



# ANNUNCIATORS





Fire warning and evacuation management system is a mandatory fire-safety element of any facility. It is designed to inform people of an emergency situation and organization of safe exit to a safe place. Fire annunciators, as its elements, are technical means intended to inform people about fire by emitting a light, acoustic or voice signal or their combination in order to draw people's attention to the information being delivered. They exercise several functions at the same time: send various fire signals, activate lighting on evacuation signs and set up communication with the dispatch center.

They may be installed in open spaces and enclosed areas of different buildings and structures, as well as on river and sea-going vessels and production facilities, where explosive mixtures of air and combustible gases or vapors may be present.

The annunciators may be used at chemical, oil and gas production, oil and gas processing and other plants with explosion hazardous areas.



# ANNUNCIATORS



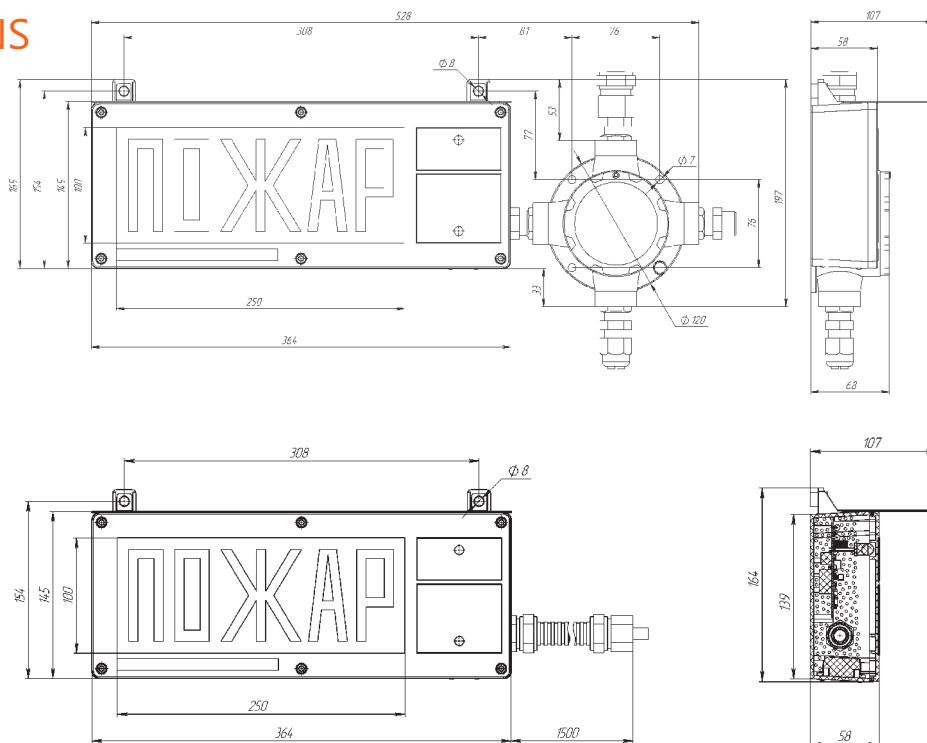
## EKRAN (panel)

### Fire annunciators

The explosion-proof annunciator and indicator (panel) EKRAN is designed to be used as a light and light and acoustic means of notification and information indicator; it provides light and/or acoustic signal in explosive areas. It is used at chemical, oil and gas production, oil and gas processing industry enterprises and in explosive areas of other production facilities.



## DIMENSIONS



1Ex d  
mb [ib] IIC  
T4 Gb X

IP66



## MODIFICATIONS:

EKRAN-S/SU	Explosion-proof light fire annunciator/ light indicator with permanent cable in metal hose
EKRAN-SZ	Explosion-proof light and acoustic fire annunciator with permanent cable in metal hose
EKRAN-S/SZ/SU-K1/K2/K3/K4	Explosion-proof fire annunciator with additional section with permanent cable in metal hose Version of the additional section of the annunciator: K1 - annunciator without additional section K2 - annunciator with an additional light section K3 - annunciator with an additional acoustic section (excepting EKRAN-SZ) K4 - annunciator with an additional light and acoustic section (excepting EKRAN-SZ)
EKRAN-KKV	Explosion-proof fire annunciator with permanent external explosion-proof terminal box
EKRAN-a (KKV)	Explosion-proof addressable fire annunciator
EKRAN-O (a, KKV)	General-purpose industrial fire annunciator

