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Smart**Net**

Wireless Everywhere
Fire detection and alarm systems

Smart**Net** (((**Cygnus**))) ® | 🏴 MADE IN BRITAIN

(((**Cygnus**))) ®

Cygnus Group
who are we?

We develop and manufacture fire detection and alarm systems for commercial, industrial and construction applications.

Our extensive knowledge and experience make us an industry leader in fire safety equipment and radio communications. We offer solutions informed by the latest industry insights, technology and user experience.

What's more, we comply with every major fire safety standard and directive. These are central to all life critical products, and it forms the basis of everything we do.

Simply, it means you can rest assured knowing that each of our products is manufactured to the highest industry standards with safety always at the core.

MADE IN BRITAIN

Contents

SmartNet
so clever

it needs no gateways, expanders or wires

The wireless mesh network system needs no gateway expander or loop-powered translating devices. Offering fast and reliable installation, ideal for time-critical projects.

it can protect hard to reach places

SmartNet devices have a long radio range due to the technology used and have a 360 degree directional antenna. Along with redundancy in the mesh network this enhances coverage and creates a highly reliable network.

it heals itself

The SmartNet Alarm uses battery-powered radio devices and a wireless mesh system that is self-forming and self-healing. This ensures system reliability and integrity.

it can be extended quickly and easily

The alarm utilises a powerful mesh radio network that's capable of handling thousands of devices in one system, and it can quickly and easily add additional devices into the network.

SmartNet

Introducing: Cygnus SmartNet fire detection and alarm system

The world's leading wireless fire detection and alarm systems

The Cygnus SmartNet wireless fire detection and alarm system is a powerful mesh radio network capable of handling thousands of devices in one system – suitable for most industrial and commercial environments.

Smoke and heat detectors are essential early warning devices in any environment where fire can pose a risk to life. Our detectors use the latest smoke and heat sensing technology to provide reliable detection, while reducing the risk of false alarms.

The wireless mesh network technology is a self-forming, self-healing detection and alarm solution that uses battery-powered radio devices. The network uses unique protocol to provide redundancy protection within at least two communication paths to each wireless device. It is capable of covering long distances, making it a highly cost-effective and flexible solution.

The SmartNet system configuration software is a single-point user interface for system design information, providing full cause and effect functionality. The tool also permits system diagnostics using any Windows device.

The Cygnus SmartNet wireless fire detection and alarm can cover vast areas in a wide range of environments, including:

Commercial and industrial property

Public spaces
Shopping centres, train stations, airports

Government buildings
Hospitals, police stations, council buildings
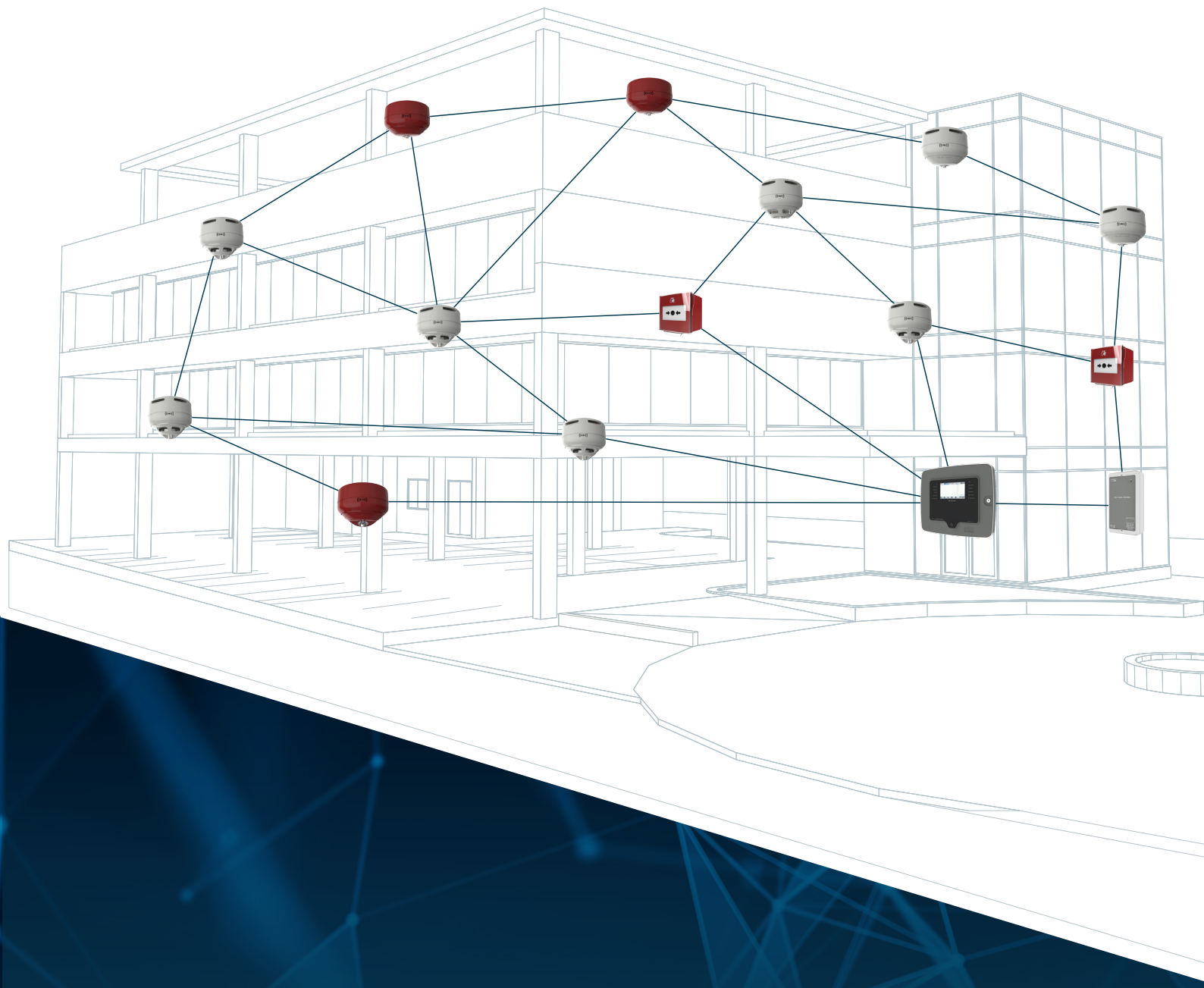
Educational buildings

Private properties and estates

HMO/Residential

The smart solution to
fire safety

SmartNet

Countless features
endless possibilities

- EN 54 certified and Construction Products Regulation (CPR 305/2011)

- System can be designed, installed and commissioned to BS 5839

- Automated radio transmit power functionality

- Multi-path communication redundancy protection for each device

- 10 frequency channels operating at 865-868 MHz

- Innovative channel hopping technology

- Up to 350m range (unobstructed)

- Unique SmartNet wireless protocol

- Configuration software to design and build a network of devices with cause and effects

- Up to 511 devices per system

- 16, 32, 64, and 96 zone panel options

- Network up to five panels

- Automatic sounder test mode

- Fully-wireless mesh network with bi-directional communication technology

SmartNet

Why choose
wireless?

Easier Installations

Up to 80% quicker to install than a wired system with no need for:

- Cable specifications and fire-resistant categories
- Cable segregation
- Difficult cable runs within floor and ceiling voids or ducting
- Containment or chasing out, fire wall or compartment drilling
- Loop calculations, translators, expanders, repeaters, or maximum loop lengths and devices
- Additional sounder circuits

- Rechargeable battery backup calculations for control panels
- Complex wiring drawings
- Short circuit isolators
- End of line resistors
- Junction boxes
- Cable replacement during refurbishments
- Complex fault finding on wired loops

Compliance

An EN54 compliant system that can be installed in accordance with BS5839 and BS5839-1, avoiding:

- Fire-resistant cabling
- Restrictions on device locations
- Multiple circuits to protect against failure
- Loop communication speed requirements
- MICC cable in London installations

Superior Safety

That ensures:

- No fire stopping
- No cable damage mitigation
- No combustible fixings
- No inadequate wiring
- No circuit overloading or high circuit loads

Day-to-Day Operations

That ensures:

- No voltage drops
- More efficient use of engineers' time

Why Choose
SmartNet?

