

# FIRE MONITORS AND FIRE FIGHTING EQUIPMENT



CATALOG OF FIRE MONITORS





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# KORUFIRE IS A COMPLETE SOLUTION TO PROVIDE FIRE PROTECTION OBJECT SECURITY

## Legend Sheet: KRF – LS X – Y Q S F (m) – Ex N R TY 28.29.22.190-001-63740471-2018

**X** – type of control: **without index** – manual; **D** – remote;

**Y** – fire monitor type: **S** – fixed; **V** – transportable; **P** – portable;

**Q** – water flow rate (L/S): **10(5,15); 20(15,25); 30(25,35); 40(35,50); 60(50,70); 80(60,90); 100(90,110)**, except portable;

**S** – functionality: **without index** – forming stream of water; **U** – universal;

**F** – functionality: **without index** – operator control; **R** – robotized;

**(m)** – manual control type: **without index** – positioning by handle and (or) steering wheel; **(M)** – positioning by handwheels;

**Ex** – with explosion protection marking (explosion-proof);

**N** – type of nozzle: **A** – automatic; **DEF** – deflector; **EJ** – ejector; **PG** – foam generating; **VP** – water-foam

**R** – additional devices: **c OSC** – oscillator; **ZE** – protective shield (mount); **VZ** – water curtain;

**ZD** – valves with manual or **ZDE** – electric drive; **EKS** – mechanism for lifting and rotating the fire monitor.

## About the company

The Korufire company is a Russian manufacturer of fire extinguishing equipment. Our company takes a leading position in the development and manufacture of fire monitors and fire-fighting equipment. The main activity is the production of fire monitors in various modifications: with robotic, remote and backup manual control.

The company "Korufire" carries out experimental design work, metalworking, installation and adjustment of fire extinguishing systems, provides full control over all stages of the life cycle of its products, and also offers post-warranty service. The company is certified to ISO 9001 standard. In addition, Korufire produces components that ensure the operation of automatic fire extinguishing systems for facilities of any complexity and functional purpose.

The Korufire company takes advantage of a production site equipped with modern technology, which is located in Moscow, and is fully equipped with a wide range of equipment, including more than 60 machines, which allows us to increase our production capacity, constantly improve and develop our product line, and introduce innovative technologies into our developments.

Our company has a unique testing site that guarantees the required level of product performance and user safety. The tests are carried out in accredited laboratories of the Federal State Budgetary Institution "All-Russian Order of the Badge of Honor Research Institute of Fire Defense" (FSBI VNIPO EMERCOM of Russia) and the Federal State Educational Institution of Higher Professional Education "Academy of the State Fire Service of the Ministry of the Russian Federation for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters" ("Academy of the State Fire Service of the EMERCOM of Russia").

The motto of the company "Korufire" is protection and safety. The priority for us is the quality and reliability of our products. We are constantly improving and perfecting our equipment, following global industry trends, introducing innovative technologies into our products and closely cooperating with leading foreign manufacturers.

## Our advantages

- Possibility of extinguishing using water jets and water solutions (surfactants, any foaming agents, wetting agents, powders and gas-filled foam).
- Universal use in various fire-fighting equipment due to foam supply with a multiplicity of up to 15 (for foam extinguishing vehicles, hose vehicles, fire boats, mobile robotic fire extinguishing units and other equipment that is used to extinguish large fires with flammable loads of various classes).
- Reliability and stability of the fire monitor operation at air temperatures from -60°C to +50°C. Confirmed by an accredited laboratory. Individual adjustment of the barrel movement range for each specific placement to avoid any risk of damage to flashing beacons and other superstructure elements.
- The modern design of the fire monitor will ensure the complete appearance of the mobile fire extinguishing equipment for the most demanding Customer.
- Possibility of changing the consumption of fire extinguishing agents without stopping the supply depending on the fire situation.
- Adaptation of flow rate, delivery range and operating pressure values to the characteristics of any pumps with a delivery rate of up to 300 liters per second.
- Equipping the fire monitor with effective lighting devices, which provide the ability to visually monitor the situation in the dark at a distance of up to 400 meters.
- Possibility of equipping with a lifting and lowering mechanism for use as part of airborne fire extinguishing equipment without increasing their overall height.

### Information on the explosion-proof design of fire monitors:

In accordance with the requirements of the Technical Regulations of the Customs Union "On the safety of equipment for work in explosive environments" (TR CU 012/2011), equipment for work in explosive environments must meet the requirements necessary for safe functioning and operation in relation to the risk of explosion:

- to prevent the formation of an explosive environment that can be created due to the release of flammable substances from equipment;
- to prevent ignition of an explosive environment, taking into account the nature of each source of explosion initiation.

### Explosion-proof fire monitors "Korufire":

Taking into account the requirements of TR CU 012/2011, the explosion-proof products of KORUFIRE LLC, due to their unique design and composition, eliminate the appearance of a source of initiation of explosion or ignition of the surrounding explosive environment, and also do not emit flammable substances.

The fire monitors are marked with explosion protection type II Gb c IIC T4 X (II Gb c IIC T6, III Db c IIIC 85°C - with manual control). Equipment of group II with explosion protection level Gb and explosion protection type «structural safety "c"» for use in places where the occurrence of an explosive environment created by mixtures of air with gases, vapors, mists of subgroup IIC with a temperature class up to and including T6 inclusive.



