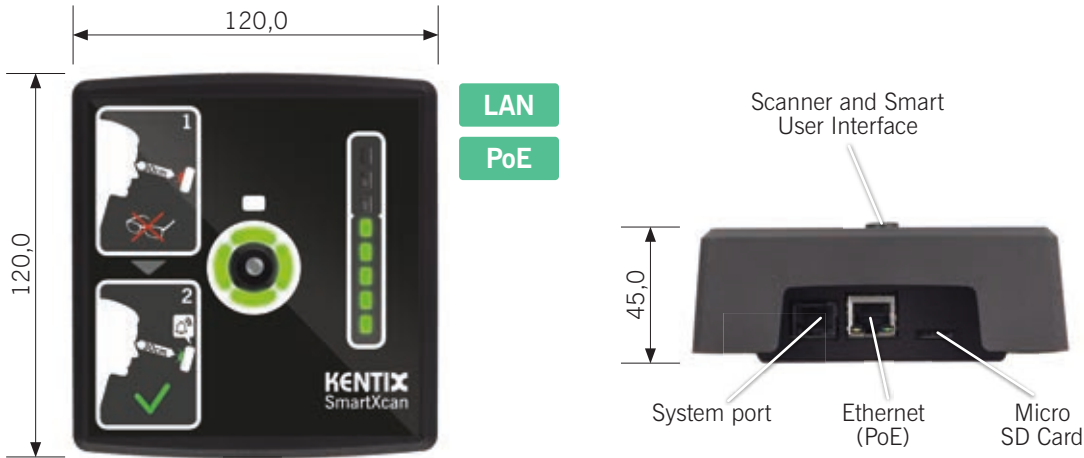
**Simple measure for many applications**

An automated, safe and intuitive fever measurement at central, preferably electrically controlled access points to crowds of people is an important measure that has been tested in many risk regions:

- to provide long-term and sustainable protection against viral diseases
- to re-establish social and economic contacts while controlling the risk of epidemics flaring up again
- restore public confidence in public security







Products

| Type                    | Item Number      |
|-------------------------|------------------|
| SmartXcan               | KMS-TI-FS-B      |
| SmartXcan with RFID     | KMS-TI-FS-RFID-B |
| Plug'n'Play Starter Set | KSS-TI-FS-B      |

Zubehör

| Type                        | Item Number      |
|-----------------------------|------------------|
| Pedestal                    | KMS-TI-FS-STAND1 |
| POE Injector / power supply | KPOE100EU        |
| I/O-Modul with Relais       | KIO3             |

Technical details

|                                      |   |
|--------------------------------------|---|
| User Interfaces                      | 1. Contactless operation on the device with display of the measurement result via LED<br>2. Integrated web software with add. information on measurement results and configuration                  |
| Speed of the temperature measurement | 0.6 seconds after head position detection<br>Typical measuring time per person (approach - measure - step away) approx. 5 seconds   |
| Software connection option           | Kentix OS, stand-alone operation with integrated web server (HTTPS)<br>Connection via network to AlarmManager-PRO   |
| Sensor - IR Thermal Array            | 1024 pixel infrared array, measuring range 0 to 100°C, germanium optics, calibration temperature 35°C, reproducibility ±0.3°C, active temperature compensation, emissivity factor 0.97              |
| Sensor - Distance                    | Distance measurement with resolution of 1mm, Class 1 eye safe laser measurement in accordance with the latest standard IEC 60825-1:2014-3   |
| Buzzer                               | Acoustic measurement confirmation via buzzer, 85dB, 2.3kHz  |
| Sensor - External output             | 2x signal output (e.g. measurement OK/NOK) to control doors, turnstiles etc., wiring via separate KIO3 power adapter with relay outputs   |
| LED indication                       | Temperature scale with 8x LED for temperature indication and display of four temperature ranges<br>Illuminated ring with 4x LED for focusing and measurement display<br>LINK/ACT to Ethernet socket |
| Ethernet - LAN                       | 10/100MBit, PoE (Class 1, approx. 2W) for power supply  |
| SD Card                              | Integrated Micro SD card holder as additional memory for image recording, up to 128 GB  |
| SNMP                                 | SNMP V2/3 (get/set), SNMP Traps (Simple Network Management Protocol)  |
| ReST API                             | ReST API with JSON objects (HTTPS), Webhooks with free datastructure  |
| Power supply via PoE                 | 12-72VAC/DC power-consumption ca. 1.5W, PoE class 1 (Power over Ethernet)   |
| KENTIX System port                   | RJ45 for connecting external Kentix expansion modules   |
| Housing                              | Material: PS 120 x 120 x 50 mm weight approx. 150g, protection class IP30 Color: Black  |
| Environmental conditions             | Temperature 0 - 50°C Air humidity 5-95%, non-condensing   |
| Content of delivery                  | SmartXcan, metal wall bracket, mounting set, slim-line patch cable 3m   |
| Accessories                          | PoE injector (KPOE150S)<br>IO adapter with power supply unit for controlling external devices (KIO3)  |
| Audits                               | CE  |

Voluntary self-monitoring of body temperature with the SmartXcan

Keeping offices, schools or authorities open is essential. Kentix therefore recommends offering voluntary self-monitoring of body temperature everywhere in the workplace where many people pass by, for example at toilets, in break rooms or in office corridors by the printer.

This gives employees or students have the opportunity to take their temperature several times a day, as recommended by public health authorities. With the quick-to-use plug-and-play starter set, facilities of all kinds can easily carry out contactless fever screenings.

Industry, Production

Offices

Banks

Shops

Delivery services, Logistics

Hospitals, Medical practices

Retirement Homes

Daycare centres, Schools, Universities

Local authorities

Leisure and sports facilities



Use in the office for GDPR-compliant self-screening for employees



Access simply IP-networked – with the ingeniously easy online access control system for professionals

Who has access when and where? Manage access easily at all times – including video recording. With the Kentix DoorLock®, it only takes few components and little mounting efforts in order to implement small as well as large access solutions cost-efficiently.

  
RADIO

  
VIDEO

  
SNMP

  
E-MAIL

  
NFC

  
APP



# Kentix DoorLock®

## – Access securely networked

Who has access to which rooms and at what time? With the Kentix DoorLock® you have full (access) control: With several variants of locking components and individual time-user-profiles, you establish an access solution according to your needs in no time. Due to the connection to Kentix360, you have all of your rooms at a glance at all times – even on the go via app for smartphone or tablet. And if a problem does occur after all, Kentix informs you immediately and reliably so that you can act as quickly as possible.

The advantage of the Kentix access control system is the easy networking and integration into IT networks. Retro-fitting doors is simple and can be done without special tools or additional constructional measures. The Kentix DoorLock® includes wireless as well as wired components that can be put together to one centrally managed system. This way, you can implement small as well as

large access systems with little mounting efforts for any application.

### Access control with video recording

If desired, any door in the system can be connected to an IP camera that will be triggered any time the door is unlocked or tampered with. The recorded image series is saved together with the according user data. Non-authorized access attempts are immediately e-mailed to the responsible persons with the picture series attached.

### Application possibilities:

- Office and administrative rooms
- Industry, production and warehouse facilities
- Container sites and distributed properties
- Server rooms, data centers and IT cabinets
- Hospital, laboratories and medicine cabinets
- Mission-critical Infrastructure

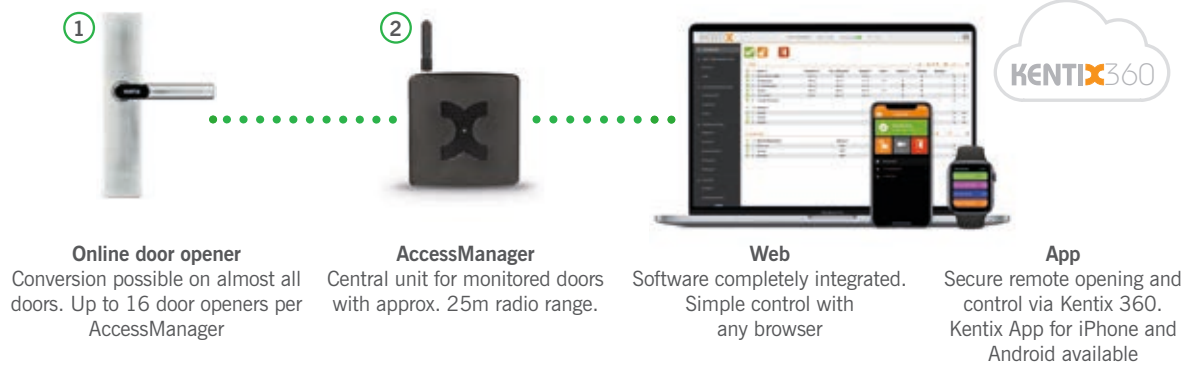


**StarterSet-DoorLock –**  
The easiest starter solution for your introduction to online access control

**AccessManager, Wireless Door Knob and Master Card Set**

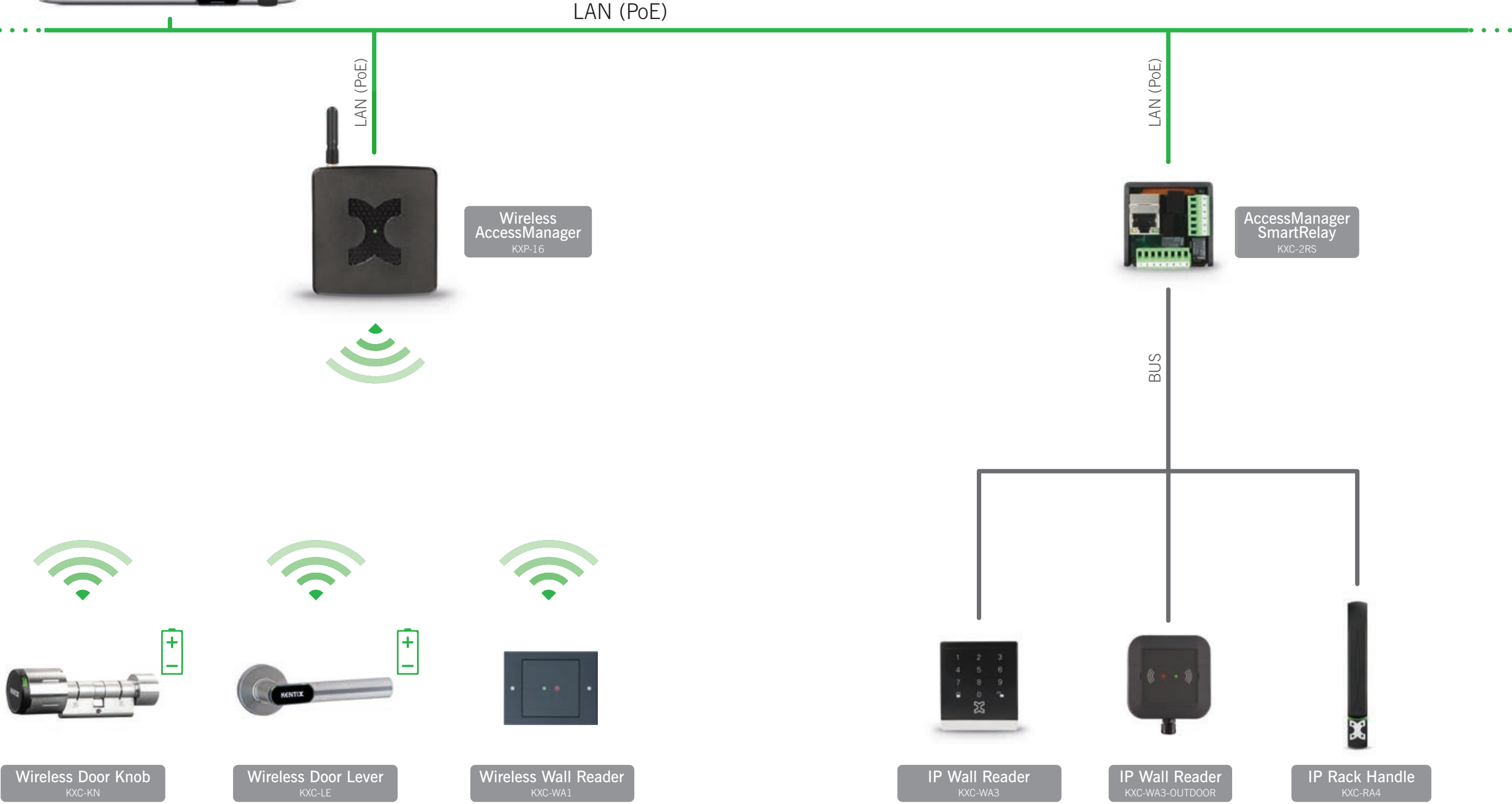
► For more info on the StarterSets see page 92

With a wireless locking component ① and the AccessManager ②, a complete remote controllable access solution can be set up without great mounting efforts.





All system components at a glance –  
easy networkability for 360° Smart Access





Everything at a glance  
– anytime and from anywhere

With the AccessManager, you set up a complete IT networkable access solution in no time. Due to the interconnection of several AccessManager, basically any arbitrary number of doors can be connected to one system, even across different locations. Via your web browser, you set up time and user profiles, unlock doors remotely and have the entire access log at a glance always. No additional software is required for the configuration.

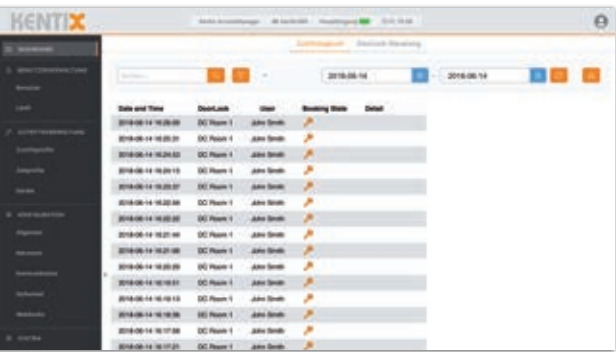
The access log book offers an overview of all access including failed attempts to unlock a door (for example due to a lack of sufficient authorization). This way, you can always see who has entered a room. With easy filter functions you can limit the selection to specific days, doors and users.

With the help of access and time profiles you can determine in detail which user is authorized to open which doors and at what times. An access profile is always connected to a selected time profile and to one or several doors. Each user can be assigned any desired number of access profiles. This creates maximum flexibility even in larger systems without making it complicated or confusing.

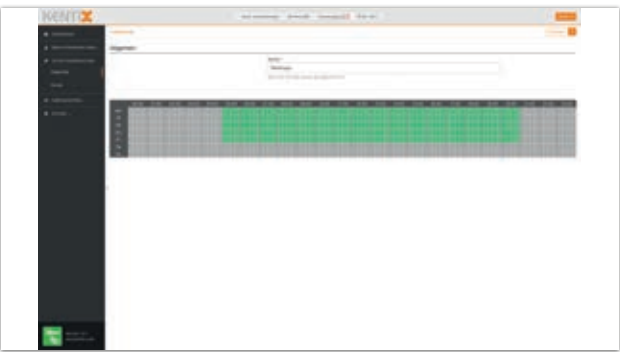
With the integrated Kentix360 you have your system at a glance even on the go - no matter when or where.



Your service provider is by the door but nobody is there to open it for them? An employee forgot their RFID key-fob at home? Simply unlock the door via remote control. Moreover, with the app for smartphone and tablet you can arm or disarm alarm zones via the Kentix AlarmManager. Potential attempts of sabotage can also be seen in the system with Kentix360 so that you can act as quickly as possible in case of a threat.



Access log book



Time profile

Making access management even easier: Integration of Microsoft Active Directory (AD) and LDAP

The Kentix DoorLock offers the integration of the directory services Microsoft Active Directory (AD) and LDAP. The authorization accounts in the Kentix DoorLock are simply imported and synchronized which saves time and costs with the access management. Authorizations are therefore managed centrally and are granted or denied by means of user profiles.

The web-based login to the Kentix access system always happens via the authentication with the directory service; thereby multiple passwords become a thing of the past. Aside from the mere authorization, you can also determine centrally via Active Directory who has access where and when. If an employee's role in the company changes, the access control system receives this information automatically from the central server. This makes access management a lot easier even for companies that have ever-changing users and authorizations. Due to a simple regular comparison and short updates via Active Directory, the system administrator

can manage even ever-changing authorizations with little effort.

Importing CSV files with user data is also possible. Therefore, large amounts of users can be imported into the Kentix DoorLock system easily and quickly, even with new systems that have no connection to directory services.



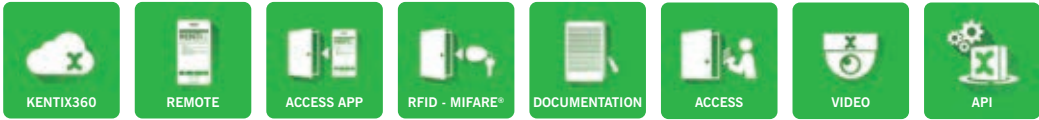
Control is good, video is better

If desired, the Kentix DoorLock integrates IP cameras. When someone unlocks a door with an RFID medium or tampers with the locking component, an IP camera is triggered that records a series of pictures. These pictures are saved in the log book and can be accessed any time via the according entry. Thereby, any door in the system can be connected to an IP camera so that beside the usual user data, any access is combined with a video sequence.



## Wireless AccessManager

With the Wireless DoorLock AccessManager, time-user profiles can be easily managed for both small and large projects. An AccessManager manages up to 16 doors and an unlimited number of users with the appropriate time-authorisation profiles via web browser (HTTPS). AccessManagers can be networked with each other without limitation. Power is supplied via Power over Ethernet (PoE). The integration of Microsoft Active Directory (AD) and LDAP makes access management particularly convenient, and the connection to Kentix360 allows the entire system to be controlled from anywhere and at any time via app.



### Products

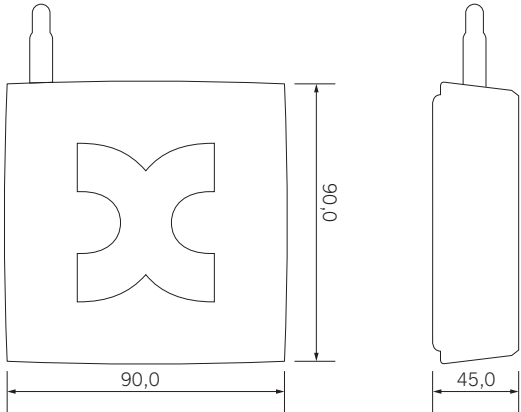
| Type                   | Housing color | Item number |
|------------------------|---------------|-------------|
| Wireless AccessManager | Black         | KXP-16-B    |
| Wireless AccessManager | White         | KXP-16-W    |

### Accessories

| Type                  | Item number    |
|-----------------------|----------------|
| PoE Injector          | KPOE100EU      |
| I/O Module with relay | KIO3           |
| Gain Magnet Antenna   | KXP-ANT-EXT1   |
| USB Dektop Reader     | KXC-DR1-MIFARE |
| Magnet Türkontakt     | KDC1-W         |

### Technical Details

|                             |   |
|-----------------------------|---|
| Connectivity                | LAN (PoE) – Integrated web server   |
| Ethernet                    | 10/100 Mbit, integrated web server, communication ports: 80/443                   |
| Radio                       | 868 MHz, encryption AES 128 Bit   |
| Number of doors             | Up to 16 wireless DoorLocks (doors) programmable                                  |
| SD card                     | Micro SD card slot for cards up to 128GB  |
| Kentix system port          | RJ45, for connecting external Kentix plug'n'play modules                          |
| Switch output (system port) | 2x Open Collector 0.1A/24V, optional: I/O Module (KIO3) 2x switch relay 1A/24V    |
| Alarm input (system port)   | 2x alarm input (potential-free), optional: I/O Module (KIO3)                      |
| SNMP                        | SNMP (V2/3), SNMP Traps (V2/3)  |
| Power supply                | PoE 12-72VAC/DC power consumption approx. 1.5W, PoE Class 1                       |
| Housing                     | Protection class IP20, 90 x 90 x 45 mm; weight approx. 100g; colors: black, white |
| Environmental conditions    | Temperature 0 – 50°C, humidity 5-95%, non-condensing                              |
| Delivery content            | AccessManager, antenna, mounting bracket, mounting material, 3m SlimLine cable    |
| Approval                    | CE  |



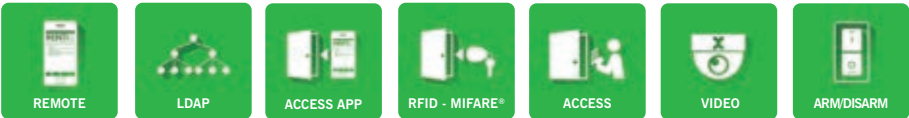
Wireless Door Fitting  
see page 64



Wireless Door Knob DoorLock-DC



Thanks to the installation of the wireless Door Knob with a Euro profile cylinder, conventional DIN Euro profile locks can be used and practically no constructional measures are required. The Wireless Door Knob is suitable for all standard locks with DIN Euro profiles. Thereby, it is a cost-efficient solution for new as well as existing buildings. Different RFID mediums in MIFARE® DESFire® technology are available as keys. The Door Knob runs on two batteries (CR2) that can only be changed or removed with a special authorization in order to prevent tampering.



Products

| Type                                 | Protec. class | Item nr.     | Type              | Delivery content | Item number |
|--------------------------------------|---------------|--------------|-------------------|------------------|-------------|
| DoorLock-DC BASIC for interior doors | IP65          | KXC-KN1      | Low Power Adapter | 1 piece          | KXC-BAT2    |
| DoorLock-DC BASIC for exterior doors | IP66          | KXC-KN2      | Spare batteries   | 2 pieces         | KXC-CR2-2   |
| DoorLock-DC PRO for interior doors   | IP55          | KXC-KN4-IP55 | Maintenance oil   | 1 piece          | KXC-PLS50ML |
| DoorLock-DC PRO for exterior doors   | IP66          | KXC-KN4-IP66 |                   |                  |             |

Accessories

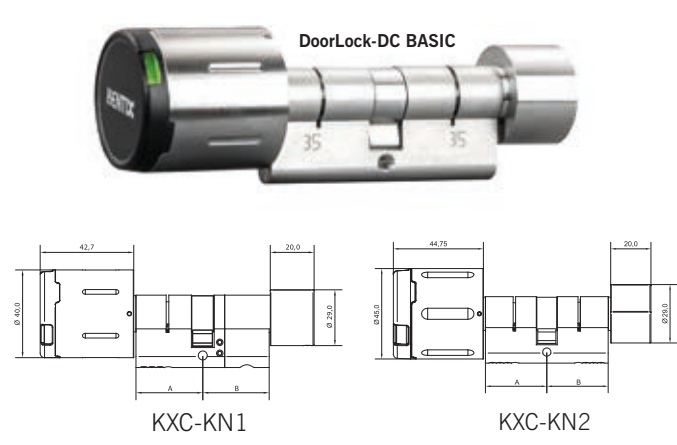
Technical Details

|                                   |  |
|-----------------------------------|--|
| Function                          | Electronic door knob with RFID and wireless networking                     |
| Room/site size                    | One door for interiors or exteriors or both respectively                   |
| Radio frequency                   | 868 MHz, encryption AES 128 Bit  |
| Battery life (transactions/years) | Up to 45.000 transactions or 4 years                                       |
| RFID reader                       | MIFARE® DESFire® 13,56MHz  |
| Temperature range                 | -20°C up to +65°C  |
| Configuration                     | Via Kentix AccessManager (KXP-16-B/W)                                      |
| Radio range                       | Approx. 25m  |
| Batteries                         | KXC-KN1/2 2x CR2 (3V), KXC-KN4 1x CR2 (3V))                                |
| Profile cylinder                  | DIN18252, different lengths available starting at 30 mm in 5 mm increments |
| Size                              | See dimension drawing on the right   |
| Protection class                  | KXC-KN1 (IP55), KXC-KN2 (IP66), KXC-KN4-IP55 (IP55), KXC-KN4-IP66 (IP66)   |
| Delivery content                  | Wireless Door Knob, Batteries  |
| Approval                          | CE, DIN15684   |

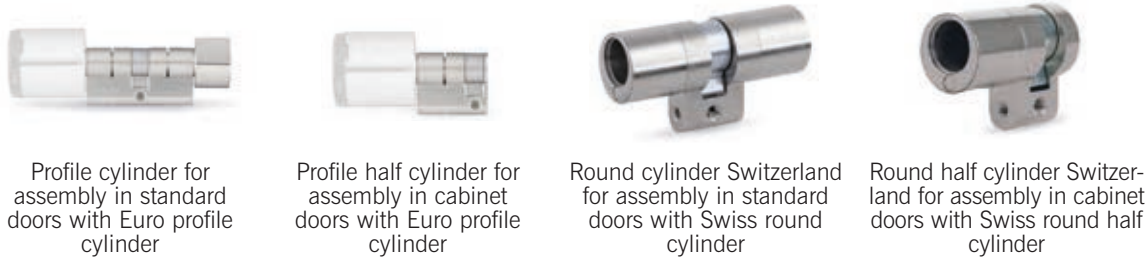
DoorLock-DC PRO - compact radio knob for interior and exterior doors



The DoorLock-DC PRO (ART: KXC-KN4) has a compact, electronic external knob with a diameter of only 31mm and an integrated RFID reader for MIFARE®DESFire® media. The inside is equipped with a mechanically fixed rotary knob. The KXC-KN4 is available for inside and outside doors. Both variants comply with resistance class 2 according to DIN 18252. The variant for external doors also has increased weather protection (IP66). During development, the operating ergonomics have also been further improved, by shortening the engagement time and thus ensuring a fast booking and door opening is possible. The DoorLock-DC PRO is ideal for exterior and end doors with increased access frequency and high safety requirements. Due to the compact design, it can be mounted on frame doors with glass panels can be used, because even with small frame distances sufficient space remains between cylinder and frame.



Hint: Always include the matching profile cylinder in your order.




You will find an ordering assistance on how to measure your cylinder on the following pages.