- Completely wireless mesh network system, with no gateways, expanders or loop-powered translating devices needed
- Cause and effect configuration tool with simple drag and drop functionality
- Patented, autonomous transmit power control technology for increased battery life
- Self-forming and self-healing radio mesh system for reliability and integrity
- Multi-path communication redundancy protection in every device
- 10 RF channel hopping capability to reduce interference

- Strong signal strength – suitable for all construction and property applications
- Integrated antenna for increased device performance
- Fast and reliable installation ideal for time-critical projects
- Set up and configure specific cause and effects with ease
- Quickly and easily add additional devices into the network
- Quicker installation means your engineers complete more work, generating higher profits

SmartNet
Control Panel

The SmartNet Control Panel offers the latest in indication and full cause and effect functionality. It's ideal for use in any commercial, industrial or heritage environment due to its large touch screen display and multiple user levels.

What's more, it is designed and manufactured to meet EN 54-2, EN 54-4 and EN 54-25 standards. It can also be installed, serviced and maintained in accordance with BS 5839-1. The control panel transmits wirelessly and is mains powered with a battery backup facility, built to last up to four days.

Control Panel messages include alarms, pre-alarms, low battery alerts, and faults – all identifiable by location.

- Heavy duty plastic injection moulded enclosure with key lock panel entry
- Designed for surface mount or semi-recessed
- Can be installed in accordance with BS 5839-1 installation and servicing requirements
- Available with 16, 32, 64, 96 zones with LED indication
- Space for 2 x 7.0 or 9.0 Ah 12v backup batteries

- 2 x monitored sounder circuits
- Disable function for sounder outputs and zones
- Full cause and effects
- Multiple test modes
- Three levels of user access
- Remote monitoring
- GSM port for SMS and Cygnus App Alerts

SmartNet
Standard Radio Base

- Certified to EN 54-25

- Range of detector heads including optical smoke, heat and combi sensors

- Analogue detection with intelligent sensing technology

- Addressable through the SmartNet configuration tool

- Locking detector and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal

- Completely wireless

- Battery operated with a minimum three years battery life

- Dual fire LEDs for fire indication

- The wireless addressable base enables communication between the detector and control panel through the Cygnus wireless protocol.

- Service engineer reporting tool with battery life indication

- Separate interlocking ceiling mount plate for easy installation

- Easy to remove with ceiling detector pole

- Gloss white

- Patent pending - automatic transmit power level adjustment

- Sounder base features 32 sounder tones

- Multi colour LED status indication

SmartNet

SmartNet
Sounder Radio Base

- Certified to EN 54-25 and EN 54-3

- Range of detector heads including optical smoke, heat, and combi sensors

- 32 sounder tones

- Addressable through the SmartNet configuration tool

- Locking detector and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal with engineer reporting tool with battery ife indication

- Separate interlocking ceiling mount plate for easy installation

- Easy to remove with ceiling detector pole

- Gloss white designer reporting tool with battery

- Completely wireless

- Service engineer reporting tool with battery life indication

- Separate interlocking ceiling mount plate for easy installation

- Easy to remove with ceiling detector pole

- Gloss white design Separate interlocking ceiling mount plate - Patent pending - automatic transmit power level adjustment

- Battery-operated with a minimum three years battery life

SmartNet
Sounder and Visual Indicator Radio Base

- Certified to EN 54-25 and EN 54-3

- Range of detector heads including optical smoke, heat, and combi sensors

- 32 sounder tones

- Visual Indicator (VI) ring flashes in alarm mode

- Addressable through the SmartNet configuration tool

- Locking detector and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal

- The wireless addressable base enables communication between the detector and control panel through the Cygnus wireless protocol.