Type of fire monitors	Name and value of the parameter				
	Jet range, m (@0.8MPa)	Flow, l/s (@0.8MPa)	Explosion protection type marking	Nominal voltage, V	Maximum power consumption, W
<b>KRF-LS-10(5,15)-Ex</b>	27	10	II Gb c IIC T4 X (robotized and remote controlled)	12/24/230/380	500
<b>KRF-LS-20(15,25)-Ex</b>	50	20			
<b>KRF-LS-30(25,35)-Ex</b>	55	30			
<b>KRF-LS-40(35,50)-Ex</b>	60	40			
<b>KRF-LS-60(50,70)-Ex</b>	70	60	II Gb c IIC T6, III Db c IIIC 85°C (with manual control)		
<b>KRF-LS-80(60,90)-Ex</b>	75	80			
<b>KRF-LS-100(90,110)-Ex</b>	80	100			

Name of parameter	Parameter value
Monitor operating pressure range, MPa	0,4-1,6
Foam multiplicity, not less than	5
Movement of the fire monitor in the horizontal plane, not less than	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than: up down	90° - 45°

# EXPLOSION-PROOF EX

EXPLOSION-PROOF EX

KRF-LS-Ex

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote wired and wireless control, duplicating manual control;
- Flame detection sensor operating in IR and UV ranges;
- Possibility of working with a video camera;
- Ergonomic control cabinet in explosion-proof design Ex.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The scope of application of explosion-proof KRF fire monitors is explosion-hazardous areas of premises, outdoor installations of classes 1 and 2 according to GOST IEC 60079-10-1-2013 and areas hazardous for ignition of combustible dust of classes 21 and 22 according to GOST IEC 60079-10-2-2011 in accordance with Ex-marking and GOST IEC 60079-14-2013, regulating the use of equipment in explosive gas and dust environments.

KRF-LS-Ex fire monitors can be installed on explosive objects; railway transport facilities; energy facilities; offshore oil and gas production platforms; hangars for storing aircraft; fire towers; coastal zone facilities of port facilities; sea and river transport, equipment in fire and explosion hazardous areas.

The components of the fire monitor (flame detection sensor, cables, inputs, cabinets and control panels) also have Ex explosion protection marking. This fact guarantees the efficiency of the equipment in explosive areas of premises and outdoor installations.



# WATER FOAM EJECTORS EX



KRF-LSD-U(m) Ex VP EJ

EXPLOSION-PROOF EX

Water-foam ejector fire monitor are used at facilities where the occurrence of an explosive environment created by mixtures of air, gases, vapors and fogs (oil and oil product tanks, loading and unloading racks, process installations of oil and gas industry facilities). Due to the ejection of air and foaming agent from an external container by the nozzle, low expansion foam is formed, which is effective in extinguishing flammable and combustible liquids, as well as cooling structures and installations.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Flow rate of water, l/s, not less than*	110
Foam agent solution, l/s, not less than	100
Stream range (outermost), m, not less than**: - straight water stream - straight foam	80 60
Foam multiplicity, not less than***	15
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than: up**** down****	75° - 8°

\*\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance with GOST 15150-69	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# WATER FOAM EJECTORS EX

EXPLOSION-PROOF EX

KRF-LSD-U(m) Ex VP EZh

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Universal nozzle made of anodized aluminum alloy and decorative rubberized polymer material;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote wired and wireless control, duplicating manual control;
- Flame detection sensor operating in IR and UV ranges;
- Possibility of working with a video camera.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The universal robotic remote-controlled fire monitor with a water-foam ejector nozzle in explosion-proof design KRF-LSD-S100(110.90)UR-Ex VP EZh is designed for remote delivery of fire extinguishing agents to the source of fire, which allows extinguishing a fire at a distance from the fire front within the radius of the fire extinguishing agent stream. Due to the explosion-proof design of the KRF-LSD-S100(110.90)UR-Ex VP EZh, it can be placed directly next to the process equipment in a fire and explosion hazardous area, which guarantees the efficiency of its intended purpose. The water-foam ejector nozzle of the fire monitor provides the supply of low-expansion foam for extinguishing the most difficult fires of flammable and combustible liquids, and the ability to independently collect and dose the foaming agent allows for autonomous operation until the fire is completely extinguished.



Universal explosion-proof fire monitor are designed to form solid and sprayed water jets (including sea water) with a variable torch angle (with a spray angle of up to 120°), jets of low-expansion air-mechanical foam when extinguishing fires and cooling building structures and process equipment, as well as protecting the fire monitor operator from the heat flow of the fire.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Nominal working pressure, MPa	0,8
Flow rate of water, l/s, not less than*	60(50,70)
Foam agent solution, l/s, not less than	60(50,70)
Stream range (by outer drops), m, not less than**:	
- straight water stream	70
- straight foam	45
- sprayed water (at angle of 30°)	40
Foam multiplicity, not less than***	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	90°
down****	- 8°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance with GOST 15150-69	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

### SPECIAL FEATURES:

- Explosion-proof design Ex;
- Universal nozzle made of anodized aluminum alloy and decorative rubberized polymer material;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote wired and wireless control, duplicating manual control;
- Flame detection sensor operating in IR and UV ranges;
- Possibility of working with a video camera.

### CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

### GENERAL DESCRIPTION:

Universal fire monitor can be installed at facilities where explosive environments created by mixtures of air, gases, vapors and fogs are likely to occur, such as railway transport facilities; energy facilities; offshore platforms for oil and gas production; hangars for storing aircraft; fire towers; coastal zone facilities of port facilities; marine and river transport equipment in fire and explosion hazardous areas. This fact guarantees the efficiency of their intended purpose.