## CURRENT CONSUMPTION, MA

Consumption of the main section \*

Supply voltage, V	Glow mode	EKRAN-S/SU		EKRAN-SZ	
		Yellow and red glow	White glow	Yellow and red glow	White glow
12VDC	Bright	180	150	190	170
	Reduced consumption	110	95	120	110
24VDC	Bright	110	100	110	100
	Reduced consumption	75	70	80	75
230VAC	Bright	20	20	20	20
	Reduced consumption	15	15	15	15

## Consumption of additional section \*

Supply voltage, V	Additional section K2 (light)	Additional section K3 (acoustic)	Additional section K4 (light and acoustic)
12VDC	40	45	55
24VDC	45	50	55
230VAC	5	5	5

\* Indicated current includes current consumption of the control circuit equal to 7.5 mA at 12 VDC (15 mA at 24 VDC)


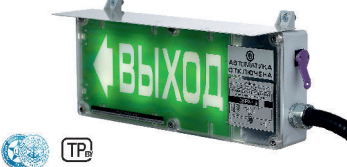



# ANNUNCIATORS

## TECHNICAL DATA:

Modification	EKRAN-S/SU Explosion-proof light fire annunciator/ light indicator	EKRAN-SZ Explosion-proof light and acoustic fire annunciator	EKRAN-K2/K3/K4 Explosion-proof fire annunciator with additional section
Enclosure explosion proofness marking	1Ex mb [ib] IIC T4 Gb X	1Ex mb [ib] IIC T4 Gb X	1Ex mb [ib] IIC T4 Gb X
Ingress protection rating	IP66	IP66	IP66
Operating temperature range, °C	-60...75	-60...75	-60...75
Supply voltage, V	24 VDC / 230 VAC	24 VDC / 230 VAC	24 VDC / 230 VAC
Availability of power supply circuit control (for 24 VDC)	Yes (not installed upon request)	Yes (not installed upon request)	Yes (not installed upon request)
Maximum current consumption, mA	'Bright' mode: 12 VDC - 150...180 24 VDC - 100...110 230 VAC - 20 'Reduced consumption' mode: 12 VDC - 95...110 24 VDC - 70...75 230 VAC - 15	'Bright' mode: 12 VDC - 170...190 24 VDC - 100...110 230 VAC - 20 'Reduced consumption' mode: 12 VDC - 110...120 24 VDC - 75...80 230 VAC - 15	'Bright' mode: 12 VDC - 190...245 24 VDC - 145...165 230 VAC - 25 'Reduced consumption' mode: 12 VDC - 135...175 24 VDC - 115...135 230 VAC - 20
Level of acoustic pressure, min., dB		100	100 (for SZ, K3, K4 versions)
Acoustic signal type		Siren	Siren (for SZ, K3, K4 versions)
Available acoustic modes		Tone 1 / Tone 2 (self-initiated switching is possible)	Tone1 / Tone 2 (for SZ, K3, K4 versions)
Frequency range of generated acoustic signals, kHz		1,0...4,5	1,0...4,5 (for SZ, K3, K4 versions)
Light source	LEDs	LEDs	LEDs
Light channel flashing frequency, Hz	0,5...2,0	0,5...2,0	0,5...2,0
Available glow modes	Flashing light / Constant glow (self-initiated switching is available)	Flashing light / Constant glow (self-initiated switching is available)	Flashing light / Constant glow (self-initiated switching is available)
Available glow colors: - display text colors - background color	- Red, yellow, blue, white (or upon request) - Black, red, green, white	- Red, yellow, blue, white (or upon request) - Black, red, green, white	- Red, yellow, blue, white (or upon request) - Black, red, green, white
Maximum duration of continuous operation of the annunciator in acoustic signal generation mode, hours		3,0	3,0
Possibility of connection to addressable loop	Yes (by means of connecting the address marks via the switch box)	Yes (by means of connecting the address marks via the switch box)	Yes (by means of connecting the address marks via the switch box)
Supported protocol			
Max. overall dimensions, mm - body (without visor and cable) - information field - cable/metal hose length	390*170*60 250*100 1,5 m	390*170*60 250*100 1,5 m	390*170*60 250*100 1,5 m
Enclosure material	Impact-resistant polycarbonate	Impact-resistant polycarbonate	Impact-resistant polycarbonate
Number of cable glands in the annunciator body	The permanent cable in 1.5 m long metal hose with a G1/2" coupling at the end comes out of the annunciator	The permanent cable in 1.5 m long metal hose with a G1/2" coupling at the end comes out of the annunciator	The permanent cable in 1.5 m long metal hose with a G1/2" coupling at the end comes out of the annunciator
Cable entry diameter, mm			
Installation of the annunciator at site	By means of mounting holes to the surface	By means of mounting holes to the surface	By means of mounting holes to the surface
Available packages	Visor, cable length (optional)	Visor, cable length (optional)	Visor, cable length (optional)
Max. weight, kg	2,5	2,5	2,5
Lifetime, min., years	10	10	10
Warranty period, years	5	5	5

