



ARGUSSPECTRUM

STRELETZ-PRO





WIRELESS FIRE SYSTEM

**Successfully
passed tests
in **83**
countries**



about
the company



	About us	3
	Certification.....	4-7
	About the system	8-9
	Features	10-15
	System structure	16-25
	system structure of Streletz-PRO	16-17
	translator / expander	18
	fire detectors	19-20
	annunciators	21-25
	input and output modules	25
	Case studies	26-29



Sergey Levchuk
General Director
Argus Spectrum



Mikhail Levchuk
Executive Director
Argus Spectrum

About Us

Argus Spectrum is one of the world's leading manufacturers specialising in the development and production of innovative wireless and wired fire detection and security systems.

The company was founded in the city of St. Petersburg in 1993 by two leading scientists working in the field of experimental radio physics and electronics, operating within the faculty of Peter the Great Polytechnic University. Our products have a proven record of performance, quality, and reliability with more than 200,000 systems installed worldwide.

Certification

Argus Spectrum wireless fire solution complies with the fire regulations of 83 countries. Argus Spectrum product range is one of the first wireless fire detection system in Europe to receive the RED certification.

Research and Development

Our close collaboration with the specialist universities of St. Petersburg enables us to develop and apply state of the art technology within our product program. A continuous program of research and development is led by a team of 50 highly qualified engineers delivering a comprehensive range of products to our global partners. Argus Spectrum has been recognized and presented with 2 prestigious awards from the Government of the Russian Federation in the field of science and technology.

Production

We operate strict quality management systems in accordance with ISO 9001. We have been recognized by and awarded the Toyota Bronze Medal for our Production Management System.

Projects

Argus Spectrum products are protecting significant and high-profile installations including the world-famous Hermitage and the Medical Academy in St. Petersburg incorporating more than 20,000 wireless devices. In 2020-2021 more than 30 newly constructed COVID-19 hospitals all over Russia were protected by Argus Spectrum advanced wireless fire detection system. All the hospitals were built in record time while the first 17 of them were constructed within 60 days. More than 60,000 wireless devices were installed in the new medical centers.



CERTIFICATION

The Streletz-PRO wireless fire alarm system successfully passed tests and complies with the fire regulations of 83 countries including the Russian Federation, EU, the UK, India, Dubai and Australia.

Argentina	Greece	Libya	Papua New Guinea	Switzerland
Armenia	Hong Kong	Lithuania	Philippines	Syria
Australia	Hungary	Malaysia	Poland	Taiwan
Austria	India	Malta	Portugal	Tajikistan
Azerbaijan	Indonesia	Marshall Islands	Qatar	Thailand
Bahrain	Iran	Micronesia	Russia	Tonga
Belarus	Iraq	Moldova	Samoa	Turkey
Brazil	Ireland	Mongolia	Saudi Arabia	Turkmenistan
Bulgaria	Israel	Nauru	Singapore	Tuvalu
Cyprus	Italy	Netherlands	Slovakia	UAE
Czech Republic	Jordan	New Zealand	Slovenia	Ukraine
Denmark	Kazakhstan	Nigeria	Solomon Islands	United Kingdom
Egypt	Kashmir	Norway	South Africa	Uzbekistan
Fiji	Kenya	Oman	Spain	Vanuatu
Finland	Kiribati	Pakistan	Sri Lanka	Vietnam
Georgia	Kuwait	Palau	Sweden	Yemen
Gibraltar	Kyrgyzstan			

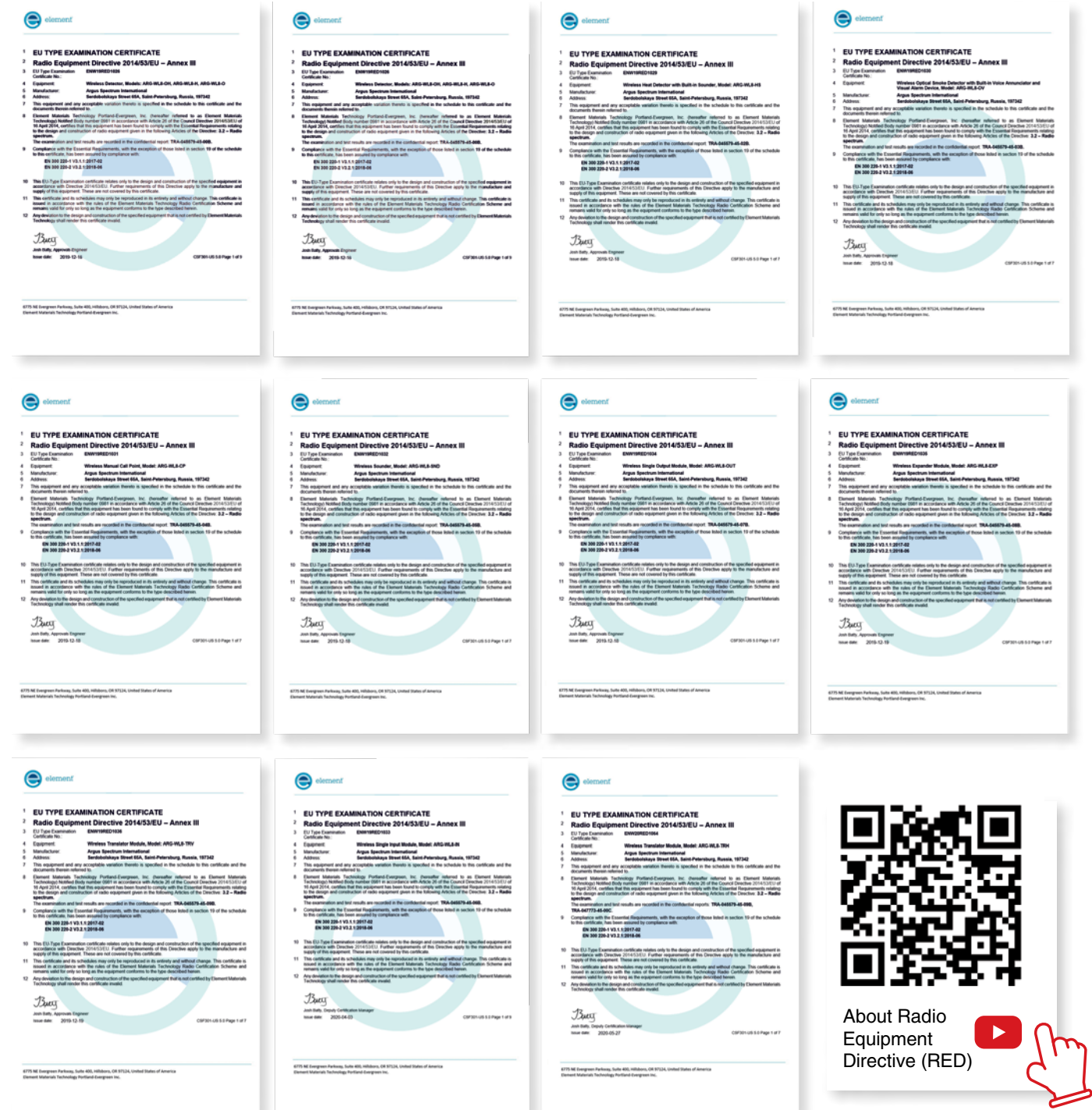
	Requirements / standards	Certification body
EN 54-3	Fire alarm devices - Sounders	LPCB (BRE Global)
EN 54-5	Heat detectors - Point heat detectors	LPCB (BRE Global)
EN 54-7	Smoke detectors - Point smoke detectors using scattered light, transmitted light or ionization	LPCB (BRE Global)
EN 54-11	Manual call point	LPCB (BRE Global)
EN 54-17	Short circuit isolators	LPCB (BRE Global)
EN 54-18	Input/output devices	LPCB (BRE Global)
EN 54-23	Visual alarm devices	LPCB (BRE Global)
EN 54-25	Components using radio links	LPCB (BRE Global)
EN 54-29	Multi-sensor fire detectors - Point detectors using a combination of smoke and heat sensors	LPCB (BRE Global)
2014/53/EU	Radio Equipment Directive	Element
EN 301 489-1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services	Element
EN 50130-4	Audio/Video, information and communication Technology Equipment - Part 1: Safety Requirements	Element
2011/65/EC	RoSH directive including Directive (EU) 2015/863	Intertek
	Dubai Civil Defense Approval	Dubai Civil Defense, LPCB (BRE Global)
AS ISO 7240.3	Audible alarm devices	SAI GLOBAL
AS ISO 7240.5	Point type heat detectors	SAI GLOBAL
AS ISO 7240.7	Point-type smoke detectors using scattered light, transmitted light or ionization	SAI GLOBAL
AS ISO 7240.11	Manual Call Points	SAI GLOBAL
AS ISO 7240.15	Point type fire detectors using scattered light, transmitted light or ionization sensors in combination with a heat sensor	SAI GLOBAL
AS ISO 7240.18	Input/output devices	SAI GLOBAL
AS ISO 7240.23	Visual alarm devices	SAI GLOBAL
AS ISO 7240.25	Components using radio transmission paths	SAI GLOBAL
TR EAEU 043/2017	Requirements for Fire safety and Fire Extinguishing Equipment	SZRC