Universal fire monitor can be used to extinguish fires, cool building and technological structures, and precipitate clouds of radioactive and toxic gases, vapors, and dusts. Fire monitor comply with the requirements of EAEU TR 043/2017 and can be used as part of monitor fire systems and robotic fire extinguishing systems.



The KRF-LSD fire monitor with a flame search sensor with a robotic control function (index-R) can perform their functions both independently and as part of robotic fire systems.



Type of fire monitors	Name and value of the parameter				
	Jet range, m (@0.8MPa)	Flow, l/s (@0.8MPa)	Explosion protection type marking	Nominal voltage, V	Maximum power consumption, W
<b>KRF-LSD-10(5,15)R-Ex</b>	27	10	II Gb c IIC T4 X (robotized and remote controlled)	12/24/230/380	500
<b>KRF-LSD-20(15,25)R-Ex</b>	50	20			
<b>KRF-LSD-30(25,35)R-Ex</b>	55	30			
<b>KRF-LSD-40(35,50)R-Ex</b>	60	40			
<b>KRF-LSD-60(50,70)R-Ex</b>	70	60			
<b>KRF-LSD-80(60,90)R-Ex</b>	75	80			
<b>KRF-LSD-100(90,110)R-Ex</b>	80	100			

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# WITH THE SEARCH FOR THE FLAME EX

EXPLOSION-PROOF EX

KRF-LSD-R Ex

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote wired and wireless control, duplicating manual control;
- Flame detection sensor operating in IR and UV ranges;
- Possibility of working with a video camera.
- Possibility of use as part of a robotic fire system.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The use of fire monitor KRF-LSD-Ex with a flame detection sensor ensures autonomous operation at the protected facility due to round-the-clock monitoring of the fire situation. Flame detection sensors KRF operate in the IR and UV ranges and locate the source of a fire at a distance of up to 90 meters, which ensures high-quality and prompt fire extinguishing.

The explosion-proof design of the flame search sensors allows the use of KRF-LSD-Ex with a flame search sensor in explosive zones of premises and outdoor installations of classes 1 and 2 according to GOST IEC 60079-10-1-2013 and in zones with hazardous flammable dusts of classes 21 and 22 according to GOST IEC 60079-10-2-2011 in accordance with Ex-marking and GOST IEC 60079-14-2013, regulating the use of equipment in explosive gas and dust environments.

The fire monitor KRF-LSD-Ex can be installed at explosive objects; railway transport facilities; energy facilities; offshore platforms for oil and gas production; hangars for storing aircraft; fire towers; coastal zone facilities of port facilities; sea and river transport, equipment in fire and explosion hazardous areas.



# EJECTOR WITH OSCILLATOR EX



KRF-LS U Ex with OSC EZh VZ

EXPLOSION-PROOF EX

Ejector fire monitor with an oscillator are used to extinguish fires of flammable and combustible liquids, cool building and technological structures, and precipitate clouds of radioactive and toxic gases, vapors, and dust. The nozzle design includes an ejector that collects foaming agent from an external container and doses it directly into the stream exiting the nozzle.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Flow rate of water, l/s, not less than*	50
Consumption of ejected foam agent of solution, l/s, not less than	1-3
Stream range (by outer drops), m, not less than:	
- straight water stream	60
- straight foam	40
- sprayed water (at angle of 30°)	35
Foam multiplicity, not less than***	5
Explosion protection marking	II Gb c IIC T6, III Db c IIIC 85°C
Oscillation angle	30°, 60°, 90°, 120°
Range of change of spray jet angle	0°-120°
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	90°
down****	- 45°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# EJECTOR WITH OSCILLATOR EX

EXPLOSION-PROOF EX

KRF-LS U Ex with OSC EZh VZ

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Universal ejector nozzle;
- Formation of jets of water and air-mechanical foam;
- Possibility of collecting (ejecting) foaming agent from an external container;
- The presence of an oscillating device for the uninterrupted supply of fire extinguishing agents in a given sector.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

Ejector fire monitor are designed to form a continuous or continuous and sprayed jet of water with a variable torch angle, aqueous solutions of surfactants (including any foaming agents and wetting agents).

Ejector fire monitor can be installed on fire trucks and other special vehicles; fire and explosion hazardous facilities (facilities for storage, transportation and processing of hydrocarbons; warehouses of solid flammable materials; buildings; structures); railway transport facilities; energy facilities; offshore platforms for oil and gas production; hangars for storing aircraft; fire towers; coastal zone facilities of port facilities; sea and river transport.

Ejector fire monitor are equipped with a closed-type oscillating device, which ensures its automatic movement (swinging) in the horizontal plane in a pre-set sector. The oscillator operates due to the energy of the water flow passing through the fire monitor. The oscillation angle of the presented sample reaches 170°. Due to its functional capabilities, the fire monitor KRF-LS-S80(70.90)U with OSC without human presence guarantees an increase in the fire extinguishing area by more than 25 times, and cooling efficiency by more than 100 times.