# Ordering assistance for Kentix DoorLock-DC


(Door Knob + Profile cylinder)

Easy selection of the Wireless Door Knob with matching profile cylinder in two steps




**1**

Select required Wireless Door Knob



**2**

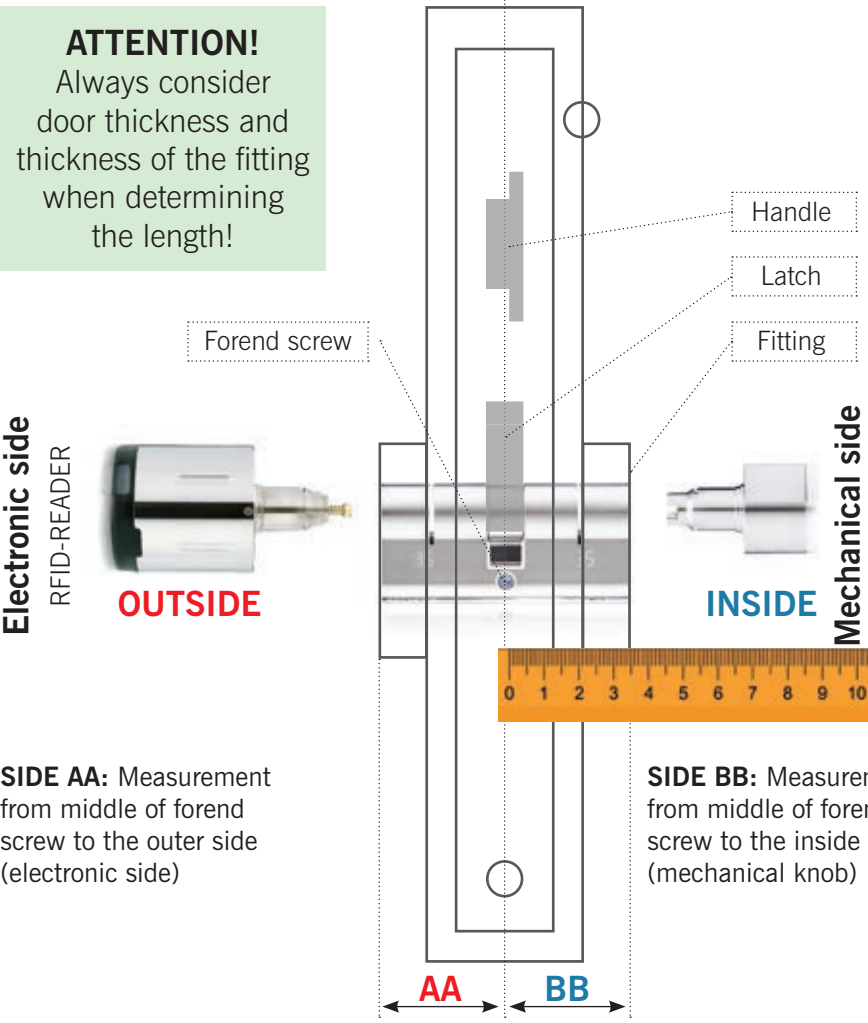
Select profile cylinder matching the door



Only one Master Card Set required per site

## Measuring the door panel for the profile cylinder

**ATTENTION!**  
Always consider door thickness and thickness of the fitting when determining the length!



**Electronic side**  
RFID-READER  
**OUTSIDE**

**INSIDE**  
**Mechanical side**  
TURNING KNOB

**SIDE AA:** Measurement from middle of forend screw to the outer side (electronic side)


**SIDE BB:** Measurement from middle of forend screw to the inside (mechanical knob)

When determining the required cylinder length, the thickness of the fitting in use always has to be added to the door thickness. Always select the **next higher measurement** to what you measured in **5 mm** increments. Beginning at the **basic dimension of 30 mm** for profile cylinders or **32 mm** for Swiss round cylinders respectively per side (**AA/BB**), up until the maximum length of 70 mm or 72 mm respectively per side (**AA/BB**).


|           |                      |                |   |   |
|-----------|----------------------|----------------|---|---|
| EXAMPLE 1 | Measured:            | AA = 30.5 mm   | BB = 38 mm  | Total length = 75 mm, select version of up to 80 mm   |
|           | Order length:        | AA = 35 mm     | BB = 40 mm  |   |
|           | Kentix item numbers: | KXC-80-AABB    | (AA=Electronic side / BB=Mechanical side)                                 |   |
|           |                      | KXC-80-3540    | Item number for profile cylinder of up to 80 mm total length              |   |
| EXAMPLE 2 | Measured:            | AA = 46.5 mm   | BB = 65 mm  | Total length = 115 mm, select version of up to 140 mm |
|           | Order length:        | AA = 50 mm     | BB = 65 mm  |   |
|           | Kentix item numbers: | KXC-140-AABB   | (AA=Electronic side / BB=Mechanical side)                                 |   |
|           |                      | KXC-140-5065   | Item number for profile cylinder of up to 140 mm total length             |   |
|           |                      | KXC-140CH-4767 | Item number for round cylinder (Switzerland) of up to 144 mm total length |   |
|           |                      |                |   |   |

## 1 Select Wireless Door Knob – Interior door, exterior door or compact

**OUTSIDE**  
RFID-READER



**INSIDE**  
TURNING KNOB




| Select Wireless Door Knob                   | Item number  |
|---|--------------|
| DoorLock-DC BASIC for interior doors (IP55) | KXC-KN1      |
| DoorLock-DC BASIC for exterior doors (IP66) | KXC-KN2      |
| DoorLock-DC PRO for interior doors (IP55)   | KXC-KN4-IP55 |
| DoorLock-DC PRO for exterior doors (IP66)   | KXC-KN4-IP66 |

## 2 Select profile cylinder – length and function

**OUTSIDE**  
Electronic side



**INSIDE**  
Turning knob





Item number: KXC-80-AABB      30-50 mm      30-50 mm      possible total length 60 - 80 mm (AA+BB)

Item number: KXC-140-AABB      30-70 mm      30-70 mm      possible total length 85 - 140 mm (AA+BB)

| Profile cylinder for standard doors with Euro profile cylinder: Select matching length                      | Item number    |
|---|----------------|
| Profile cylinder standard up to 80 mm cylinder length with mechanical turning knob, incl. forend screw      | KXC-80-AABB    |
| Profile cylinder standard up to 140 mm cylinder length with mechanical turning knob, incl. forend screw     | KXC-140-AABB   |
| Profile cylinder with anti-panic-function up to 80 mm cylinder length and mech. turning knob, forend screw  | KXC-80AP-AABB  |
| Profile cylinder with anti-panic-function up to 140 mm cylinder length and mech. turning knob, forend screw | KXC-140AP-AABB |
| Profile half cylinder up to 50 mm, incl. forend screw   | KXC-50-AA      |
| Profile half cylinder up to 50 mm with spring reset LEFT, incl. forend screw                                | KXC-50-AA-SRL  |
| Profile half cylinder up to 50 mm with spring reset RIGHT, incl. forend screw                               | KXC-50-AA-SRR  |
| Round cylinder (Switzerland) for standard doors with Swiss round cylinder: Select matching length           | Item number    |
| Round cylinder (Switzerland) standard up to 84 mm cylinder length with mech. turning knob, forend screw     | KXC-80CH-AABB  |
| Round cylinder (Switzerland) standard up to 144 mm cylinder length with mech. turning knob, forend screw    | KXC-140CH-AABB |
| Round half cylinder (Switzerland) up to 50 mm, incl. forend screw   | KXC-50CH-AA    |

**SPECIAL LENGTHS UPON REQUEST!**

| Possible lengths profile cylinder: | Possible length Swiss round cylinder: |
|------------------------------------|---------------------------------------|
| AA BB                              | AA BB                                 |
| 30 30                              | 32 32                                 |
| 35 35                              | 37 37                                 |
| 40 40                              | 42 42                                 |
| 45 45                              | 47 47                                 |
| 50 50                              | 52 52                                 |
| 55 55                              | 57 57                                 |
| 60 60                              | 62 62                                 |
| 65 65                              | 67 67                                 |
| 70 70                              | 72 72                                 |



1

Type Wireless Door Knob Version

|              |   |
|--------------|---|
| KXC-KN1      | DoorLock-DC BASIC for interior doors (IP55) |
| KXC-KN2      | DoorLock-DC BASIC for exterior doors (IP66) |
| KXC-KN4-IP55 | DoorLock-DC PRO for interior doors (IP55)   |
| KXC-KN4-IP66 | DoorLock-DC PRO for exterior doors (IP66)   |

2

| Type profile cylinder | Max. total length (AA + BB in mm) | Variante          | Length outside (mm) | Length inside (mm) |
|-----------------------|-----------------------------------|-------------------|---------------------|--------------------|
| KXC-                  | 80                                | - (Standard)      | AA                  | BB                 |
|                       | 140                               | AP- (Anti-Panik)  |                     |                    |
|                       | 144                               | CH- (Switzerland) |                     |                    |

| POS | Door name            | WIRELESS KNOB   | PROFILE CYLINDER   |   |          |          |
|-----|----------------------|---|--|---|----------|----------|
|     |                      | Type Interior/Exterior/Compact  | Type max. total length   | Version   | AA (mm)  | BB (mm)  |
| -   | Sample door entrance | <input checked="" type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66) | <input type="checkbox"/> KXC-50 (Halbzyl.)<br><input type="checkbox"/> KXC-80<br><input checked="" type="checkbox"/> KXC-140 | <input checked="" type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH- | 41<br>45 | 56<br>60 |
| 1   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |
| 2   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |
| 3   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |
| 4   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |
| 5   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |
| 6   |                      | <input type="checkbox"/> KXC-KN1 (IP55)<br><input type="checkbox"/> KXC-KN2 (IP66)<br><input type="checkbox"/> KXC-KN4 (IP55)<br><input type="checkbox"/> KXC-KN4 (IP66)            | <input type="checkbox"/> KXC-50<br><input type="checkbox"/> KXC-80<br><input type="checkbox"/> KXC-140                       | <input type="checkbox"/> -<br><input type="checkbox"/> AP-<br><input type="checkbox"/> CH-            |          |          |



Wireless Door Lever  
see page 62



Wireless Door Knob  
see page 56

Wireless Door Lever DoorLock-LE



The wireless Door Lever is compatible with merely all Euro-pean lock standards. The different versions allow the use in all common doors, such as wood, steel and aluminum as well as narrow frame doors with a backset of more than 20 mm. It can be mounted easily and without special tools which makes re-trofitting very simple. The handling is intuitive thanks to plain LED signaling. Moreover, the Door Lever offers a number of handy functions such as time switches/day access or perma-nent engagement (toggle function).



Technical Details

|                                   |  |
|-----------------------------------|--|
| Function                          | Electronic door lever with RFID and wireless networking  |
| Room/site size                    | One door   |
| Radio frequency                   | 868 MHz, encryption AES 128 Bit  |
| Battery life (transactions/years) | Up to 100.000 transactions or up to 6 years  |
| RFID reader                       | MIFARE® DESFire® 13,56MHz  |
| Temperature range                 | -20°C up to +65°C  |
| Configuration                     | Via Kentix AccessManager (KXP-16-B/W)  |
| Radio range                       | Approx. 25m  |
| Batteries                         | 1x CR123 (3V)  |
| Door thickness                    | 32-56 mm (standard), optional up to 110 mm, ATTENTION: For doors thicker than 56 mm, please order matching square pin (8/8.5/9 mm) |
| Material                          | Lever in stainless steel   |
| Approval                          | CE, DIN15684   |
| Protection class                  | IP55/IP66 for interiors/exterior available see ordering assistance   |
| Delivery content                  | Radio door lever, mech. door lever, rosettes, batteries (1xCR123)  |

Accessories

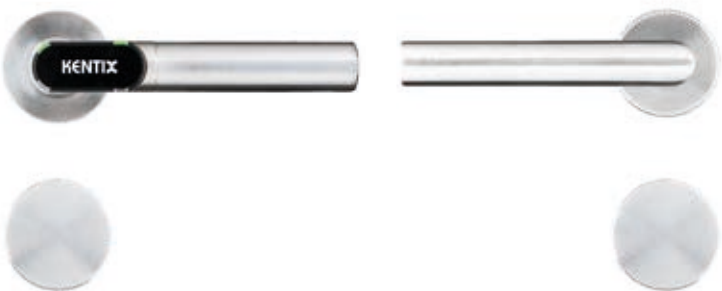
| Type          | Delivery content | Item number |
|---------------|------------------|-------------|
| Spare battery | 1 piece          | KXC-CR123   |

Select required product on page 68

Round rosette

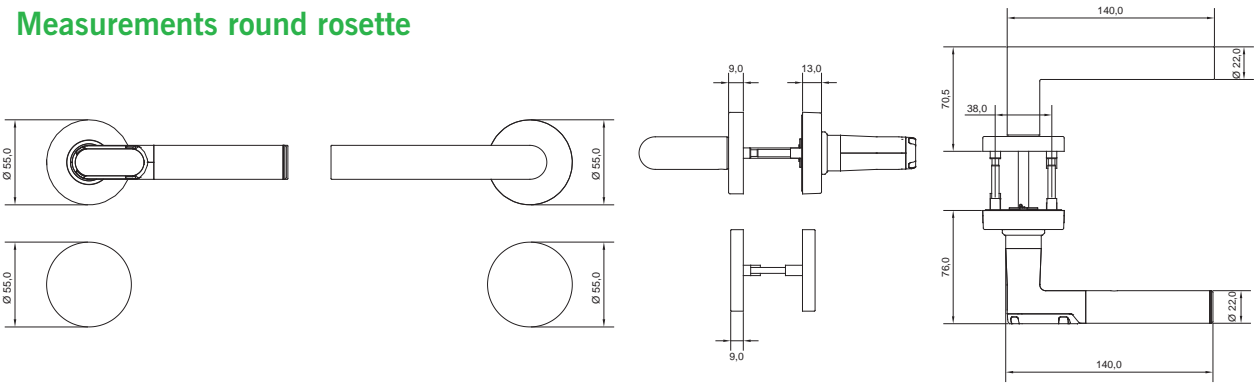
Electronic side

Mechanical side



The electronic door lever is available in a version with a round rosette. Additionally, a key rosette is available, either blind or with profile cylinder punch.

Measurements round rosette



Oval rosette

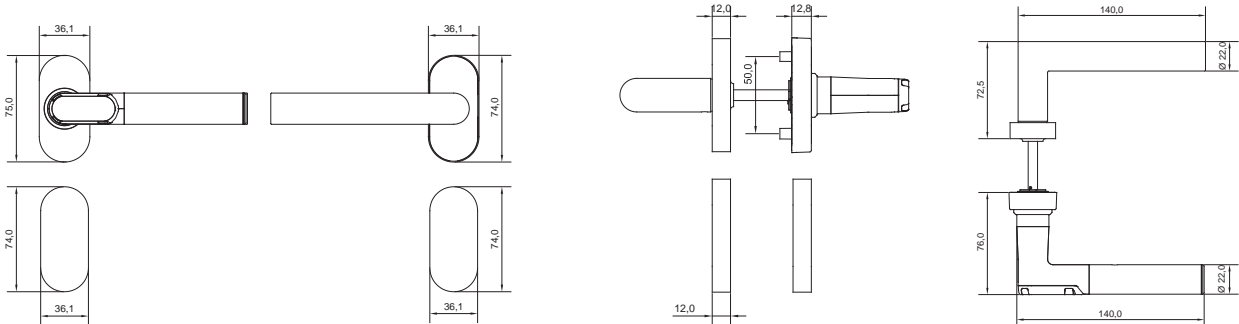
Electronic side

Mechanical side



The electronic door lever is available in a version with an oval rosette. Additionally, a key rosette is available, blind or with profile cylinder punch. The electronic door lever with oval rosette is particularly suitable for tubular frame doors.

Measurements oval rosette



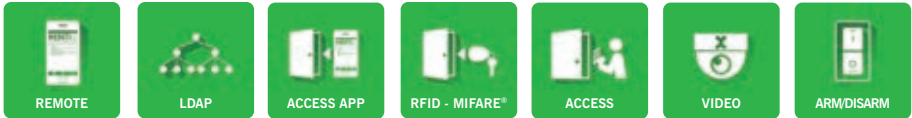




RFID  
RADIO  
BATT

## Wireless Door Fitting DoorLock-LE

The wireless Door Fitting can be mounted in merely all standard doors without cabling or special tools. Existing DIN holes can usually be used. The Door Fitting manages all access electronically and can be controlled offline or online via a radio network. It integrates smoothly into the Kentix DoorLock portfolio and is available in different versions, for example for fire doors.



### Technical Details

|                                   |  |
|-----------------------------------|--|
| Function                          | Electronic door fitting with RFID and wireless networking  |
| Room/site size                    | One door   |
| Radio frequency                   | 868 MHz, encryption AES 128 Bit  |
| Width door fitting                | Wide: 64,4 mm; Slim: 42,4 mm   |
| Protection class                  | IP55 for interiors   |
| Material lever                    | Stainless steel  |
| Door thickness                    | 32-56 mm; ATTENTION: For doors thicker than 56 mm, please order matching square pin (8/8,5/9 mm) |
| Battery life (transactions/years) | Up to 100.000 transactions or up to 6 years  |
| RFID reader                       | MIFARE® DESFire® 13,56MHz  |
| Temperature range                 | -20°C up to +65°C  |
| Configuration                     | Via Kentix AccessManager (KXP-16-B/W)  |
| Radio range                       | Approx. 25 m   |
| Batteries                         | 1x CR123 (3V)  |
| Approval                          | CE, DIN15684   |
| Delivery content                  | Wireless Door Fitting, mechanical door fitting, incl. batteries (1x CR123)                       |

### Accessories

| Type          | Delivery content | Item number |
|---------------|------------------|-------------|
| Spare battery | 1 piece          | KXC-CR123   |

## Door Fitting wide

### Electronic side

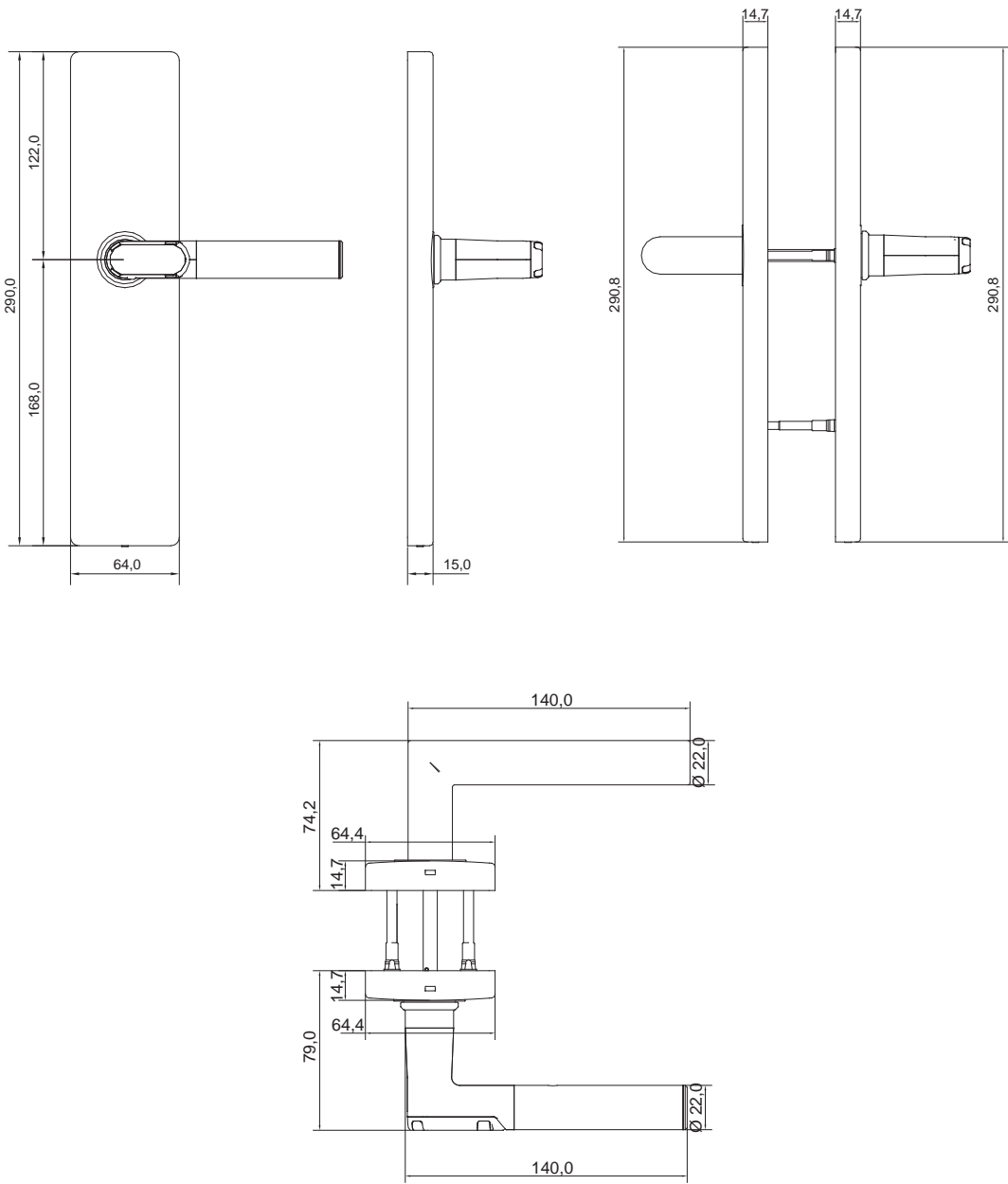


### Mechanical side



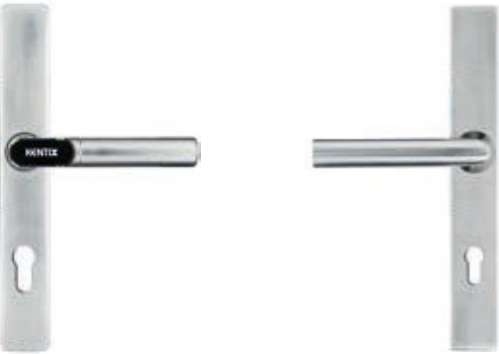
The electronic door fitting is available in a wide version, either in a blind version or with a profile cylinder punch. It is particularly suitable for present doors in case existing holes in the door are to be covered.

### Measurements Door Fitting wide



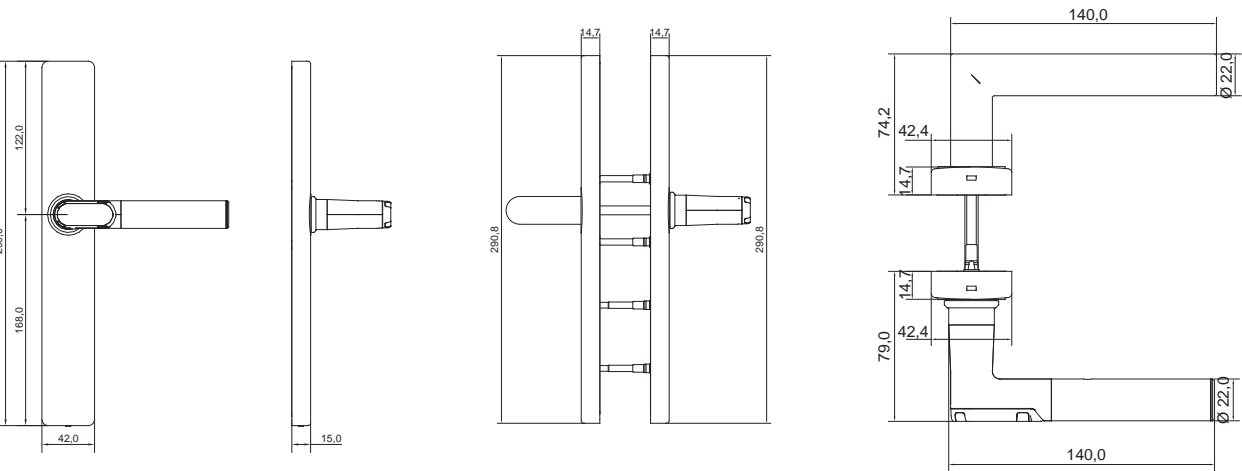
Door Fitting slim

Electronic side      Mechanical side



The electronic door fitting is available in a slim version, either in blind version or with profile cylinder punch. The electronic fitting in the slim version is particularly suitable for tubular frame doors.

Measurements Door Fitting slim



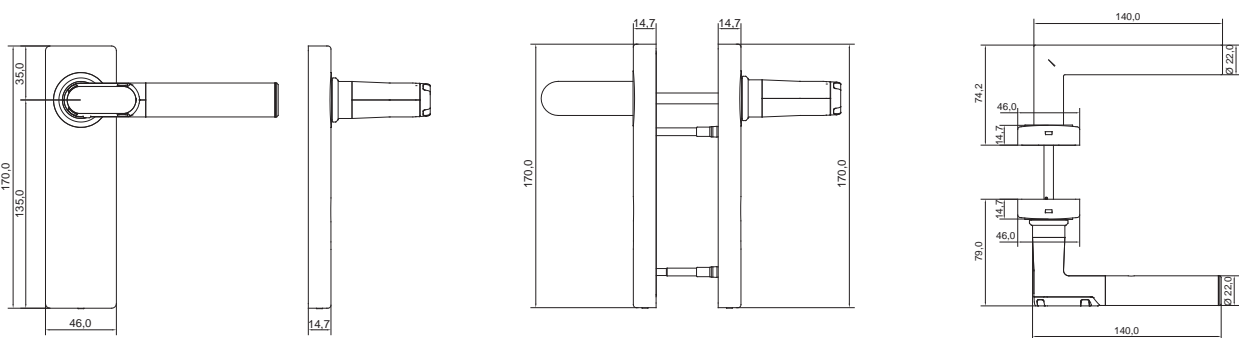
Door Fitting Short Plate

Electronic side      Mechanical side



The electronic door fitting is available in a short plate version, either in blind version or with profile cylinder punch. The electronic door fitting with short plate is particularly suitable for the use in fire and smoke protection doors and can be mounted in emergency exit locks together with the accordingly certified lock in compliance with DIN EN 179.