2014/53 EU

Radio equipment directive is a relatively new European legislation, which regulates the market of wireless equipment. Wireless alarms are also covered by the scope of the directive and older systems have to go through reassessment to be legally sold in the EU.

Streletz-PRO was one of the first wireless alarms to receive RED certification. The certificates were granted in December of 2019 by Element Materials Technology – a british notified body

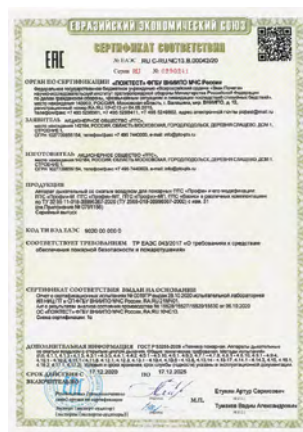
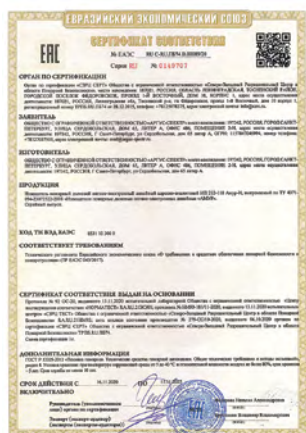
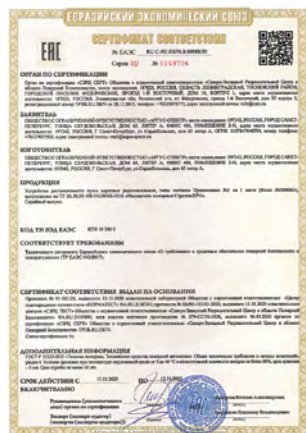
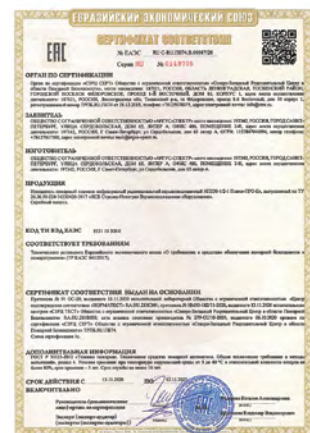
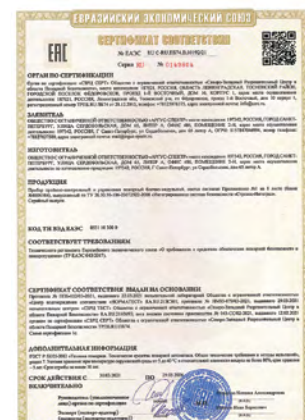
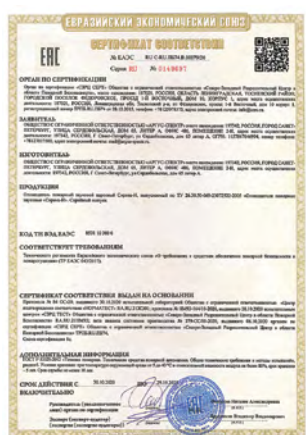
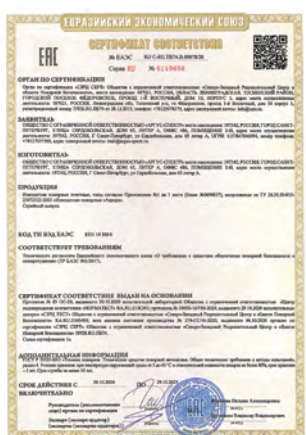
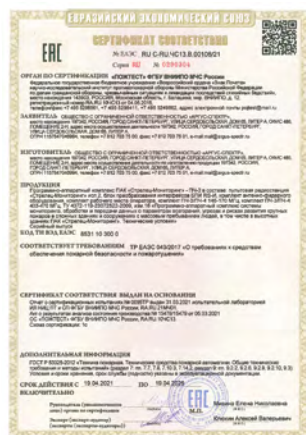
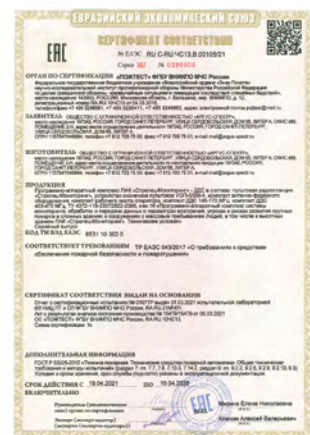


About Radio Equipment Directive (RED)





The Streletz-PRO product range is fully compliant to the technical regulations of the Eurasian Economic Union TR EAEU 043/2017 Requirements for Fire safety and Fire Extinguishing Equipment



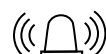
STRELETZ^{PRO} - IS



Wired and wireless fire alarm system



Wired and wireless notification system







Wired and wireless security system



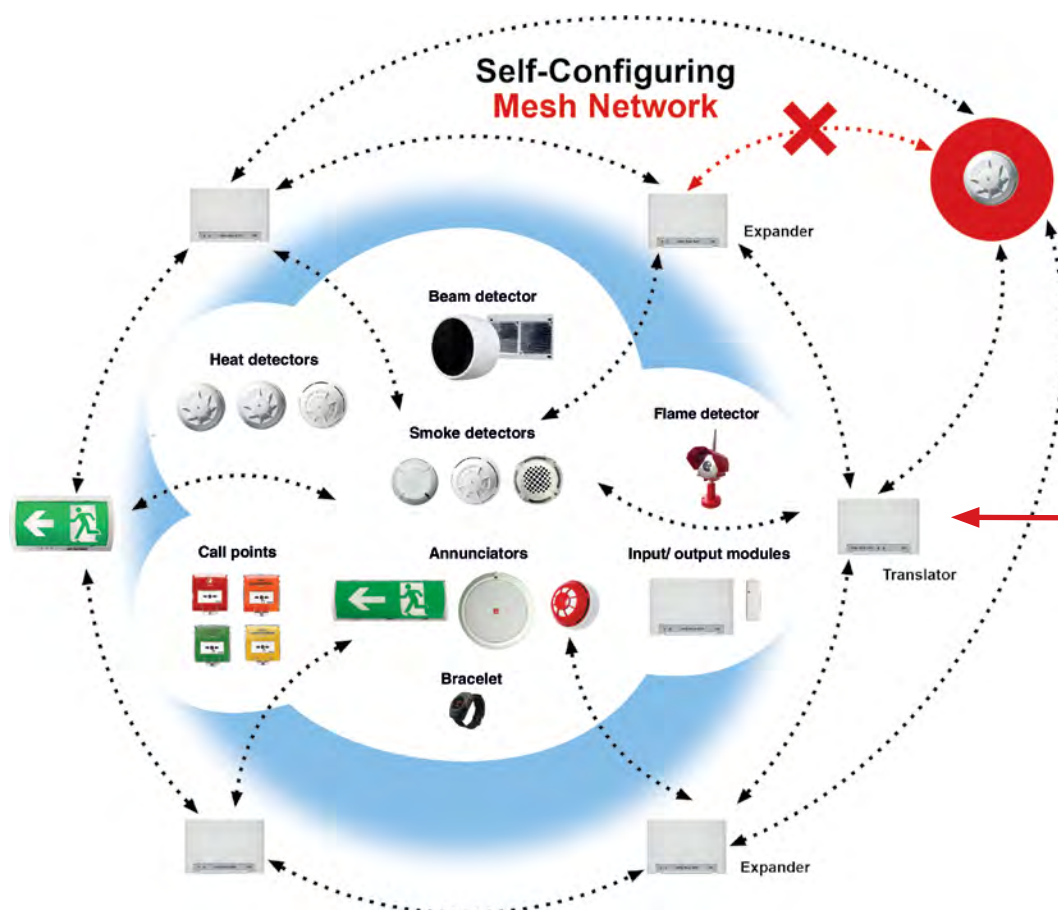
Personnel monitoring and alert system

SYSTEM ARCHITECTURE

-  **2** orthogonal antennas
-  **6** frequency channels
-  **127** translators
-  **1920** devices



