

**ANALOG ADDRESSABLE  
PHOTOELECTRIC SMOKE DETECTOR  
IP 212-34A DIP-34A-03-S**

**ICO 9001**



OPERATIONS MANUAL

**1 DESCRIPTION AND OPERATION**

**1.1 Purpose**

1.1.1 IP 212-34A DIP-34A-03-S analog addressable photoelectric smoke detector (hereinafter referred to as the detector) is to be used in fire detection and fire alarm systems and is intended to detect fires accompanied by the appearance of smoke in closed premises of various buildings and structures by sensing light reflected off smoke particles and sending fire alarm signals automatically.

1.1.2 The detector is designed to operate under a polling loop controller such as S2000-KDL, S2000-KDL-2I, S2000-KDL-2I rev.01, S2000-KDL-S as a component of Orion Integrated Security System. The detector is supplied with power and communicates data via a two-wire multiplex addressable polling loop.

1.1.3 The IP 212-34A DIP-34A-03-S detector features extended operating temperature range.

1.1.4 The detector is intended for round-the-clock operation.

1.1.5 The detector is classed as a restorable, regularly maintainable item.

1.1.6 The detector is designed to be operated in residential, commercial, and industrial areas.

1.1.7 The design of the detector doesn't provide its operation in aggressive and / or dusty environments as well as in explosion hazardous and flammable premises.

**1.2 Specifications**

**Table 1.2.1**

<b>Parameter</b>	<b>Value</b>
1.2.1 Power input voltage (from the polling loop), V	8 through 11
1.2.2 Consumed current, mA, max	0.6
1.2.3 The number of detectors per a single polling loop, pcs.	Up to 127
1.2.4 Maximum effective resistance of the polling loop wires, ohms, max	100
1.2.5 Minimum insulation resistance between the polling loop wires, kilo-ohms, min	50
1.2.6 Start-up time, s, max	60
1.2.7 Sensitivity, dB/m	0.05 through 0.2
1.2.8 Enclosure protection level as per GOST 14254-2015 - Using an MK-4 mounting kit - Using an MK-8 mounting kit	IP41 IP43 IP44
1.2.9 Resistance to mechanical exposure as per OST 25 1099-83	Arrangement Category 3
1.2.10 Vibration exposure: - Frequency range, Hz - Max acceleration, g	1-35 0.5
1.2.11 Environmental category as per OST 25 1099-83	O3
1.2.12 Operating temperatures, °C	Minus 50 through plus 55
1.2.13 Relative humidity, %, at +25 °C	Up to 95
1.2.14 Weight, max, kg	0.2

Parameter	Value
1.2.15 Overall dimensions: - diameter, mm, max - height, mm, max	100 47
1.2.16 Non-stop operation	24/7
1.2.17 MTBF in the quiescent mode, hours, min	80,000
1.2.18 Survival probability after 1,000 hours	0.98758
1.2.19 Expected lifetime, years	10

1.2.20 As to immunity to man-made radio disturbance, the unit meets the requirements for Test Severity Level III of the relevant standards listed in Appendix “B” to GOST R 53325-2012.

1.2.21 The detector passes the industrial interference standards prescribed for Class ‘B’ equipment as per GOST R 30805.22.

### 1.3 Scope of Delivery

The detector is supplied in a ten-unit packaging.

The scope of delivery for the packaging is shown in Table 1.3.1.

**Table 1.3.1**

Item	Quantity, pcs.
IP 212-34A DIP-34A-03-S smoke detector	10
DIP-34A-03 mounting base with electric contacts	10
Dust protective cover	10
Address label	10
Operations Manual	1
MK-2 Mounting Kit* for recessed mounting on a ceiling	—
MK-3 Mounting Kit* for recessed mounting on a ceiling	—
MK-4 Mounting Kit* to improve ingress protection up to the IP43 degree	—
MK-8 Mounting Kit* to improve ingress protection up to the IP44 degree	—
Wire cage* to protect against mechanical damage	—

\* – Supplied by separate order

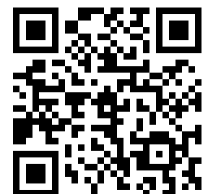
## 2 INTENDED USE

2.1 The detector design meets the requirements of electric and fire safety including emergency operation in accordance with Russian standards GOST 12.2.007.0-75 and GOST 12.1.004-91.