## TECHNICAL DATA:

<p>EKRAN-KKV Explosion-proof fire annunciator with permanent external explosion-proof terminal box</p>	<p>EKRAN-a Explosion-proof addressable fire annunciator</p>	<p>EKRAN-O General-purpose industrial fire annunciator</p>
		
<p>1Ex d mb [ib] IIC T4 Gb X</p>	<p>EKRAN - 1Ex mb [ib] IIC T4 Gb X EKRAN-KKV - 1Ex d mb [ib] IIC T4 Gb X</p>	
<p>IP66</p>	<p>IP66</p>	<p>IP66</p>
<p>-60...75</p>	<p>-60...75</p>	<p>-60...75</p>
<p>24 VDC / 230 VAC</p>	<p>From addressable loop - 15...39 (remains operational at 8...28) From external power supply source - 24 VDC</p>	<p>24 VDC / 230 VAC</p>
<p>Yes (not installed upon request)</p>		<p>Yes (not installed upon request)</p>
<p>'Bright' mode: 12 VDC - 150...245 24 VDC - 100...165 230 VAC - 25 'Reduced consumption' mode: 12 VDC - 95...175 24 VDC - 70...135 230 VAC - 20</p>	<p>From addressable loop - 2.0 From external power supply source: 'Bright' mode: 12 VDC 150...225 24 VDC 100...145 'Reduced consumption': 12 VDC - 95...155 24 VDC - 70...105</p>	<p>'Bright' mode: 12 VDC - 150...245 24 VDC - 100...165 230 VAC - 20...25 'Reduced consumption' mode: 12 VDC - 95...175 24 VDC - 70...135 230 VAC - 15...20</p>
<p>100 (for SZ, K3, K4 versions)</p>	<p>100 (for SZ, K3, K4 versions)</p>	<p>100 (for SZ, K3, K4 versions)</p>
<p>Siren (for SZ, K3, K4 versions)</p>	<p>Siren (for SZ, K3, K4 versions)</p>	<p>Siren (for SZ, K3, K4 versions)</p>
<p>Tone 1 / Tone 2 (for SZ, K3, K4 versions)</p>	<p>Tone 1 / Tone 2 (for SZ, K3, K4 versions) changing modes from the FACP is possible</p>	<p>Tone 1 / Tone 2 (for SZ, K3, K4 versions)</p>
<p>1,0...4,5 (for SZ, K3, K4 versions)</p>	<p>1,0...4,5 (for SZ, K3, K4 versions) changing modes from the FACP is possible</p>	<p>1,0...4,5 (for SZ, K3, K4 versions)</p>
<p>LEDs</p>	<p>LEDs</p>	<p>LEDs</p>
<p>0,5...2,0</p>	<p>0,5...2,0</p>	<p>0,5...2,0</p>
<p>Flashing light / Constant glow (self-initiated switching is possible)</p>	<p>Flashing light / Constant glow (self-initiated switching is possible)</p>	<p>Flashing light / Constant glow (self-initiated switching is possible)</p>
<p>- Red, yellow, blue, white (or upon request) - Black, red, green, white</p>	<p>- Red, yellow, blue, white (or upon request) - Black, red, green, white</p>	<p>- Red, yellow, blue, white (or upon request) - Black, red, green, white</p>
<p>3,0</p>	<p>3,0</p>	<p>3,0</p>
<p>Yes (by means of setting the address marks)</p>	<p>Yes (via the Dozor-07a protocol) Maximum number of addressable devices to be connected: 120</p>	<p>Yes (by means of connecting the address marks via the switch box) For EKRAN-a-O version - Yes (via the Dozor-07a protocol)</p>
	<p>Dozor-07a</p>	
<p>530*200*70 250*100 -</p>	<p>390*170*60 (KKV version: 530*200*70) 250*100 1,5 m (not available for the KKV version)</p>	<p>390*170*60 (KKV version: 530*200*70) 250*100 1,5 m (not available for the KKV version)</p>
<p>EKRAN - Impact-resistant polycarbonate KKV - aluminum alloy AK 12 ПЧ</p>	<p>EKRAN - Impact-resistant polycarbonate KKV - aluminum alloy AK 12 ПЧ</p>	<p>EKRAN - Impact-resistant polycarbonate KKV - aluminum alloy AK 12 ПЧ</p>
<p>3</p>	<p>The permanent cable in 1.5 m long metal hose with a G1/2" coupling at the end comes out of the annunciator For the KKV version - 3</p>	<p>The permanent cable in 1.5 m long metal hose with a G1/2" coupling at the end comes out of the annunciator For the KKV version - 3</p>
<p>6...12 (into the equipment enclosure) Up to 22 (along the external insulation)</p>	<p>For the KKV version - 6...12 (into the equipment enclosure) Up to 22 (along the external insulation)</p>	
<p>By means of mounting holes to the surface</p>	<p>By means of mounting holes to the surface</p>	<p>By means of mounting holes to the surface</p>
<p>Input devices, visor</p>	<p>Input devices (for EKRAN-KKV), visor, cable length (optional)</p>	<p>Input devices (for EKRAN-KKV), visor, cable length (optional)</p>
<p>2,5</p>	<p>2,5</p>	<p>2,5</p>
<p>10</p>	<p>10</p>	<p>10</p>
<p>5</p>	<p>5</p>	<p>5</p>