Fire monitor with a heat shield, designed to protect the fire monitor operator from the heat flow of a fire, are primarily used on fire towers that are installed directly at the loading and unloading racks of oil and oil product storage facilities, as well as other fire and explosion hazardous facilities.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Flow rate of water, l/s, not less than*	15,20,25
Stream range (by outer drops), m, not less than:	
- straight water stream	50,55,59
- straight foam	32,34,35
- sprayed water (at angle of 30°)	44,47,49
Foam multiplicity, not less than***	5
Reduction in the magnitude of heat flow	55 times
Range of change of spray jet angle	0°- 120°
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	75°
down****	- 10°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Heat shield against radiation of heat flow;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Function of irrigation of the trunk and heat-protective shield;

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The stationary universal fire monitor with manual control KRF-LS-S20(15.25)U-VZ (water curtain) at the required working pressure in front of the flange provides the water flow rate necessary for the operation of the Sogda 2A heat-protective screen. At the required working pressure in front of the flange of the KRF-LS-S20(15.25)U-VZ (water curtain) and the included heat-protective screen, the housing moves horizontally and vertically in the declared range. The strength and density of the KRF-LS-S20(15.25)U-VZ with a heat-protective screen are ensured in the entire range of declared pressures and flow rates.

KRF-LS-S20(15.25)U-VZ are installed at fire-hazardous and explosion-hazardous facilities (facilities for storage, transportation and processing of hydrocarbons; warehouses of solid flammable materials; buildings; structures); railway transport facilities; energy facilities; offshore platforms for oil and gas production; hangars for storing aircraft; fire towers; coastal zone facilities of port facilities; sea and river transport.



# DEFLECTOR

KRF-LSD-U(m) PV DEF

AERODROME

Universal remote-controlled fire monitor KRF-LSD-S60(50.70)U(m) VP DEF (with a deflector water-foam nozzle) and a bumper fire system KRF-LSD-S20(15.25)U(m) DEF as part of the airfield fire and rescue vehicle AA 12.5-70/100 (BAZ-8080).



Name of parameter	Parameter value	
	KRF-LSD-S60(50,70)U(m) VP DEF	KRF-LSD-S20(15,25)U(m) DEF
Operating pressure range, MPa*	0,4-1,6	
Nominal working pressure, MPa*	0,8	
Flow rate of water, l/s, not less than*	60(50,70)	20(15,25)
Foam agent solution, l/s, not less than*	60(50,70)	20(15,25)
Stream range (by outer drops), m, not less than:		
- straight water stream	70	50
- straight foam	45	35
- sprayed water (at angle of 30°)	40	30
- foam flat	40	30
Foam multiplicity, not less than***	5	
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)	180° (±90°)
Movement of the fire monitor in the vertical plane, not less than:		
up****	90°	90°
down****	- 8°	- 8°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

## SPECIAL FEATURES:

- Meets the requirements of SPASOP (search, emergency rescue and fire-fighting service for flights in civil aviation);
- Formation of jets of water and air-mechanical foam;
- Deflector nozzle for forming flat jets;
- Remote control with ergonomic joystick.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The fire-fighting and rescue vehicle AA 12.5-70/100 (BAZ-8080), developed by Bryansk Automobile Plant JSC (part of Almaz-Antey Air and Concern VKO JSC), is equipped with a fire monitor complex consisting of a universal fire monitor with remote control KRF-LSD-S60 (50.70) U (m) VP DEF (with a deflector water-foam nozzle) and a KRF-LSD-S20 (15.25) U (m) DEF bumper fire system. The airfield fire system based on fire monitor and a combined remote control panel guarantees effective extinguishing and prevention of fires at airports of the highest category according to the ICAO classification.



# DEFLECTOR WITH VIDEO CAMERA

KRF-LSD-U(m) VP DEF

AIRFIELD

Universal remote-controlled fire monitor KRF-LSD-S60(50,70)U(m) VP DEF (with a deflector water-foam nozzle) and a bumper fire system KRF-LSD-S20(15,25)U(m) as part of an airfield fire truck manufactured by Prioritet LLC.



Name of parameter	Parameter value	
	KRF-LSD-S60(50,70)U(m) VP DEF	KRF-LSD-S20(15,25)U(m) DEF
Operating pressure range, MPa*	0,4-1,6	
Nominal working pressure, MPa*	0,8	
Flow rate of water, l/s, not less than*	60(50,70)	20(15,25)
Foam agent solution, l/s, not less than*	60(50,70)	20(15,25)
Stream range (by outer drops), m, not less than:		
- straight water stream	70	50
- straight foam	45	35
- sprayed water (at angle of 30°)	40	-
- foam flat	40	30
Foam multiplicity, not less than*	5	
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)	180° (±90°)
Movement of the fire monitor in the vertical plane, not less than:		
up****	90°	90°
down****	- 8°	- 8°

\*\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# DEFLECTOR WITH VIDEO CAMERA

AIRFIELD

KRF-LSD-U(m) VP DEF

## SPECIAL FEATURES:

- Meets the requirements of SPASOP (search, emergency rescue and fire-fighting service for flights in civil aviation);
- Formation of jets of water and air-mechanical foam;
- Deflector nozzle for forming flat jets;
- Remote control with ergonomic joystick;
- Equipped with a video surveillance system;
- Equipped with a lighting system.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The airport fire truck manufactured by Prioritet LLC is equipped with a monitor complex consisting of a universal remote-controlled fire monitor KRF-LSD-S60 (50,70) U (m) VP DEF (with a deflector water-foam nozzle) and a bumper fire extinguishing unit KRF-LSD-S20 (15.25) U (m). The airport fire system based on fire monitor and a combined remote control panel guarantees effective extinguishing and prevention of fires at airports of the highest category according to the ICAO classification.

