

RCPEA:
28.29.22.110

Kalancha OOO (Ltd.)

ISO 9001:2015

**Gas Powder Fire Extinguishing Module "BiZone"
MGPP-110-CO₂-30-RKh-ABCE-U2**

Specs (TU) 4854-027-13393076-2012

Technical Data Sheet PC 4854-027-13393076-2012

Certificate of Conformity

No. C-RU. PB04.V.01042, with an expiration date of 31.05.2023.

Certificate of Conformity

No. TC C-RU. AT15.V.00829 with an expiration date of 27.12.2021.

Explosion proof mark 1ExdsIICT4x

2018

1. Basic Information on the Product

1.1 Name of product-Powder Extinguishing Module

MGPP-110-CO₂-30-RKh-ABCE-U2 "BiZone" (hereinafter referred to as "module").

The module is designed for total flooding extinguishing of fire-classes:

- **A** - combustion of solids;
- **B** - combustion of liquid substances;
- **C** - combustion of gaseous substances;
- **E** - combustion of energized electrical equipment.

The module provides total flooding extinguishing of fire classes A, B, C and energized electrical equipment in the enclosures of the volume of:

- V = 900 m³ for Class A fires.
- V = 600 m³ for Class B fires,

The module provides for the extinguishing of the fires of Class A and B at the area of 100 m².

1.2 The powder supply from the module can be carried out by piping of not more than 100m length with the maximum possible number of 90-degree turns equal to 6. The piping must be made of the steel water pipes 65 × 4 GOST 3262 or 76x4 GOSTs 8732, 8734 and comply with the requirements of **SP5.13130.2009** (Claims 9.2.10, 9.2.11). The piping must be reinforced with brackets in front of each turn and nozzle. Traction force up to 1500Kgm occurs on the nozzle spraying gas-powder extinguishing agent after module's actuation.

1.3 The module is intended for use in explosion hazard zones of class 1 according to GOST R 30852.9-2002 (IEC 60079-10:1995) "Explosion-proof electrical equipment. Part 10. Classification of explosion hazard zone." with the possibility of the occurrence of explosive mixtures of IIC category, T4 group according to GOST R 30852.19 (IEC 60079-20:96) "Explosion- proof electrical equipment. Part 20. Data on fuel gases and fumes related to operation activity of electrical equipment." enclosures and exterior installations according to the marking of explosion GOST R 30852.13 (IEC 60079-14:96) "Explosion-proof electrical equipment. Part 14. Electrical installations in explosion hazard zones (except underground openings)." and other regulatory documents regulating the use of electric equipment in explosive hazard zones.

The module is also intended for the use in explosion hazard zones of enclosures and exterior installations according to Chapter 7.3 "Installations in explosion hazard zones" of the "Electric Installations Construction Rules" (EICR).

Explosion-proof mark - **1ExdsIICT4X**;

The sign "X" in the explosion-proof mark of the module indicates the necessity to meet the special security conditions:

- the module is released with a permanently attached cable;
- Rub and cleaning with dry wiper materials are prohibited while using in explosion hazard zone.

1.4 The module is not intended to extinguish the burning substances that can be incinerated without air access and to extinguish metals, alloys and organometallic compounds.

1.5. Manufacturer: Kalancha OOO (Ltd.), 141300, 22/1, Zheleznodorozhnaja st., Sergiev Posad, Moscow oblast, Russia phone/fax +7 (495) 781-92-48 E-[mail: kalancha@kalancha.ru](mailto:kalancha@kalancha.ru)