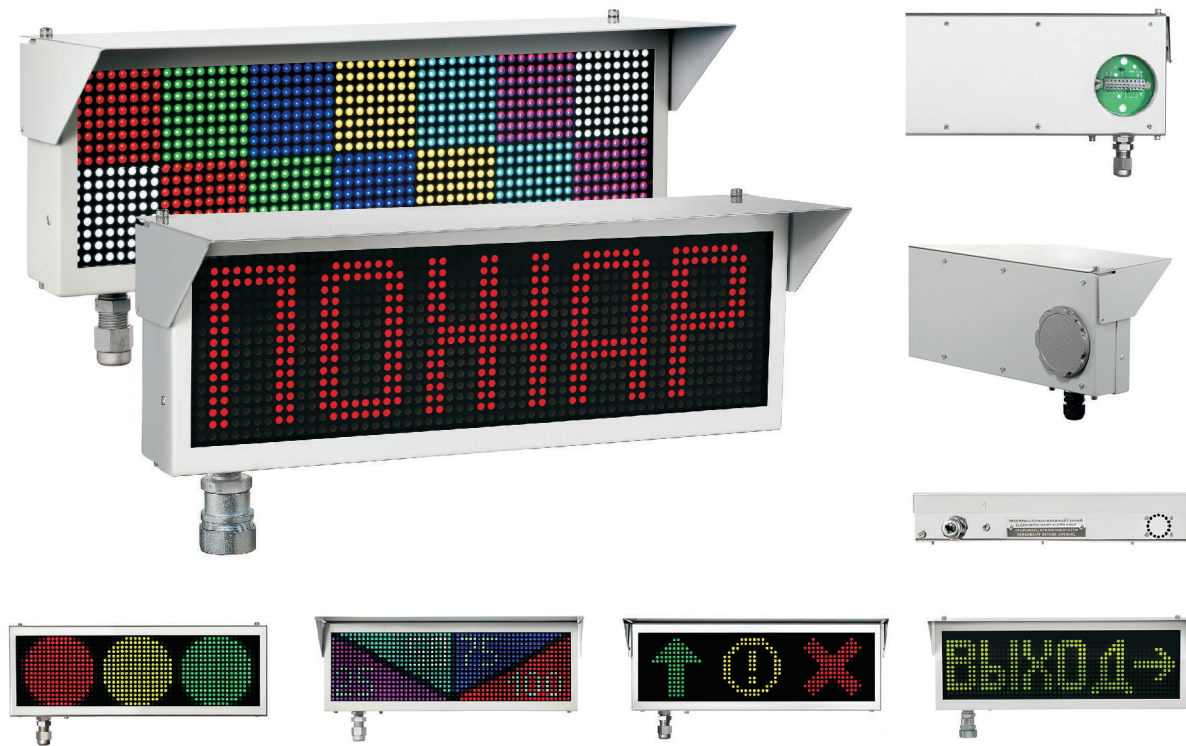


## EKRAN-INFO/ EKRAN-INFO RGB Fire

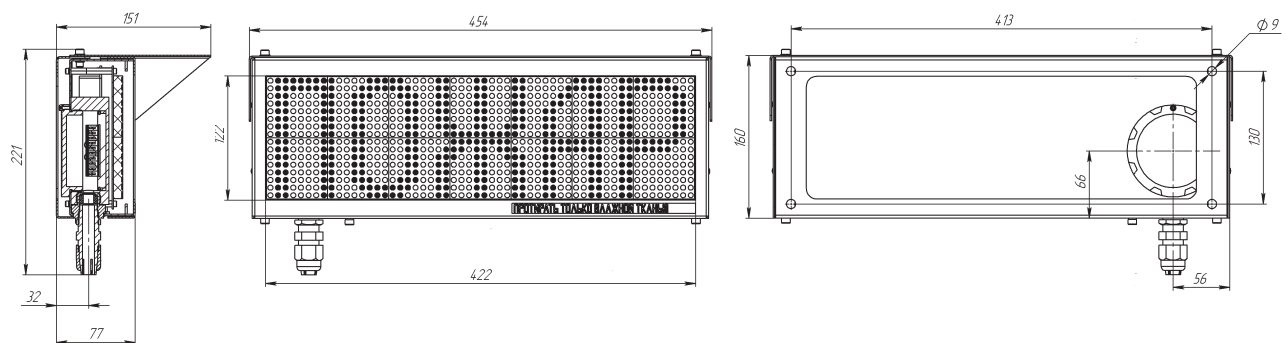
### Annunciator

The fire annunciator EKRAN-INFO is designed to be used as a light, acoustic or combined means of notification, information indicator and panel in general address systems, fire alarm and control systems in joint operation with alarm control equipment.

The annunciator EKRAN-INFO-RGB can be used as an illuminated information panel with capability of remote control via RS485 (protocol MODBUS-RTU) communication line. It is used at chemical, oil and gas production, oil and gas processing and shipbuilding industry enterprises and in explosion hazardous areas of other production facilities.



## DIMENSIONS



1Ex d mb  
[ib] IIC  
T4 Gb X

IP66



12-24 V

230 V



100 dB



up to 512 scenarios



## MODIFICATIONS:

### EKRAN-INFO

Single-color explosion-proof fire annunciator

The annunciator is designed to be used in explosive environments as a light, acoustic or combined means of notification, information indicator and panel; it provides signals in fire and security alarm systems operating in combination with any receiving and control devices.

The annunciator can be used for indication of equipment operation modes and for alerting the personnel in case of emergencies or other situations. One of the following glow colors can be selected: red, yellow or green

### EKRAN-INFO-O

Single-color general industrial version fire annunciator

The general industrial version annunciator is designed to be used as a light, acoustic or combined means of notification, information indicator and panel; it provides signals in fire and security alarm systems operating in combination with any receiving and control devices.

The annunciator can be used for indication of equipment operation modes and for alerting the personnel in case of emergencies or other situations. One of the following glow colors can be selected: red, yellow or green

### EKRAN-INFO-RGB

Multi-color explosion-proof fire annunciator

The annunciator is designed to be used in explosive environments as a light, acoustic or combined means of notification, information indicator and panel; it provides signals in fire and security alarm systems operating in combination with any receiving and control devices.