Reliable and stable operation of the fire monitors is ensured at ambient temperatures from -60°C to +50°C. The lower temperature limit is confirmed by laboratory tests in an accredited laboratory.

Remote control of the fire monitor is carried out from the operator's cabin using joysticks. The position and direction of the fire monitor on the roof is monitored thanks to an all-weather video camera installed on the body, transmitting a signal to a monitor (7-9"), located on the operator's console inside the cabin. The standard delivery set of the fire monitor includes 7-meter cables.

The joystick provides positioning of the fire monitors in the range of movement ("up", "down", "left", "right"), as well as control of the angle of the sprayed jet from solid to flat. The joystick is equipped with a key for controlling the valve for feeding fire extinguishing agents.

The fire monitor is equipped with effective lighting devices, which provide the ability to visually monitor the situation in the dark at a distance of up to 400 meters. The fire monitor is equipped with control flywheels, which ensure the movement of the fire monitor body and its precise positioning. The toothed-screw transmission used to control the fire monitor is designed to significantly increase the torque and, accordingly, reduce the efforts applied by the operator. The mechanism for moving the fire monitor vertically operates without the use of additional mechanisms, springs, stretchers and locks.



# UNIVERSAL WITH VIDEO CAMERA

KRF-LSD-U(m)

AUTOMOBILE

Universal remote-controlled fire monitor KRF-LSD-S20(15.25)U(m) as part of a forest fire truck manufactured by Prioritet LLC. The fire monitor is equipped with an all-weather video camera with a wiper that transmits a signal to the monitor of the wired control panel, which allows for visual monitoring of the situation when operating the fire monitor from the vehicle cabin.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Nominal working pressure, MPa*	0,8
Flow rate of water, l/s, not less than*	40(35,50)
Foam agent solution, l/s, not less than*	40(35,50)
Stream range (by outer drops), m, not less than:	
- straight water stream	60
- straight foam	40
- sprayed water (at angle of 30°)	35
Foam multiplicity, not less than*	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	90°
down****	- 8°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# UNIVERSAL WITH VIDEO CAMERA

AUTOMOBILE

KRF-LSD-U(m)

## SPECIAL FEATURES:

- Meets the requirements of SPASOP (search, emergency rescue and fire-fighting service for flights in civil aviation);
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote control with ergonomic joystick;
- Equipped with a video surveillance system;
- Equipped with a lighting system.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The control units and connections of the developed fire monitors, used for horizontal and vertical positioning, are adjusted with high precision to eliminate play and swinging during movement of the mobile fire vehicle.

It is possible to adapt the horizontal and vertical control joystick to customer requirements. The adaptation ensures intuitive positioning of the fire monitor body in space and quick access to the operating point. Programming of transport and operating modes is provided, as well as bypassing obstacles in the working area (flashing beacons, cases and other structures). The fire monitor is equipped with an all-weather video camera with a wiper, providing image transmission to the monitor of the wired control panel.

The fire monitor is equipped with effective lighting devices, allowing for visual monitoring of the situation in the dark at a distance of up to 400 meters.

Remote control provides the ability to transmit a signal to control the “pump-fire monitor” valve in the water-foam communications of a fire truck.

Remote control via radio channel allows the driver (pumping unit operator) to act as the operator of the fire monitor installation, which is relevant in conditions of personnel shortage.



# ON THE LIFTING MECHANISM

KRF-LSD-U(m) EX

AUTOMOBILE

Universal remote-controlled fire monitor KRF-LSD-S40(35.50)U(m) EKS as part of the KAMAZ K5 fire truck, manufactured by Prioritet LLC. The fire monitor KRF-LSD-S40(35.50)U(m) EKS is equipped with a lifting mechanism (extender), which lowers the fire monitor into the body of the fire truck superstructure, maintains the dimensions of the vehicle acceptable for fire stations and improves the design of modern fire trucks.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Nominal working pressure, MPa*	0,8
Flow rate of water, l/s, not less than*	30(25,35)
Foam agent solution, l/s, not less than*	30(25,35)
Stream range (by outer drops), m, not less than:	
- straight water stream	55
- straight foam	40
- sprayed water (at angle of 30°)	35
Foam multiplicity, not less than*	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	75°
down****	- 15°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# ON THE LIFTING MECHANISM

AUTOMOBILE

KRF-LSD-U(m) EX

## SPECIAL FEATURES:

- An extender - is a lifting mechanism that allows the fire monitor to be lowered into the body of a fire truck superstructure or a hidden niche of a protected object;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- All-weather camera with wiper;
- Remote control with ergonomic joystick;
- Equipped with a video surveillance system;
- Equipped with a lighting system.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The fire monitor KRF-LSD-S40(35.50)U(m) EKS can be installed on fire trucks. These fire monitors are equipped with a wired remote control with a joystick, as well as a duplicate manual control. The fire monitor movement stops when remotely controlled when reaching the extreme horizontal or vertical position due to the operation of the limit switches.

The fire monitor KRF-LSD-S40(35.50)U(m) EKS is equipped with control flywheels that ensure the barrel body movement and its precise positioning. The gear-screw transmission used to control the fire monitor is designed to significantly increase the torque and, accordingly, reduce the efforts applied by the operator. The gear-screw transmission has a self-braking effect and is irreversible, which ensures the ability to fix in any intermediate position in the range of movement without additional devices.