2. Technical Parameters

2.1 The main technical data are listed in Table 1.

Table 1

Parameter	Value
1. Protected volume, m ³ –class B –class A –Protected area, m ² classes A and B	600 900 100
2. Powder tank capacity, l	105±2,5
3. Amount of powder “Phoenix ABC-70” Specs (TU) 2149-005-18215408-00, kg	80±2
4. Total weight of the module (without nozzle), kg, not over	365
5. Mass of used working gas - liquid Carbon dioxide GOST 8050-85, kg, min	32
6. Range of operating temperatures, °C	from -50°C to +50°C
7. Working pressure in powder tank (membrane burst pressure), MPa, max	1.6
8. Duration of powder discharge, s, not over	10
9. Response time, s, not over	1
10. Mass of dry chemical residue after actuation of the module,%, not over	15
11. Parameters of the constant electrical current required to trigger the module (cartridge actuated device): –actuating current, A –electric potential, V –electrical resistance, Ω –impulse duration, max, s	0.5 9-27 1,5-4,5 0.02
12. Safe current circuit control, A: –within 5 minutes –no time limit	0.05 0.005
13. Dimensions for transport, mm: –width –height without nozzle –length	630 1740 670
14. Degree of protection according to GOST Standard 14254-96	IP54
15. Climatic modification according to GOST Standard 15150	U2
16. Storage Condition Group	5
17. Service lifetime, years	20
18. Fog variation factor, k ₁	1.0

3. Contents of Delivery

- module MGPP-110-CO₂-30-RKh-ABCE-U2 - 1 pce
- technical data sheet - 1 pce
- operation manual - 1 pce per lot

4. Resources, Terms of Service and Storage, Manufacturer's (Vendor) Guarantees

4.1 The manufacturer shall ensure that the module meets the requirements of the technical documentation when the customer complies with the conditions of operation, transportation, storage and installation as set out in the maintenance documents.

The general hazard class of the powder according to GOST 12.1.007-76 is 3.

10.4 Personnel engaged in cleaning powder shall be provided with special clothing, special shoes and personal protective equipment in accordance with GOST 12.4.103-83. 10.7 Operation, maintenance, repair of the module should be guided by "Operation Manual 4854-027-13393076-2012 OM as amended no. 2".

10.5 In order to exclude the accumulation of static electricity charges on surfaces of parts with paint coating due to the effects of air or other gas with dust particles, the module is closed on all sides of the galvanized steel plating. The protruding parts are limited to the thickness of the paint coating to 0.2 mm max.

It is necessary to weigh the module to determine the total mass of the module before installing the module on the site, the total mass of the module is indicated in Section 7 of the TDS. The module is weighed on a medium-precision balance with a weighing limit of up to 1000 kg, for example, crane scales KV-1000K-2 (0.5 kg division value), electronic crane scales VEK / 1-500 (0.5 kg division value).

ATTENTION!

THE MAINTENANCE OF THE MODULES, THE REFILLING OF THE GAS CYLINDER AND THE POWDERED TANK, THE ASSEMBLY AND THE DISASSEMBLY OF THE MODULE SHALL BE CARRIED OUT ONLY BY ORGANIZATIONS HAVING PERMISSION FROM THE MANUFACTURER OF THE MODULE AND A LICENSE OF EMERCOM OF RUSSIA TO THIS ACTIVITY, APPROPRIATE EQUIPMENT AND TRAINED PERSONNEL,

USING THE PARTS AND EXTINGUISHING POWDER RECOMMENDED BY THE MODULE MANUFACTURER.

11. Reclamation and Disposal

11.1 Module should be disposed in accordance with the requirements set by the consumer.

11.2 Waste disposal of extinguishing powder is carried out according to claims 4.6.1, 4.6.5, 4.6.6 SP 9.13130.2009 and instructions on "Reclamation and regeneration of extinguishing" VNIPO, Moscow, 1988, p. 25.

12. Module Refilling Information

Factory no. _____

Sl. No.	Date of refill	Mass of carbon dioxide	Mass extinguishing powder and its mark	Signature of persons Responsible for filling	Seal of refilling organization
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

The addresses of the service centers of OOO "Kalancha" are listed below.