about the system



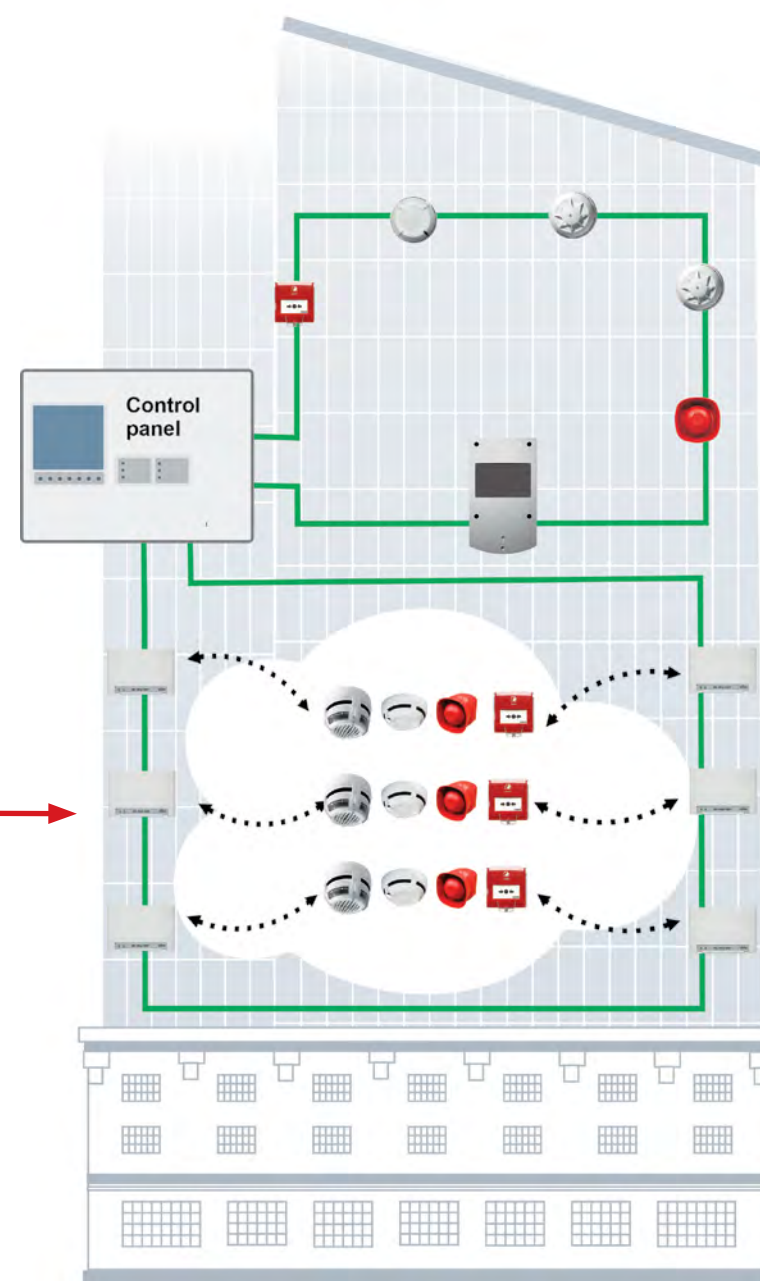
Wireless

Translators and expanders

The translator module connects to the loop of a fire control panel, receives signals from wireless devices, and translates them to the panel. In order to expand the range of the network, expander modules are placed throughout the building. Signals from wireless devices can be received by the expanders, then travel through multiple expanders, eventually reaching the translator module.

Mesh network

Streletz-PRO supports the self-configuring mesh network technology, which means that detectors are not assigned to individual expanders, they choose their own parent expander, and all communication paths in the system are established automatically. The advantage of the mesh network is that you don't have to manually specify the network topology, you only need to position the expanders throughout the building based on their connection radius, and the network will automatically arrange itself in the most optimal way. This technology significantly speeds up the installation procedures.



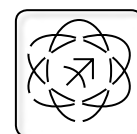
Wired Intelligent

- 240 devices
- 4 km

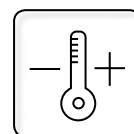
Wireless Intelligent

- Self-configuring mesh network
- 1920 wireless devices
- 10-year battery life
- 3 sec. alarm activation delay

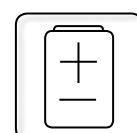
Streletz-PRO advanced features



Mesh network



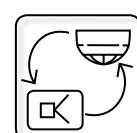
Wide operating temperature range



10 - year battery life



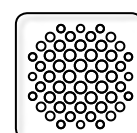
Cryptographic protection



1 200 m - communication range



Changing settings wirelessly



1 920 devices system capacity



High level of noise immunity



3 - second activation delay



Could service Streletz-Cloud



Mesh network

Self-configuring mesh network technology in Streletz-PRO is a new and unique level of reliability:

- each device automatically chooses its parent expander;
- expanders automatically form a network for delivering information to the main control panel.

Self-configuring mesh network technology provides:

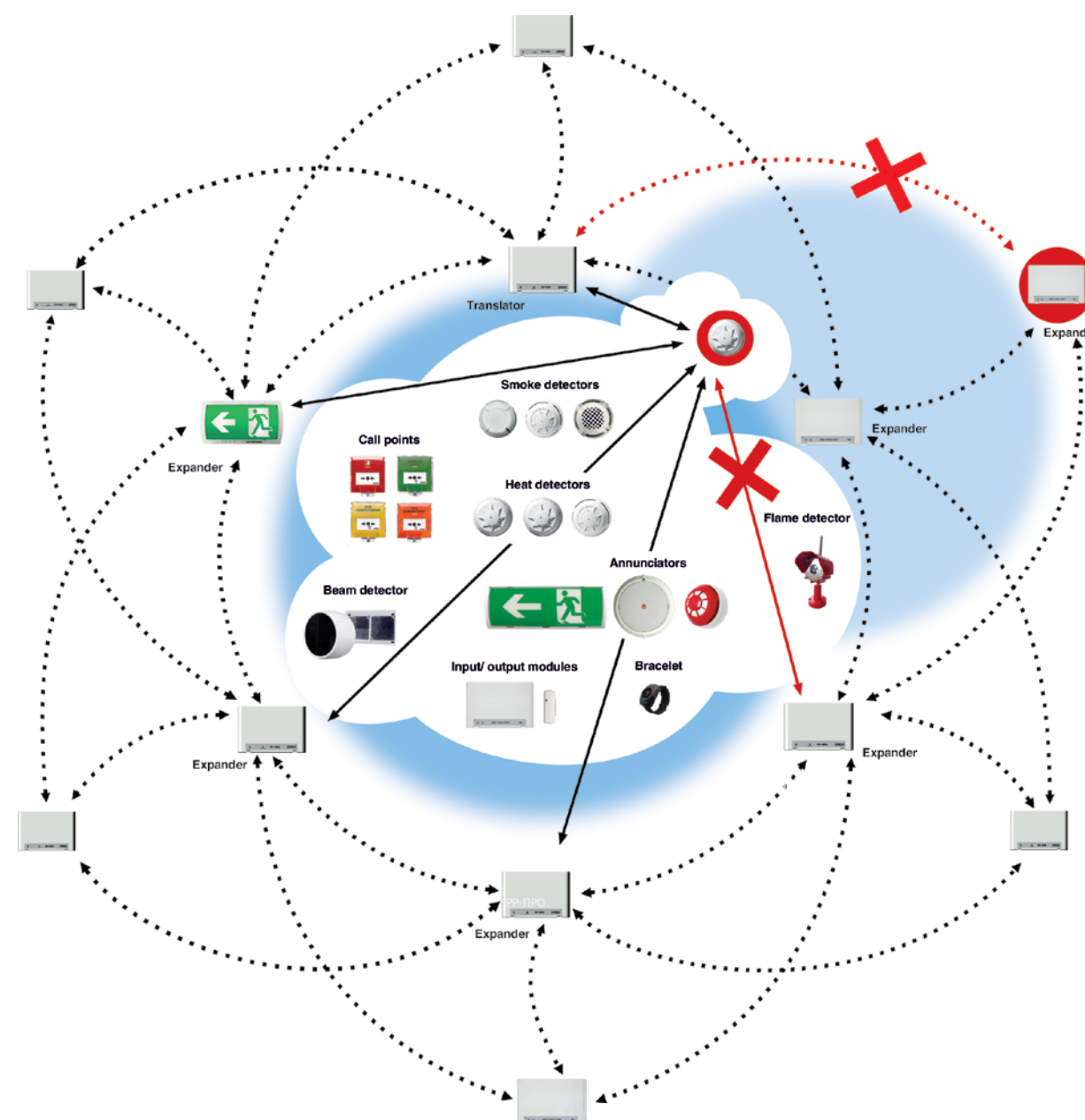
- high level of reliability;
- automatically adapting to changing operating conditions: all devices automatically choose a parent expander depending on the quality of connection;
- extended information system capacity allowing complex issues to be managed and solved;
- a simple design and commissioning process;