To ensure the lifting of the fire monitor from the transport position to the working position and back, a lifting mechanism - an extender - is provided. The lifting is carried out by means of an electric motor and a gear-screw transmission, and a duplicate manual control of the rotation flywheel is also provided.



# ARCTIC

KRF-LSD-U(m)

AUTOMOBILE

Fire monitor KRF-LSD-S60(50.70)U(m) "Arctic" for installation on protected objects and fire trucks in cold arctic climate zones. In arctic monitor nozzles, due to the use of specially developed low-temperature lubricant and unique design elements, the operation of the gear-screw transmission of the fire monitor positioning is ensured in conditions of low temperatures down to -60°C.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Nominal working pressure, MPa*	0,8
Flow rate of water, l/s, not less than*	60 (50,70)
Foam agent solution, l/s, not less than*	60 (50,70)
Stream range (by outer drops), m, not less than:	
- straight water stream	70
- straight foam	45
- sprayed water (at angle of 30°)	40
Foam multiplicity, not less than*	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	90°
down****	- 8°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

**SPECIAL FEATURES:**

- Operation is ensured at ambient temperatures from -60°C to +60°C;
- Universal nozzle made of anodized aluminum alloy and decorative rubberized polymer material;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Remote wired and wireless control, duplicated by manual control;
- Flame detection sensor operating in IR and UV ranges;
- Possibility of working with a video camera.

**CERTIFICATES OF CONFORMITY:**

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

**GENERAL DESCRIPTION:**

The fire monitor KRF-LSD-S60(50.70)U "Arctic" is successfully used in the Arctic zone as part of the main fire trucks of the SPCh No. 5 of the Federal State Budgetary Institution "Special Directorate of the FPS No. 72 of the Ministry of Emergency Situations of Russia", which provide protection for the world's only floating nuclear power plant "Akademik Lomonosov".

Today, the Arctic is being developed, where various economically and strategically significant facilities are being built, which require fire safety, including timely and high-quality fire extinguishing.

The universal remote-controlled fire monitor KRF-LSD-S60(50.70)U is designed for operation in Arctic climate conditions. The fire monitor has successfully passed climatic tests in an accredited laboratory, as a result of which the operability of its units and mechanisms at standby temperatures down to -60°C was confirmed.



# WITH VARIABLE FLOW RATE AND OSCILLATOR

KRF-LS-S with OSC

LOW CONSUMPTION

KRF-LS-S10(5.15)U with OSC has the ability to change the flow rate in the range from 5 to 15 liters per second and the spray angle of the jet from 0° to 120° at nominal pressure without stopping the supply. The use of low-flow fire monitors is relevant at protected facilities, where excessive spillage of fire agents during a fire can lead to high rates of direct and indirect damage. The shut-off device integrated into the universal nozzle ensures rapid shut-off of the flow of fire agents. Due to the use of an oscillating device, automatic movement (swinging) of the fire monitor in the horizontal plane in a predetermined sector is ensured.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Flow rate of water, l/s, not less than*	5,10,15
Foam agent solution, l/s, not less than*	5,10,15
Stream range (by outer drops), m, not less than: - straight water stream - straight foam - sprayed water (at angle of 30°)	27 24 22
Foam multiplicity, not less than*	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than: up**** down****	90° - 45°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# WITH VARIABLE FLOW RATE AND OSCILLATOR

LOW CONSUMPTION

KRF-LS-S with OSC

## SPECIAL FEATURES:

- Variable consumption of fire agents 5, 10 and 15 l/s;
- Availability of an oscillating device for uninterrupted supply of fire extinguishing agents in a given sector;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- The fluorescent material of the bumper provides a bright glow in the dark.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The fire monitor KRF-LS-S10(5.15)U with OSC can be installed on fire towers, on the supply pipeline in the immediate vicinity of the protected object or indoors.

KRF-LS-S10(5.15)U with OSC has the ability to change the flow rate in the range from 5 to 15 liters per second at nominal pressure without stopping the supply. The value of the indicators of the range of supply of fire agents is not inferior to fire monitors with a supply of 20 liters per second. The universal nozzle of the fire monitor provides the ability to steplessly change the geometry of the stream from stream to a protective screen with a spray angle of 120°.

KRF-LS-S10(5.15)U with OSC is equipped with a closed-type oscillating device, which ensures its automatic movement (swinging) in the horizontal plane in a preset sector. The oscillator operates due to the energy of the water flow passing through the fire monitor. The oscillation angle of the presented sample is 30°, the maximum angle reaches 170°. The design of the fire monitor nozzle ensures complete closure of the fire agent flow, which allows changing the oscillation angle without stopping the feed pump.



# WITH CONSTANT FLOW AND OSCILLATOR

KRF-LS-S with OSC

LOW CONSUMPTION

Low-flow fire monitors with a constant flow rate are easier to use and maintain at the protected site. Due to the use of a specially designed nozzle, a low-flow fire monitor provides a range of fire agents that is not inferior to fire monitor with a supply of twenty liters per second. The use of low-flow nozzles instead of bulky stationary monitor nozzles and automatic deluge fire extinguishing systems in large spatial spaces is relevant. Combined use with an oscillating device ensures its automatic movement (swinging) in the horizontal plane in a predetermined sector.