OOO "Vektor-servis"

Tel./Fax: +7 (3823) 54-66-00, 54-11-07, +7 (913) 821-79-85
636018, Tomsk Oblast, Seversk, Trudovaya st., 1/1, building 4

LO OOO "Pozhpromkomplekt"

Tel./Fax +7 (4872) 355-222
300012, Tula, Smidovich st., 4

OOO SMU "Rubezh-SV"

www.smu-rubeg.ru

E-mail: rubeg@smu-rubeg.ru Tel./Fax: +7 (4872) 24-50-03
300013, Tula, Boldina st., 47

OOO "SvjazStrojKomplekt"

www.cckomplect.ru

E-mail: info@cck-rzm.ru Tel./Fax: +7 (4912) 24-51-71
390000, Ryazan, Radischeva st., 59

Voronezh Oblast Department "VDPO"

www.vdpo-vrn.ru

E-mail: vdpo-vrn@mail.ru

Tel./Fax: +7 (4732) 41-22-43, 41-22-39
394026, Voronezh
45 Strelkovoi divizii st., 228

OOO "Kamchatflotservis"

www.kamfs.ru

E-mail: kamfs@kamfs.ru

Tel./Fax: +7 (4152) 41-30-07, 41-30-09, 41-30-56
683000, Kamchatsky Krai, Petropavlovsk-Kamchatsky, Ozernovskaja kosa st., 11

OOO "Firma "Rosavtomatik"

E-mail: rosavtomatik@mail.ru Skype: rosavtomatik

Tel./Fax: +7 (863) 277-82-80, 277-81-78
344064, Rostov-on-Don, Vavilova st., 68/2

TOO "Batys-energon"

www.batys-energon.kz

E-mail: energon@mail.ru

Tel./Fax: +7 (7112) 21-81-21, 21-06-61
Republic of Kazakhstan, Western Kazakh oblast, 090003, Ural'sk, Litejnaya st., 1

OOO "Severavtomatika"

www.severavtomatika.ru

E-mail: severavtomatika@mail.ru

Tel./Fax: +7 (3462) 55-05-95, 72-32-73, +7 (902) 629-93-32
628401, Khanty-Mansiysk Autonomous District - Yugra, Surgut, Inzhenernaya st., 18

OOO "Baltijskaya Pozharnaya Kompaniya"

Tel./Fax: +7 (812) 327-97-65, +7 (821) 331-20-26

196084 St. Petersburg, ul. Zastavskaya, d.7, Business center "MEGA-Park", office 304

VDPO Tatar Republic Department

www.tatarstan.vdpo.ru E-mail: dpo_rt@mail.ru

Tel./Fax: +7 (843) 278-74-36, 278-74-66
420054, Republic of Tatarstan, Kazan, 2-ya Tihoreckaja st., 12

OOO "Bezopasnost' zhiznedevatel'nosti"

E-mail: bgd-269@mail.ru

+7 (83177) 6-25-43
607061, Nizhny Novgorod oblast, Vyksa, Zhilkooperatsii st., 88

Information about service centers can also be found on the website: www.kalancha.ru

Information on cylinders

1	Factory number of cylinder		
2	Working pressure, kgf/cm ²	200	200
3	Test pressure, kgf/cm ²	300	300
4	Empty cylinder mass, kg		
5	Filled cylinder mass, kg		
6	5. Date (month and year) of manufacturing kg		
7	5. Date (month and year) of next inspection kg		
8	Cylinder manufacturer		