The system will automatically decide which device connects to which expander and build a wireless network.

Advantages for installers:

- simplified design and planning process;
- faster commissioning process;
- solutions to complicated problems and challenges.

Automatic reconfiguration of communication routes



designing the Streletz-PRO network

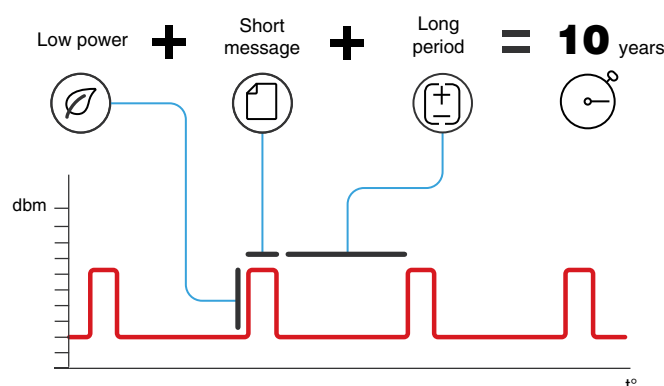


Automatic reconfiguration of communication routes



10-year battery life

- Every device in the system monitors the state of its primary and backup battery and the Streletz-PRO software is designed to provide the user efficient and planned battery replacement.
- Signal delivery confirmation and automatic adjustments to transmission power.
- Software monitors the state of the batteries, which allows planning battery replacement ahead of time.



1200 m – communication range

The maximum communication range in open space between expanders is 2,000 meters, between an expander and a child device is 1,200 meters. This is significantly higher than the communication range of most wireless fire detection systems on the market.

Wide operating temperature range

Streletz-PRO operates within a temperature range of -30 to +55 degrees. The system implements the principle of automatic frequency adjustment when the devices are in temperature modes.

Cryptographic protection

Streletz-PRO implements dynamic information encoding and dynamic two-way authentication mechanism to eliminate the possibility of tampering with the radio system

Changing settings wirelessly

All parameters of the system devices are programmable wirelessly.

3-second activation delay

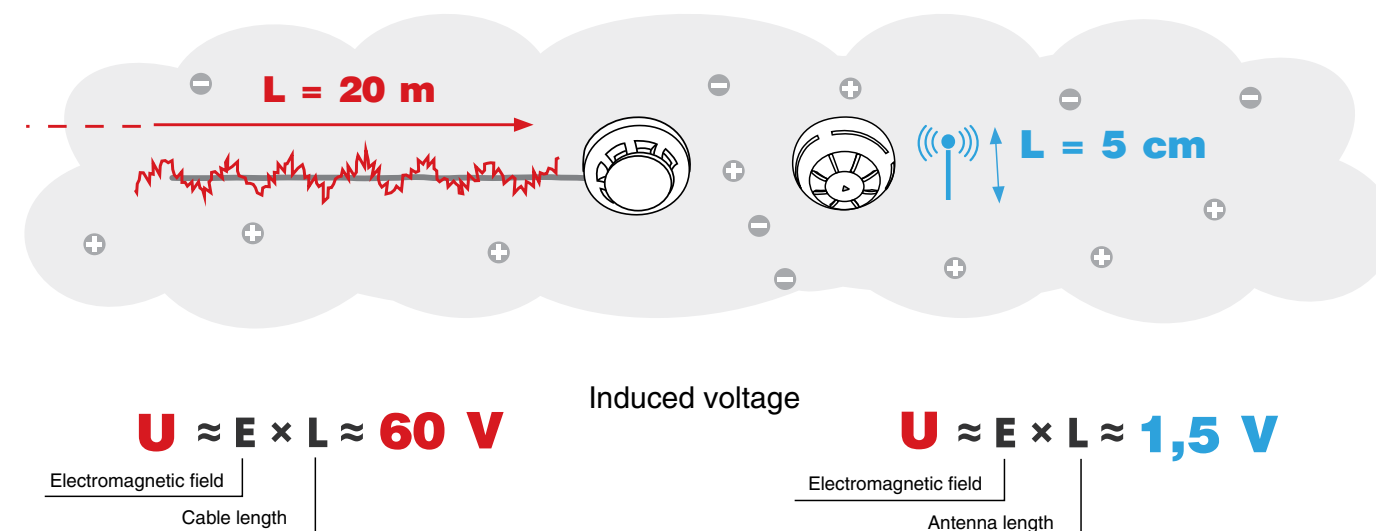
All alarm notification devices activate in under 3 seconds. This ensures quick and safe evacuation from the building in the event of an emergency. The activation is synchronized.

High level of noise immunity

One of the most important parameters of any system is its level of resistance to external interference and electromagnetic interference.

Cable lines often serve as antennas for electromagnetic interference, and the resulting voltage in the conductors leads to false alarms.

The inducing voltage is proportional to the length of the conductor (in wired systems it is the cable length, in wireless systems it is the antenna length), which means that wireless detectors are virtually immune to the effects of inducing voltage.



The system implements the following noise immunity algorithms:

Transmission period of the control signals is also adjusted automatically

When in standby mode, the devices are communicated at long interval. However, in an emergency, the signal transmission period is shortened.

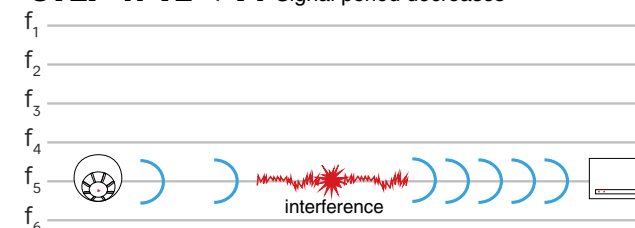
Transmission power is adjusted automatically.

Under normal conditions, radio transmission signal power is reduced to conserve battery power.

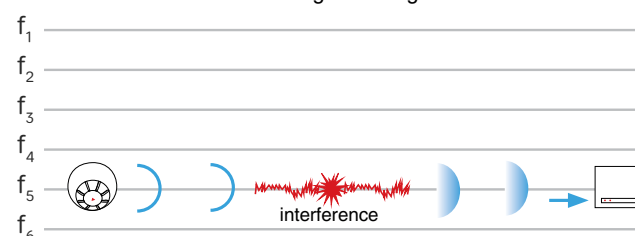
However, when exposed to interference, radio devices increase power to ensure signal delivery.