Name of parameter	Parameter value
Operating pressure range, MPa*	0,4-1,6
Flow rate of water, l/s, not less than*	15
Foam agent solution, l/s, not less than*	15
Stream range (by outer drops), m, not less than:	
- straight water stream	27
- straight foam	24
- sprayed water (at angle of 30°)	22
Foam multiplicity, not less than*	5
Movement of the fire monitor in the horizontal plane, not less than****	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than:	
up****	90°
down****	- 45°

\* At a pressure of 0.8 MPa.

\*\* The jet ranges are given at an angle of inclination of the fire monitor to the horizon of 30°, installed in the working position.

\*\*\* The foam multiplicity is indicated when using a general-purpose foaming agent (GOST R 50588).

\*\*\*\* The rotation angles of fire monitor can be limited by the structural elements of the body fire monitor, as well as by the designs of the fire truck, watercraft, trailer, etc., which must be reflected in regulatory documents.

Name of parameter	Parameter value
Maximum pressure	1,6 MPa
Minimum pressure	0,4 MPa
Climate performance	U, UHL, HL, T, OM
Material	Stainless steel Steel C20 Steel 09G2S

# WITH CONSTANT FLOW AND OSCILLATOR

LOW CONSUMPTION

KRF-LS-S with OSC

## SPECIAL FEATURES:

- Continuous consumption of fire extinguishing agents 15 l/s;
- The presence of an oscillating device for uninterrupted supply of fire agents in a given sector;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

KRF-LS-S15U fire monitor with OSC can be installed on fire towers or on a supply pipeline in the immediate vicinity of the protected object.

The KRF-LS-S15U with OSC has the same range of fire agent delivery as fire monitor with a delivery of 20 liters per second. The universal nozzle of the nozzle provides the ability to steplessly change the geometry of the stream from stream to a protective screen with a spray angle of 120°.

The KRF-LS-S15U with OSC is equipped with a closed-type oscillating device, which ensures its automatic movement (swinging) in the horizontal plane in a pre-set sector. The oscillator operates due to the energy of the water flow passing through the fire monitor. The oscillation angle of the presented sample is 30°, the maximum angle reaches 170°. The nozzle design ensures complete blocking of the fire extinguishing agent flow.



# ROBOTIC FIRE MONITOR

KRF-LSD

ROBOTIC

Robotic fire monitor are used both for single use at the protected facility and as part of robotic fire extinguishing installations (from 2 or more robotic fire monitors). Robotic fire monitor are equipped with flame search sensors, their software and hardware complex ensures the location of the fire source indoors or outdoors, calculation of the jet ballistics and the penetration of the extinguishing agent into the fire source taking into account the temperature indicators of the environment, wind speed and direction.



Type of fire monitors	Name and value of the parameter				
	Jet range, m (@0.8MPa)	Flow, l/s (@0.8MPa)	Explosion protection type marking	Nominal voltage, V	Maximum power consumption, W
<b>KRF-LSD-10(5,15)R-Ex</b>	27	10	II Gb c IIC T4 X (robotized and remote controlled)	12/24/230/380	500
<b>KRF-LSD-20(15,25)R-Ex</b>	50	20			
<b>KRF-LSD-30(25,35)R-Ex</b>	55	30			
<b>KRF-LSD-40(35,50)R-Ex</b>	60	40			
<b>KRF-LSD-60(50,70)R-Ex</b>	70	60			
<b>KRF-LSD-80(60,90)R-Ex</b>	75	80			
<b>KRF-LSD-100(90,110)R-Ex</b>	80	100			

Name of parameter	Parameter value
Monitor operating pressure range, MPa	0,4-1,6
Foam multiplicity, not less than	5
Movement of the fire monitor in the horizontal plane, not less than	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than: up down	90° - 45°

# ROBOTIC FIRE MONITORS

ROBOTIC

KRF-LSD

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Construction made of hard anodized aluminum alloy;
- Flame detection sensor operating in the IR and UV ranges;
- Formation of a stream and flat spray jet;
- Possibility of use as part of mobile robots;
- Possibility of use as part of robotic fire extinguishing systems.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

The scope of application of robotic fire monitors is not limited to only one or several types of objects by functional purpose, the use of robotic fire monitor is possible at almost all currently existing protection objects. Robotic fire monitors KRF-LSD-R, due to the use of unmanned technologies, provide autonomous protection of the object in standby mode and adaptive protection during fire extinguishing, that is, the robotic adapts to the changing situation at the fire.

Robotic fire monitor KRF-LSD-R can be installed at explosive objects; railway transport objects; energy objects; offshore platforms for oil and gas production; hangars for storing aircraft; fire towers; coastal zone objects of port facilities; sea and river transport. Also, the most relevant placement of robotic fire monitors is in atriums and large spatial premises of shopping centers, airports, sports facilities, hangars.



# ROBOTIC FIRE MONITOR IN A PROTECTIVE NICHE

KRF-LSD

ROBOTIC

Robotic fire monitor in a protective niche ensure the preservation of the internal design and architectural solutions of the protected object. In case of fire, the robotic fire monitor extends from the niche and searches for flames and supplies fire extinguishing agents to the source of the fire. The use is relevant for large spatial premises of shopping centers, airports, sports facilities.