The annunciator can be used for indication of equipment operation modes and for alerting the personnel in case of emergencies or other situations. It can be used as an all-purpose illuminated information panel with capability of remote control. The annunciator provides multi-colored imaging (7 colors) - red, pink, yellow, green, sky-blue, blue, white

### EKRAN-INFO-RGB-a

Multi-color explosion-proof addressable fire annunciator

The annunciator is designed to be used in explosive environments as a light, acoustic or combined means of notification, information indicator and panel; it provides signals in fire and security alarm systems operating in combination with FACP Dozor-1A via the Dozor-07a protocol.

The annunciator can be used for indication of equipment operation modes and for alerting the personnel in case of emergencies or other situations. It can be used as an all-purpose illuminated information panel with capability of remote control. The annunciator provides multi-colored imaging (7 colors) - red, pink, yellow, green, sky-blue, blue, white

### EKRAN-INFO-RGB-O

Multi-color general industrial version fire annunciator

The general industrial version annunciator is designed to be used in explosive environments as a light, acoustic or combined means of notification, information indicator and panel; it provides signals in fire and security alarm systems operating in combination with any receiving and control devices. The annunciator can be used for indication of equipment operation modes and for alerting the personnel in case of emergencies or other situations. It can be used as an all-purpose illuminated information panel with capability of remote control. The annunciator provides multi-colored imaging (7 colors) - red, pink, yellow, green, sky-blue, blue, white

### EKRAN-INFO-RGB-TECHNO

Multi-color explosion-proof fire annunciator for displaying technical data in PCS

It is designed for displaying technical data in PCS. It can both request data from an external device acting as the master in the Modbus line and be a slave device receiving data from the PCS.







It can be used as an all-purpose illuminated information panel with capability of remote control. The annunciator provides multi-colored imaging (7 colors) - red, pink, yellow, green, sky-blue, blue, white





# ANNUNCIATORS

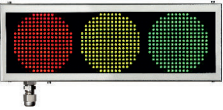
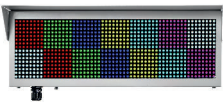
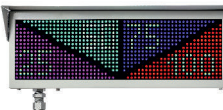
## TECHNICAL DATA:

Modification	EKRAN-INFO Single-color explosion-proof fire annunciator	EKRAN-INFO-O Single-color general industrial version fire annunciator	EKRAN-INFO-RGB Multi-color explosion-proof fire annunciator
			
Enclosure explosion proofness marking	1Ex d mb [ib] IIC T4 Gb X		1Ex d mb [ib] IIC T4 Gb X
Ingress protection rating	IP66	IP66	IP66
Operating temperature range, °C	-60...75	-60...75	-60...75
Supply voltage, V	24 VDC / 230 VAC	24 VDC / 230 VAC	24 VDC / 230 VAC
Maximum current consumption, mA	Depends on the size of the image being displayed (% of the whole field) 0%/50%/100%: 12 VDC - 170/400/690 24 VDC - 120/260/360 230 VAC - 30/70/100	Depends on the size of the image being displayed (% of the whole field) 0%/50%/100%: 12 VDC - 170/400/690 24 VDC - 120/260/360 230 VAC - 30/70/100	Depends on the size of the image being displayed and the colors used (% of the whole field) from-to: 12 VDC - 20-75 24 VDC - 12-4 230 VAC - 0.35-0.85
Level of acoustic pressure, min., dB	100	100	100
Acoustic signal type	Siren	Siren	Siren
Available acoustic modes	Constant or intermittent	Constant or intermittent	Constant or intermittent
Frequency range of generated acoustic signals, kHz	1,0...4,5	1,0...4,5	1,0...4,5
Light source	LEDs	LEDs	LEDs
Light channel flashing frequency, Hz	0,5...5,0	0,5...5,0	0,5...5,0
Available glow modes	Static text/ Flashing/ Scrolling text/ Slide-show		
Available glow colors	Single color: 	Single color: 	Multi-color: 
Display field of the annunciator, pixels	56*16	56*16	56*16
Text input features	Text, icons or images	Text, icons or images	Text, icons or images
Allowed number of messages (scenarios)	Up to 4 scenarios	Up to 4 scenarios	Up to 512 scenarios (storage in nonvolatile memory of the annunciator)
Message programming method	By the user via the USB port	By the user via the USB port	By the user via the USB port
Possibility of remote control of the annunciator	Yes, by means of the UUO - annunciator control device - via RS-485 communication channel		
Maximum duration of continuous operation of the annunciator in acoustic signal generation mode, hours	3,0	3,0	3,0
Possibility of connection to addressable loop	Yes (by means of setting the address marks)	Yes (by means of setting the address marks)	Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol) Maximum number of addressable devices to be connected: 32
Supported protocol	Modbus RTU		
Max. overall dimensions, mm - body (with visor and cable gland)	453*226*155	453*226*155	453*226*155
- information field	422*122	422*122	422*122
Enclosure material	Powder-coated steel / Bright annealed stainless steel 12X18H10T		
Number of cable glands in the annunciator body	1	1	1
Cable entry diameter, mm	6...12 (into equipment enclosure), up to 22 (along the external insulation)		
Installation of the annunciator at site	Bracket (included in the supply package)	Bracket (included in the supply package)	Bracket (included in the supply package)
Available packages	Input devices, USB RS-485 (PI1, PI2) converter, UUO annunciator controller		
Max. weight, kg	8,9	8,9	8,9
Lifetime, min., years	10	10	10
Warranty period, years	5	5	5