- Completely wireless

- Battery-operated with a minimum three years battery life

- Service engineer reporting tool with battery life indication

- Separate interlocking ceiling mount plate for easy installation

- Easy to remove with ceiling detector pole

- Gloss white design

SmartNet
Detector

- Optical smoke detector certified to EN 54-7

- A1R Heat Detector certified to EN 54-5

- Type B Heat Detector fixed temperate certified to EN 54-5

- Combi Optical Smoke & A1R Detector certified to EN 54-5 and EN 54-7

- Combi Optical Smoke & PIR Detector certified to EN 54-7

- Standard radio base certified to EN 54-25

- Sounder radio and sounder/visual indicator base certified to EN 54-25 and EN 54-3

- Analogue detection with intelligent sensing technology

- Locking detector and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal

- Easy to remove with ceiling detector pole

Independently tested
Intertek
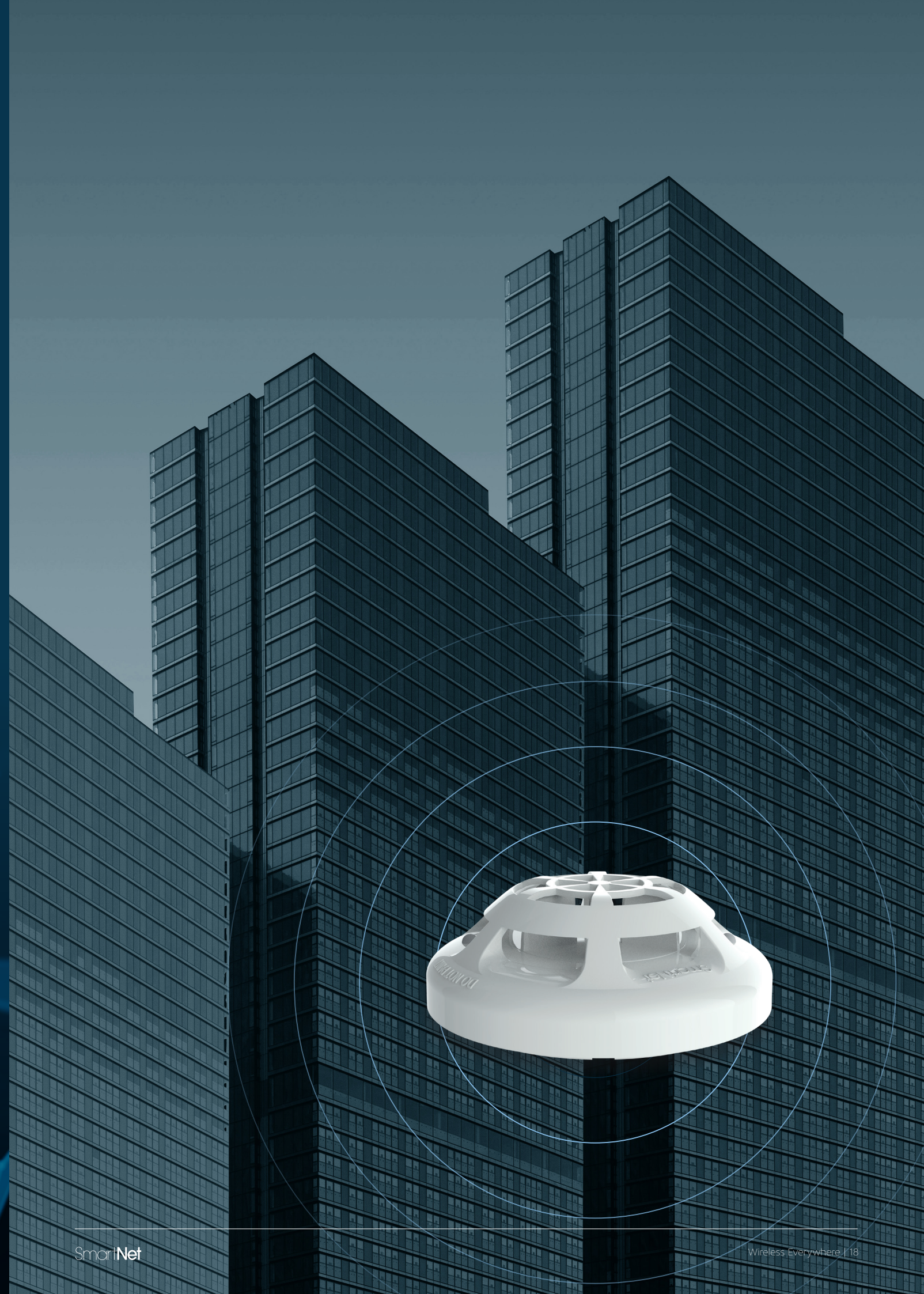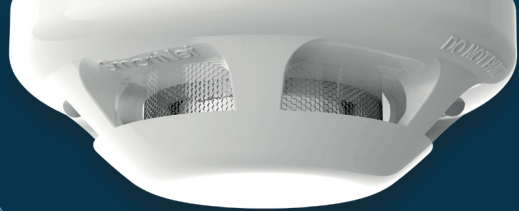
SmartNet