6 radio channels, the operating channel is switched automatically in case of background noise is present.

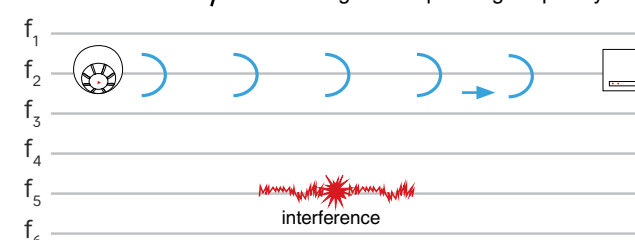
STEP 1. T2 < T1 Signal period decreases



STEP 2. A2 > A1 Signal strength increases



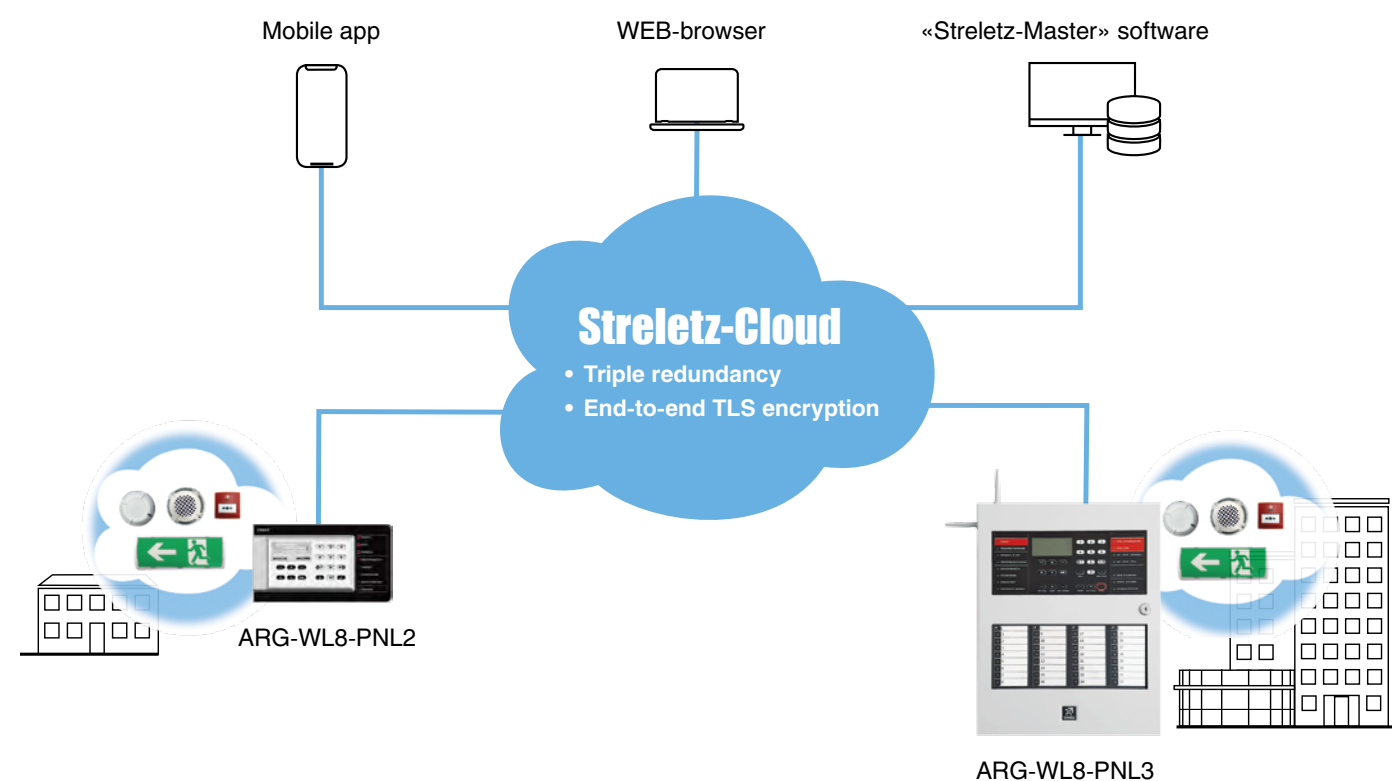
STEP 3. F2 ≠ F1 Changes the operating frequency channel



Could service Streletz-Cloud

Allows control and monitoring of the system from anywhere in the world with Internet access via WEB-client, mobile application (for iOS and Android) and software «Strelets-Master».

The system can be controlled and monitored from anywhere in the world via WEB-client and mobile application (iOS and Android).



CONNECTING TO STRELETZ-CLOUD

Via web browser

The web client at **cloud.streletz.ru** allows you to monitor systems, view event logs and manage systems associated with the user account.

Via mobile application

The «Streletz-PRO» app for iOS and Android has WEB-client functionality in an interface adapted for smartphone screens. Events from all connected objects are sent in the form of push notifications, allowing the user to receive timely information about alarms and faults in the object.

Via software

The Streletz-Cloud can be used to connect to the system in the software «Strelets-Master». All functions of «Streletz-PRO» can be accessed remotely! Battery level, dust levels in detectors, quality of communication, changing settings and operating tactics, analysis and selection of event logs - all this and much more is available. All this and much more can be accessed at any time and from any location.



FEATURES

Remote control

- view system status and event log;
- resetting fire alarms and faults;
- control of annunciation devices.

All necessary control functions are available remotely for all connected systems.

Remote programming

No more on-site visits are required to make changes to the system configuration.

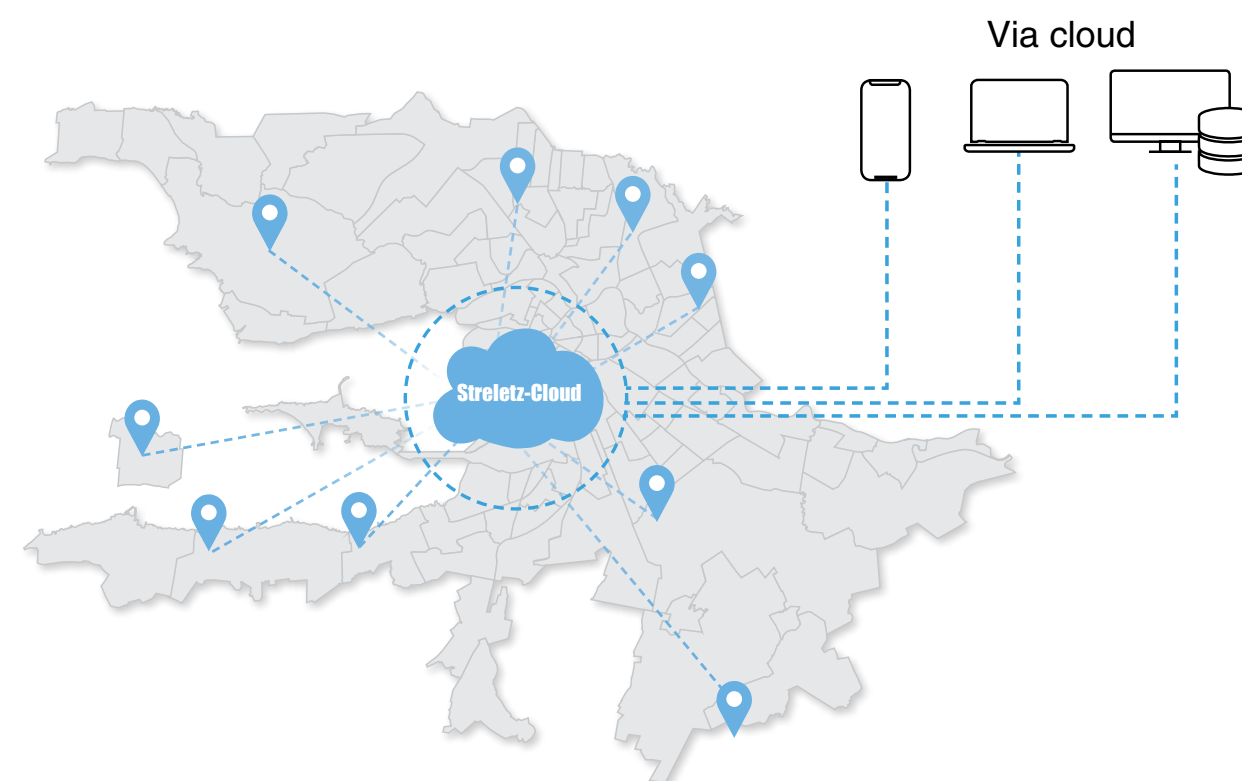
The Streletz-Cloud allows remote programming of the device parameters, changing the system algorithm, user lists and user access rights.