Measurements Door Fitting Short Plate



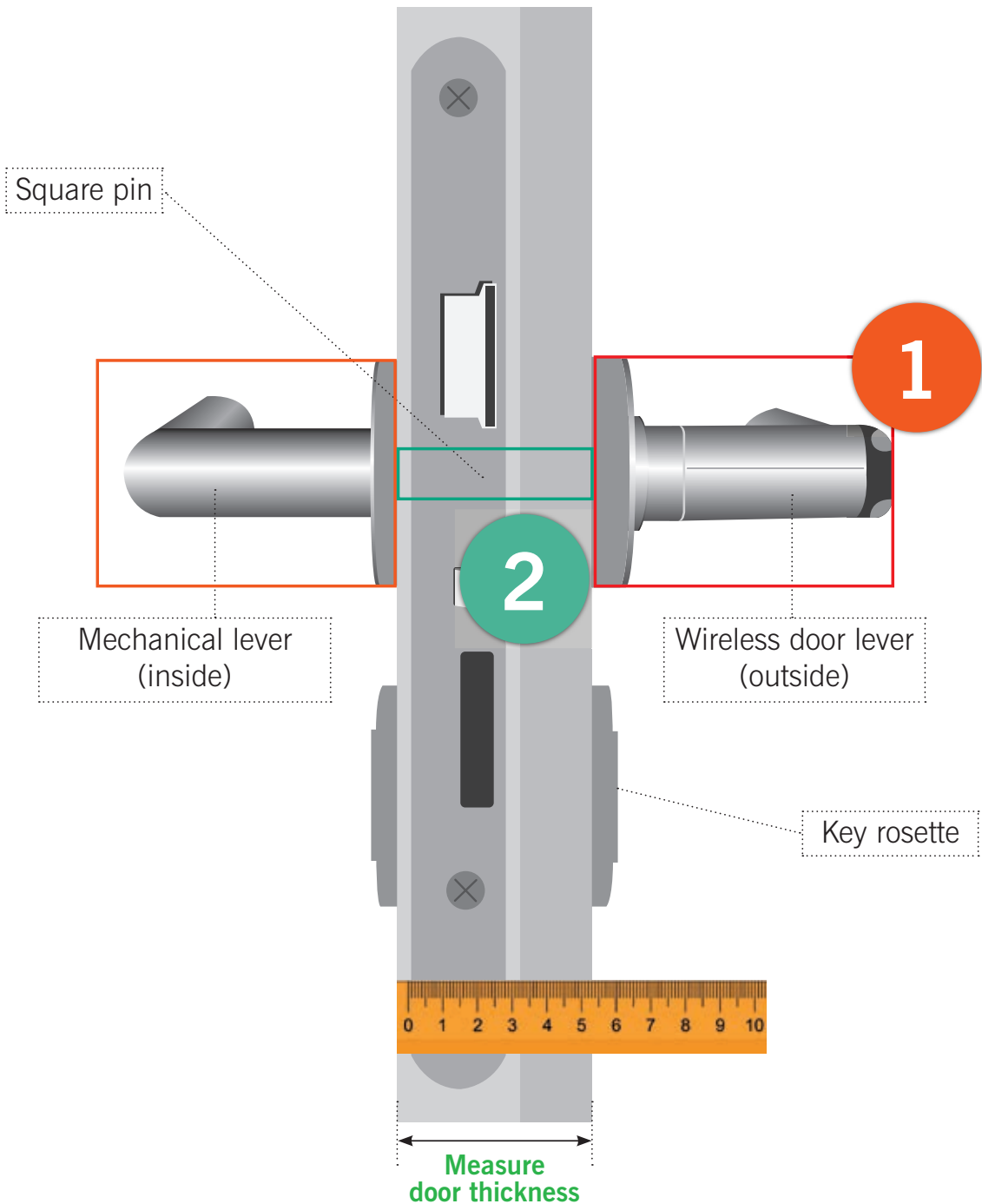
Wireless Door Fitting  
see page 64



# Ordering assistance for Kentix DoorLock-LE

(Wireless Door Lever)

Easy selection of the required Kentix DoorLock Door Lever in two steps






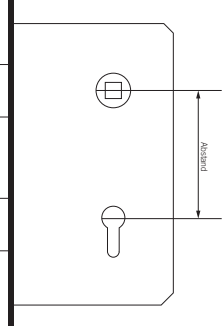








**INFO**


The item is always delivered as a set consisting of online door lever, mechanical interior lever and the required screws. The key rosettes are not included. You can either use the existing rosettes or order the matching key rosettes separately.

A square pin for standard doors with a door thickness of up to 47mm and 8mm square pins is already included in each Wireless Door Lever set. If another type of square pin is required, please order it extra.

## 1 Select door lever or door fitting

| Version  | Lever shape   | Protection   | Lever direction   | PC-distance  |
|--|---|--|---|--|
| <input type="checkbox"/> Round rosette (R)<br><input type="checkbox"/> Oval rosette (O)<br><input type="checkbox"/> Slim with punch (FS)<br><input type="checkbox"/> Wide with punch (FW)<br><input type="checkbox"/> Slim blind (FSB)<br><input type="checkbox"/> Wide blind (FWB)<br><input type="checkbox"/> Short (FL)<br><input type="checkbox"/> Short blind (FLB) | <input type="checkbox"/> L-shape (L)<br><input type="checkbox"/> U-shape (U1)<br><input type="checkbox"/> U-shape 2 round (UR)<br><br><br> | <input type="checkbox"/> Indoor IP55 (I)<br><input type="checkbox"/> Outdoor IP66 (O)<br><input type="checkbox"/> Indoor-Fire (F)<br><small>For indoor or outdoor use or for fire protection doors</small> | <input type="checkbox"/> Right (R)<br><input type="checkbox"/> Left (L)<br><br> | <br><br><input type="checkbox"/> 72 mm (Standard)<br><input type="checkbox"/> 78 mm<br><input type="checkbox"/> 85 mm<br><input type="checkbox"/> 88 mm<br><input type="checkbox"/> 92 mm<br><input type="checkbox"/> 94 mm |
| <br>Slim with punch   | <br>Slim blind   |  |   |  |
| <br>Wide with punch   | <br>Wide blind   |  |   |  |
| <br>Short with punch  | <br>Short blind  |  |   |  |
| KXC-LE   | R   | L  | I   | R  |

## 2 Select square pin, if required

| SELECT SQUARE PIN   |  |   | HINT   |
|---|--|---|--|
| Type  | Square pin (mm)  | Door thickness (mm)   | <p>For doors with a thickness of 39-47mm, a 8.0 square pin is delivered by default.</p> <p>For all other doors please select your according square pin here.</p> |
|  | <input type="checkbox"/> 8.0<br><input type="checkbox"/> 8.5<br><input type="checkbox"/> 9.0 | <input type="checkbox"/> 30-38 <input type="checkbox"/> 39-47 <input type="checkbox"/> 48-56<br><input type="checkbox"/> 57-65 <input type="checkbox"/> 66-74 <input type="checkbox"/> 75-83<br><input type="checkbox"/> 84-92 <input type="checkbox"/> 93-101 <input type="checkbox"/> 102-110 |  |
| KXC-S   | 8.0  | 75-83   |  |

1

Select wireless door lever and door fitting

| Version  | Lever shape   | Protection  | Lever direction  | PC-distance  |
|--|---|---|--|--|
| <input checked="" type="checkbox"/> Round rosette (R)<br><input type="checkbox"/> Oval rosette (O)<br><input type="checkbox"/> Slim with punch (FS)<br><input type="checkbox"/> Slim blind (FSB)<br><input type="checkbox"/> Wide with punch (FW)<br><input type="checkbox"/> Wide blind (FWB)<br><input type="checkbox"/> Short with punch (FL)<br><input type="checkbox"/> Short blind (FLB) | <input checked="" type="checkbox"/> L-shape (L)<br><input type="checkbox"/> U-shape (U1)<br><input type="checkbox"/> U-shape 2 round (UR) | <input checked="" type="checkbox"/> Indoor IP55 (I)<br><input type="checkbox"/> Outdoor IP66 (O)<br><input type="checkbox"/> Indoor-Fire (F)<br><small>For indoor or outdoor use or for fire protection doors</small> | <input checked="" type="checkbox"/> Right (R)<br><input type="checkbox"/> Left (L) | <input checked="" type="checkbox"/> 72 mm (Standard)<br><input type="checkbox"/> 78 mm<br><input type="checkbox"/> 85 mm<br><input type="checkbox"/> 88 mm<br><input type="checkbox"/> 92 mm<br><input type="checkbox"/> 94 mm |
| R  | L   | I   | R  |  |

| Example       |   |  |       |       | Quantity |   |
|---------------|---|--|-------|-------|----------|---|
| Door „Office“ | KXC-LE  | R  | L     | I     | R        | 2 |
|               | <input checked="" type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0 | Door thickness: <u>75 mm</u> PC-distance: <u>72 mm</u> |       |       |          | 2 |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |
|               | KXC-LE  | _____  | _____ | _____ | _____    |   |
|               | <input type="checkbox"/> 8.0 <input type="checkbox"/> 8.5 <input type="checkbox"/> 9.0            | Door thickness: _____   PC-distance: _____             |       |       |          |   |



Wireless Door Lever  
see page 62



Configuration examples

Electronic Door Lever versions



Electronic door lever in version with round rosette



Electronic door lever in version with oval rosette



Electronic door lever for glass-door lock (upon request)

Electronic Door Fitting versions



Electronic door fitting slim in blind version



Electronic door fitting wide in blind version



Electronic door fitting with short panel in blind version

Lever versions



L-shape



U-shape square



U-shape round

Key rosette door lever



Round rosette



Round rosette blind




Oval rosette




Oval rosette blind

Key punch door fitting

















Profile cylinder



Blind

Overview of possible combinations

| Electronics outside  | Mechanical inside<br>- standard -   |   |   |   |   | Electronics outside<br>- upon request -   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |
|   | +   |   |   |   |   | +   |   |   |   |
|   |   | +   |   |   |   |   | +   |   |   |
|   |   |   | +   |   |   |   |   | +   |   |
|   |   |   |   | +   |   |   |   |   | +   |
|  |   |   |   |   | +   |   |   |   |   |

Mechanical door lever inside













Mechanical door fitting











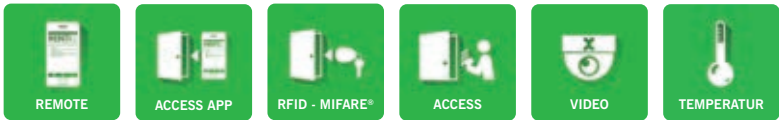


Special orders upon request



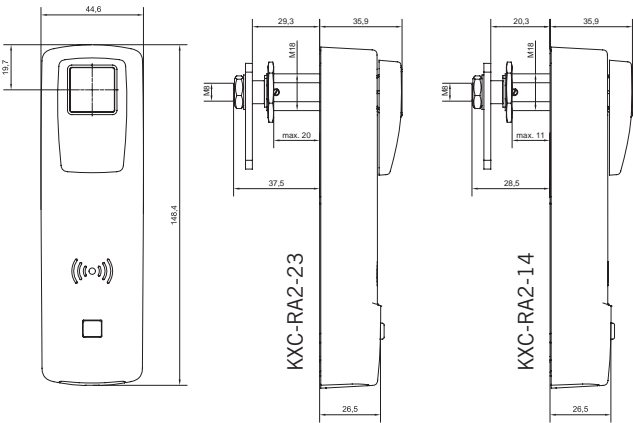
## Wireless Cabinet Lock DoorLock-RA

The radio cabinet lock offers a simple locking solution for converting data, technology and distribution cabinets. Battery operation reduces installation to a minimum. A lithium AA battery is used for the battery and enables a running time of up to eight years or 100,000 operations. The battery is mechanically secured against removal (special tool). The lock is supplied with different locking levers and can therefore be adapted to almost any distribution cabinet.



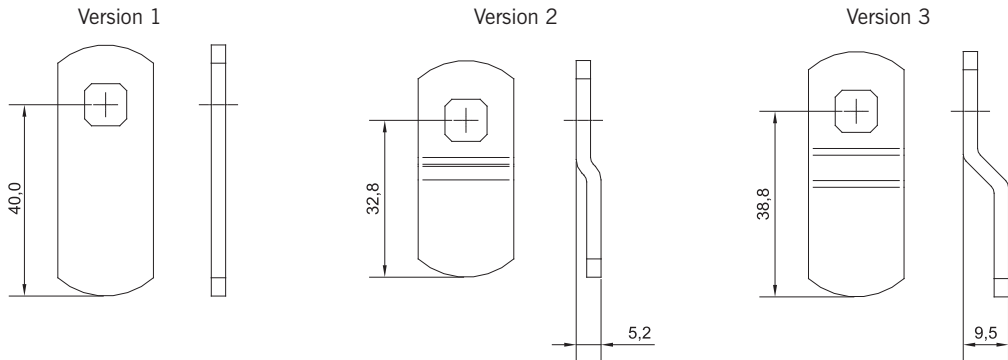
### Products

| Type                                 | Item number |
|--------------------------------------|-------------|
| Wireless Cabinet lock with 23mm bolt | KXC-RA2-23  |
| Wireless Cabinet lock with 14mm bolt | KXC-RA2-14  |



### Accessories

| Type                  | Delivery content | Item number |
|-----------------------|------------------|-------------|
| Spare battery         | 1 piece          | KER14505    |
| Battery Changing Tool | 1 piece          | KXC-BAT3    |

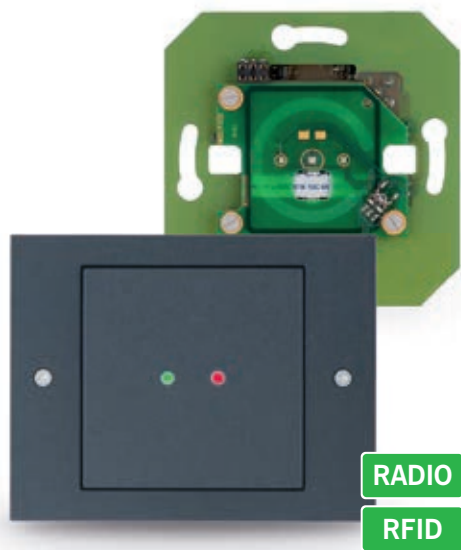


### Technical Details

|                                   |   |
|-----------------------------------|---|
| Function                          | Electronic cabinet lock with RFID and wireless networking                                   |
| Room/site size                    | One rack or cabinet lock respectively   |
| Radio frequency                   | 868 MHz, encryption AES 128 Bit   |
| RFID reader                       | MIFARE® DESFire® 13,56MHz   |
| Temperature range                 | -10°C up to +55°C   |
| Configuration                     | Via Kentix AccessManager (KXP-16-B/W)   |
| Battery                           | 1x AA lithium (3.6V)  |
| Battery life (transactions/years) | Up to 100.000 transactions or 8 years   |
| Approval                          | CE, DIN15684  |
| Delivery content                  | 1x Wireless Cabinet Lock, 1x locking lever Type 3, 1x AA lithium battery, mounting material |

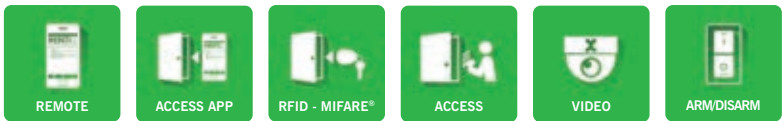
Also available as IP rack cabinet lock see page 82





Wireless Wall Reader

The wireless wall reader is suitable for electric door openers, electronic locks, electric door and gate drives or elevators for instance. The entire electronic system is located on a compact unit that can be mounted in a simple flush-mounted box. The wall mounted reader is available in flush-mounted and surface-mounted versions for interiors or exteriors. With different covers and housings (to be ordered extra), manifold installation possibilities can be realized. Unlocking authorizations can be assigned from one central position and can be reached even in exposed, distributed places.



Products

| Type                     | Item number     |
|--------------------------|-----------------|
| Wall Reader              | KXC-WA1         |
| Wall Reader Outdoor IP66 | KXC-WA1-OUTDOOR |

Accessories

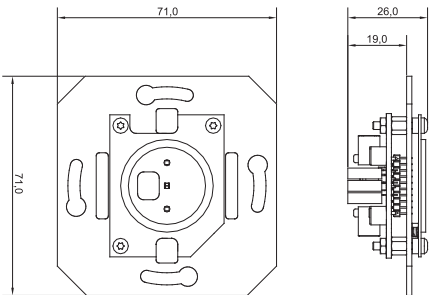
| Housing      | Color      | Item number             |
|--------------|------------|-------------------------|
| GIRA S-Color | Grey       | KXC-WA1-GIRA-S-GREY     |
| GIRA S-Color | White      | KXC-WA1-GIRA-S-WHITE    |
| GIRA S-Color | Black      | KXC-WA1-GIRA-S-BLACK    |
| GIRA TX-44   | Aluminum   | KXC-WA2-GIRA-TX44-ALU   |
| GIRA TX-44   | White      | KXC-WA2-GIRA-TX44-WHITE |
| GIRA TX-44   | Anthracite | KXC-WA2-GIRA-TX44-ANTH  |

Technical Details

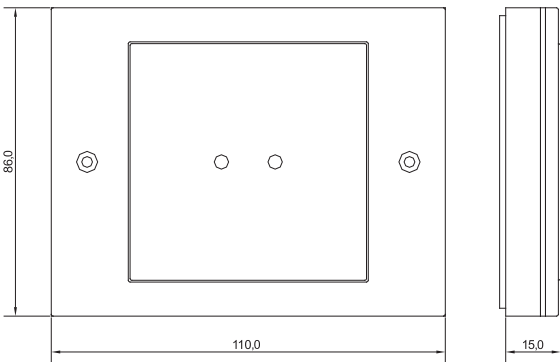
|                   |   |
|-------------------|---|
| Function          | Wireless Wall Reader for flush- or surface-mounting   |
| Room/site size    | One door or gate respectively   |
| Radio frequency   | 868 MHz, encryption AES 128 Bit   |
| RFID reader       | MIFARE® DESFire® 13,56MHz   |
| Temperature range | -20°C up to +65°C   |
| Configuration     | Via Kentix AccessManager (KXP-16-B/W)   |
| Radio range       | Approx. 25m   |
| Relay             | 30VAC/DC, 1.5 A (PhotoMOS Relay)  |
| Housing           | KXC-WA1 for flush-mounting, select cover<br>KXC-WA1-Outdoor for surface wall mounting, protection class IP66, size: 90 x 90 x 40 mm |
| Audits            | CE  |
| Delivery content  | Wireless Wall Reader, Quick Start Guide   |

INFO

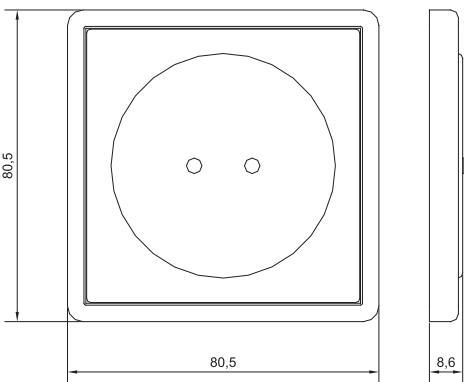
Wall reader in waterproof housing for outdoor use. Ideal for use in rough and moist environments in protection class IP66. Ideal for barrier and gate systems. The door is either controlled via the relay integrated in the Wireless Wall Reader or the external relay connected to the AccessManager (KIO3), depending on the requirements.



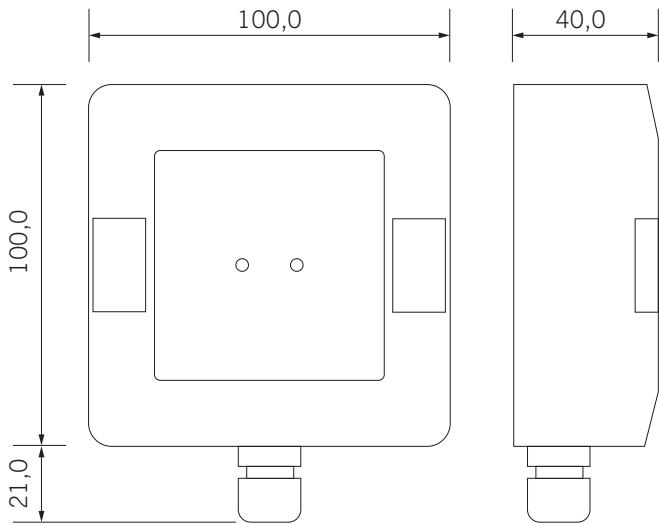
KXC-WA1 - Electronics



KXC-WA1 with GIRA TX-44 housing



KXC-WA1 with GIRA S-Color housing



KXC-WA1-OUTDOOR – Outdoor Wall Reader



Outdoor Wall Reader  
see page 78



# IP-Wall Reader DoorLock-WA-IP

The IP Wall Reader enables access control via RFID medium or alternatively via pin code. A two-factor-authentication is also possible. The SmartRelay (PoE) forms the central unit with network connection. The administration is done centrally via the integrated web server. The SmartRelay communicates per Bus connection with the IP Wall Reader. The reader can be mounted easily in the outlet socket or in a surface-mounted housing (optional) on the inside of the door. With the integrated PoE splitter, the door lock or opener is supplied with 24VDC directly via the reader module; additional cables are not required for power supply.



## Products

| Type   | Item number         |
|--|---------------------|
| StarterSet Network Reader with SmartRelay                | KXC-WA3-IP1         |
| Network Extension Reader for StarterSet                  | KXC-WA3-IP2         |
| StarterSet Network Reader with SmartRelay (Outdoor IP66) | KXC-WA3-IP1-OUTDOOR |
| Network Extension Reader for StarterSet (Outdoor IP66)   | KXC-WA3-IP2-OUTDOOR |

## Housing

| Housing                 | Protection class | Color               | Item number |
|-------------------------|------------------|---------------------|-------------|
| Surface-mounted housing | IP44             | Painted in RAL 9006 | KXC-WA3-SMC |

## Technical Details

|  |  |
|--|--|
| Function                               | IP wall reader for flush or surface mounting, SmartRelay   |
| Room/site size                         | One door   |
| RFID reader (multi-reader)             | MIFARE® DESFire® 13,56MHz, MIFARE® Classic, LEGIC prime, LEGIC advant, ISO14443A (CSN / UID), ISO15693 (CSN / UID), Sony FeliCa (CSN / UID), Inside Secure (CSN / UID) |
| Signaling, LED                         | Acoustic signal transmitter, RGB light field   |
| Connection Wall Reader                 | Via Relay Module 4-wire, length up to 500m   |
| Connection electronic door opener/lock | 24VDC/500mA (briefly 1A) via integrated PoE splitter or externally, Relay: 125VAC/60VDC, 1A, change-over contact   |
| Temperature range                      | Wall reader -25°C up to +60°C<br>SmartRelay 0 - 60°C, non-condensing   |
| Protection class                       | Wall reader IP54, SmartRelay IP20  |
| Configuration                          | Integrated web server (HTTP/HTTPS)   |
| Extensibility                          | Extendable to two readers  |
| Size Wall Reader                       | 88 x 99 x 27 mm (flush mounting)<br>88 x 99 x 40 mm (surface mounting)   |
| Size Relay Module                      | 47 x 48 x 33 mm, mounting in outlet socket or on DIN rail  |
| Approval                               | CE   |
| Delivery content KXC-WA3-IP1           | Wall Reader with PIN, SmartRelay, 1x RFID keyfob, 3m SlimLine cable  |
| Delivery content KXC-WA3-IP2           | Wall Reader with PIN (requires KXC-WA3-IP1 as basis)   |

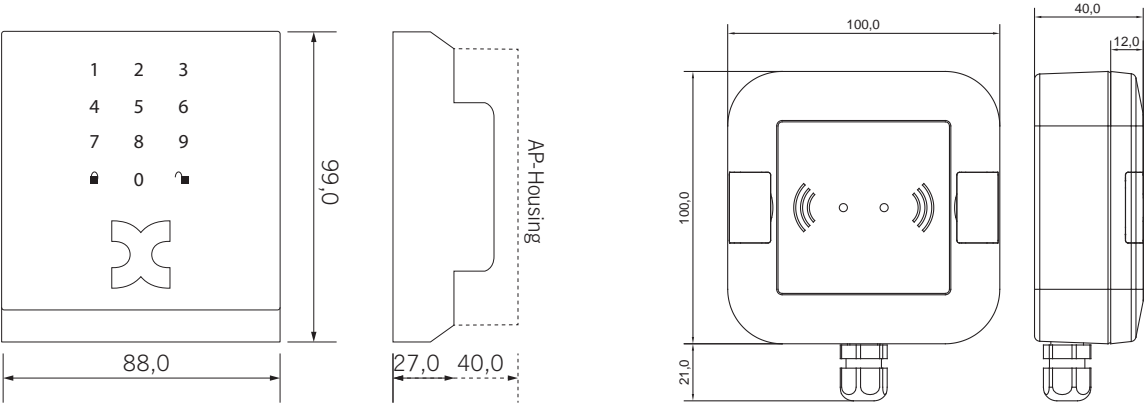
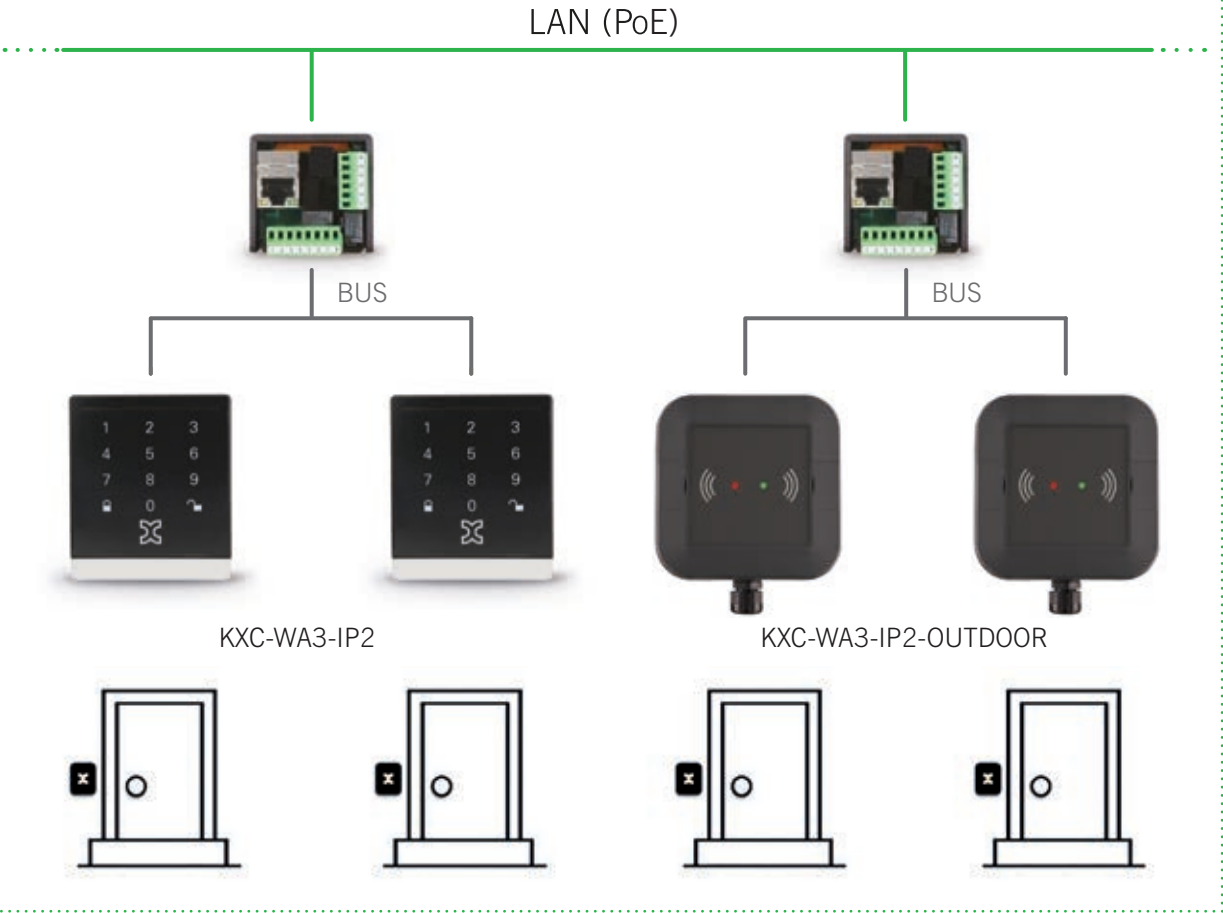
## StarterSet DoorLock-WA-IP



Mounting example in 60 mm switch box and DIN rail

The StarterSet consists of an IP wall reader, an Access Manager SmartRelay and an RFID token. This set can be combined with an additional extension reader (only IP wall reader without SmartRelay) to integrate another door into the system. With the extension reader, the power supply is also provided directly via the SmartRelay.