SmartNet
Optical Smoke Detector

The SmartNet optical addressable smoke detectors offer early stage fire detection and use advanced technology to reduce the risk of false alarms. System software provides analogue detector discrimination and each detector features a red LED indicator in alarm mode to help you quickly identify the location of a fire.

Detectors are easily configured and can be programmed into a system using the SmartNet configuration software, wirelessly or by cable.

Each detector features a multi colour LED for status indication and dual fire LEDs for fire indication when in pre-alarm or alarm mode. The wireless addressable base enables communication between the detector and the control panel – this is achieved through the Cygnus wireless protocol.

SmartNet wireless fire detection and alarm devices are battery-powered and energy-efficient and will operate continuously for a minimum of three years, in accordance with EN 54.

SmartNet
Heat Detector

The SmartNet addressable heat detectors offer early-stage fire detection and use advanced technology to reduce the risk of false alarms.

There are two variants available:

- **Type A1R rate of rise**

- **Type B fixed temperature**

Each detector features a multi colour LED for status indication and dual fire LEDs for fire indication when in pre-alarm or alarm mode. The wireless addressable base enables communication between the detector and the control panel – this is achieved through the Cygnus wireless protocol. This device is battery-powered and has a minimum three year battery life.

Detectors can be easily configured and programmed into a system using the SmartNet configuration software. Each detector radio base has an LED Indicator to show the successful connection to the programming unit, and to indicate low battery and communication faults.

SmartNet
Combi Sensor Detector

The SmartNet combi sensor technology combines the benefits of both heat and smoke detection in one unit. SmartNet addressable combi sensors offer early stage fire detection and use advanced technology to reduce the risk of false alarms. Optical smoke and type A1R combi sensors also feature a red LED indicator in alarm mode to help you quickly identify an issue.

The wireless addressable base enables communication between one detector and control panel through the Cygnus wireless protocol.

Like all other SmartNet detectors the combi detector will operate continuously for three years using nothing but battery power, in accordance with EN 54.
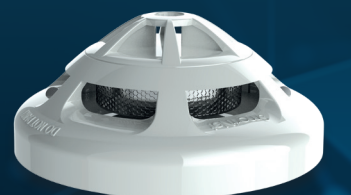
SmartNet
Ceiling Visual Alarm Device

- Visual alarm device (VAD) certified to EN 54-23 and EN 54-25

- Ceiling mount configuration - Beacon Type C-3-9

- Addressable through the SmartNet configuration tool

- Locking head and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal

- Completely wireless

- Battery-operated with a minimum three years battery life

- Service engineer reporting tool with battery life indication

- Separate interlocking wall and ceiling mount plate for easy installation

- Gloss red and white design options

- Patent pending - automatic transmit power level adjustment

SmartNet
Wall-Mounted Visual Alarm Device (VAD)