13. Special Notes

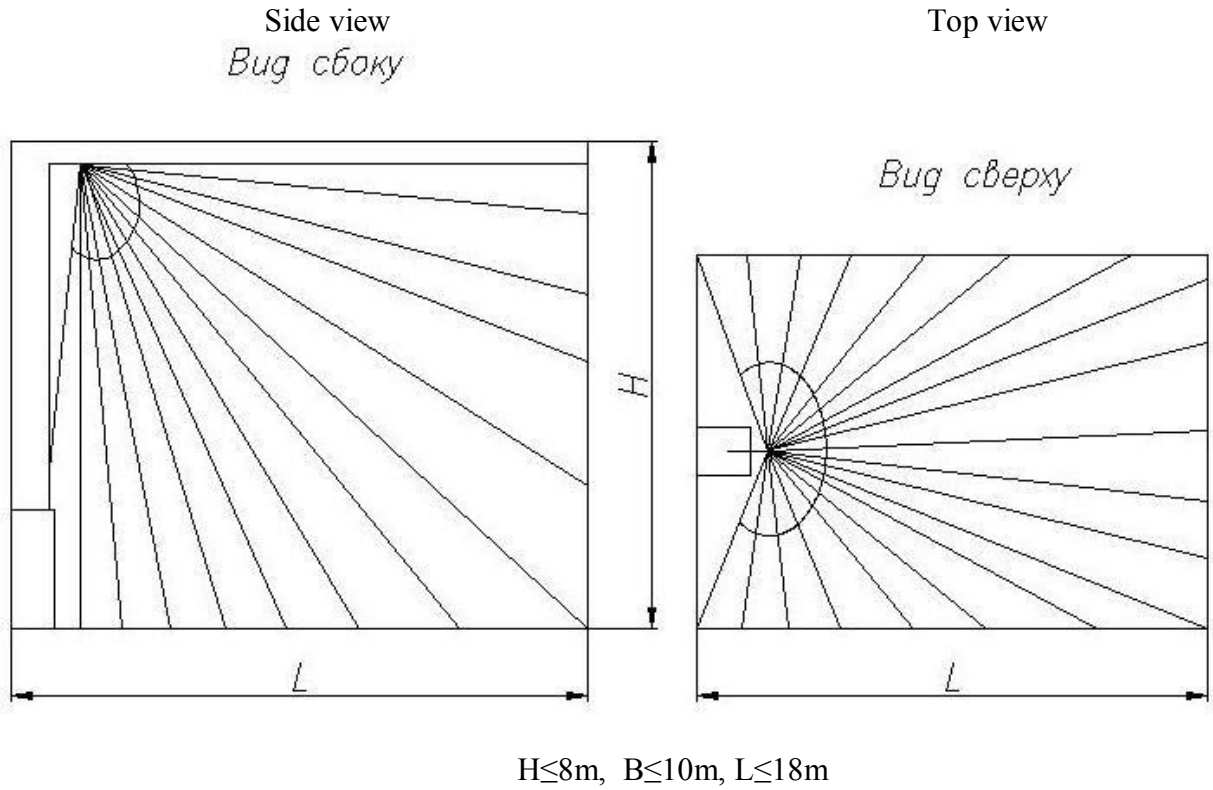
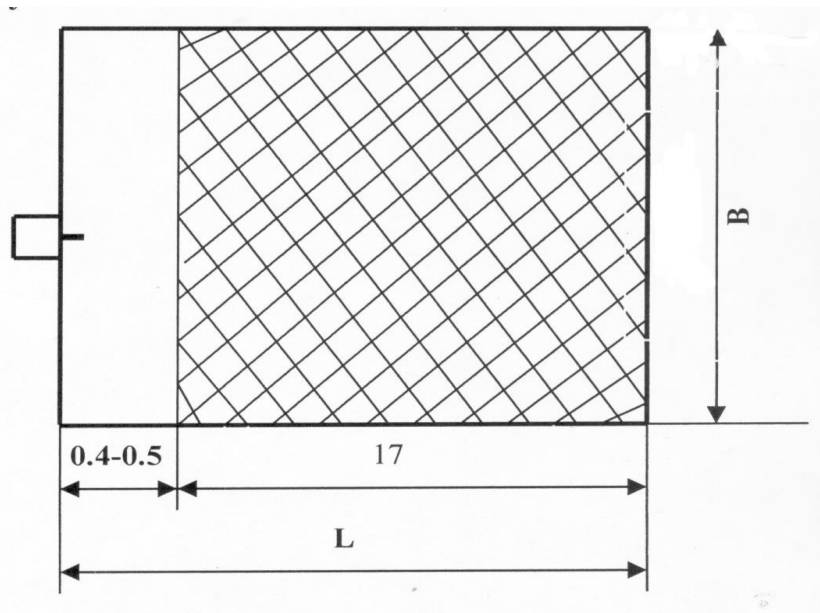


Figure 1. Total flooding fire extinguishing agent spray chart



The distance from the nozzle to the perimeter of the protected area shall be 0.4-0.5 m.
Nozzle location height ≤ 3.9 m.