AccessManager SmartRelay can be networked together indefinitely. If several doors or additional rooms are to be integrated, the SmartRelay can be connected to a system with central administration by means of a MainDevice-Satellite mode.







## IP Frame Reader DoorLock-WA-IP

The frame reader is suitable for e.g. electric door openers, electric locks, electric door and gate drives or elevators. The entire electronics are located on a compact unit that can be easily mounted. Due to its compact design, the reader is particularly suitable for use with narrow metal profiles. Locking authorizations can be assigned from a central location and can be accessed at exposed, remote locations.

### Products

| Type                                      | Item number |
|---|-------------|
| StarterSet Network Reader with SmartRelay | KXC-WA6-IP1 |
| Network Extension Reader                  | KXC-WA6-IP2 |



Mounting on barrier systems



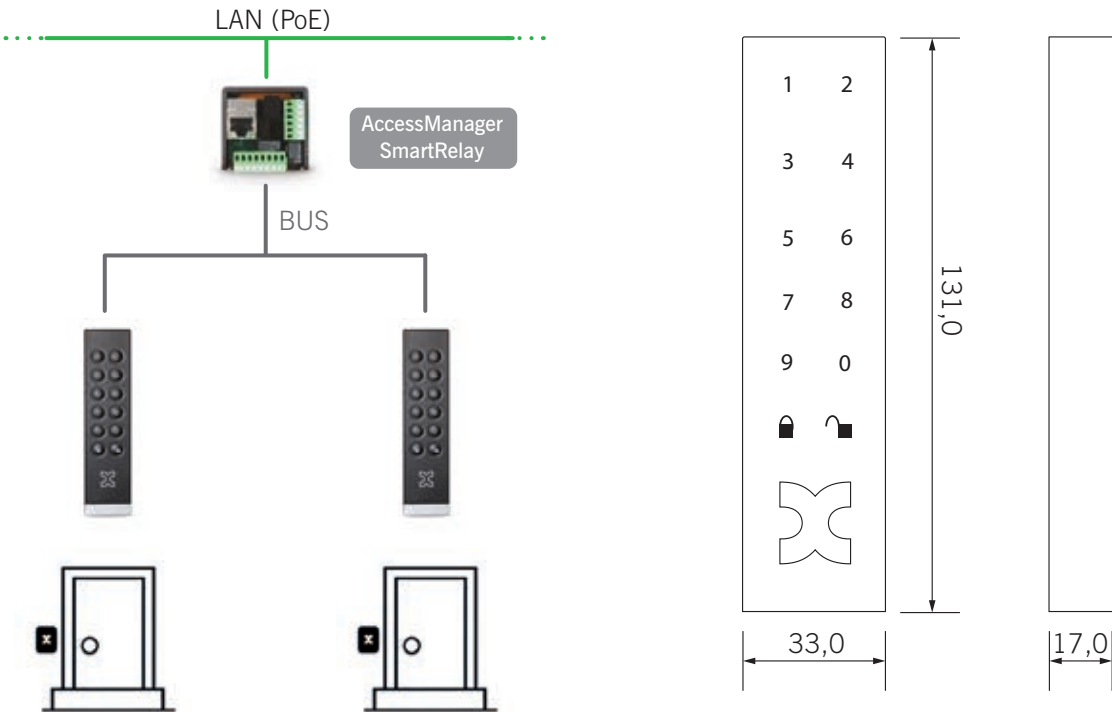
Mounting on door frames



Installation in safety area cages



In the field of separation, metal construction



## IP Wall Reader for installation in switch boxes

IP wall reader in standard format for integration of switch ranges with 55x55 mm cut-out. The IP wall reader enables access control via RFID medium or alternatively via PIN entry. A two-factor authentication is also possible. The SmartRelay (PoE) forms the central unit with network connection. The administration takes place centrally through the integrated web server. The network relay module communicates with the IP wall reader via a bus connection. This can be easily mounted in the switch box or with a surface-mounted housing (optional) in the interior of the door.

### Products

| Type                                      | Item number |
|---|-------------|
| StarterSet Network Reader with SmartRelay | KXC-WA2-IP1 |
| Network Extension Reader                  | KXC-WA2-IP2 |



## IP Fingerprint Reader for two-factor authentication

Biometric reader for double verification with MifareDesfire card and biometric feature. As with all Kentix IP readers, management is done via the SmartRelay software. The biometric features of the finger are written to the card via special enrollment cards. The enrollment process takes place directly at the reader. Authorized access is then only possible from the person whose card matches the finger. The reader can be combined with all other Kenitx readers.

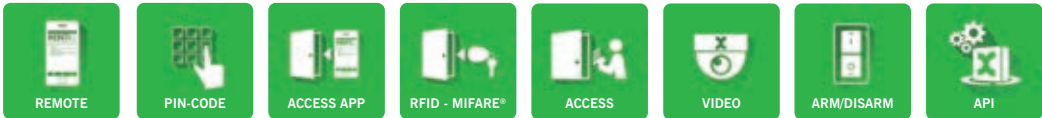
### Products

| Type                                  | Item number |
|---------------------------------------|-------------|
| IP Fingerprint Reader with SmartRelay | KXC-WA5-IP1 |
| IP Fingerprint Extension Reader       | KXC-WA5-IP2 |
| Enrollment Cards                      | KXC-WA5-PC  |



## IP rack handle for server rack security

IT cabinet handle in robust metal-plastic design as a folding lever handle. This means that the handle does not require a swivel range and enables ergonomic handling. The connection is made completely via patch cable. For each Kentix AccessManager up to 16 handles can be connected. Any number of AccessManagers can be networked. A reed contact can be connected directly to each IP rack handle, which reliably monitors the closing and locking status of the rack door. The power supply is PoE and is therefore easily integrated into the UPS power supply.



### Products

| Type  | Item number   |
|---|---------------|
| IP rack handle as StarterSet, right-turning | KXC-RA4-IP1-R |
| IP rack handle as StarterSet, left-turning  | KXC-RA4-IP1-L |
| IP rack handle as extension, right-turning  | KXC-RA4-IP2-R |
| IP rack handle as extension, left-turning   | KXC-RA4-IP2-L |

### Accessories

| Type  | Item number            |
|---|------------------------|
| Distributor box BUS for two doors with door contact           | KXC-RA4-DB-BUS         |
| Distributor box PDU for two doors with door contact           | KXC-RA4-DB-PDU         |
| Magnetic door contact, 2m connection cable, RJ45 plug         | KDC1-W                 |
| RITTAL mechanism (comfort handle TS8), door with design bevel | KXC-RA4-RITTAL-TS8-DSG |
| RITTAL mechanics adapter (comfort handle TS8), flat door      | KXC-RA4-RITTAL-TS8     |
| VERTIV mechanics adapter, front door                          | KXC-RA4-VERTIV         |

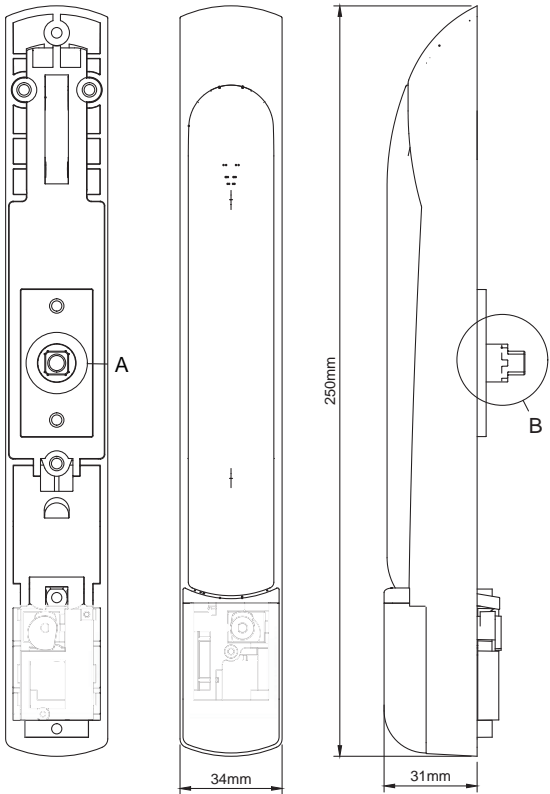
We offer other adapters on request, or also project-specific - please contact us.

## More than a rack handle

The DoorLock-RA4 is an advanced, mechatronic IoT system component that can do more than just open and close server and data cabinets. The DoorLock-RA4 is a sophisticated, infinitely scalable access control system with intelligent software based on the latest generation of KentixOS and the Kentix App, which also enables access via smartphone and smartwatch. Based on the REST API, data center applications can be automated or seamlessly integrated. Collocation customers or service technicians only need a smartphone to open IT racks or doors. The coloured LED on the rack handle can also be used, for example, to display the status of system conditions in the rack or simply as a guidance signal for customers and technicians.

### Technical details

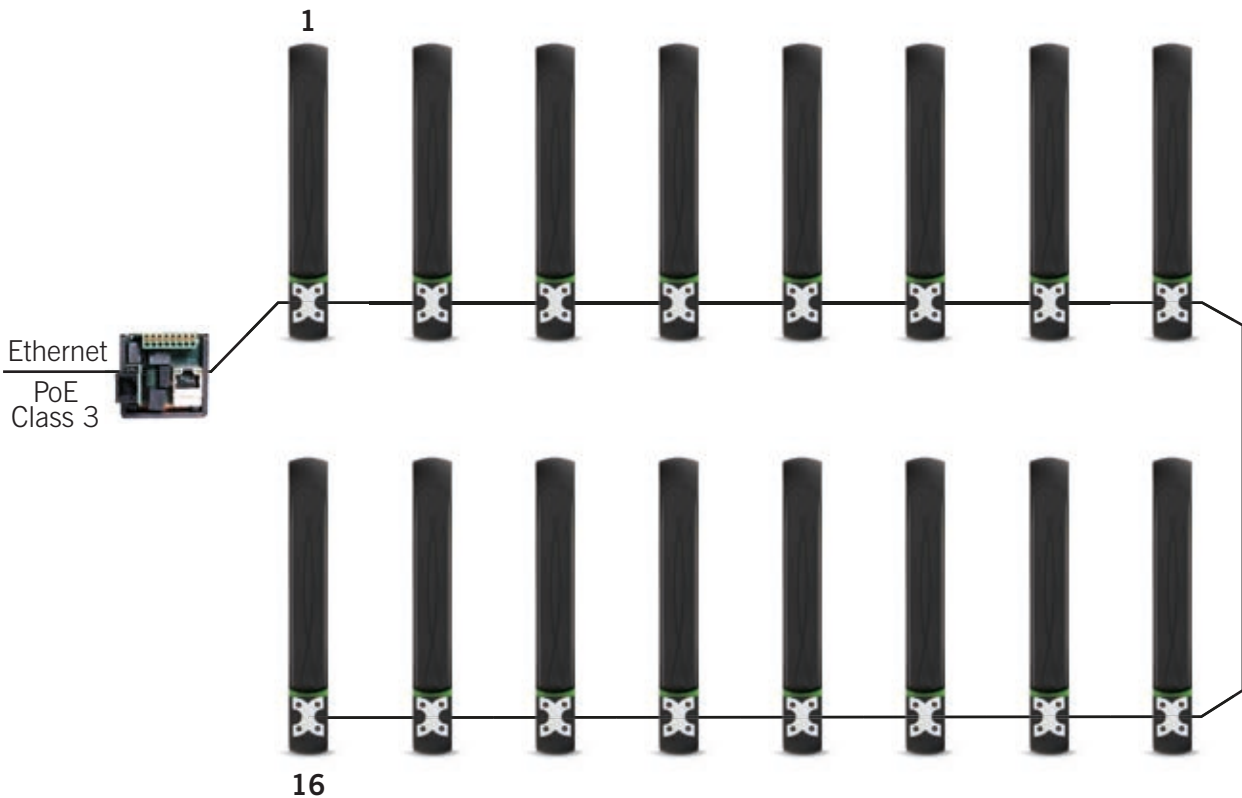
|                        |   |
|------------------------|---|
| Function               | Lift handle for data and server racks                 |
| Room/system size       | One Door  |
| RFID reader            | 13,56MHz MIFARE® DESFire® EV1/2, MIFARE® Classic      |
| PIN keyboard           | Touch PIN keyboard with 4 keys                        |
| Handle state           | Sensor for detecting the lever position (open/closed) |
| Signalliesierung (LED) | Acoustic sounder, LED light field (RED/GREEN )        |
| Connection             | RJ45 back side for standard patch-cable CAT5          |
| Door contact           | RJ45 connection via distributionbox                   |
| Power supply           | Via AccessManager (PoE) or SmartPDU (Systemport)      |
| Size                   | 250 x 34 x 31mm (LxBxH)                               |
| Material               | Plastic, Metal-casting                                |
| Temperature range      | -10°C to 55°C for indoor use                          |
| Protection Class       | IP30  |
| Approvals              | CE  |
| Delivery content       | Rack handle, SlimLine cable 3m, fixing material       |





## Rack closure rethought!

Only 1 Ethernet PoE port supplies 16 rack handles! This means that only a few Ethernet ports and addresses are occupied, even in large data centers.

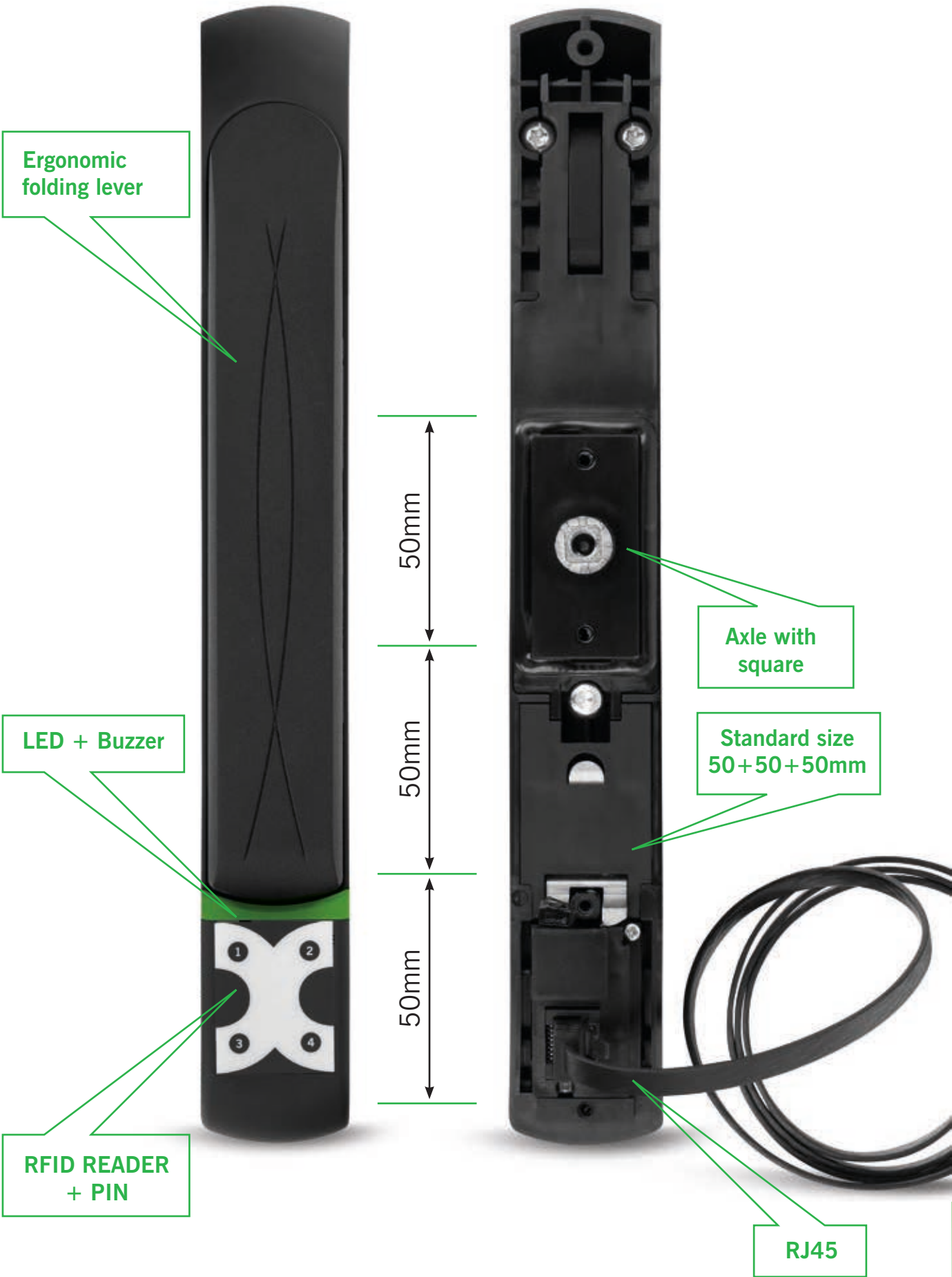


## Direct connection of the rack handle to the Kentix SmartPDU

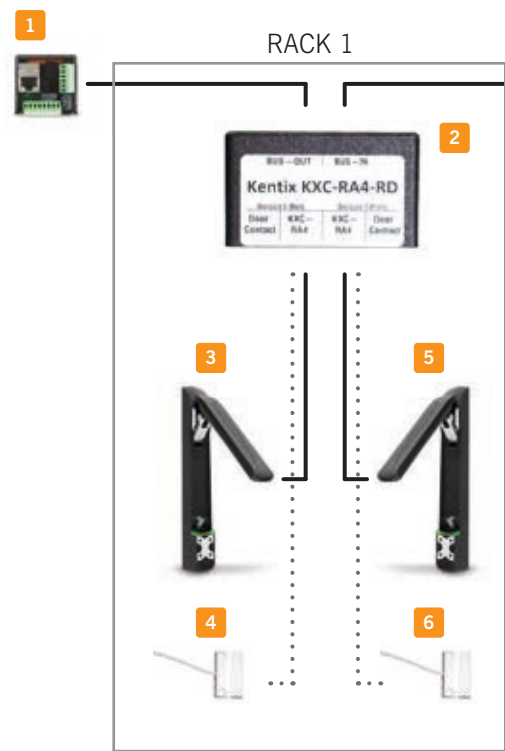
The DoorLock-RA4 is an important system component with many advantages. In addition to stand-alone use, the lever can also be connected directly to a Kentix SmartPDU. On the one hand, this eliminates the need for cabling between the cabinets, on the other hand, the front and rear door handles of the cabinet are supplied redundantly via the PDUs. The SmartPDU takes over the management of the handle and the monitoring of the door contacts. Only a central AccessManager is then required as further hardware. Integration into an overall locking system from Kentix is thus even solved.



## Rack locking with system



Networking Stand-Alone



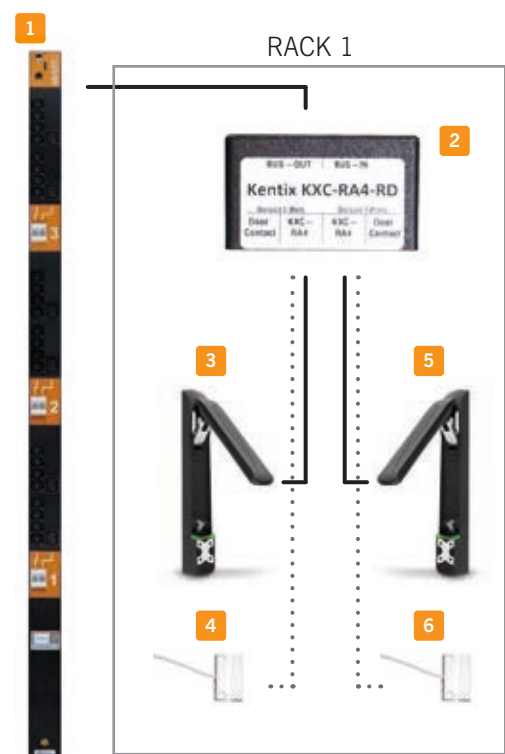
Rack 2-8

- 1) AccessManager is included in StarterSet
- 2) Distributor box with connections for equipping two rack doors
- 3) Rack handle for front door
- 4) Door contact for front door
- 5) Rack handle for rear door
- 6) Door contact for rear door

Example of material compilation for 1 rack:

- 1 piece ART: KXC-RA4-IP1-R StarterSet (right rotation)
- 1 piece ART: KXC-RA4-IP2-L Extension (left rotation)
- 1 piece ART: KXC-RA4-DB-BUS Distribution box for bus
- 2 piece ART: KDC1-W Door contact

Networking with SmartPDU



- 1) Kentix SmartPDU (An additional AccessManager in the network for convenient management of accesses is recommended)
- 2) Distribution box with connections for equipping two rack doors per PDU
- 3) Rack handle for front door
- 4) Door contact for front door
- 5) Rack handle for rear door
- 6) Door contact for rear door

Example of material compilation for 1 rack:

- 1 Stück ART: KXC-RA4-IP2-R Extension (right rotation)
- 1 Stück ART: KXC-RA4-IP2-L Extension (left rotation)
- 1 Stück ART: KXC-RA4-DB-BUS Distribution box for bus
- 2 Stück ART: KDC1-W Door contact





System components  
Ethernet



| Device                                      | DoorLock-WA3-IP                             | DoorLock-WA3-IP-OUTDOOR                        |
|---|---|--|
| Type  | KXC-WA3-IP1/2                               | KXC-WA3-IP1/2-OUTDOOR                          |
| Function                                    | IP Wall Reader with RFID and LAN networking | IP Outdoor Reader with RFID and LAN networking |
| Max. Number of doors per AccessManager      | 2   | 2  |
| Max. Number of DoorLocks per AccessManager  | 4   | 4  |
| Configuration                               | Web-Server (HTTPS)                          | Web-Server (HTTPS)                             |
| Smartphone app                              | ✓   | ✓  |
| PIN field, two-factor authentication        | ✓   | ✗  |
| Two-factor authentication with biometrics   | ✗   | ✗  |
| Enrollment at the fingerprint reader        | ✗   | ✗  |
| Online storage in AccessManager             | 5.000 user                                  | 5.000 user                                     |
| Protection class reader                     | IP44  | IP67   |
| Protection class SmartRelay                 | IP20  | IP20   |
| SmartRelay control relay (60VDC/1A)         | 2   | 2  |
| RFID reader expandable on both sides        | ✓   | ✓  |
| Cable length reader to SmartRelay           | 800 m                                       | 800 m  |
| Mounting SmartRelay DIN Rail                | ✓   | ✓  |
| Mounting SmartRelay switch box              | ✓   | ✓  |
| RFID Reader MIFARE®                         | Classic®, DESFire®                          | Classic®, DESFire®                             |
| Remote opening                              | ✓   | ✓  |
| Arming/disarming Kentix alarm system        | ✓   | ✓  |
| Maximum number of networkable AccessManager | unlimited                                   | unlimited                                      |
| Digital inputs SmartRelay                   | 2   | 2  |
| Door profiles                               | unlimited                                   | unlimited                                      |
| Time profiles (weekday, time of day)        | unlimited                                   | unlimited                                      |
| Access log Memory depth                     | 200.000                                     | 200.000  |
| Ethernet                                    | ✓   | ✓  |
| Power over Ethernet (PoE)                   | ✓   | ✓  |
| IEEE 802.1X authentication                  | ✓   | ✓  |
| Integration into AlarmManager               | ✓   | ✓  |
| Video recording IP camera (HTTPS)           | ✓   | ✓  |
| Sabotage monitored                          | ✓   | ✓  |
| SNMP (V2/V3)                                | ✓   | ✓  |
| LDAP - Active Directory                     | ✓   | ✓  |
| Memory expansion (SD card)                  | ✓   | ✓  |
| Integrated PoE splitter (24VDC/0.5A)        | ✓   | ✓  |
| Approvals                                   | CE  | CE   |
| Power supply                                | PoE Class 3                                 | PoE Class 3                                    |
| Temperature range                           | -25 °C to 60 °C                             | -30 °C to 70 °C                                |
| Reader size (L x W x H in mm)               | 88 x 99 x 27                                | 100 x 100 x 40                                 |
| Size SmartRelay (L x W x H in mm)           | 47 x 48 x 33                                | 47 x 48 x 33                                   |



| DoorLock-WA6-IP                                     | DoorLock-WA2-IP   | DoorLock-WA5-IP                                 | DoorLock-RA4-IP                             |
|---|---|---|---|
| KXC-WA6-IP1/2                                       | KXC-WA2-IP1/2   | KXC-WA5-IP1/2                                   | KXC-RA4-IP1/2                               |
| Compact IP Wall Reader with RFID and LAN networking | Flush-mounted IP Wall Reader with RFID and LAN networking | Fingerprint Reader with RFID and LAN networking | IP Rack Handle with RFID and LAN networking |
| 2   | 2   | 2   | 2   |
| 4   | 4   | 4   | 4   |
| Web-Server (HTTPS)                                  | Web-Server (HTTPS)  | Web-Server (HTTPS)                              | Web-Server (HTTPS)                          |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✗   | ✗   |
| ✗   | ✗   | ✓   | ✗   |
| ✗   | ✗   | ✓   | ✗   |
| 5.000 user  | 5.000 user  | 5.000 user                                      | 5.000 user                                  |
| IP44  | IP20  | IP44  | IP44  |
| IP20  | IP20  | IP20  | IP20  |
| 2   | 2   | 2   | 2   |
| ✓   | ✓   | ✓   | ✗   |
| 800 m   | 800 m   | 800 m   | 800 m                                       |
| ✓   | ✓   | ✓   | ✗   |
| ✓   | ✓   | ✓   | ✗   |
| Classic®, DESFire®                                  | Classic®, DESFire®  | Classic®, DESFire®                              | Classic®, DESFire®                          |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| unlimited   | unlimited   | unlimited                                       | unlimited                                   |
| 2   | 2   | 2   | ✗   |
| unlimited   | unlimited   | unlimited                                       | unlimited                                   |
| unlimited   | unlimited   | unlimited                                       | unlimited                                   |
| 200.000   | 200.000   | 200.000   | 200.000                                     |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| ✓   | ✓   | ✓   | ✓   |
| CE  | CE  | CE  | CE  |
| PoE Class 3   | PoE Class 3   | PoE Class 3                                     | PoE Class 3                                 |
| -25 °C to 60 °C                                     | -25 °C to 60 °C   | -10 °C to 50 °C                                 | -10 °C to 50 °C                             |
| 131 x 33 x 17                                       | 55 x 55 cut-out   | 96 x 123 x 55                                   | 250 x 34 x 30                               |
| 47 x 48 x 33  | 47 x 48 x 33  | 47 x 48 x 33                                    | 47 x 48 x 33                                |