Protection against unauthorised access to the system - dual authentication: for access to the cloud service and for authorisation in the system.

Technical monitoring:

- dust level;
- power supply voltage;
- system faults.

Remote monitoring of the technical condition of the system enables maintenance to be planned in advance and ensures a rapid response to any faults.
























SERVICE INFORMATION SECURITY

Data transmission over the internet is protected by end-to-end encryption. Fault tolerance of the Streletz-Cloud service is ensured by triple hot and cold redundancy.




















Information systems standards ISO 27001, ISO 27017 AND ISO 27018



**Wireless Intelligent Addressable**

TRANSLATOR / EXPANDER MODULES		ANNUNCIATORS	
	ARG-WL8-TRV - wireless translator module		ARG-WL8-OS - wireless optical smoke detector with built-in sounder
	ARG-WL8-EXP - wireless expander module		ARG-WL8-HS - wireless heat detector with built-in sounder
	ARG-WL8-EXPN - wireless escape sign expander module		ARG-WL8-OV - wireless optical smoke detector with built-in voice annunciator and visual alarm device
FIRE DETECTORS			ARG-WL8-SND - wireless sounder
	ARG-WL8-O - wireless optical smoke detector		ARG-WL8-V - wireless voice annunciator
	ARG-WL8-H - wireless heat detector		ARG-WL8-N - wireless escape sign
	ARG-WL8-OH - wireless multi-sensor detector		ARG-WL8-PNBD - wireless personal notification bracelet (with display/ without charger and GPS)
	ARG-WL8-B - wireless optical beam detector	CALL POINTS	
	ARG-WL8-FL - wireless flame detector ARG-WL8Ex-FL - wireless intrinsically safe flame detector		ARG-WL8-CP - wireless call point (red)
INPUT / OUTPUT MODULES			ARG-WL8-CP - wireless call point (green)
	ARG-WL8-IN - wireless single input module		ARG-WL8-CP - wireless call point (orange)
	ARG-WL8-OUT - wireless single output module		ARG-WL8-CP - wireless call point (yellow)

Wired Intelligent Addressable

FIRE DETECTORS		INPUT / OUTPUT MODULES	
	Aurora-DI v.2 - intelligent optical smoke detector with short-circuit isolator		MV1-I - intelligent single input module
	Aurora-TI v.2 - intelligent heat detector with short-circuit isolator		IB1-I - intelligent single relay module
	AURORA-DTI v.2 - intelligent multi-sensor detector with short-circuit isolator	ANCILLARY	
	Strengthened base - intelligent detectors base		ARG-FWR - firmware programming tool
	Amur-I - intelligent optical beam detector		Aurora-3P - handheld programming unit
ANNUNCIATOR			ZU-1 - individual charging device for ARG-WL8-PNBD
	Sirena-I - sounder		Puller Aurora - puller for the point detectors
CALL POINTS			Reflector unit - reflector unit for ARG-WL8-B, Amur-I
	IPR-I - intelligent manual call point (red)		Bracket unit - bracket unit for ARG-WL8-B, Amur-I
	IPR-I - intelligent manual call point (green)		BP-12/2A - power supply unit
	IPR-I - intelligent manual call point (orange)		
	IPR-I - intelligent manual call point (yellow)		

Starting
Kit

**ARG-WL8-TRV**

Wireless translator module



The translator module allows fully intelligent and seamless integration of the wireless devices alongside standard wired devices

FEATURES:

- Loop powered
- Dynamic routing for all expanders and field devices
- Bi-directional wireless communication
- Capable of linking up to 240 fully intelligent wireless field devices
- Supports full device intelligence
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-EXP

Wireless expander module



The wireless expander module provides a convenient method to increase radiocommunication range beyond that possible from a single translator by relaying the radio communication to further expanders or directly to the wireless field devices.

FEATURES:

- Dynamic routing for all expanders and field devices
- Bi-directional wireless communication
- Capable of linking up to 240 fully intelligent wireless field devices
- Supports full device intelligence
- 2 built-in inputs/outputs
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-EXPN

Wireless expander module



The wireless expander with notification device is an output device which is activated in case of fire or emergency situations. The wireless expander with notification device is a device that has two main uses:

Expand the area coverage of a wireless system. Operate the same way as wireless expander module ARG-WL8-EXP. Internally illuminated escape signs (direction LEFT, direction RIGHT, EXIT and other signs).

FEATURES:

- Dynamic routing for all expanders and field devices
- Bi-directional wireless communication
- Capable of linking up to 240 fully intelligent wireless field devices
- Supports full device intelligence
- Contains a built-in rechargeable Li-ion battery
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-O

Wireless optical smoke detector



The wireless optical smoke detector samples the air in the protected area to provide the earliest warning of fire and yet offers a high level of false alarm rejection.

FEATURES:

- Adjustable sensitivity – low, normal or high
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Patented design of smoke inlet to optical chamber
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-H

Wireless heat detector



The wireless heat detector continuously samples the temperature in the protected area to provide the earliest warning of fire. The device is capable of being configured on site either in fixed temperature or rate of rise modes.

FEATURES:

- Rate of rise or fixed temperature mode
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-OH

Wireless multi-criteria detector



The wireless multi criteria detector combines both smoke detection and heat detection technologies.

FEATURES:

- Combined heat and smoke sensing
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

**ARG-WL8-B**

Wireless optical beam detector



The wireless reflected type optical beam detector samples the air in the protected area. When smoke level between the unit and the reflector reaches the threshold the alarm is activated.

FEATURES:

- Built-in laser pointer for visual control during the tuning process
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Operation range from 5 to 80 meters
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-FL

Wireless flame detector



The wireless flame detector monitors the protected area and provides early detection of an open fire.

FEATURES:

- Bi-directional wireless communication
- Fully intelligent
- Operation range 25 meters
- Two built-in IR sensors
- 7-year battery life
- IP65 rating
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-CP

Wireless call point



The wireless manual call point has a resettable plastic element, which displays a drop down warning flag when operated. A key is supplied with the MCP for reset and case opening.

FEATURES:

- Resettable element
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

**ARG-WL8-OS**

Wireless optical smoke detector with built-in sounder



The wireless optical smoke detector with built-in sounder samples the air in the protected area to provide the earliest warning of fire and yet offers a high level of false alarm rejection. Built-in sounder provides notification in case of fire.

FEATURES:

- Adjustable sensitivity – low, normal or high
- Bi-directional wireless communication
- Fully intelligent
- Sound synchronization with other sounders
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Patented design of smoke inlet to optical chamber
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

ARG-WL8-HS

Wireless heat detector with built-in sounder



The wireless heat detector with built-in sounder continuously samples the temperature in the protected area to provide the earliest warning of fire. The device is capable of being configured on site either in fixed temperature or rate of rise. Built-in sounder provides notification in case of fire.