# ANNUNCIATORS

**NEW**

## TECHNICAL DATA:

<p>EKRAN-INFO-RGB-a Multi-color explosion-proof addressable fire annunciator</p>	<p>EKRAN-INFO-RGB-O Multi-color general industrial version fire annunciator</p>	<p>EKRAN-INFO-RGB-TECHNO Multi-color explosion-proof fire annunciator for displaying technical data in PCS <span style="color: red; font-weight: bold;">NEW</span></p>
		
1Ex d mb [ib] IIC T4 Gb X		1Ex d mb [ib] IIC T4 Gb X
IP66	IP66	IP66
-60...75	-60...75	-60...75
<p>From addressable loop - 15...39 (remains operational at 8...28) From external power supply source - 24 VDC</p>	24 VDC / 230 VAC	24 VDC / 230 VAC
<p>From addressable loop - 2.0. From external power supply source: depends on the size of the image being displayed and the colors used (% of the whole field) from-to: 12 VDC - 20-75 24 VDC - 12-4</p>	<p>Depends on the size of the image being displayed (% of the whole field) 12 VDC - 20-75 24 VDC - 12-4 230 VAC - 0.35-0.85</p>	<p>Depends on the size of the image being displayed and the colors used (% of the whole field) from-to: 12 VDC - 20-75 24 VDC - 12-4 230 VAC - 0.35-0.85</p>
100	100	100
Siren	Siren	Siren
Constant or intermittent	Constant or intermittent	Constant or intermittent
1,0...4,5	1,0...4,5	1,0...4,5
LEDs	LEDs	LEDs
0,5...5,0	0,5...5,0	0,5...5,0
Static text/ Flashing/ Scrolling text/ Slide-show		
<p>Multi-color: ● ● ● ● ● ● ● ●</p>	<p>Multi-color: ● ● ● ● ● ● ● ●</p>	<p>Multi-color: ● ● ● ● ● ● ● ●</p>
56*16	56*16	56*16
Text, icons or images	Text, icons or images	Text, icons or images
Up to 10 scenarios	Up to 512 scenarios (storage in nonvolatile memory of the annunciator)	Up to 2 values, in each value up to 7 zones. Each zone can be assigned its own test, color and acoustic settings
By the user via the USB port	By the user via the USB port	Configuration via the USB port with displaying the current values in text, numeric and/or graphical form with possibility to change the color from the attached sensor
Yes, by means of the UJO - annunciator control device - via RS-485 communication channel		
3,0	3,0	3,0
<p>Yes (via the Dozor-07a protocol) Maximum number of addressable devices to be connected: 120</p>	<p>Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol) Maximum number of addressable devices to be connected: 32</p>	<p>Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol) Maximum number of addressable devices to be connected: 32</p>
Dozor-07a	Modbus RTU	Modbus RTU
453*226*155	453*226*155	453*226*155
422*122	422*122	422*122
Powder-coated steel / Bright annealed stainless steel 12X18H10T		
1	1	1
6...12 (into equipment enclosure), up to 22 (along the external insulation)		
Bracket (included in the supply package)	Bracket (included in the supply package)	Bracket (included in the supply package)
Input devices, USB↔RS-485 (PI1, PI2) converter, UJO annunciator controller		
8,9	8,9	8,9
10	10	10
5	5	5