System components  
radio



| Gerät   | AccessManager   | DoorLock-DC BASIC                        | DoorLock-DC PRO  |
|---|---|--|--|
| Type  | KXP-16-B/W  | KXC-KN1/2                                | KXC-KN4  |
| Function                                      | Access system for web-based management and networking of the wireless DoorLocks | Door Knob with RFID and radio networking | Compact Door Knob with RFID and radio networking<br>Resistance class 2 |
| Max. Number of DoorLocks per AccessManager    | 16  | -  | -  |
| Configuration                                 | Web-Server (HTTPS)  | AccessManager, Programming card          | AccessManager, Programming card  |
| Smartphone app                                | ✓   | ✗  | ✗  |
| Radio networkable                             | ✗   | ✓  | ✓  |
| Standard mortise lock (DIN18252 and DIN 1303) | ✗   | ✓  | ✗  |
| Offline memory in the device                  | -   | 1.000 user                               | 1.000 user   |
| Online storage in AccessManager               | 5.000 user  | -  | -  |
| Suitable for external doors (IP66)            | ✗   | ✓  | ✓  |
| Suitable for fire protection doors            | ✗   | ✓  | ✓  |
| Anti-panic version for escape doors           | ✗   | ✓  | ✓  |
| RFID reader expandable on both sides          | ✗   | ✓  | ✓  |
| Battery life (years)                          | -   | up to 4 years                            | up to 6 years  |
| Battery level message                         | ✓   | ✓  | ✓  |
| Door thickness                                | -   | up to 140 mm                             | up to 110 mm   |
| RFID Reader MIFARE®                           | -   | Classic®, DESFire®                       | Classic®, DESFire®   |
| Remote opening                                | ✓   | ✓  | ✓  |
| Arming/disarming Kentix alarm system          | ✓   | ✓  | ✓  |
| Maximum number of networkable AccessManager   | unlimited   | -  | -  |
| Radio range                                   | approx. 25 m  | approx. 25 m                             | approx. 25 m   |
| Door profiles                                 | unlimited   | -  | -  |
| Time profiles (weekday, time of day)          | unlimited   | -  | -  |
| Access log Memory depth                       | 200.000   | -  | -  |
| Ethernet                                      | ✓   | ✗  | ✗  |
| Power over Ethernet (PoE)                     | ✓   | ✗  | ✗  |
| IEEE 802.1X authentication                    | ✓   | ✗  | ✗  |
| Can be integrated into AlarmManager           | ✓   | ✗  | ✗  |
| Video recording IP camera (HTTP/S)            | ✓   | ✗  | ✗  |
| Sabotage monitored                            | ✓   | ✓  | ✓  |
| SNMP (V2/V3)                                  | ✓   | ✗  | ✗  |
| LDAP - Active Directory                       | ✓   | ✗  | ✗  |
| Memory expansion (SD card)                    | ✓   | ✗  | ✗  |
| Radio frequency                               | 868MHz  | 868MHz                                   | 868MHz   |
| Approvals                                     | CE  | CE, DIN15684                             | CE   |
| Batteries/power supply                        | PoE Class 2   | 2 x CR2 (3V)                             | 1 x CR123A   |
| Temperature range                             | 0 °C to 50 °C   | -25 °C to 65 °C                          | -25 °C to 65 °C  |
| Size (L x W x H in mm)                        | 90 x 90 x 45  | 30-140                                   | 30-110   |



| DoorLock-LE                               | DoorLock-WA                                | DoorLock-RA                                      |
|---|--|--|
| KXC-LE-XXXX                               | KXC-WA1/ KXC-WA1-OUTDOOR                   | KXC-RA   |
| Door Lever with RFID and radio networking | Wall Reader with RFID and radio networking | Rack Cabinet Lock with RFID and radio networking |
| -   | -  | -  |
| AccessManager, Programming card           | AccessManager, Programming card            | AccessManager, Programming card                  |
| ✗   | ✗  | ✗  |
| ✓   | ✓  | ✓  |
| ✗   | ✗  | ✗  |
| 1.000 user                                | 1.000 user                                 | 1.000 user                                       |
| -   | -  | -  |
| ✓   | ✓  | ✓  |
| ✓   | ✓  | ✓  |
| ✓   | ✗  | ✗  |
| ✓   | ✗  | ✗  |
| up to 6 years                             | -  | up to 8 years                                    |
| ✓   | ✗  | ✓  |
| up to 110 mm                              | -  | -  |
| Classic®, DESFire®                        | Classic®, DESFire®                         | Classic®, DESFire®                               |
| ✓   | ✓  | ✓  |
| ✓   | ✓  | ✓  |
| -   | -  | -  |
| approx. 25 m                              | approx. 25 m                               | approx. 25 m                                     |
| -   | -  | -  |
| -   | -  | -  |
| -   | -  | -  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| ✓   | ✓  | ✓  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| ✗   | ✗  | ✗  |
| 868MHz                                    | 868MHz                                     | 868MHz   |
| CE  | CE   | CE   |
| CR123A                                    | Versorg.-Spann. 8-40V                      | AA Lithium                                       |
| 5 °C to 55 °C                             | -20 °C to 65 °C                            | -20 °C to 65 °C                                  |
| 30-110                                    | 71 x 71 x 26                               | 148.4 x 44.6 x 35.9                              |



StarterSets-DoorLock-KXC

With the StarterSets-DoorLock you get all the components you need to lay the foundation for an access system. Each StarterSet allows you to manage access authorisations for up to 16 doors. Additional doors can easily be added at any time. The AccessManager and doors can be networked together without limits, allowing small and large access systems to be created in no time at all. There are no limits to future expansion

The combination of AccessManager, wireless door knob (IP55) and master card set included in the StarterSet-DoorLock-BASIC contains everything you need to make a door online ready. In the StarterSet-PRO, the radio door knob is replaced by a compact knob. Due to its smaller diameter (31.4 mm), this knob is particularly suitable for metal frame doors, as it leaves sufficient clearance for opening the door even with small backsets. Due to the compact and robust design of the knob, it is protected against drilling and has resistance class 2 (RC2).

StarterSet-DoorLock BASIC



- Delivery content  
**StarterSet DoorLock-BASIC:**
- 1 AccessManager
  - 1 Wireless Door Knob BASIC (IP55)
  - 1 Master card set
  - 1 Slim-line patch cable 3 m

**IMPORTANT:**  
Always order a matching profile cylinder KXC-80/140-AABB or KXC-50-AA for the Wireless Door Knob.



Products

| Type                      | Item number |
|---------------------------|-------------|
| StarterSet DoorLock BASIC | KXC-CS1     |

Accessories

| Type                                   | Delivery content | Item number |
|--|------------------|-------------|
| PoE Injector                           | 1 piece          | KPOE100EU   |
| Low Power Adapter                      | 1 piece          | KXC-BAT2    |
| Spare batteries for Wireless Door Knob | 2 pieces         | KXC-CR2-2   |

StarterSet-DoorLock PRO



- Delivery content  
**StarterSet DoorLock-PRO:**
- 1 AccessManager
  - 1 Wireless Door Knob PRO (IP55)
  - 1 Master card set
  - 1 Slim-line patch cable 3 m



Products

| Type                    | Item number |
|-------------------------|-------------|
| StarterSet DoorLock PRO | KXC-KN4-CS1 |

Accessories

| Type                                   | Delivery content | Item number |
|--|------------------|-------------|
| PoE-Injektor                           | 1 piece          | KPOE100EU   |
| Spare batteries for Wireless Door Knob | 2 pieces         | KXC-CR2-2   |

Identification Media - Transponder

Kentix transponders are based on MIFARE®DESFire® technology (13.56MHz) type EV2 with 4kB memory. By default, the tokens are written with a special Kentix security application, but can also be written with an own security application according to standard.

**TIP:** Never forget your keys again, just stick an glue transponder in the smartphone case!



Products

| Type             | Amount    | Item number |
|------------------|-----------|-------------|
| RFID keyfob      | 1 piece   | KKT-M       |
| RFID keyfob      | 25 pieces | KKT-M25     |
| RFID cheque card | 1 piece   | KKT-MC      |
| RFID cheque card | 25 pieces | KKT-MC25    |
| Glue transponder | 1 piece   | KKT-MI      |
| Glue transponder | 25 pieces | KKT-MI25    |



Application example:  
Access for office, law firms or medicinal practices

Protection of entrances and rooms in the same or in other buildings against unauthorized access with an online-capable solution

The wireless Door Knob with profile cylinder, the wireless Door Lever and wireless Wall Reader are available as locking components. These are connected wirelessly to the Kentix AccessManager. On a web surface, the AccessManager provides the central administration for all locking components in the system and contains a central log book. If required, each transaction can be connected to a video recording. Several AccessMana-

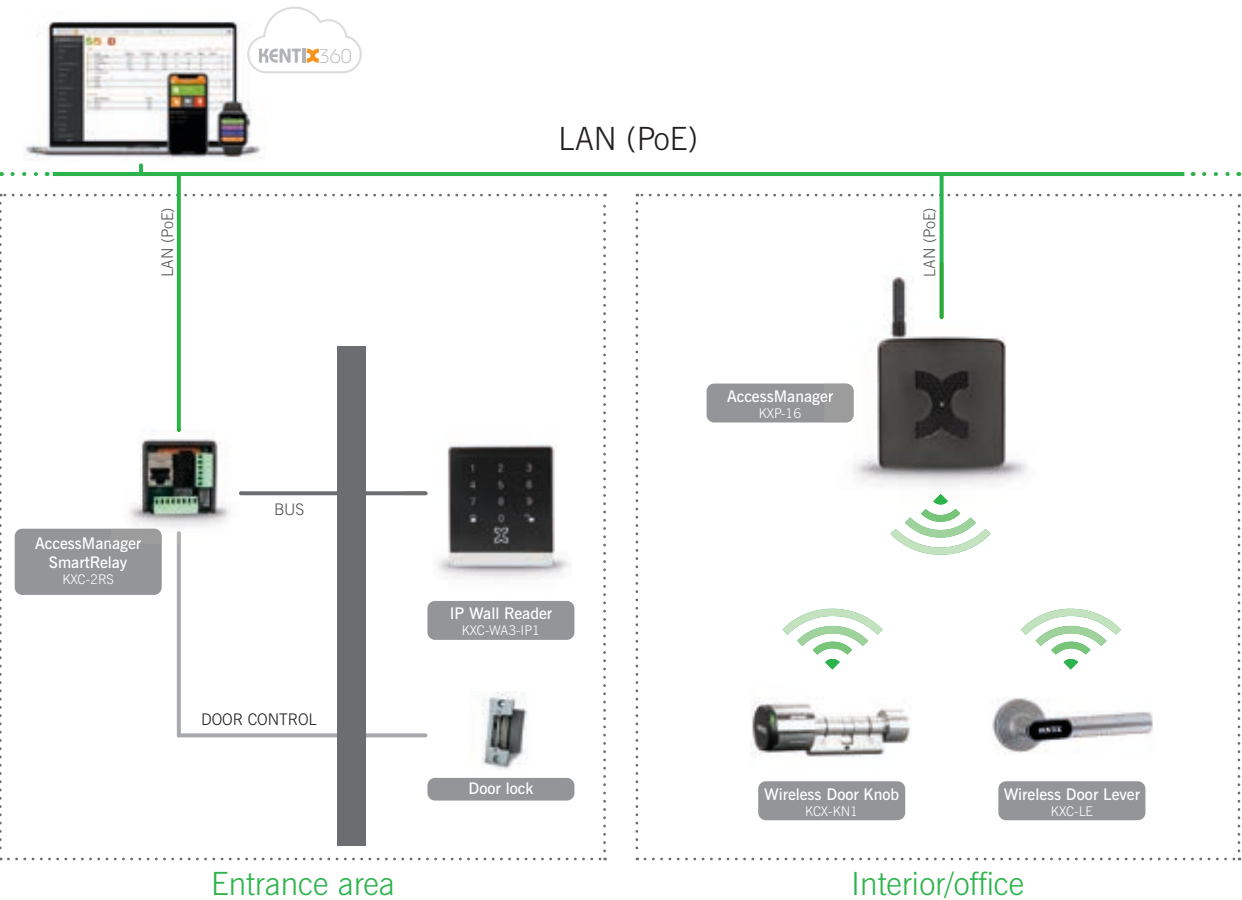
ger can be connected to one system in which one of them takes on the central administration. This makes the extension to more rooms or buildings very easy. The IP Wall Readers and Network Relay Modules are fully compatible to the DoorLock series. Therefore, extra rooms can also be equipped with wireless DoorLock components and can be integrated into the system.

Parts list/Order assistance

| Type  | Item number | Quantity |
|---|-------------|----------|
| AccessManager   | KXP-16      | 1        |
| Wireless Door Knob for interior or exterior doors (IP65/66) | KXC-KN1/2   | 1        |
| Profile cylinder  | KXC-80-AABB | 1        |
| Wireless Door Lever   | KXC-LE      | 1        |
| Wireless Wall Reader  | KXC-WA1     | 1        |

Extensions

| Type                            | Item number | Quantity |
|---------------------------------|-------------|----------|
| Camera                          | M3105-LVE   | 1        |
| IP Wall Reader incl. SmartRelay | KXP-WA3-IP1 | 1        |
| Extension reader for SmartRelay | KXP-WA3-IP2 | 1        |



Application example:  
Access solution for IT racks

Protection of one or several IT racks (server cabinets) against unauthorized access, expandable to other rooms or areas and combinable with video recording if required

To implement an access control system for IT racks, the wireless Door Knob with profile half cylinder and the wireless Cabinet Lock are available as locking components. These components are connected to the Kentix AccessManager via radio. On a web surface, the AccessManager provides the central administration for all locking components in the system and contains a

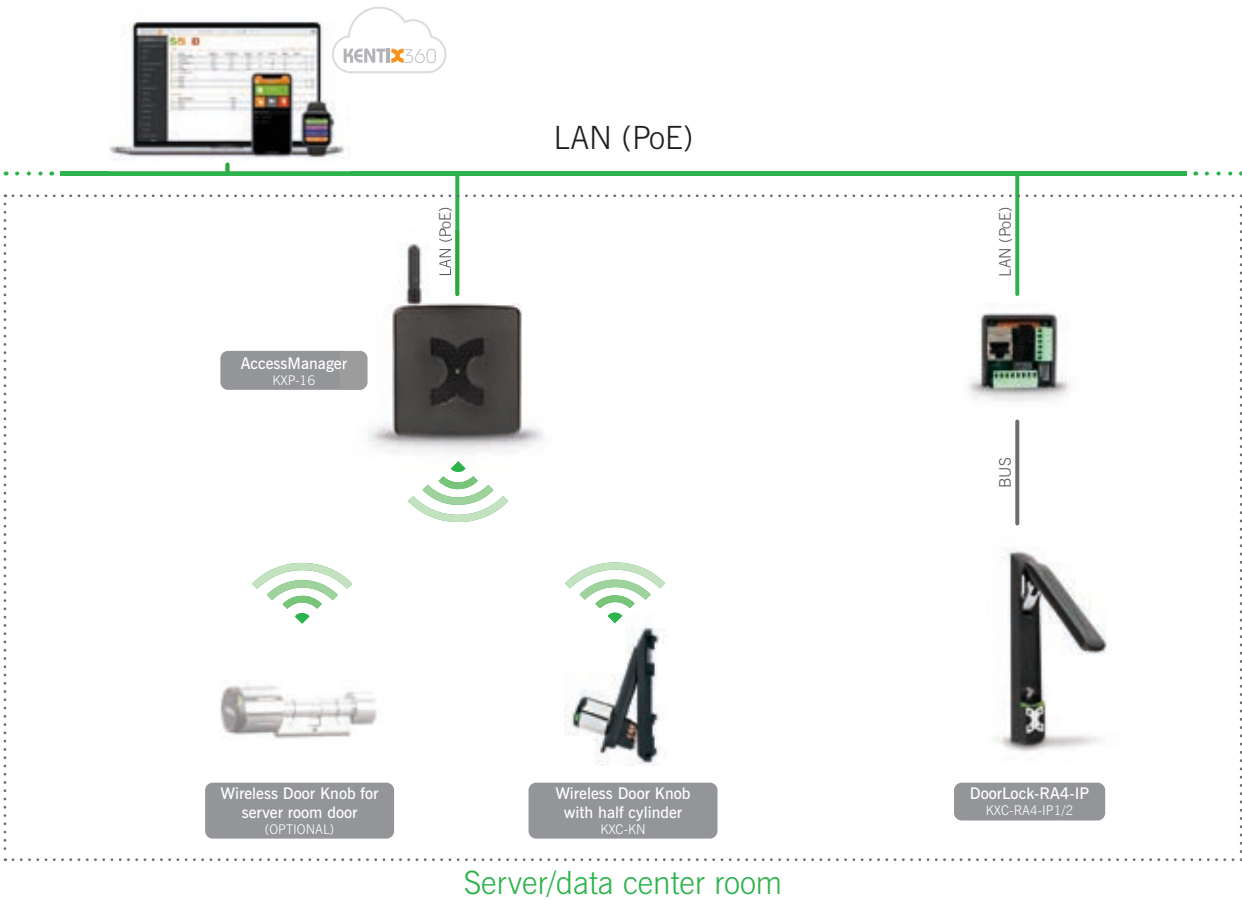
central log book of all transactions. If required, each transaction can be combined with a video recording. Several AccessManager can be connected to one system so that changes only need to be made from one central position. This way, the site can be extended any time with more server cabinets or doors to adjoining rooms as well.

Parts list/Order assistance

| Type                                    | Item number | Quantity |
|---|-------------|----------|
| AccessManager                           | KXP-16      | 1        |
| Wireless Door Knob for interiors (IP55) | KXC-KN1     | 1        |
| Profile half cylinder                   | KXC-50-AA   | 1        |
| IP Rack handle                          | KXC-RA4-IP1 | 1        |

Extensions

| Type  | Item number | Quantity |
|---|-------------|----------|
| Camera  | M3105-LVE   | 1        |
| Wireless Door Knob for interior or exterior doors (IP55/66) | KXC-KN1/2   | 1        |
| Profile cylinder  | KXC-80-AABB | 1        |
| Wireless Wall Reader  | KXC-WA1     | 1        |







**Measure energy and monitor power supply - Kentix SmartPDUs provide the necessary data and report errors immediately**

A stable power supply is the most important foundation of your IT and business infrastructure. Kentix Smart PDUs offer the simplest solution to monitor and integrate the same power seamlessly into your network.

ENERGY

ANALYSIS

PUE

BREAKDOWN

HISTORY

## IP Power Monitoring ingeniously easy – with the Kentix SmartPDUs

A stable power supply is the basis of your IT and business infrastructure. Kentix SmartPDUs enable seamless monitoring and are easy to integrate into your existing system environment. The advantage is, on the one hand, the flexible choice between different connection and mounting variants and, on the other hand, the simple IP network integration without external software. Like all Kentix products, the SmartPDU series is based on the innovative KentixOS operating system.

The software integrates all open interfaces for effective management from individual racks to large data center. All functions are available in the browser via a modern web GUI. KentixOS is licence-free and future updates will be available free of charge. New software versions can easily be distributed automatically to all clients via the PDU defined as a server. Thanks to SNMP V2/3 and the SNMP MIB Base, which can be easily downloaded from the PDU, integration into existing monitoring systems is very simple. monitoring systems is very simple.

The comprehensive, event-based REST API goes one step further with so-called web hooks. This means that all PDU functions are available in encrypted form via SSL/TLS and offer and offer completely new possibilities for effective data center automation. This makes it easy to distribute configurations or templates, and service technicians or collocation customers can be guided visually and acoustically to their racks. KentixOS supports Active Directory or LDAP, making user management and control of electronic rack handles via a central directory server a simple.

- Application possibilities:**
- Data center
  - Measuring single racks (A+B)
  - Customer billing colocation
  - Network monitoring
  - Technology distributors
  - PUE measuring

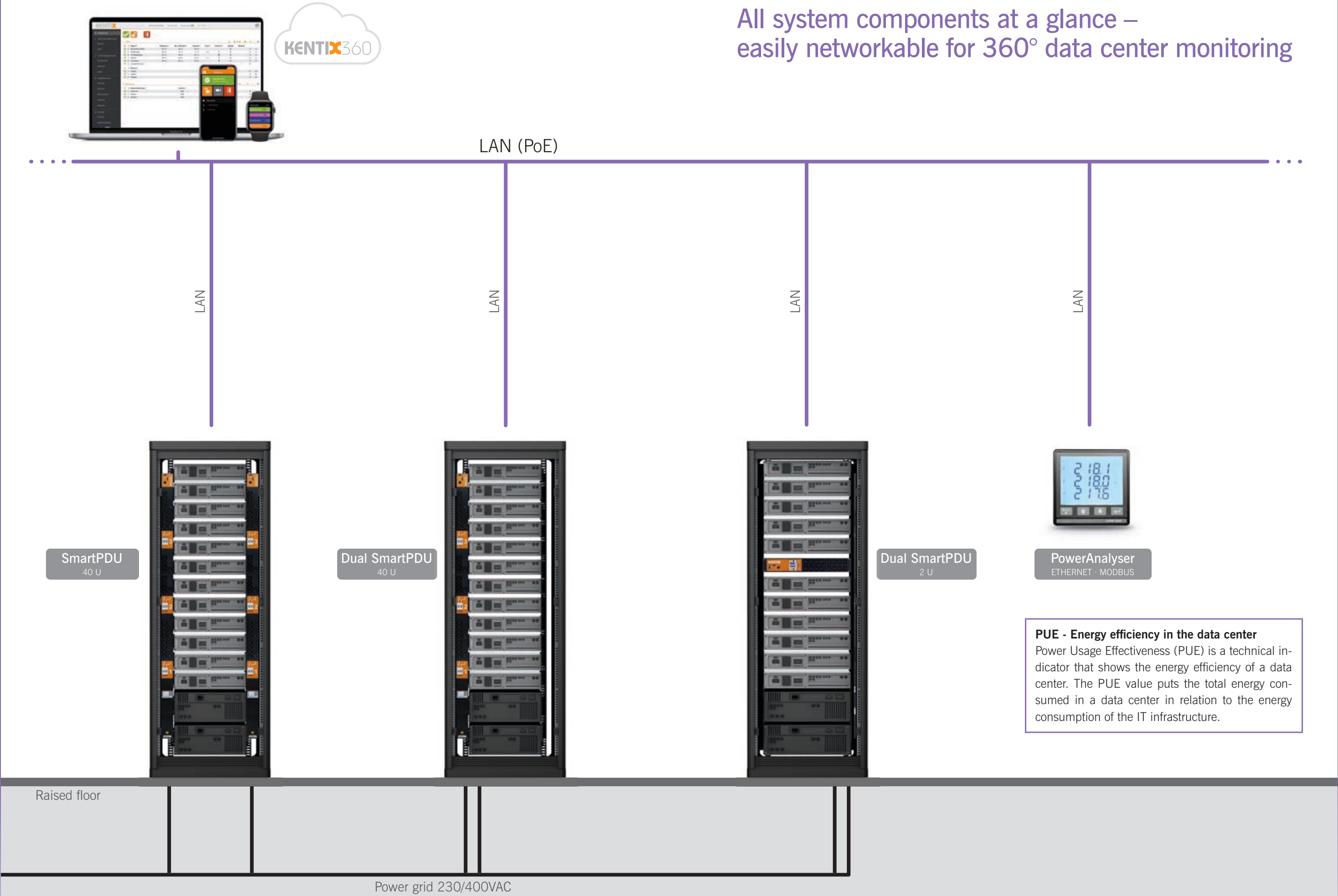


|                         |                      |
|-------------------------|----------------------|
| Power consumption (kWh) | Output (W, VA, kVar) |
| Power (A)               | Power factor         |
| Voltage (V)             | Supply-phase fault   |
| Frequency (Hz)          | RCM (AC/DC)          |

Kentix SmartPDU – IP Smart Metering with SNMP and more.  
Central monitoring with radio, ModBUS and LAN




All system components at a glance –  
easily networkable for 360° data center monitoring





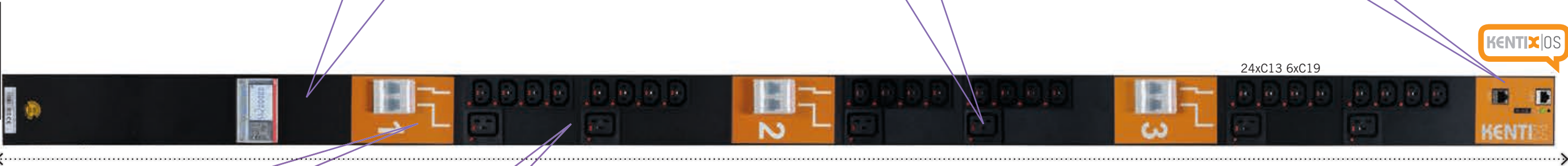
# High availability with Kentix SmartPDUs - Intelligent, robust, calibrated

Kentix SmartPDUs are system components for the intelligent expansion of your Rack infrastructure. All important sensors and interfaces for a future-proof operation are already integrated.



Power 7.3/11/22KVA

- Calibrated measurement (MID)
- Integrated residual current measurement (RCM)
- Monitoring of all important current parameters
- Separately measurable areas
- External meters via Modbus IP integrable, PUE measurement



40HE

24xC13 6xC19

KENTIX|OS


KENTIX

- Robust metal housing
- Available powder-coated in any RAL colour


- KENTIX|OS integrates MultiSensor and PowerManager module
- Cascading of up to 100 Smart PDUs
- Temperature, humidity, dew point, vibration
- Optional with early fire detection directly in the rack
- PUE calculation integrated

- Professional circuit breaker with C/G tripping characteristic
- Secured against incorrect operation

- Modular configuration of the current ports
- Cable pull-out protection IEC-LOCK



24xC19



48xC13

## Fail-safe power distribution with proven components

Intelligent, robust and calibrated: that was the formula for the development of our SmartPDU series. Together with long-standing data center customers, we have developed a PDU that meets the essential requirements of robust and fail-safe power distribution. We have th-

erefore fully concentrated on the use of the most proven components from the field of power distribution. The result is an ultra robust PDU that meets all requirements for current measurement and monitoring and can be managed via the latest interfaces (SNMPv2/3, JSON).