- Visual alarm device (VAD) certified to EN 54-23 and EN 54-25

- Wall mount configuration - Beacon Type W2.4-7

- Addressable through the SmartNet configuration tool

- Locking head and base mechanism for enhanced security

- Ultra-low powered device – 3.6v nominal

- Completely wireless

- Battery-operated with a minimum three years battery life

- Service engineer reporting tool with battery life indication

- Separate interlocking wall and ceiling mount plate for easy installation

- Gloss red and white design options

- Patent pending - automatic transmit power level adjustment

SmartNet
Manual Call Point Device

- Certified to EN 54-25 and EN 54-11

- Addressable through the SmartNet configuration tool

- Call point cover which conforms to BS 5839

- Ultra-low powered device – 3.6v nominal

- Completely wireless

- Battery-operated with a minimum three years battery life

- Service engineer reporting tool with battery life indication

- Gloss red design

- Patent pending - automatic transmit power level adjustment

Independently tested
Intertek

SmartNet
Input-Output Device

- Certified to EN 54-25 and EN 54-18

- Addressable through the SmartNet configuration tool

- Ultra-low powered device – 3.6v nominal

- Interface with other fire systems, sensors and detecting devices

- Patent pending - automatic transmit power level adjustment

- Trigger outputs i.e turnstile, fire door release, speaker systems

- Completely wireless

- Battery-operated with minimum three years battery life

- Service engineer reporting tool with battery life indication

- Two inputs and two outputs

Independently tested
Intertek
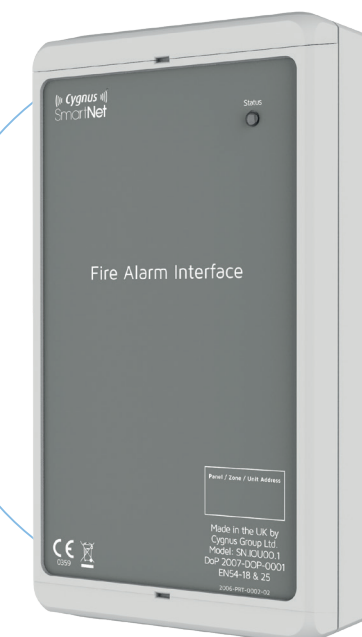
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SmartNet
Configuration Tool

SmartNet is configured and commissioned using a Windows-based configuration tool on a PC, tablet or mobile device.

The software layout makes it easy to set up a new system, allowing site specific information to be added.

In addition to a system setup the configuration tool has an EN 54 check function which highlights any non compliant settings.

The drag and drop functionality enables you to select a device and assign it to a specific zone, which self addresses and allows the location description to be edited.
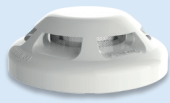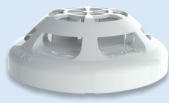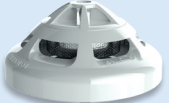
It gives you complete visibility over your system, enabling you to see radio communication paths and signal integrity while running system diagnostics to highlight any faults or areas of concern.

Cause and effect functionality can be set up through the configurator where individual area commands, evacuation stages and trigger points can be assigned.

SmartNet
Product Details

	Optical Smoke Detector	A1R Heat Detector (Rate of Rise)	Type B Heat Detector (72°c) Fixed Temp	Combi Sensor Optical Smoke and A1R Detector	Combi Sensor Optical Smoke and PIR Detector		Visual Alarm Device (VAD) Wall/Ceiling – Mounted (Red)	Visual Alarm Device (VAD) Wall/Ceiling – Mounted (White)	Blanking Plate (Red)	Blanking Plate (White)	Manual Call Point	Input/Output Device	Control Panel
Product Code	SN.DTS0.1	SN.DTH0.1	SN.DTH1.1	SN.DTC0.1	SN.DTC1.1		SN.VAD1.2 (W) SN.VAD0.2 (C)	SN.VAD1.1 (W) SN.VAD0.1 (C)	SN.BLP0.2	SN.BLP0.1	SN.MCP0.2	SN.IOU00.1	SN.CIE00.A SN.CIE10.A SN.CIE20.A SN.CIE30.A
Radio Base Options (see details)	SN.RB00.1 SN.RB10.1 SN.RB20.1	SN.RB00.1 SN.RB10.1 SN.RB20.1	SN.RB00.1 SN.RB10.1 SN.RB20.1	SN.RB00.1 SN.RB10.1 SN.RB20.1	SN.RB00.1 SN.RB10.1 SN.RB20.1		SN.RB00.2 SN.RB10.2	SN.RB00.1 SN.RB10.1	SN.RB10.2 SN.RB20.2	SN.RB10.1 SN.RB20.1	SN.RB30.2	–	–
Compliance	EN 54-7 EN 54-25 EN 54-18	EN 54-5 EN 54-25 EN 54-18	EN 54-5 EN 54-25 EN 54-18	EN 54-5 EN 54-7 EN 54-25 EN 54-18	EN 54-7, EN 54-25 EN 54-18		EN 54-23 EN 54-3 * EN 54-25 EN 54-18	EN 54-23 EN 54-3 * EN 54-25 EN 54-18	EN 54-3 EN 54-25 EN 54-18	EN 54-3 EN 54-25 EN 54-18	EN 54-11 EN 54-25 EN 54-18	EN 54-18 EN 54-25 EN 54-18	EN 54-2 EN 54-4 EN 54-18 EN 54-25 EN 54-18
Battery Type	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123		3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	2 x 12V 7.0AMH.
Battery Life	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years		Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	3 days battery backup
RF Frequency	865–868MHz	865–868MHz	865–868MHz	865–868MHz	865–868MHz		865–868MHz	865–868MHz	865–868MHz	865–868MHz	865–868MHz	865–868MHz	865–868MHz
Transmit Power	5–10mW	5–10mW	5–10mW	5–10mW	5–10mW		5–10mW	5–10mW	5–10mW	5–10mW	5–10mW	5–10mW	5–10mW
Image													
Weight	560g	560g	560g	560g	560g		560g	560g	560g	560g	560g	780g (inc. battery)	8.35kg (inc. backup battery)