FEATURES:

- Rate of rise or fixed temperature mode
- Bi-directional wireless communication
- Fully intelligent
- Sound synchronization with other sounders
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

**ARG-WL8-OV**

Wireless optical smoke detector
with built-in voice annunciator



about
ARG-WL8-OV

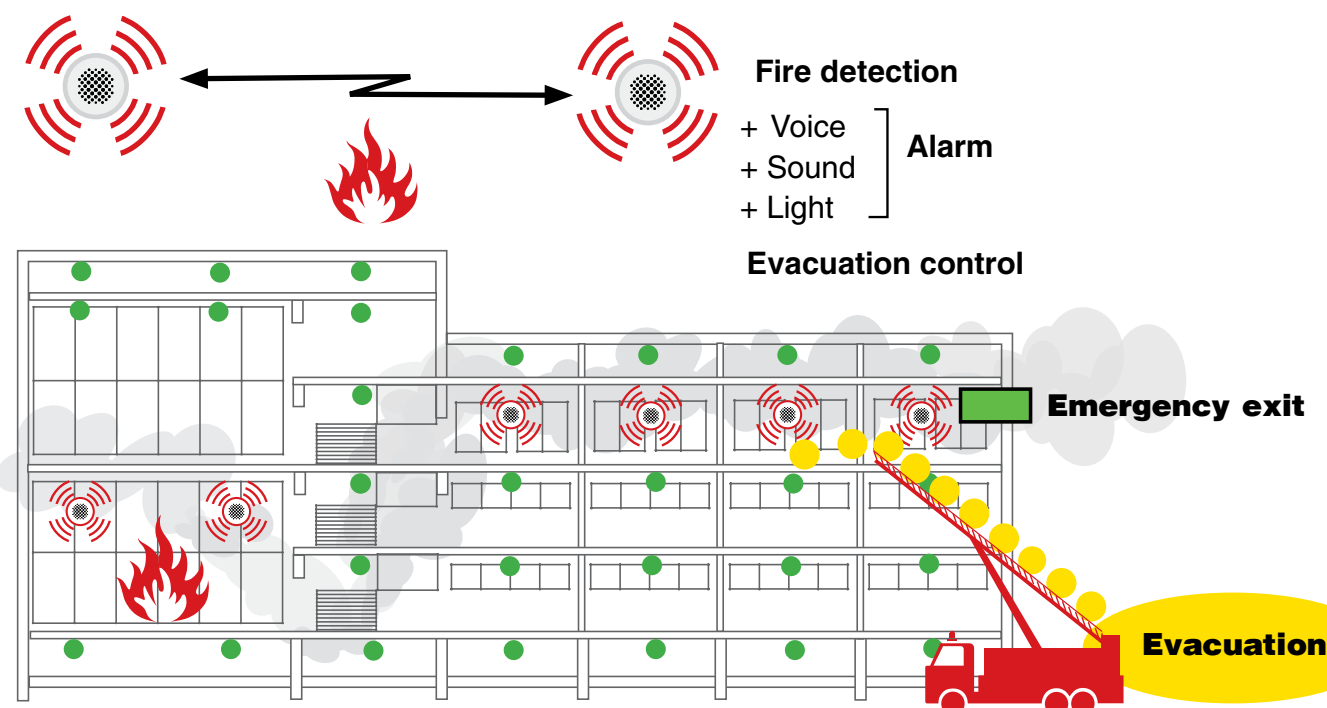
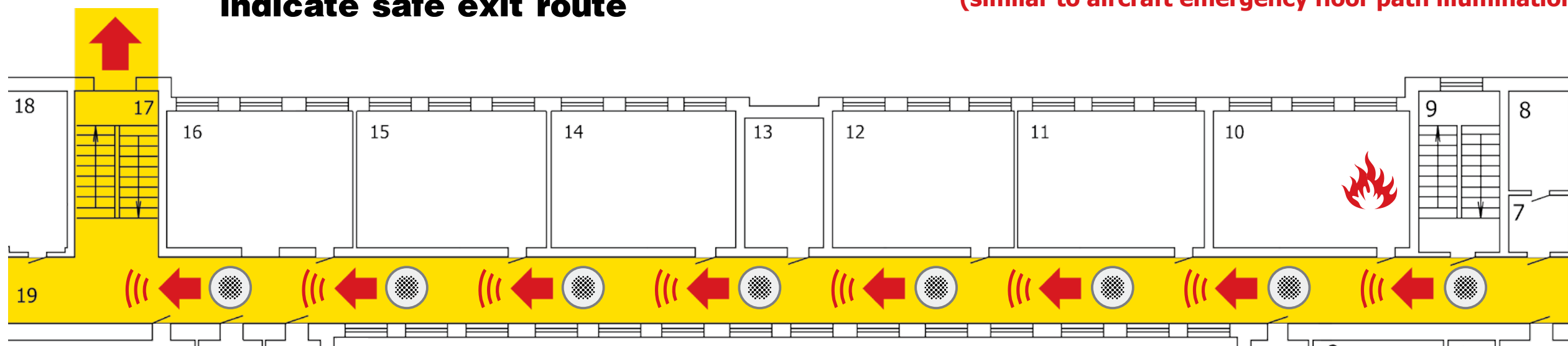


disabled
people

The wireless optical smoke detector with built-in voice annunciator samples the air in the protected area to provide the earliest warning of fire and yet offers a high level of false alarm rejection. The detectors provide white noise and strobe lights to indicate safe exit route.

FEATURES:

- Wireless evacuation system
- Adjustable sensitivity – low, normal or high
- Bi-directional wireless communication
- Fully intelligent
- Voice synchronization with other annunciators
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Patented design of a smoke inlet to optical chamber
- Operating temperature range: -10°C to $+55^{\circ}\text{C}$

Wireless channel is fire resistant**EXIT****White noise and strobe lights indicate safe exit route****Wireless directional evacuation via sound and strobe lights
(similar to aircraft emergency floor path illumination)**

directional
evacuation

**1 Smoke detection
in the protected area**

Integrated fire detectors & annunciators analyze the smoke level in the air and transmit this information to the control device

2 Voice alarm about fire

In case of fire alarm annunciators / detectors ARG-WL8-OV activate a synchronised voice message «attention there is a fire in the building – follow the sound and light indications»

3**«White noise» & strobe lights path**

ARG-WL8-OV devices alternately flash the high intensity LED's and generate white noise to clearly indicate a directional path to the safest evacuation route

4 Control of evacuation

The system allows a change to the direction of sound wave and strobe lights path to alternate emergency exit routes if necessary

**ARG-WL8-SND**

Wireless sounder



The wireless sounder is fully addressable and benefit from an extensive range of intelligent control, test and monitoring functionality.

FEATURES:

- Sound synchronization with other sounders
- Bi-directional wireless communication
- Fully intelligent
- Sound pressure level 98 dB
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10 °C to +55 °C

ARG-WL8-V

Wireless voice annunciator



The wireless voice annunciator is fully addressable and benefits from an extensive range of intelligent control, test and monitoring functionality.

FEATURES:

- Voice synchronization with other annunciators
- Bi-directional wireless communication
- Fully intelligent
- Voice pressure level 92 dB
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10 °C to +55 °C

ARG-WL8-N

Wireless escape sign



The wireless escape sign is internally illuminated escape signs (direction LEFT, direction RIGHT, EXIT and other signs) activated in emergency situations

FEATURES:

- Dynamic routing for all expanders and field devices
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Operating temperature range: -10 °C to +55 °C

ARG-WL8-PNBD

Wireless personal notification bracelet



The wireless personal notification bracelet work as a personal notifiator as well as alarm button in case of emergency

FEATURES:

- Indoor and outdoor positioning
- Staff performance monitoring
- Occupational safety
- Bi-directional wireless communication
- Fully intelligent
- LED display
- Contains a built-in rechargeable Li-ion battery
- Operating temperature range: -30 °C to +55 °C

**ARG-WL8-OUT**

Wireless single output module



The wireless output module has been designed to allow control of a variety of equipment including access control doors, ventilation plant and fire extinguishing systems.

FEATURES:

- Activation synchronization with other modules
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10 °C to +55 °C

ARG-WL8-IN

Wireless single input module



The wireless input module is used for monitoring one input circuit and sending information to the control panel

FEATURES:

- Programmable input for fire and security detectors, emergency button or specialized detectors
- Bi-directional wireless communication
- Fully intelligent
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Operating temperature range: -10 °C to +55 °C

30 new COVID-19 hospitals are protected by Streletz-PRO

In 2020 in the fight against COVID-19 the Russian Government ordered the fast track construction of new hospitals to be built all over the country. It is mandatory for these buildings to be equipped with reliable and proven fire detection systems.