## Calibrated measurement with RCM and PUE calculation

All „SmartPDU“ models are equipped with calibrated electricity measurement of the most important electricity parameters. This means that the consumption data can also be used in the colocation data center for legally compliant billing. The integrated residual current monitoring (RCM) makes it possible to carry out the required electrical device tests according to DGUV-V3 even without switching off and contributes to higher electrical safety as well as increased fire protection.

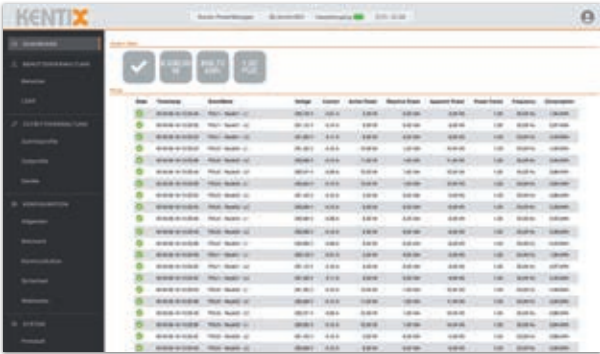
The „SmartPDUs“ work according to the server-client principle. This means that a PDU (server) collects all data from the connected client PDU. In addition, the server PDU can also read out an external main electricity meter via Modbus Ethernet, thus enabling a direct PUE (Power Usage Effectiveness) calculation. This means that one of the most important energy indicators is available in the data center without external software.

- Kentix|OS-Software fully integrated
- All important current parameters monitored
- Integr. residual current measurement (RCM)
- Open interfaces SNMPv2/3 and REST-API
- Door contacts, leakage sensors and further system components can be connected

- Cascading of up to 100 SmartPDUs
- Automatic Update Deployment
- Encrypted and stable data transmission
- Extendable with early edge detection inside the rack
- PoE powered electronics, guaranteed monitoring even in case of power failure

## Easy management via Kentix PowerManager

No external software required. Kentix PowerManagers provide a webbased interface which contains the complete software - even for large data centers. The PUE (Power Usage Effectiveness) calculation including monthly reporting is integrated.

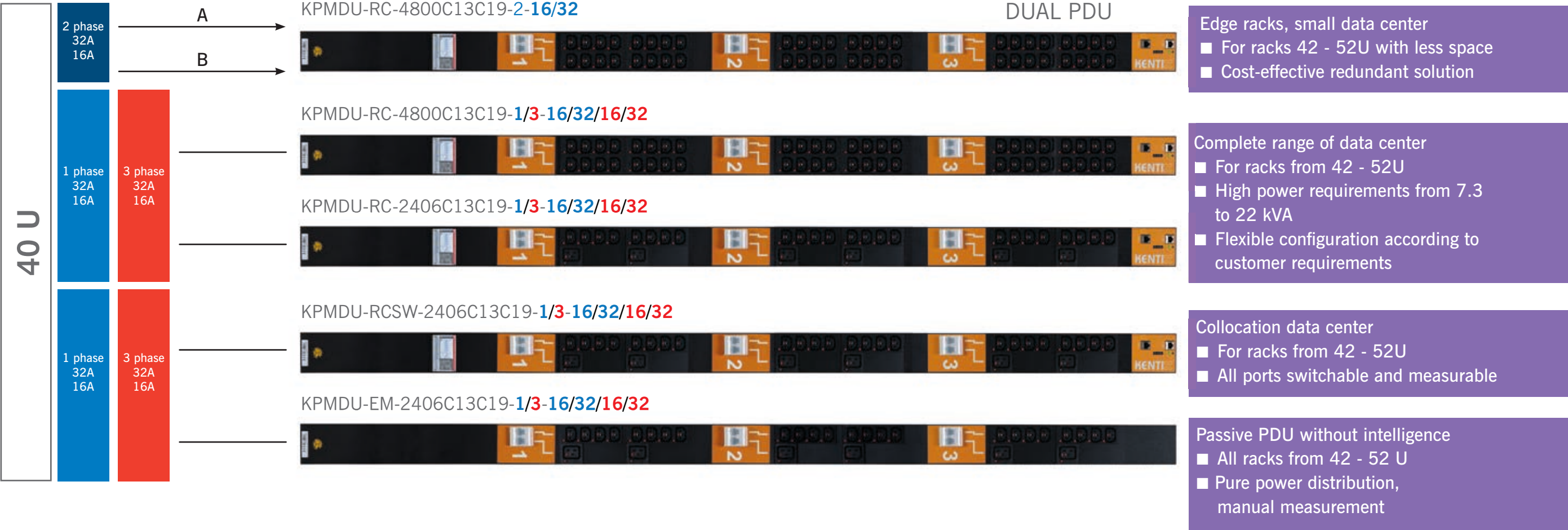


SmartPDU

- 100 -

- 101 -

SmartPDU Systemübersicht



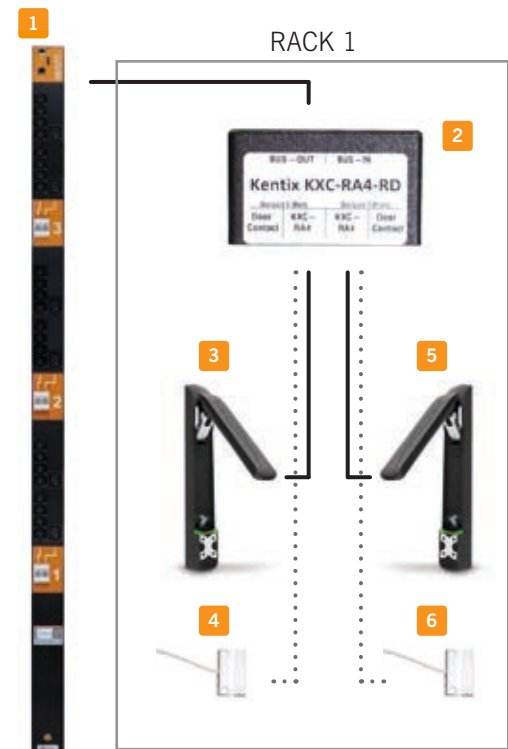


# Direct connection of the rack handle to the Kentix SmartPDU

The DoorLock-RA4 is an important system component with many advantages. In addition to stand-alone use, the lever can also be connected directly to a Kentix SmartPDU. On the one hand, this eliminates the need for cabling between the cabinets, on the other hand, the front and rear door handles of the cabinet are supplied redundantly via the PDUs. The SmartPDU takes over the management of the handle and the monitoring of the door contacts. Only a central AccessManager is then required as further hardware. Integration into an overall locking system from Kentix is thus even solved.



## Networking with SmartPDU



- 1) Kentix SmartPDU (An additional AccessManager in the network for convenient management of accesses is recommended)
- 2) Distribution box with connections for equipping two rack doors per PDU
- 3) Rack handle for front door
- 4) Door contact for front door
- 5) Rack handle for rear door
- 6) Door contact for rear door

### Example of material compilation for 1 rack:

- 1 Stück ART: KXC-RA4-IP2-R Extension (right rotation)
- 1 Stück ART: KXC-RA4-IP2-L Extension (left rotation)
- 1 Stück ART: KXC-RA4-DB-BUS Distribution box for bus
- 2 Stück ART: KDC1-W Door contact







## SmartPDU – 40U

All-in-one system solution consisting of SmartPDU and MultiSensor with 40 height units, RCM and calibrated current measurement. The already integrated PowerManager and MultiSensor make it easy to manage up to 100 SmartPDUs. The use of this PDU is ideal for server racks with high power consumption up to 22kVA. The electronics are powered by PoE. This means that in the event of a power failure, the sensors and the management of the PDUs continue to function thanks to the UPS-buffered PoE switch. In addition, further functions and digital inputs/outputs are available for control via the Kentix system port.

RCM  
LAN



### Technical details

| Type                          | KPMDU-RC-2406C13C19-3-32  | KPMDU-RC-4800C13C19-3-32                              | KPMDU-RC-2406C13C19-1-32   |
|-------------------------------|---|---|--|
| Nominal power, voltage        | up to 22 kVA,230/400V   | up to 13,8 kVA,230/400V                               | up to 7,3 kVA,230V   |
| Connector plug                | CEE plug (RED) acc. to IEC60309, 5-pole, 32A/230/400V   | CEE plug (RED) acc. to IEC60309, 5-pole, 32A/230/400V | CEE plug (BLUE) acc. to IEC60309, 1-pole, 32A/230V                     |
| Connection cable              | Length 3 m  | Length 3 m  | Length 3 m   |
| Sockets C13 (IEC60320)        | 24  | 48  | 24   |
| Sockets C19 (IEC60320)        | 6   | 0   | 6  |
| Interlocking sockets          | IEC-Lock for C13/C19  |   |  |
| Fuse / circuit breaker        | 3 x 10A C-Type, locked<br>(3 x 16A optional)<br>3 x 16A C-Type, locked  | 6 x 10A C-Type, locked                                | 3 x 10A C-Type, locked<br>(3 x 16A optional)<br>3 x 16A C-Type, locked |
| Current measurement (calibr.) | Integrated, calibrated current measurement, accuracy Class B (MID, EN 50470-3)  |   |  |
| Res. curr. measurement (RCM)  | Integrated AC/DC sensitive differential current meas. according to IEC 60664-1, ±300 mA/100 mA (RMS)  |   |  |
| Connectivity                  | Ethernet (10/100 MBit) RS485, Modbus RTU  |   |  |
| Kentix system port            | RJ45 with Kentix specific assignment for system expansions  |   |  |
| Communication and security    | HTTPS (certificate), integr. web server, REST-API, Prot.: SNMPv2/3 (GET, TRAP), NTP, SMTP, DHCP, DNS  |   |  |
| Management                    | Main Device-Satellite administration, SmartPDU or PowerManager configurable as MainDevice, up to 100 Satellites per Main Device, automatic software deployment  |   |  |
| Measurement/comm. objects     | Voltage (V) L1/L2/L3/total, current (A) L1/L2/L3/total, consumption (kWh) L1/L2/L3/total, active power (W) L1/L2/L3/total, apparent power (VA) L1/L2/L3/total, reactive power (VAR) L1/L2/L3/total, Active factor (cos phi), frequency (Hz), phase monitoring L1/L2/L3, differential current AC, differential current DC, fuse status L1/L2/L3, temperature (°C), relative humidity (%), dew point (°C), Vibration (G), early fire detection (carbon monoxide CO, optionally via additional module) |   |  |
| Display (LCD)                 | Backlit LCD display (power, current, voltage, consumption)  |   |  |
| Optical signalling            | LED with RED/GREEN (operation, alarm/fault status)  |   |  |
| Acoustic signalling           | Signal generator with 80 dB, 2.3 kHz (alarm/error conditions)   |   |  |
| Housing                       | sheet metal, powder coated RAL9005, protection class 1, protection class IP20, mounting bracket mountable at a distance of 5U   |   |  |
| Size, weight                  | 1770 x 78.2 x 62.5 mm (HxWxD), approx. 10.5 kg  |   |  |
| Ambient conditions            | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C   |   |  |
| Approval                      | CE (2014/30/EG, 2014/35/EG, 2011/65/EU)   |   |  |
| Delivery content              | SmartPDU with connection cable 3m and plug, mounting material: 3 pieces 90° angle bracket   |   |  |



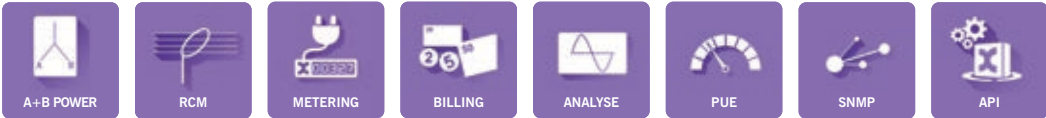
## Dual SmartPDU – 40U

All-in-one system solution consisting of Dual SmartPDU with separate A+B feed and Multi-Sensorwith 40 height units, RCM and calibrated current measurement. The already integrated PowerManager and MultiSensor make it easy to manage up to 100 SmartPDUs. The electronics are supplied via PoE. This means that in the event of a power failure, the sensors and the management of the PDUs continue to function thanks to the UPS-buffered PoE switch. In addition, further functions and digital inputs/outputs are available for control via the Kentix system port.

### Ideal for edge computing applications

The Dual SmartPDU are two PDUs in one housing and are therefore particularly cost- and space-efficient. All the advantages of two separate PDUs with separate feed and intelligent monitoring are retained.

RCM  
LAN



### Technical details

| Type                          | KPMDU-RC-4800C13C19-2-16  | KPMDU-RC-4800C13C19-2-32                           |
|-------------------------------|---|--|
| Nominal power, voltage        | 2x3.6kVA,230V   | 2x7.3kVA,230V                                      |
| Connector plug                | CEE plug (BLUE) acc. to IEC60309, 1-pole, 32A/230V  | CEE plug (BLUE) acc. to IEC60309, 1-pole, 32A/230V |
| Connection cable              | Length 2x3 m  | Length 2x3 m                                       |
| Sockets C13 (IEC60320)        | 2x24  | 2x24   |
| Interlocking sockets          | IEC-LOCK für C13  |  |
| Fuse / circuit breakerr       | 6 x 10A C-Typ, locked   | 6 x 10A C-Typ, locked                              |
| Current measurement (calibr.) | Integrated, calibrated current measurement, accuracy Class B (MID, EN 50470-3)  |  |
| Differenzstrommessung (RCM)   | Integrated AC/DC sensitive differential current meas. according to IEC 60664-1, ±300 mA/100 mA (RMS)  |  |
| Connectivity                  | Ethernet (10/100 MBit) RS485, Modbus RTU  |  |
| Kentix system port            | RJ45 with Kentix specific assignment for system expansions  |  |
| Communication and security    | HTTPS (certificate), integr. web server, REST-API, Prot.: SNMPv2/3 (GET, TRAP), NTP, SMTP, DHCP, DNS  |  |
| Management                    | Main Device-Satellite administration, SmartPDU or PowerManager configurable as MainDevice, up to 100 Satellites per Main Device, automatic software deployment  |  |
| Measurement/comm. objects     | Voltage (V) L1/L2/total, Current (A) L1/L2/total, Consumption (kWh) L1/L2/total,Active power (W) L1/L2/total, Apparent power (VA) L1/L2/total, Reactive power (VAR)L1/L2/total, Active factor (cos phi), Frequency (Hz), Phase monitoring L1/L2, differential current AC,differential current DC, fuse status L1/L2, temperature (°C), relative humidity (%), dew point (°C),vibration (G), early fire detection (CO, opt. via add. module) |  |
| Display (LCD)                 | Backlit LCD display (power, current, voltage, consumption)  |  |
| Optical signalling            | LED with RED/GREEN (operation, alarm/fault status)  |  |
| Acoustic signalling           | Signal generator with 80 dB, 2.3 kHz (alarm/error conditions)   |  |
| Housing                       | sheet metal, powder coated RAL9005, protection class 1, protection class IP20, mounting bracket mountable at a distance of 5U   |  |
| Size, weight                  | 1770 x 78.2 x 62.5 mm (HxWxD), approx. 10.5 kg  |  |
| Ambient conditions            | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C   |  |
| Approval                      | CE (2014/30/EG, 2014/35/EG, 2011/65/EU)   |  |
| Delivery content              | SmartPDU with connection cable 3m and plug, mounting material: 3 pieces 90° angle bracket   |  |





RCM  
LAN



## Switchable, Metered SmartPDU – 40U

All-in-one system solution consisting of SmartPDU and MultiSensor with 40 height units, RCM and calibrated current measurement, as well as current measurement and switchability of the individual sockets. The already integrated PowerManager and MultiSensor make it easy to manage up to 100 SmartPDUs. The use of this PDU is ideal for server racks in the collocation area with high power consumption up to 22kVA. The electronics are powered by PoE, which means that in the event of a power failure, the sensors and the management of the PDUs continue to function thanks to the UPS-buffered PoE switch. In addition, further functions and digital inputs/ outputs are available for control via the Kentix system port. All functions such as the individually switchable and measured sockets can be controlled via the integrated REST API.



### Technical details

| Type                          | KPMDU-RCSW-2406C13C19-3-32  | KPMDU-RCSW-2406C13C19-3-16 | KPMDU-RCSW-2406C13C19-1-32 |
|-------------------------------|---|----------------------------|----------------------------|
| Nominal power, voltage        | up to 22 kVA,230/400V   | up to 17,9 kVA,230/400V    | up to 7,3 kVA,230V         |
| Connector plug                | CEE plug <b>(RED)</b> acc. to IEC60309, CEE plug <b>(RED)</b> acc. to IEC60309, CEE plug <b>(BLUE)</b> acc. to 5-pole, 32A/230/400V   |                            |                            |
| Connection cable              | Length 3 m  | Length 3 m                 | Length 3 m                 |
| Sockets C13 (IEC60320)        | 24, individually switchable, individually measured  |                            |                            |
| Sockets C19 (IEC60320)        | 6, individually switchable, individually measured   |                            |                            |
| Interlocking sockets          | IEC-Lock for C13/C19  |                            |                            |
| Fuse / circuit breaker        | 3 x 10A C-Type, locked<br>(3 x 16A optional)<br>3 x 16A C-Type, locked  |                            |                            |
| Current measurement (calibr.) | Integrated, calibrated current measurement, accuracy Class B (MID, EN 50470-3)  |                            |                            |
| Res. curr. measurement (RCM)  | Integrated AC/DC sensitive differential current meas. according to IEC 60664-1, ±300 mA/100 mA (RMS)  |                            |                            |
| Connectivity                  | Ethernet (10/100 MBit) RS485, Modbus RTU  |                            |                            |
| Kentix system port            | RJ45 with Kentix specific assignment for system expansions  |                            |                            |
| Communication and security    | HTTPS (certificate), integr. web server, REST-API,<br>Prot.: SNMPv2/3 (GET, TRAP), NTP, SMTP, DHCP, DNS   |                            |                            |
| Management                    | Main Device-Satellite administration, SmartPDU or PowerManager configurable as MainDevice, up to 100 Satellites per Main Device, automatic software deployment  |                            |                            |
| Measurement/comm. objects     | Voltage (V) L1/L2/L3/total, Current (A) L1/L2/L3/total, Consumption (kWh) L1/L2/L3/total,<br>Active power (W) L1/L2L3/total, Apparent power (VA) L1/L2/L3/total, Reactive power (VAR)L1/L2/L3/total,<br>Active factor (cos phi), Frequency (Hz), phase monitoring L1/L2/L3, differential current AC,<br>differential current DC, fuse status L1/L2/L3, temperature (°C), relative humidity (%), dew point (°C),<br>vibration (G), early fire detection (carbon monoxide CO, optional via additional module) |                            |                            |
| Display (LCD)                 | Backlit LCD display (power, current, voltage, consumption)  |                            |                            |
| Optical signalling            | LED with RED/GREEN (operation, alarm/fault status)  |                            |                            |
| Acoustic signalling           | Signal generator with 80 dB, 2.3 kHz (alarm/error conditions)   |                            |                            |
| Housing                       | sheet metal, powder coated RAL9005, protection class 1, protection class IP20, mounting bracket mountable at a distance of 5U   |                            |                            |
| Size, weight                  | 1770 x 78.2 x 62.5 mm (HxWxD), approx. 10.5 kg  |                            |                            |
| Ambient conditions            | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C   |                            |                            |
| Approval                      | CE (2014/30/EG, 2014/35/EG, 2011/65/EU)   |                            |                            |
| Delivery content              | SmartPDU with connection cable 3m and plug, mounting material: 3 pieces 90° angle bracket   |                            |                            |

## Passive PDU – 40U

PDU without electronics as purely passive power distribution in the rack. Basic version like SmartPDU with preparation for electronic expansion.



### Technical details

| Type                   | KPMDU-EM-2406C13C19-3-32  | KPMDU-EM-4800C13C19-3-32 | KPMDU-EM-2406C13C19-1-32   |
|------------------------|---|--------------------------|--|
| Nominal power, voltage | up to 22 kVA,230/400V   | up to 13,8 kVA,230/400V  | up to 7,3 kVA,230V   |
| Connector plug         | CEE plug <b>(RED)</b> acc. to IEC60309, CEE plug <b>(RED)</b> acc. to IEC60309, CEE plug <b>(BLUE)</b> acc. to 5-pole, 32A/230/400V |                          |  |
| Connection cable       | Length 3 m  | Length 3 m               | Length 3 m   |
| Sockets C13 (IEC60320) | 24  | 48                       | 24   |
| Sockets C19 (IEC60320) | 6   | 0                        | 6  |
| Interlocking sockets   | IEC-Lock for C13/C19  |                          |  |
| Fuse / circuit breaker | 3 x 10A C-Type, locked<br>(3 x 16A optional)<br>3 x 16A C-Type, locked  | 6 x 10A C-Type, locked   | 3 x 10A C-Type, locked<br>(3 x 16A optional)<br>3 x 16A C-Type, locked |
| Housing                | sheet metal, powder coated RAL9005, protection class 1, protection class IP20, mounting bracket                                     |                          |  |
| Size, weight           | 1770 x 78,2 x 62,5 mm (HxBxT), approx. 10,5 kg  |                          |  |
| Ambient conditions     | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C   |                          |  |
| Approval               | CE (2014/30/EG, 2014/35/EG, 2011/65/EU)   |                          |  |
| Scope of delivery      | SmartPDU with connection cable 3m and plug, mounting material: 3 pieces 90° angle bracket   |                          |  |

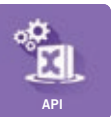
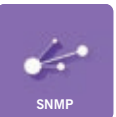
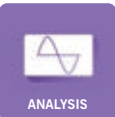
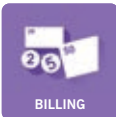
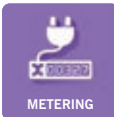
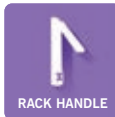


LAN

## SmartPDU – 2HE



All-in-one system solution consisting of SmartPDU and Multi-Sensor with only two height units and calibrated current measurement. The already integrated PowerManager and MultiSensor make it easy to manage up to 100 SmartPDUs. The use of these PDUs is particularly intended for IDF racks, smaller office racks or telecommunication racks with a power of up to 1 x 2.3kVA. The electronics are powered by PoE, which means that in the event of a power failure, the sensors and the management of the PDUs continue to function thanks to a UPS-buffered PoE switch. In addition, further functions and digital inputs/outputs are available for control via the Kentix system port. The connection of up to 2 electronic rack levers for intelligent access management makes the SmartPDU particularly interesting for distributed IT cabinets.



### Technical details

|                                  |  |
|----------------------------------|--|
| Type                             | KPMDU-NC-1600C16C19-1-16-H   |
| Nominal power, voltage           | 1x 2.3kVA, 230V  |
| Connector plug                   | 1x C20 cold appliance socket (16A) on the rear   |
| Connection cable                 | Not included in the scope of delivery, different versions available  |
| Sockets                          | C13 (IEC60320) 16 pieces   |
| Locking                          | IEC-Lock for C13   |
| Fuse/protective switch           | 2x 10A C-type, locked  |
| Current measurement (calibrated) | Integrated, calibrated current measurement, accuracy Class B (MID, EN 50470-3)   |
| Connectivity                     | Ethernet (10/100 MBit), RS485, Modbus RTU  |
| Kentix system port               | RJ45 with Kentix specific assignment for system expansions   |
| Communication and security       | HTTPS (certificate), integrated web server, REST-API, port security 802.1x, protocols: SNMP V2/3 (GET, TRAP), NTP, SMTP, DHCP  |
| Management                       | Standalone or Kentix PowerManager (KPM-100), Software deployment (updates)   |
| Measurement/comm. objects        | Voltage (V) total, Current (A) total, Consumption (kWh) total, Active power (W) total, Apparent power (VA) total, Reactive power (VAR) total, Active factor (cos phi), Frequency (Hz), Phase monitoring, Residual current AC, Residual current DC, Fuse status, Temperature (°C), Relative humidity (%), Dew point (°C), Vibration (G) |
| Display (LCD)                    | Backlit LCD display (power, current, voltage, consumption)   |
| Optical signalling               | LED with RED/GREEN (operation, alarm/fault status)   |
| Acoustic signalling              | Signal generator with 80 dB, 2.3 kHz (alarm/error conditions)  |
| Housing                          | Sheet metal housing, powder coated RAL9005, protection class 1, protection class IP20  |
| Size, weight                     | 450 x 88 x 120 mm (WxHxD), approx. 3.0 kg  |
| Ambient conditions               | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C  |
| Approval                         | CE (2014/30/EC, 2014/35/EC, 2011/65/EU)  |
| Delivery content                 | SmartPDU   |



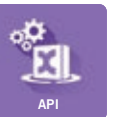
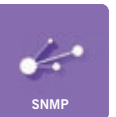
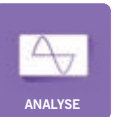
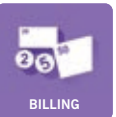
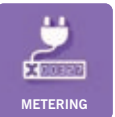
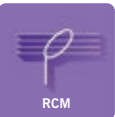
RCM

LAN

## Dual SmartPDU – 2HE



All-in-one system solution consisting of SmartPDU and MultiSensor with only two height units, RCM and calibrated current measurement. The already integrated PowerManager and MultiSensor make it easy to manage up to 100 SmartPDUs. The use of these PDUs is particularly intended for IDF racks, smaller office racks or telecommunication racks with a power of up to 2 x 2.3kVA. The electronics are supplied by PoE, which means that in the event of a power failure, the sensors and the management of the PDUs continue to function thanks to a UPS-buffered PoE switch. In addition, further functions and digital inputs/outputs are available for control via the Kentix system port. The connection of up to 2 electronic rack levers for intelligent access management makes the SmartPDU particularly interesting for distributed IT cabinets.