2.2 Do SHUT OFF power from the equipment before mounting, installing, and maintaining this one.

2.3 Operating restrictions, design, mounting, connecting, settings, testing and operation procedures for the detector are defined in details in its User’s Manual (the full version), which is available online at [bolid.ru](http://bolid.ru) in the section Products on the page of DIP-34A-03-S.

2.4 If a technical failure of the product has been found, the equipment shall be taken out of operation and sent for repair in accordance with Section 4.



### 3 MAINTENANCE

3.1 The detector shall be maintained by professionals qualified for Accident Prevention of Class II or higher.

3.2 Maintenance works for the detector are described in its User's Manual (the full version).

### 4 REPAIR

4.1 Repair of faulty equipment is to be conducted by the manufacturer or in authorized repair centers. The product shall be sent for repair in compliance with Company Standard QMS 8.5.3-2015, which can be found online at our website <https://bolid.ru/support/remont/>.

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#### Attention!



The equipment shall be submitted for repair being assembled and clean and along with all the parts listed in the documentation.

Claims are accepted only if a reclamation report describing the failure is applied to the submitted equipment.

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4.2 An equipment fault resulted from consumer's not observing rules of mounting and operation is not a reason for claims and warranty repair.

4.3 Claims shall be submitted to the following address:

NVP BOLID, #4 Pionerskaya Str., Korolyov, Moscow Region, 141070, Russia

Phone: +7 (495) 775-71-55, E-mail: [info@bolid.ru](mailto:info@bolid.ru).

4.4 In case of any issue related to use of the product, please contact the technical support:

+7 (495) 775-71-55 or e-mail: [support@bolid.ru](mailto:support@bolid.ru).

### 5 MARKING AND SEALING

5.1 Every detector has a marking applied to the back of its enclosure.

5.2 The marking contains the name of the manufacturer, the name of the product, its decimal number, factory number, the year and quarter of production, the level of enclosure protection, and conformity marks.

### 6 PACKING

The detectors along with accessory kit and operation documentation are packed in to a cardboard box.

### 7 STORAGE

7.1 Storage in a transport container is permitted at ambient temperatures minus 50 through plus 50°C and relative humidity up to 95% at plus 35 °C.

7.2 Storage in the consumer package is permitted only in heated premises at temperatures plus 5 through plus 40°C and relative humidity up to 80 % at plus 20 °C.

### 8 TRANSPORTING

8.1 The detector can be transported in a transport container at ambient temperatures minus 50 through plus 50°C and relative humidity up to 95 % at plus 35°C.

### 9 DISPOSAL

9.1 The detector is to be disposed of considering that there are no toxic components in it.

9.2 The content of precious materials: doesn't require accountability for storage, retirement, and disposal (Clause 1.2 of GOST 2.608-78).

9.3 The content of non-ferrous metals: does not require accountability for retirement and further disposal.

## 10 MANUFACTURER WARRANTY

10.1 The manufacturer guaranties the product meets with technical requirements if the user follows the instructions for transportation, storage, installation, and usage.

10.2 The warranty period is 18 months since putting the product into operation but no more than 24 months from the manufacturer's date of production.

## 11 CERTIFICATION INFORMATION

For detector certification details, please refer to its User's Manual (the full version).

## 12 ACCEPTANCE AND PACKING CERTIFICATE

IP 212-34A DIP-34A-03-S analog addressable photoelectric smoke detectors (serial number are displayed on their enclosures) are manufactured, accepted in line with mandatory requirements of national standards and applicable technical documentation, approved as ready for use, and packed by the NVP Bolid Company.

Responsible for Acceptance and Packing

QCD \_\_\_\_\_  
Full Name

\_\_\_\_\_  
Date, Month, Year