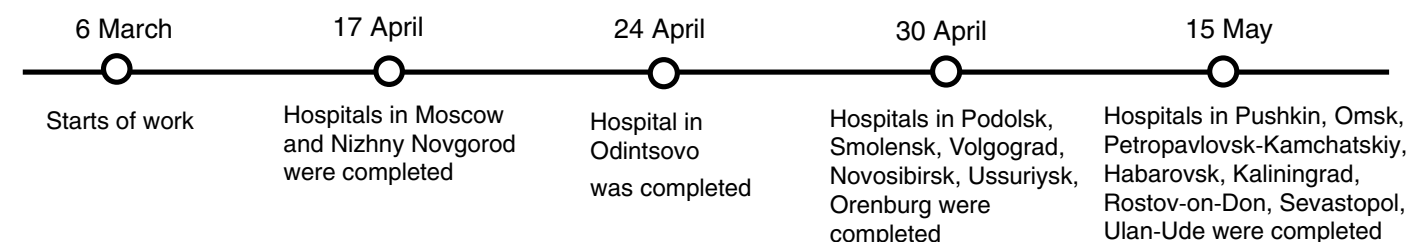
Argus Spectrum International has been chosen to provide more than 30 newly constructed hospitals with the Streletz-PRO advanced wireless fire detection system.



60,000 wireless devices were installed and commissioned in the **30** new medical centers!



All the hospitals were built in record time while the first 17 of them were constructed within 60 days



17 hospitals **200,000** m² - total area **2,500** - beds for patients

Why Streletz-PRO?

The advanced wireless technology is economical and installed approximately 5 times faster than a traditional wired system. This is made possible due to the self-configuring mesh network of Streletz-PRO providing comprehensive building protection comprising wireless: fire detection, notification, evacuation, automatic signaling to fire brigades, full system monitoring.

Wired system

1. Extensive period of installation
2. Expensive cabling installed by a team of qualified electricians
3. Frequent site visits for monitoring installation progress
4. Close integration with other services – construction, mechanical

Wireless system

Streletz-PRO

1. Rapid installation speed - approximately 5 times faster!
2. Minimal disturbance to the building
3. No requirement for expensive fire-resistant cabling
4. Remote configuration and monitoring

Medical Academy in Saint Petersburg



Project size:
summary square – 140,000 m²
20,000 detectors

Market sector:
medical, educational and scientific institution

System type:
hybrid wireless and wired

Project description

The multidisciplinary clinic of the Medical Academy represents a modern complex and consists of 7 buildings forming a single whole. The object includes clinical and diagnostic blocks, radionuclide Diagnostic block, educational and scientific blocks. The clinic required a fire detection and security alarm system.

Reasons for wireless use

The specificity of the hospital complex implies difficult access to individual rooms (surgery, resuscitation, etc.) and the need to maintain clean rooms.

Due to wireless technology the system was installed in a short time. Some parts of the system were pre-programmed and configured before they were installed in place for final testing and commissioning. In addition, the wireless system allowed to use wearable bracelets in the system for patients. The bracelets provide personal notification in case of fire alarms and perform the functions of a panic button. Wearable devices also automatically transmit alert to nurse's post in case of person's loss of consciousness.

Schools and kindergartens in Moscow



Project size:
- 150 schools and kindergartens in Moscow
- 40,000 wireless devices

Market sector:
educational institution

System type:
wireless

Project description

Educational institutions operating in the city of Moscow

Reasons for wireless use

The fire alarm systems of a large number of facilities had to be modernized in a short period of time without affecting the teaching process.

In 2019, a project was implemented in schools and kindergartens in Moscow to upgrade fire protection systems without decommissioning facilities. In 6 months, 150 children's educational institutions were equipped with new fire protection and remote monitoring systems.

Vnukovo air traffic control center in Moscow



Project size:
building area – 30,000 m²

Market sector:
transport

System type:
hybrid wireless and wired

Project description

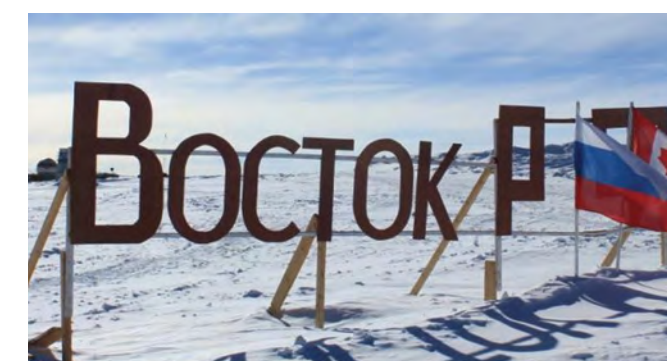
The construction of new Vnukovo air traffic control center in Moscow started in 2009 and its handover for commissioning was in 2014. It is a three-storeyed building. The center is the largest air traffic control center in Europe. It controls the flights from 14 civil and 21 military aerodromes.

Reasons for wireless use

The challenge was to provide a flexible system that can be installed in a short time across the building, preventing disturbance to the occupants. Only wireless technology provides quick, easy and cost-effective installation (wireless communication between all the devices of the system). Wireless technology is now widely accepted as being as reliable and robust as traditional wired alternatives, yet offering much more in terms of flexibility, making Streletz-PRO an ideal choice.

Since the new system was planned beforehand, installation and handover went smoothly within the planned timescale. Finally, there were installed more than 1,000 wireless smoke and heat detectors, 50 wireless translators, 50 wireless output modules and 60 wireless manual call points.

Russian research station «Vostok», the Antarctic



Project size:
100 + devices

Market sector:
science

System type:
wireless

Project description

Vostok Station is a Russian research station in the Antarctic. The station lies at the southern Pole of Cold. The station consists of several buildings including a power station, a meteorology building and living quarters. The station typically contains 25 scientists and engineers.

Reasons for wireless use

Vostok is the coldest place on Earth. In addition to the extremely cold temperatures, other factors make Vostok one of the most difficult places on Earth for human habitation:

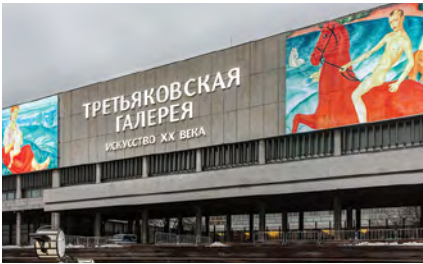
- An almost complete lack of moisture in the air.
- A windspeed rising up to 27 metres per second.
- The lack of oxygen
- A higher ionization of the air.

Due to long acclimatization and very short time of installation a wireless system was the obvious solution. At the same time the system should also be very reliable because Vostok station is one of the most isolated established research stations.

Wireless fire system Streletz-PRO is very reliable and an ideal variant for facilities with a number of buildings spread over the site where cables cannot be accommodated.

200 000 INSTALLATIONS - 9 MILLION WIRELESS DEVICES SOLD!

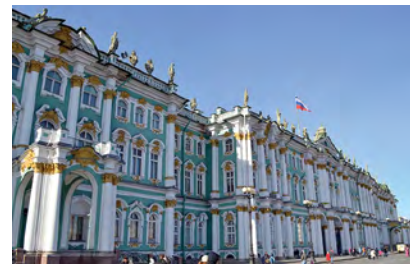
PROJECTS IN RUSSIA:



Tretyakov Art Gallery



Peter the Great Hospital



Hermitage, St. Petersburg



«Uralmashzavod»



Kursky Railway Station



City hospital named after S.S. Yudin, Moscow



Arkhangelskoye estate museum, Moscow region



Naval Cathedral in Kronstadt



Vnukovo airport, Moscow



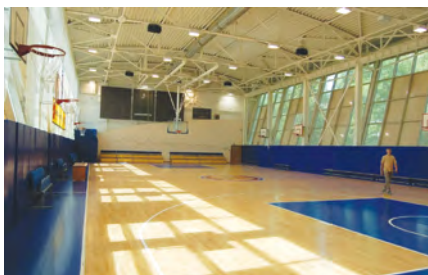
Moscow Clinical Center for Infectious Diseases "Voronovskoye"



Mikhailovsky Theatre, St. Petersburg



«Four Seasons» Hotel, St. Petersburg



Sports schools, Moscow



Schools and kindergartens, Moscow



Sennaya shopping mall, St. Petersburg