### Technical details

|                                  |  |
|----------------------------------|--|
| Typ                              | KPMDU-RC-1600C16C19-2-16-H   |
| Nominal power, voltage           | 2 x 2.3kVA (2 x 3,6kVA optional), 230V   |
| Connector plug                   | 2x C20 cold appliance socket (16A) on the rear   |
| Connection cable                 | Not included in the scope of delivery, different versions available  |
| Sockets                          | C13 (IEC60320) 16 Stück (2 x 8)  |
| Locking                          | IEC-Lock for C13   |
| Fuse/protective switch           | 2x 10A C-type, locked  |
| Current measurement (calibrated) | Integrated, calibrated current measurement, accuracy Class B (MID, EN 50470-3)   |
| Differenzstrommessung (RCM)      | Integrierte AC/DC sensitive Differenzstrommessung nach IEC 60664-1, ±300 mA/100 mA (RMS)   |
| Connectivity                     | Ethernet (10/100 MBit), RS485, Modbus RTU  |
| Kentix system port               | RJ45 with Kentix specific assignment for system expansions   |
| Communication and security       | HTTPS (certificate), integrated web server, REST-API, port security 802.1x, protocols: SNMP V2/3 (GET, TRAP), NTP, SMTP, DHCP  |
| Management                       | standalone or Kentix PowerManager (KPM-100), Software deployment (updates)   |
| Measurement/comm. objects        | objects Voltage (V) total, Current (A) total, Consumption (kWh) total, Active power (W) total, Apparent power (VA) total, Reactive power (VAR) total, Active factor (cos phi), Frequency (Hz), Phase monitoring, Residual current AC, Residual current DC, Fuse status, Temperature (°C), Relative humidity (%), Dew point (°C), Vibration (G) |
| Display (LCD)                    | Backlit LCD display (power, current, voltage, consumption)   |
| Optical signalling               | LED with RED/GREEN (operation, alarm/fault status)   |
| Acoustic signalling              | Signal generator with 80 dB, 2.3 kHz (alarm/error conditions)  |
| Housing                          | Sheet metal housing, powder coated RAL9005, protection class 1, protection class IP20  |
| Size, weight                     | 450 x 88 x 120 mm (WxHxD), approx. 3.0 kg  |
| Ambient conditions               | -10 °C to 55 °C, humidity 5-95%, storage temperature: -20 °C to 60 °C  |
| Approval                         | CE (2014/30/EC, 2014/35/EC, 2011/65/EU)  |
| Delivery content                 | SmartPDU   |



# Seamless integration of IP video cameras into Kentix systems – event-synchronic images and alarms

Kentix systems detect threats early, report them immediately or log authorized and unauthorized access. A video recording simultaneously to the alarms and events enables a fast assessment of critical states even in remote sites. In connection to additional measurement values, it becomes particularly reliable this way.

Kentix systems use the advantage of consistently IP-based systems and can access video data from IP network cameras directly. These are recorded continuously. In the case of an event, pictures prior to and after the event can be connected, saved and transmitted. The advantage lies in the synchronic information of measured data and images in one system; thereby, the search for an external video storage is discontinued.

Basically all network cameras that enable the query of video images via HTTP/HTTPS are supported. Popular camera manufacturers are pre-installed with examples.

**The following systems support video recording:**

- AlarmManager (KAM-BASIC/PRO)
- MultiSensor-LAN (KMS-LAN)
- AccessManager (KXP-16)
- IP Wall Reader (KXCX-WA3-IP1)

**Application possibilities:**

- IT engineering rooms
- Remote technology stations
- Critical production areas
- Remote storage facilities
- Depots and warehouses
- Medicine cabinets

Identifying threats as quickly as possible – besides alarms and access, Kentix systems also record videos

Kentix systems detect threats early and report them immediately. For a quick assessment of critical states in remote sites, video recording is essential. Kentix systems transmit system and video information in one message.

CLIMATE

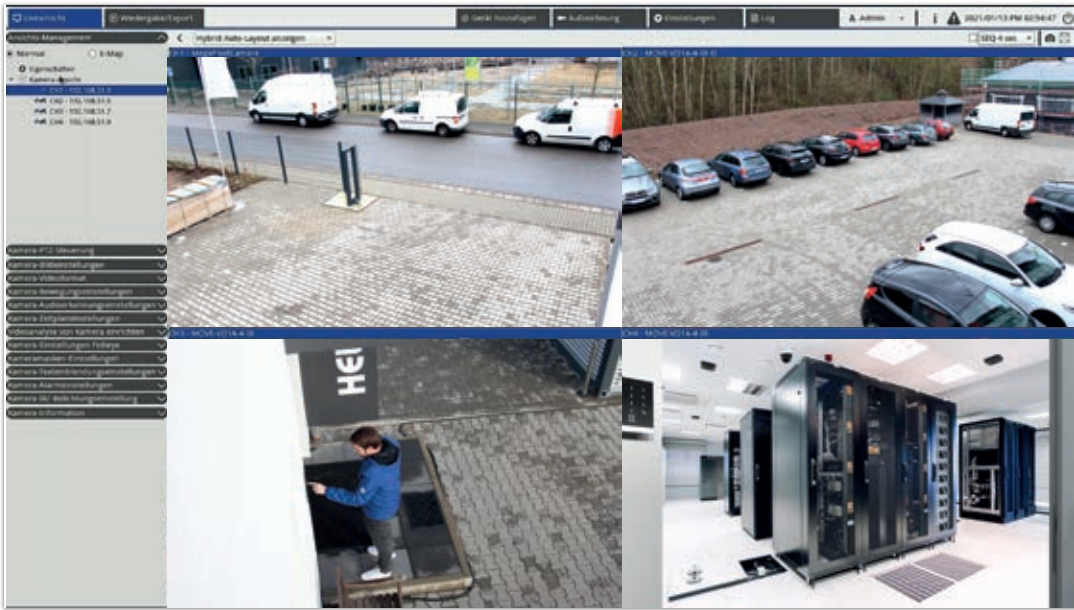
FIRE

BURGLARY

ACCESS

VIDEO

APP



Kentix systems can be expanded to 128GB via microSD cards and store over 100,000 video sequences.







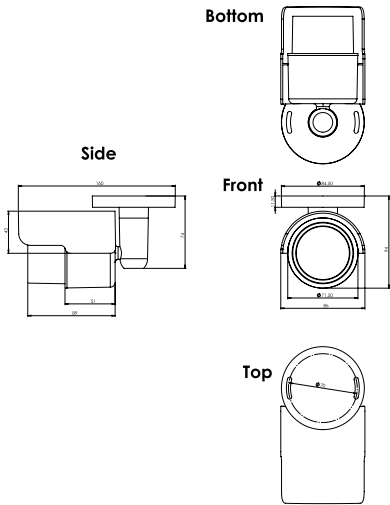
IP66  
DAY-NIGHT

## Network camera in bullet housing

Bullet network camera for integration into Kentix systems. The camera can be easily assigned to alarm zones or doors in AlarmManager or AccessManager. The camera delivers images with full HD resolution. The camera's adjustable focal length (FOV 35-95°) makes it ideal for monitoring IT and technical areas indoors and outdoors. Especially under dark lighting conditions, almost all decisive image details are captured thanks to the LED infrared illuminator. The varifocal lens with remote zoom ensures easy configuration and installation of the network IP camera. Thanks to the ONVIF standard, it can also be integrated into video management systems.

### Products

| Type                              | Item number  |
|-----------------------------------|--------------|
| Network Camera 2MP Bullet Housing | KX-BC1A-2-IR |
| Network Camera 4MP Bullet Housing | KX-BC1A-4-IR |



### Technical details

|                       |   |
|-----------------------|---|
| Connection            | RJ45  |
| Spannungsversorgung   | PoE (Class 2), 5.6W   |
| Temperature range     | -30 °C-60 °C / 10 %-90 %rh, non-condensing  |
| Network               | RJ45, 10/100 MBit/s Ethernet  |
| Image Sensor          | 1/3" Progressive CMOS   |
| Effective pixels      | 2MP: 1920(H) x 1080(V), 4MP: 2720(H) x 1536(V)  |
| Minimum lighting      | Colour: 0.1 lux, B/W: 0.01 lux, IR illumination integrated, range approx. 15m                                 |
| Shutter speed         | 1–1/10000 sec.  |
| Signal-to-noise ratio | > 50 dB   |
| Focal length - Lens   | 2.8-12 mm, Manual varifocal lens  |
| Aperture              | F1.4  |
| Image angle           | 91.61 °(wide angle); 34.3 ° (telephoto)   |
| Interface             | RJ45, 10/100 MBit/s Ethernet  |
| Video compression     | H.264/MJPEG   |
| Protocol              | ARP, IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, ONVIF |
| Security              | HTTPS/IP-Filter/IEEE 802.1X   |
| Alarm signalling      | HTTP/FTP/SMTP   |
| SD card               | microSD card (SDHC/SDXC) up to 64 GB supported  |
| Size                  | Metal outer housing with cable supply: ø 71.5 x 150.53 x 91.15 mm   |
| Weight                | 330 g   |
| Protection class      | IP66  |
| Approval              | CE/FCC, EN 50130-4,IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6                       |



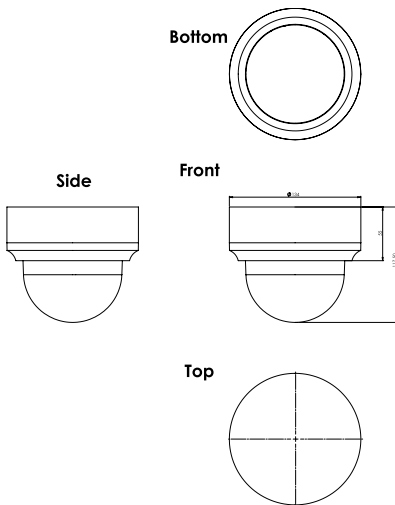
IP66  
DAY-NIGHT

## Network camera in dome housing

Dome network camera for integration into Kentix systems. The camera can be easily assigned to alarm zones or doors in AlarmManager or AccessManager. The camera delivers images with full HD resolution. The camera's adjustable focal length (FOV 35-95°) makes it ideal for monitoring IT and technical areas indoors and outdoors. Especially under dark lighting conditions, almost all decisive image details are captured thanks to the LED infrared illuminator. The varifocal lens with remote zoom ensures easy configuration and installation of the network IP camera. Thanks to the ONVIF standard, it can also be integrated into video management systems.

### Products

| Type                            | Item number  |
|---------------------------------|--------------|
| Network Camera 2MP Dome Housing | KX-VD1A-2-IR |
| Network Camera 4MP Dome Housing | KX-VD1A-4-IR |



### Technical details

|                       |   |
|-----------------------|---|
| Connection            | RJ45  |
| Spannungsversorgung   | 2MP: PoE (IEEE802.3af, Class 0) 5.6W, 4MP: PoE (IEEE802.3af, Class , IR Illumination                          |
| Temperature range     | -30 °C-60 °C / 10 %-90 %rh, non-condensing  |
| Network               | RJ45, 10/100 MBit/s Ethernet  |
| Image Sensor          | 1/3" Progressive CMOS   |
| Effective pixels      | 2MP: 1920(H) x 1080(V), 4MP: 2720(H) x 1536(V)  |
| Minimum lighting      | Colour: 0.1 lux, B/W: 0.01 lux, IR illumination integrated, range approx. 15m                                 |
| Shutter speed         | 1–1/10000 sec.  |
| Signal-to-noise ratio | > 50 dB   |
| Focal length - Lens   | 2.8-12 mm, Manual varifocal lens  |
| Aperture              | F1.4  |
| Image angle           | 91.61 °(wide angle); 34.3 ° (telephoto)   |
| Interface             | RJ45, 10/100 MBit/s Ethernet  |
| Video compression     | H.264/MJPEG   |
| Protocol              | ARP, IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, ONVIF |
| Security              | HTTPS/IP-Filter/IEEE 802.1X   |
| Alarm signalling      | HTTP/FTP/SMTP   |
| SD card               | microSD card (SDHC/SDXC) up to 64 GB supported  |
| Size                  | Metal outer housing with cable supply: ø 71.5 x 150.53 x 91.15 mm   |
| Weight                | 330 g   |
| Protection class      | IP66  |
| Approval              | CE/FCC, EN 50130-4,IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6                       |



24-CHANNEL  
16 X PoE

Digital Network Video Recorder

As an all-in-one solution with integrated video management software, the MOVE NVR (Network Video Recorder) offers a particularly practical and easy-to-use plug & play solution - ideal for local video surveillance systems with up to 24 network cameras. The integrated 16-way PoE switch allows cameras to be connected directly and disconnected from the main network.

Products

| Type                          | Item number       |
|-------------------------------|-------------------|
| Network Video Recorder (14TB) | KX-S-NVR1A-16-POE |

Technical details

|                                 |   |
|---------------------------------|---|
| Maximum number of cameras       | 24 (16 on the internal LAN/PoE sockets), total PoE budget 140W, 30W per socket                                |
| Network                         | 1 LAN, 1 WAN 10/100/1000MBit/s, 16 LAN-PoE sockets 10/100MBit/s   |
| Display Port Output             | 1920 x 1080@60Hz (Full-HD)  |
| HDMI Output                     | 1920 x 1080@60Hz (Full-HD)  |
| USB sockets                     | USB 2.0 (2x front), USB 3.0 (2x back) for keyboard, mouse   |
| Operating system, CPU, graphics | Embedded Linux, Intel Apollo Lake J3455, Intel HD Graphics  |
| IP-CAM data rate                | average: 160MBit/s, peak 240MBit/s  |
| Hardware decoding               | 24 channels real-time display up to 720Byte/s@D1 decoding   |
| Video compression               | H.264/H.265   |
| Browser support                 | Internet Explorer 10 or higher with ActiveX recommended for best performance                                  |
| Protocol                        | ARP, IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, ONVIF |
| Security                        | HTTPS/IP-Filter/IEEE 802.1X   |
| Alarm signalling                | HTTP/FTP/SMTP   |
| Video storage                   | 14TB hard disk already integrated, expandable up to 28TB  |
| Housing                         | 280 x 300 x 44 mm, 19" installation 1HE, protection class IP20, weight: 3kg                                   |
| Power supply                    | External power supply 100-240VAC, 200W  |
| Temperature range               | 0 - 40°C, 10-90% non-condensing   |
| Approvals                       | CE/FCC, EN 50130-4;IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6                       |

Front

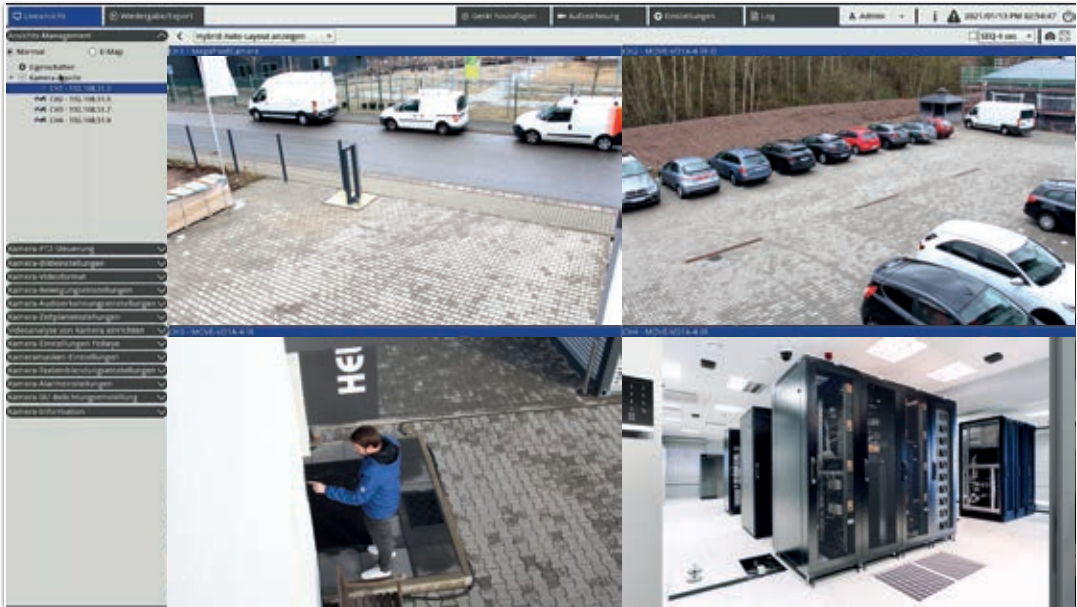
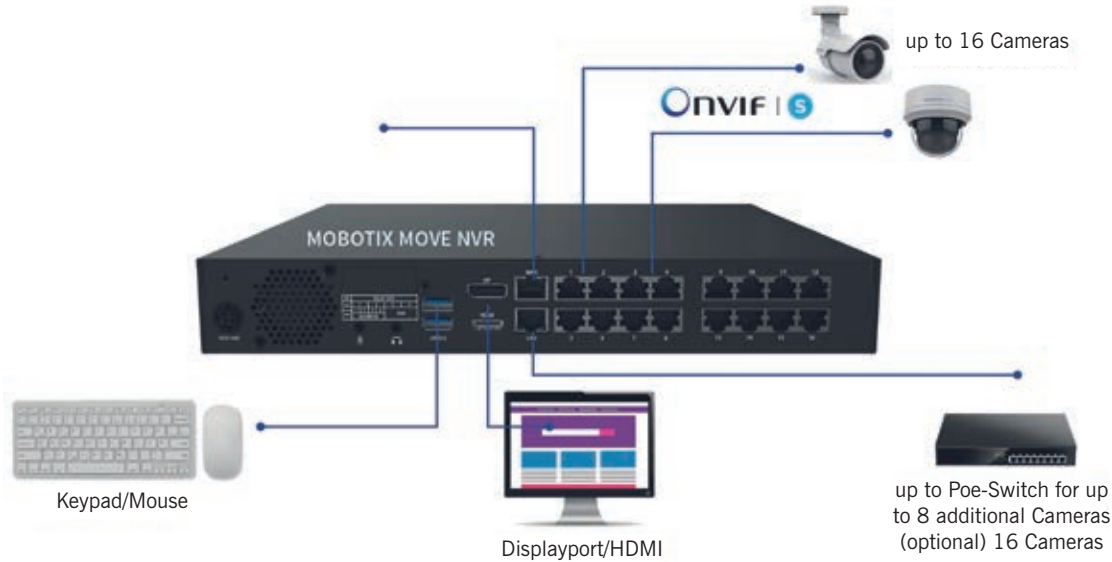


Connections



Vorteile

- Easy plug & play: as soon as you have connected cameras and monitor to the MOVE NVR, you can see live images directlX
- Day-to-day use does not require any special video knowledge
- Direct connection option for up to two high-resolution displays, keyboard, mouse and joystick
- One or two additional hard disk drives (HDD) per NVR are required for operation
- Once installed, there are no further costs with the MOVE NVR system
- Local standalone video systems are safe from cyberattacks



Compact end-to-end video solution for numerous applications in small and medium-sized data centers and equipment rooms - whenever the existing video analysis functions of the MOVE network cameras are sufficient and a recording of the data must essentially be

guaranteed. All connected cameras are supported by the integrated, cost- and license-free MOVE NVR video management software, which is tailored to the MOBOTIX MOVE cameras.





**Kentix360, the alarm central for your coat pocket – already included in our systems**

Access your systems, check the site status, receive and manage alarm messages or simply open doors remotely - any time and anywhere. Kentix360 saves all important data and checks the status of your Kentix monitoring or access systems routinely and independently.

- ACCESS
- APP
- NFC
- RADIO
- E-MAIL
- VIDEO

**With Kentix Digital Key, you can easily control doors via smartphone or smartwatch. Authorise employees or external technicians simply via app.**

**Kentix360 – complete overview at any time**



Access and remote control of all important functions, with Kentix Digital Key for secure door opening via smartphone or watch

Kentix360 is the cloud-based security center for monitoring business-critical IT infrastructures. The solution in conjunction with the Kentix Mobile App provides administrators with information about the status of their Kentix system anytime, anywhere. The administrator is directly informed of alarms and

access via e-mail, SMS or push message - including video recording - on a tablet or mobile phone. The combination of video and live data simplifies remote assessment and in many cases saves the cost of on-site deployment.

**The key features of the app**

- Digital key for opening doors via smartphone or smartwatch
- Management of access authorisations
- Display of system status and logbook
- Arming and disarming of the system
- Display of sensor measurements
- Displays all doors (open/closed)
- Live video view with door opener function

**Advantages:**

- Secure app access from anywhere
- Push-messages on Smartphone and integrated e-mail service
- Daily system check
- SIM card for redundant alarm SMS in the Included in delivery (optional registration)
- No additional external cloud service provider needed

**Security:**

- Encrypted communication
- No open ports from the outside
- Multi-level authentication with ID and password
- Brute force detection with lock
- Hosting in german data center



**Simply activate our devices via the web surface!**

Available on the App Store | Get it on Google play

**Kentix360**

96,00 Euro / Year / Device plus VAT  
(Minimum term 12 Month)  
Usable with AlarmManager,  
AccessManager or StarterSets

- Secure app access from anywhere
- Push and e-mail notifications
- Configurable routine check
- Unlimited number of users per device

**Kentix360 SIM-Karte**

72,00 Euro / Year plus VAT  
or. 600 Alarm-SMS can be used  
with AlarmManager or  
StarterSets

- Can only be activated in conjunction with Kentix360 (optional use)
- Uses the network of the german telecom
- Kentix360-SIM in each StarterSet
- Contains 600 alarm SMS messages that need to be recharged after consumption or one year



## Compliance with BSI basic protection for certification according to ISO 27001 in server/technical rooms

An ISO 27001-compliant basic protection for a server equipment room/data center with one or more server/equipment cabinets is to be established with manageable installation and investment costs. The INF-Infrastructure module of the BSI IT-Grundschutz-Kompen-

dium recommends the following measures (the higher the ordinal number, the more stringent the recommendation: A1-11 = basic requirements) in addition to the implementation of fire, structural and climatic measures:

- |           |  |           |  |
|-----------|--|-----------|--|
| INF.2.A5  | Maintaining the air temperature and humidity | INF.2.A15 | Surge protector                            |
| INF.2.A6  | Access control                               | INF.2.A16 | Air conditioning in the data center        |
| INF.2.A7  | Locking and securing                         | INF.2.A17 | Early fire detection                       |
| INF.2.A8  | Use of a fire alarm system                   | INF.2.A18 | Protection against water leakage           |
| INF.2.A11 | Automated monitoring of the Infrastructure   | INF.2.A22 | Implementation of Dust protection measures |
|           |  | INF.2.A24 | Use of video surveillance systems          |



Access control on a it rack

Kentix provides everything required for ISO 27001 auditing on the above points. The combination of environmental monitoring (temperature, humidity, movement, fire gases, etc.) and access control, which at Kentix always goes hand in hand with documentation of alarm and access, forms the basis. In addition, all modern and common reporting channels such as VdS activation, SMNP and e-mail are used.

The AlarmManager-PRO combines all connected sensors and reports irregularities to any intervention centre using the above mentioned reporting channels and redundantly, e.g. in case of complete power failure via 4G/SMS. This also applies to external infrastructures connected via SNMP or fault contact outputs such as UPS or air conditioning systems. In addition, further sensors, such as a leakage sensor, can be connected to the AlarmManager-PRO to additionally monitor water leakage.

The MultiSensor-RF supplies all critical environmental data (see above) and can, for example, accommodate further MultiSensor-DOOR for door status monitoring and/or DustSensors for monitoring contamination in the server/technology cabinet.

The AccessManager not only monitors and documents the access at up to 16 doors, it also puts them online 24/7 to be informed in real time about each access. With the wireless door knob, whether with half or standard profile cylinder, most doors and many server/technology cabinets can be converted with electronic locking technology in no time at all. Other server/technology cabinet types are alternatively secured with a

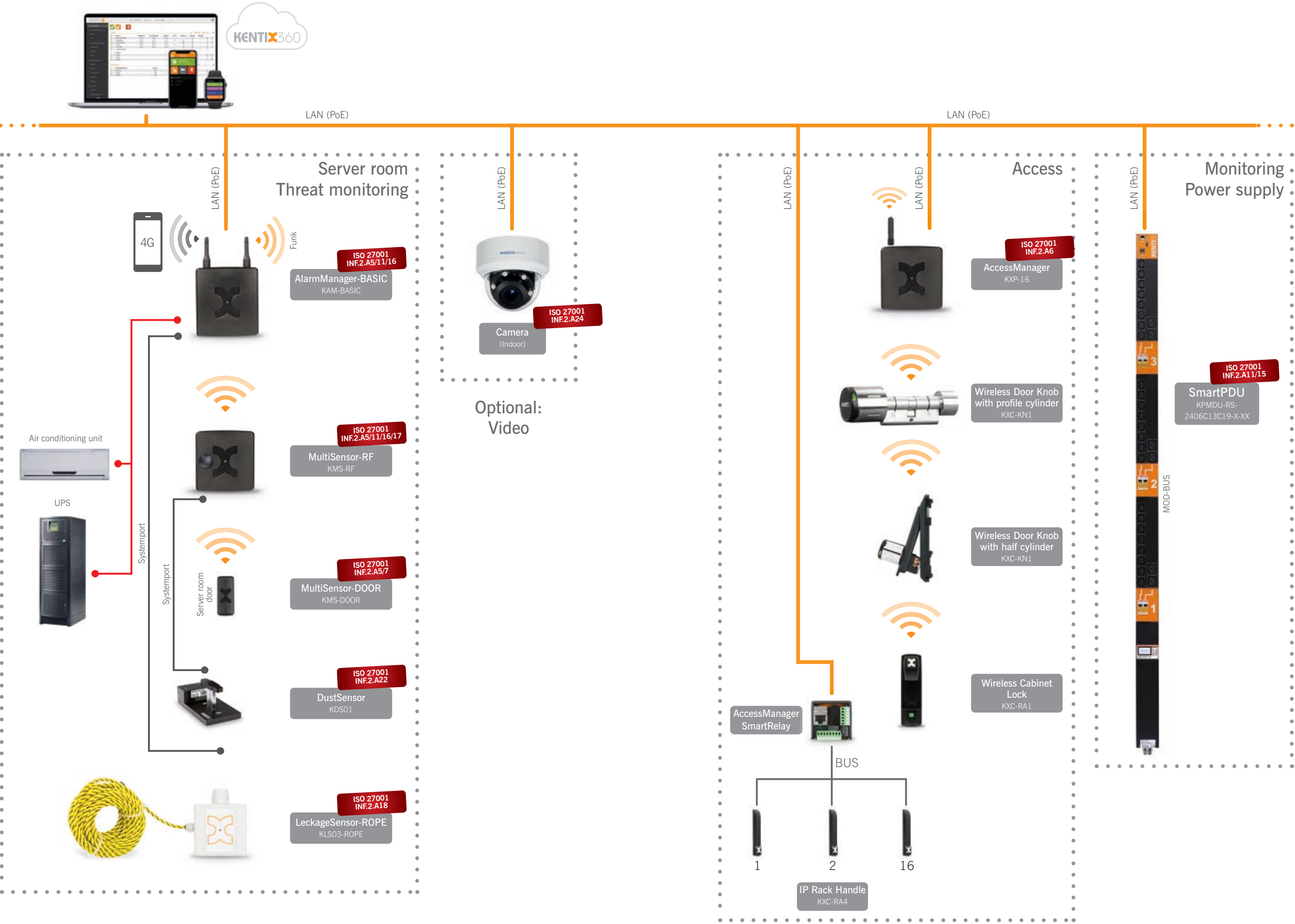
cable- or radio-bound RFID cabinet lock. To counter further dangers, which are also part of the ISO 27001 certification, Kentix SmartMetering can be used. With the robust SmartPDUs, not only can calibrated consumption measurements be made or irregularities in the power supply or consumption be detected. Over-voltage protection or 24/7 leakage current measurement (RCD) provide additional safety.