SmartNet
Radio Base Options

	Standard Radio Base (White)	Standard Radio Base (Red)	Sounder Radio Base (White)		Sounder Radio Base (Red)	Sounder VID Radio Base (White)	Sounder VID Radio Base (Red)	Sounder VID Radio Base (White with red VID ring)
Product Code	SN.RB00.1	SN.RB00.2	SN.RB10.1		SN.RB10.2	SN.RB20.1	SN.RB20.2	SN.RB20.2
Compliance	EN 54-25	EN 54-25	EN 54-3 EN 54-25		EN 54-3 EN 54-25	EN 54-3 EN 54-25	EN 54-3 EN 54-25	EN 54-3 EN 54-25
Battery Type	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123		3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123	3 x C lithium 1 x CR123
Battery Life	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years		Minimum of 3 years	Minimum of 3 years	Minimum of 3 years	Minimum of 3 years
Radio Frequency	865-868MHz	865-868MHz	865-868MHz		865-868MHz	865-868MHz	865-868MHz	865-868MHz
Transmit Power	5-10mW	5-10mW	5-10mW		5-10mW	5-10mW	5-10mW	5-10mW
Image								

SmartNet
Product Combination Matrix

Device Heads	Manual Call Point	Optical Smoke Detector	A1R Heat Detector (Rate of Rise)	Type B Heat Detector (72°c) Fixed Temp	Combi Sensor Optical Smoke and A1R Heat	Combi Sensor Optical Smoke and PIR	Sounder Device / Sounder Plate (Red)	Sounder Device / Sounder Plate (White)	Visual Alarm Device (VAD) Wall-Mounted (Red)	Visual Alarm Device (VAD) Wall-Mounted (White)	Visual Alarm device (VAD) Ceiling-Mounted (Red)	Visual Alarm Device (VAD) Ceiling-Mounted (White)
Image												
(Manual Call Point)	SN.MCP0. RB30.2	x	x	x	x	x	x	x	x	x	x	x
(white base)	x	SN.DTS0. RB00.1	SN.DTH0. RB00.1	SN.DTH1. RB00.1	SN.DTC0. RB00.1	SN.DTC1. RB00.1	x	SN.BLP0. RB00.1 Repeater Unit	x	SN.VAD1. RB00.1	x	SN.VAD0. RB00.1
(red base)	x	x	x	x	x	x	x	x	SN.VAD1. RB00.2	x	SN.VAD0. RB00.2	x
(white base)	x	SN.DTS0. RB10.1	SN.DTH0. RB10.1	SN.DTH1. RB10.1	SN.DTC0. RB10.1	SN.DTC1. RB10.1	x	SN.BLP0. RB10.1	x	SN.VAD1. RB10.1	x	SN.VAD0. RB10.1
(red base)	x	x	x	x	x	x	SN.BLP0. RB10.2	x	SN.VAD1. RB10.2	x	SN.VAD0 RB10.2	x
(white base)	x	SN.DTS0. RB20.1	SN.DTH0. RB20.1	SN.DTH1. RB20.1	SN.DTC0. RB20.1	SN.DTC1. RB20.1	x	SN.BLP0. RB20.1	x	x	x	x
(red base)	x	x	x	x	x	x	SN.BLP0. RB20.2	x	x	x	x	x