Type of fire monitors	Name and value of the parameter				
	Jet range, m (@0.8MPa)	Flow, l/s (@0.8MPa)	Explosion protection type marking	Nominal voltage, V	Maximum power consumption, W
<b>KRF-LSD-10(5,15)R-Ex</b>	27	10	II Gb c IIC T4 X (robotized and remote controlled)	12/24/230/380	500
<b>KRF-LSD-20(15,25)R-Ex</b>	50	20			
<b>KRF-LSD-30(25,35)R-Ex</b>	55	30			
<b>KRF-LSD-40(35,50)R-Ex</b>	60	40			
<b>KRF-LSD-60(50,70)R-Ex</b>	70	60			
<b>KRF-LSD-80(60,90)R-Ex</b>	75	80			
<b>KRF-LSD-100(90,110)R-Ex</b>	80	100			

Name of parameter	Parameter value
Monitor operating pressure range, MPa	0,4-1,6
Foam multiplicity, not less than	5
Movement of the fire monitor in the horizontal plane, not less than	360° (±180°)
Movement of the fire monitor in the vertical plane, not less than: up down	90° - 45°

# ROBOTIC FIRE MONITOR IN A PROTECTIVE NICHE

ROBOTIC

KRF-LSD

## SPECIAL FEATURES:

- Explosion-proof design Ex;
- Location in a hidden niche of the protected object;
- Flame detection sensor operating in the IR and UV ranges;
- Formation of a stream and fog water jet with a spray angle from 0° to 120°;
- Possibility of use as part of robotic fire systems.

## CERTIFICATES OF CONFORMITY:

- Quality System Certificate ISO 9001
- Certificate of Conformity TR EAEU 043/2017

## GENERAL DESCRIPTION:

Today, large spaces or atriums of shopping centers, amusement parks, stadiums and even industrial premises require not only the installation of fire extinguishing equipment, but also the installation of fire equipment with decorative design to maintain the design solutions of the protected space. Robotic fire monitors KRF-LSD-R can be placed in protective and decorative niches with the function of moving out into the working position in a time not exceeding the standard applicable to this type of fire extinguishing equipment.

Robotic fire monitors KRF-LSD-R, due to the use of unmanned technologies, provide autonomous protection of the object in standby mode and adaptive protection during fire extinguishing, that is, the robotic nozzle adapts to the changing situation at the fire.

The most relevant placement of robotic fire monitor is in protective niches, atriums and large spatial spaces of shopping centers, airports, sports facilities, and large hangars.



# REMOTE CONTROLS

KRF-PU



KRF-PU-P-D10(k1)



KRF-PU-R6



KRF-PU-P-D



KRF-PU-P-D3(k3)-M



KRF-PU-P-D3(k3)/D3(k3)-M



KRF-PU-P-D



KRF-PU-P-D-M

## Remote controls for fire monitors (KRF-PU)

Radio-controlled remote controls KRF-PU-R	Wired remote controls KRF-PU-P
	KRF-PU-PD
	KRF-PU-PDM
	KRF-PU-PD3(k3)
	KRF-PU-D6(k1)

Symbol: KRF-PU

KRF-PU-R – Radio-controlled control panel for fire monitor “Korufire”

KRF-PU-P – Wired control panel for fire monitor “Korufire”

D – Designation of the presence of a joystick

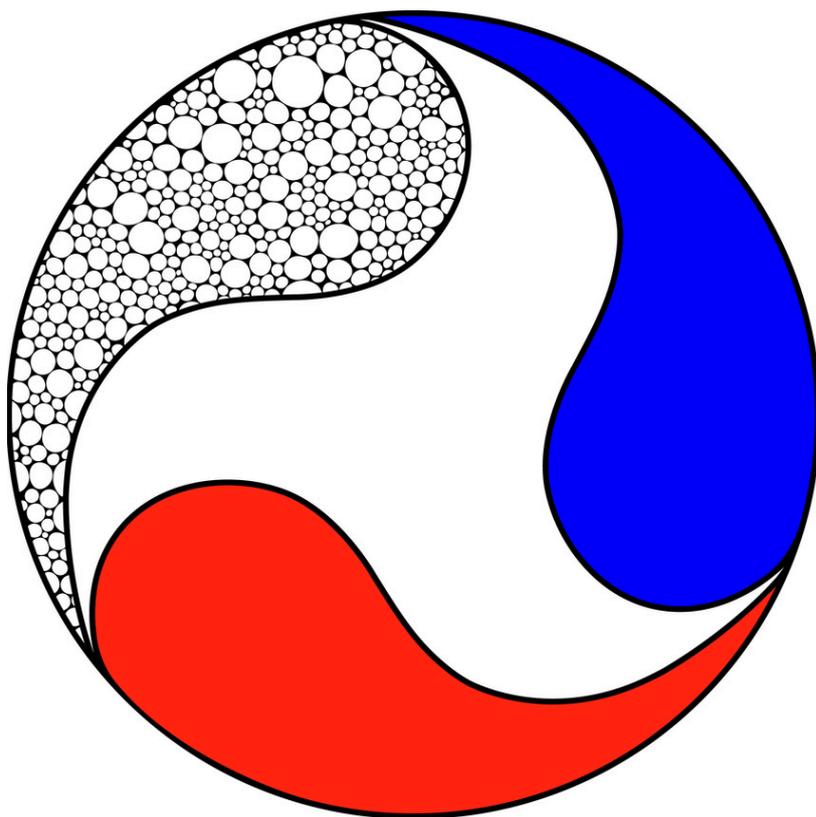
D-M – Designation of the presence of a monitor

D3(k3) – Designation of the number of buttons (number = number of buttons)

(k3) – Including in the key

If there are several joysticks, then the following is written through a slash: D5(k2)/D7(k1)/D-M





# CATALOG OF FIRE MONITORS

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