Last but not least, a complete integration of IP network cameras is implemented in all modules of the Kentix system. Thereby every event, every access and other disturbances are documented with corresponding picture material.



Access control and monitoring for cold and warm aisle

System topology server room





## Fully digital Car-Sharing access system for new urban everyday concepts

Newly created districts of large cities often captivate not only by their attractive location and modern architecture, but also by their pioneering, urban everyday concepts of the future. One part of these concepts is the use of a Car-Sharing service in large cities. One or more Car-Sharing providers will provide around 300 vehicles in about 35 underground car parks for use by residents. The booking and provision of the vehicles will be completely digitalised via mobile apps, which also includes area-wide access to the underground car parks as well as exit and entry documentation for the vehicles.

To meet this contemporary requirement, one access system must be used per underground car park that communicates with the Car-Sharing provider's back-end system via standard IP protocols (REST-API and/or LDAP) in „real time“:

- User and access code for temporary access to the designated underground car park
- Feedback & documentation of the access system about the user's access to the underground car park and, if necessary, deletion of the granted access authorization
- Feedback & documentation of the access system about leaving (rental start) and returning (end of rental) of the vehicle
- Monitoring of the access door and the exit/entry gate of the underground car park to avoid an open door or to report an open gate

A central, simple management of the entire system, as well as the possibility to open all doors and gates from a central location (or via app) in case of an emergency, is essential for an efficient operation of the system. The overall system should be produced with manageable integration and investment costs of a complete system solution, if possible from one source.

Lowest maintenance effort, use of standardized IP/IT protocols (non-proprietary), simple handling, full scal-

ability and thus highest investment security should also be ensured.

The Kentix SmartAccess access system is used, which fulfils all the conditions above, including central 24/7 management of each individual door across any number of locations. A REST-API, WebHooks and LDAP functionality, unique for this product segment, allow the Kentix system to be easily and smartly integrated into a central back-end system of a Car-Sharing service provider. The Kentix SmartRelay with connected IP wall reader provides access to the underground car park. The temporary access code generated by the back-end system is transmitted to the module connected to PoE (class 3) via REST-API or LDAP and the access door is opened when the code is entered into the IP wall reader.

The access to the underground car park is documented in the system and a set WebHook sends the access information in real time to the backend system, which can then remove the access authorization if necessary. The switching outputs of the network relay module are supplied with power, which makes a separate power supply for the operation of a motor lock or buzzer unnecessary (simple installation). A magnetic door contact can optionally be connected to one of the two potential-free inputs of the SmartRelay in order to send an alarm via network message or e-mail after a defined time interval when the door is open.

At the entrance and exit there is a RFID long-range reader connected to a second Kentix SmartRelay, for use. With a range of 3m or 8m, the long-range readers enable reliable recognition of special RFID cards (UHF/Mifare) that can be stuck to the inside of the vehicle windows. When a vehicle is detected, the underground garage door is opened, the entry or exit is documented and reported back to the backend system for processing via network message (WebHook). In addition, a gate contact can also be connected to the network relay module to send an alarm message if the gate is not locked.

As an option, it is possible to integrate existing IP video cameras into the system and thus create a further level of documentation for granted accesses as well as entry

and exit. A redundant protection of the power supply of the entire system including the door opening and monitoring can be created very easily by means of a UPS, as the power supply of the entire system is exclusively via PoE. On request, the system can also be operated via the Kentix app, so that, for example, remote opening of doors and gates is possible in an emergency. With Kentix, large cities receive an access system for Car-Sharing services that already meets the latest requirements, especially for future-oriented everyday concepts. Standardised, generally recognised, well-known and non-proprietary IP interfaces such as the REST-API or LDAP provide a future-proof and easy-to-make interface to the back-end system of the Car-Sharing service provider. Solid, high-quality hardware and the most stable software, both „Designed & Made in Germany“, guarantee the lowest maintenance effort with the highest availability, security and investment protection. A sim-

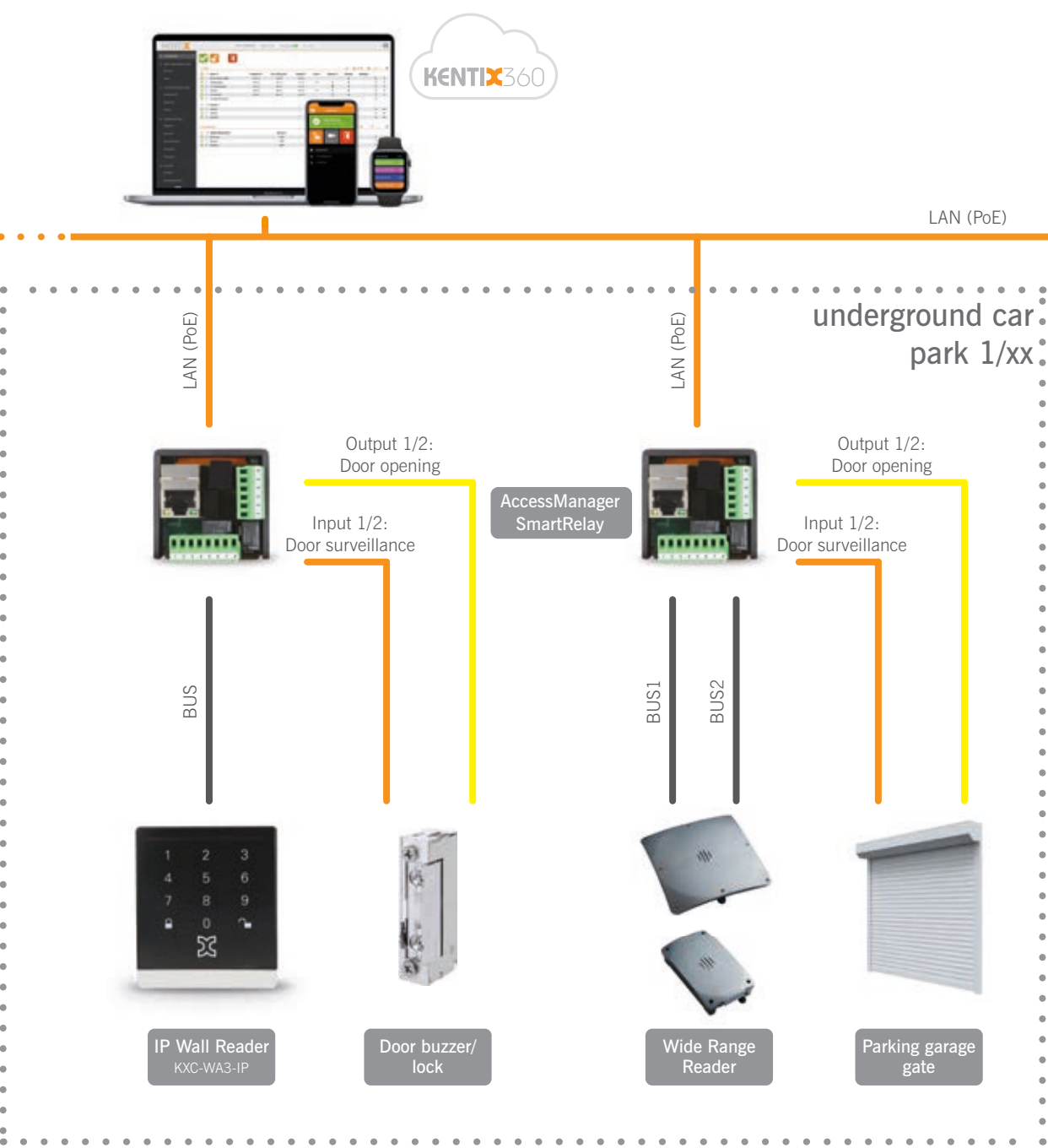
ple, modern system architecture (including PoE supply, 100% IP, RFID, etc.) with as few components as possible and no licensing costs for software or updates, results in efficient total costs for the entire system that can be planned, especially over the lifetime of the system.

There are no limits to the Kentix system for further expansion of the system to other locations worldwide or to other service providers. Due to the decentralized system architecture (IoT) and the omission of local server infrastructure, the Kentix SmartAccess system is freely scalable at any time and further beyond the access modules described above. A combination of the SmartAccess system with the Kentix monitoring system is also possible at any time in order to monitor any important environmental conditions (temperature, humidity, CO/fire gases, etc.) in sensitive/critical areas and to add them to the overall system in a sensible way.

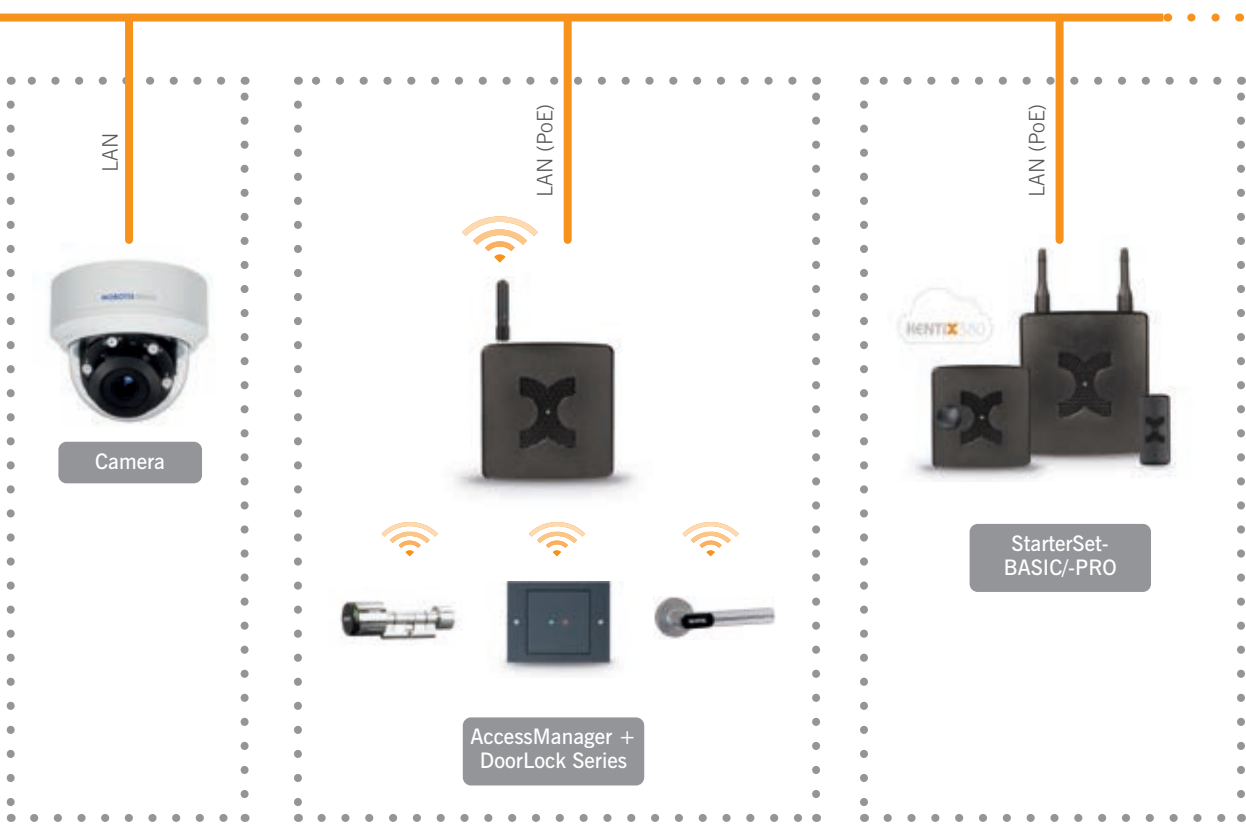


Remote user access to car parking area

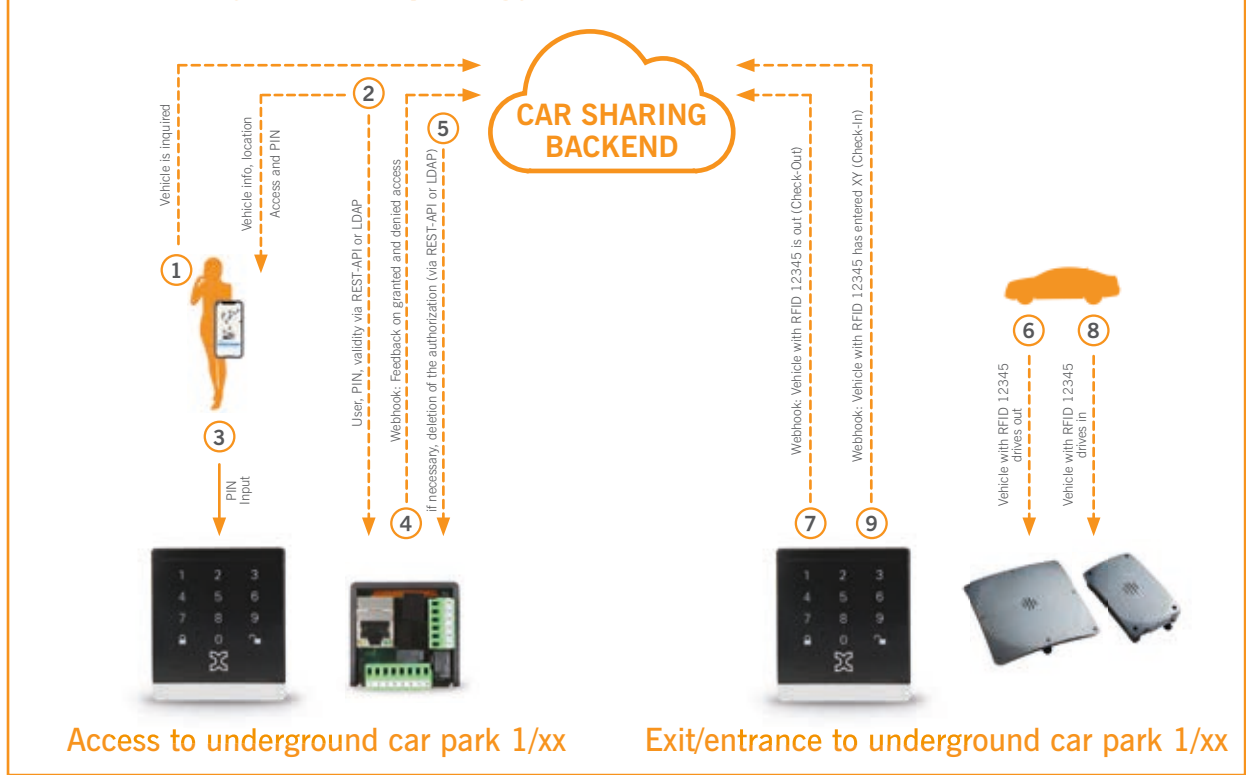
System topology



Extensions to the system topology



System topology Communication scheme





# Integratable locking and monitoring solution for IT racks in a large hospital

The aim of this project is to protect server racks at different locations of a hospital against unauthorized access and to monitor the status of the rack doors with an on-line-capable solution for managing authorizations, time profiles, access logging and notification.

Cabinets can be easily opened using existing RFID media, so that user-related logging is always performed. Alternatively, cabinets can be opened by the administrator via the web front-end or remotely via the Kentix Mobile App. Authorisations can be granted or withdrawn individually. If required, the solution can be extended to other rooms/areas and combined with video surveillance in order to document an image documentation of authorised or unauthorised access.

The Kentix solution is based on the simplicity of the hardware and software developed and produced by

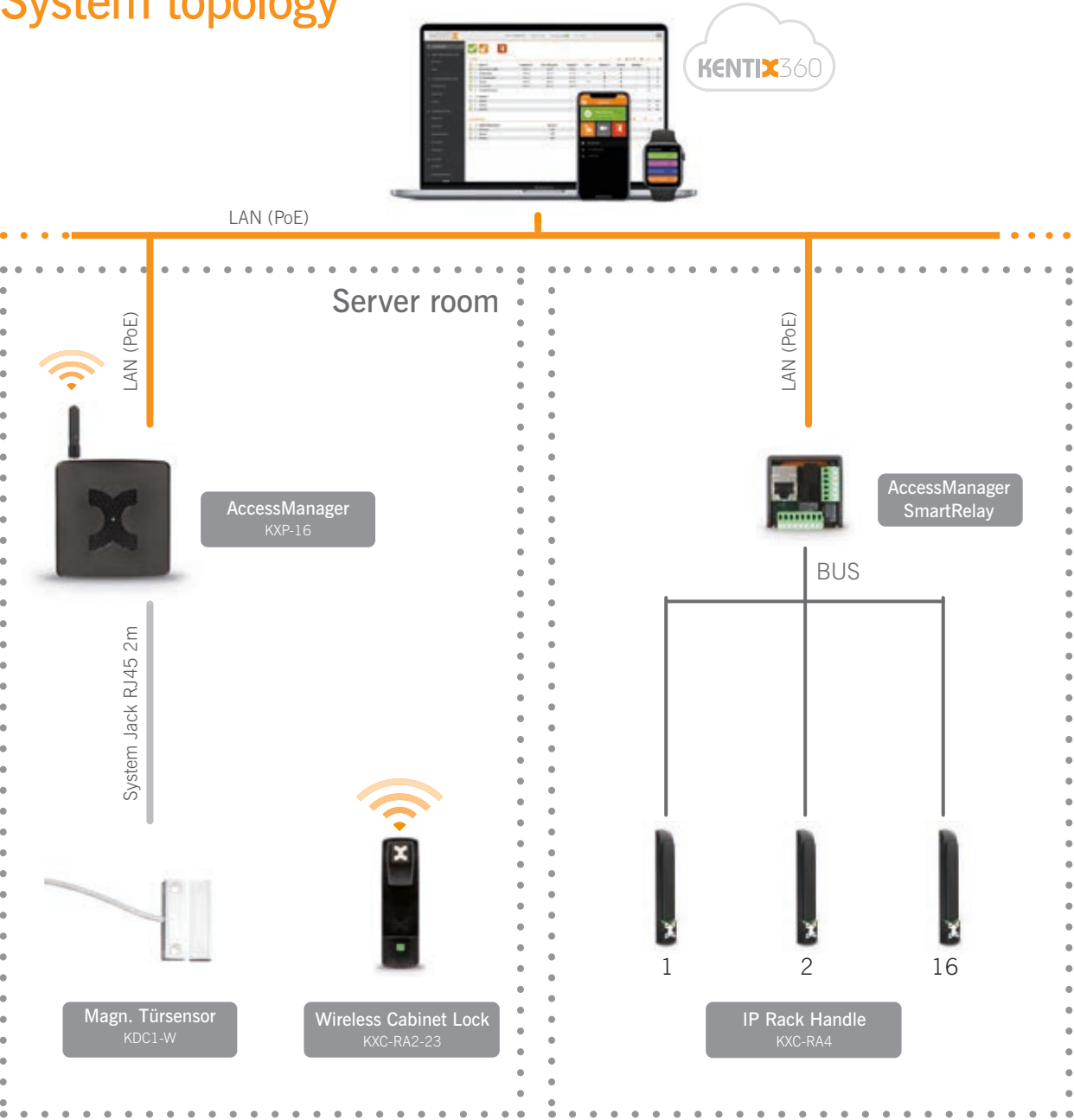
Kentix in Germany. Each IT cabinet is alternatively equipped with a wired or wireless RFID cabinet lock, each of which is connected to an AccessManager to ensure complete 24/7 documentation of access.

Additional magnetic door sensors connected to the AccessManager provide the door status at any time. All AccessManagers are organised in master/slave mode, making it very easy to manage and operate large systems at any time. The entire system is based on IP and follows common standards such as LDAP and REST-API, which makes it future-proof and scalable at any time, e.g. if more cabinets or doors need to be controlled or other multiple environmental data needs to be monitored (e.g. temperature, humidity, movement, vibration, CO (fire gas), etc.)



Simple and secure access control in a hospital

# System topology



With the above solution, Kentix provides an installation-friendly and low-maintenance system. All AccessManager are PoE powered and can be easily protected against power failures with a UPS. The entire software is included as KENTIX|OS with free updates. An AccessManager provides the web front-end as master.

Large projects can be carried out on a server-based software to ensure highest system performance. All changes as well as regular system updates can be distributed to the entire system with just a few clicks. Support for SNMPv2/3 and REST-API ensures easy and complete integration into third-party monitoring systems.





# MUNICIPAL UTILITIES AND SUPPLIERS

Physically secure critical infrastructures and efficiently implement requirements of the ISMS according to ISO 27001

In addition to cyber security, many responsible persons in municipal utilities and suppliers underestimate physical dangers that can paralyse the technical infrastructure in server and technical rooms. These include, for example, smouldering fires from faulty insulation that can lead to a fire, water ingress, excessive temperature and humidity or unauthorised access to non-public areas.

## Facts and need for action

About 77% of all companies experience system failures every year, of which about 50% are due to physical hazards. The lack of physical protection is also the part of the ISO 27001 audit where auditors most often find the greatest deficiencies.

## » TOP 5 KENTIX SYSTEM ADVANTAGES

- 1

**All-in-one system - low investment costs (CAPEX)**
  - one system for monitoring, intrusion, fire, access and video
  - simpler integration and high overall system stability
  - Modular system - individual solutions for every application
- 2

**Fulfils ISMS requirements**
  - fulfils the essential INF.2 measures of the BSI IT-Grundschutz compendium
  - preventive detection of up to 37 threats
  - Avoidance of downtime costs and image damage
- 3

**State-of-the-art industrial IoT system**
  - unlimited scalability - high investment security
  - Operation across multiple locations
  - Easy integration into third-party systems through open interfaces (SNMP, REST-API, WebHooks, AD etc.)
- 4

**User-friendly - simple management**
  - intuitive, central web frontend (no client software, no servers)
  - Central user rights management (no manual intervention and no complicated key management)
  - iOS/Android apps for admin and users
- 5

**Cost-efficient - reduced operating costs (OPEX)**
  - no software licence costs
  - simple administration
  - low maintenance costs





## Efficiently implement requirements of the ISMS according to ISO 27001

In order to avoid disruptions and to achieve the often obligatory and necessary basic IT protection at municipal utilities and suppliers, critical infrastructures must meet high requirements in the area of IT security. The German Federal Office for Information Security (BSI) has presented a concept for the certification of information security management systems (ISMS). The ISO 27001 certification is considered as documented proof

of the general operation of an ISMS. With this certification, organisations can actively protect themselves against IT failures and the resulting consequential damages such as delivery failures, repair costs, loss of image, claims for damages, etc. In addition, the certificate issued by an independent body documents that sufficient IT security is guaranteed.

With Kentix, the following measures of the BSI IT-Grundschutzkompendium, among others, can be fulfilled with manageable installation and investment costs:

|           |   |
|-----------|---|
| INF.2.A5  | Maintaining air temperature and humidity              |
| INF.2.A6  | Access control  |
| INF.2.A7  | Locking and securing                                  |
| INF.2.A8  | Use of a fire alarm system                            |
| INF.2.A11 | Automated monitoring of the infrastructure            |
| INF.2.A13 | Planning and installation of hazard detection systems |
| INF.2.A16 | Air conditioning in the data center                   |
| INF.2.A17 | Early fire detection                                  |
| INF.2.A18 | Protection against water leakage                      |
| INF.2.A22 | Implementation of dust protection measures            |
| INF.2.A24 | Use of video surveillance systems                     |

## The Kentix All-In-One System for Monitoring, Intrusion, Fire, Access and Video

Networkable system components for physical plant monitoring, access control, fire and intrusion detection as well as intelligent power consumption measurement create an individually tailored overall concept for efficient physical all-round protection of critical infrastructures. The Kentix system is infinitely scalable and grows with the increasing requirements of the company. All processes are documented in real time in a DSGVO-compliant manner, can be made available to third-party systems and forwarded to appropriately responsible persons. Impending dangers can thus be foreseen and avoided.

What is the status in the individual areas and who has accessed where and when? With the central KentixOS, IT managers always have everything in view.



## Basic protection monitoring of critical infrastructures at municipal utilities and supply companies

77 % of all companies suffer system failures every year, of which about 50 % are due to physical hazards. Therefore, all rooms with critical infrastructures should be monitored for all important physical hazards such as overtemperature, excessive humidity, unauthorised access, fire and more in order to achieve ISMS compliance according to ISO 27001. The implementation is to be realised by means of an integral, user-friendly system with manageable installation and investment costs.

To cover these requirements, a Kentix AlarmManager-PRO, MultiSensor-TI and a leakage sensor are used for each of the main locations. This means that all major hazards can already be reliably protected. The AlarmManager takes over the evaluation of all sensor data for the main and secondary locations, all alarms via SNMP, e-mail, push messages and redundantly via SMS using an integrated SIM card.

The MultiSensor-TI creates a highly reliable 4-factor early fire detection. In addition to monitoring CO gases (No. 1 fire gas), air quality and temperature changes, critical areas such as UPS are monitored for their maximum surface temperature with the thermal sensor. A leakage sensor is connected to the MultiSensor-TI, which reliably detects water ingress or leaks. Existing sensors such as door contacts, motion and fire detectors are integrated into the system via a network-com-

patible I/O module so that they are also connected to the AlarmManager as a result.

Kentix SmartAccess components for access control document uninterrupted 24/7 access and entry. accesses and access control. As each locking point is always online, it is easy to manage user authorisations from a central location at any time.

In order to protect against all major hazards in the secondary locations, a MultiSensor-TI and a leakage sensor connected to it are used in each case. The Kentix SmartAccess system is also used here as a radio system. It can be easily installed in existing doors and seamlessly integrated into the overall system. All devices are supplied by PoE and fed to the overall system via a virtual network.

The system is monitored and administered via a web interface, the KentixOS, which is provided with the devices and requires no server or client software. The Kentix All-in-One system also always remains freely scalable and can be expanded at any time. The open interfaces (including REST API, WebHooks, SNMP, etc.) ensure simple, up-to-date integration of the Kentix system into third-party systems. Due to licence-free software and updates, investment costs remain at a low level in the long term.



LANLine readers vote Kentix „Vendor of the Year 2020“ in Physical Datacenter Security



Kentix GmbH was awarded the prize of the Rhein-Nahe-Hunsrück 2020 regional initiative for the commitment shown in the Corona pandemic and the development of the SmartXcan



DoorLock StarterSet-PRO wins funkschau Award „ITK Product of the Year“ in the category Physical security in the 2019 reader survey



MultiSensor-LAN wins funkschau Award „ITK Product of the Year“ in the Physical Security category in the 2017 readers' poll





## The All-In-One security system

for monitoring, intrusion, fire, access, video and power -

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