



**TYPE APPROVAL CERTIFICATE**  
No. **ELE177024XP**

**This is to certify** that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	<b>Fire detectors</b>
<i>Type</i>	<b>AutroFlame IR3 Flame Detectors BG-301 BG-301-EXIA BG-301-EXIC</b>
<i>Applicant</i>	<b>AUTRONICA FIRE AND SECURITY AS Bromstadvegen 59 NO-7047 Trondheim NORWAY</b>
<i>Manufacturer</i>	<b>AUTRONICA FIRE AND SECURITY AS</b>
<i>Place of manufacture</i>	<b>Bromstadvegen 59 NO-7047 Trondheim NORWAY</b>
<i>Reference standards</i>	<b>Rules for the Classification of Ships- Part C - Machinery, Systems and fire protection - Ch.3, Sect.6, Tab.1 and European Rules EN 54-10:2002+A1:2005 , EN 54-17:2005, IEC 60092-504:2016, IACS UR E10 Rev. 9: 2023</b>

Issued in **Gdańsk** on **November 29, 2024**. This Certificate is valid until **December 3, 2029**



*Baranska*

**RINA Services S.p.A.**  
**Anna Maria Baranska**

This certificate consists of this page and 1 enclosure





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**No. ELE177024XP**  
**Enclosure - Page 1 of 2**  
**AutroFlame IR3 Flame Detectors**  
**BG-301**  
**BG-301-EXIA**  
**BG-301-EXIC**

**Infrared Flame Detector type BG -301:**

- Used on detection loops (for interactive fire detection systems)
- Performance Class: X, 1, 2, 3
- Angle of reception  $\pm 45^\circ$
- Includes short circuit isolator
- Degree of Protection : IP66 / IP 67

**Infrared Flame Detector type BG -301-EXIA:**

- Used on detection loops (for interactive fire detection systems)
- Performance Class: X, 1, 2, 3
- Angle of reception  $\pm 45^\circ$
- Includes short circuit isolator
- EX ia version for EX ia applications (zone 0, 1 and 2)
- Degree of Protection : IP66 / IP 67

**Infrared Flame Detector type BG -301-EXIC:**

- Used on detection loops (for interactive fire detection systems)
- Performance Class: X, 1, 2, 3
- Angle of reception  $\pm 45^\circ$
- Includes short circuit isolator
- EX ic version for EX ic applications (zone 2)
- Degree of Protection : IP66 / IP 67

**Detector Sensitivity Classes**

Class	Detector Sensitivity	Detection Distance
Class X	Extra High	30 m (minimum)- above EN 54-10 class range
Class 1	High (default)	25 m (minimum)
Class 2	Medium	17 m (minimum)
Class 3	Low	12 m (minimum)

**Documents:**

- AutroFlame IR3 Flame Detector Technical Handbook doc no.: 1005448-6 rev. 6, dated: 2024.11.07
- AutroFlame IR3 Flame Detector, BG-301, BG-301-EXIA, BG-301-EXIC Product Datasheet doc no.: 1005449-5 rev.5, dated: 2024-11-07;
- AutroFlame Sensor Board BGA-1001 doc no.: 1004848 rev.5
- AutroFlame AL\_Com Socket Board BWA-1201 doc no.: 1005010 rev. 4
- Autronica Fire and Security AS Assembly Drawing doc no.: 1005078 rev. 7
- Autronica Fire and Security AS Assembly Drawing doc no.: 1005285 rev.5
- AutroFlame AL\_Com Socket Board BWA-1202 doc no.: 1005361 rev. 2
- ATEX Mid-Tier Flame Detector Exploded View doc no.: 1009807 rev. 3
- BG-301 Type Markings- Master doc no.: 1016951 rev. 2
- RINA Production Control Audit Report: 2022/X4/01/266 dated 14/11/2022

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**AutroFlame IR3 Flame Detectors**  
**BG-301**  
**BG-301-EXIA**  
**BG-301-EXIC**

**Certificates**

- EU Type Examination Certificate AutroFlame BG-301-EXIA, doc no.: DNV 23 ATEX 03418X
- EU Type Examination Certificate AutroFlame BG-301-EXIC, doc no.: DNV 24 ATEX 03424X
- IECEx Certificate of Conformity AutroFlame BG-301-EXIA doc no.: IECEx DNV 23.0068X
- IECEx Certificate of Conformity AutroFlame BG-301-EXIC doc no.: IECEx DNV 24.0013X

**Test Reports:**

- ITS corrosion test, doc no.: 0870/CBM/2023
- BG-301 AutroFlame Triple IR flame detector with a short-circuit isolator Electromagnetic Compatibility Test, test report no.: DPL/003/039/24
- BG-301, BG-301-EXIA, BG-301EXIC AutroFlame Triple IR flame detector EN 54 compliance test report no.: 1381/BA/23
- Testing the IPX6 and IPX7 degree of protection of the flame sensor test report no.: LT/221.1/2024
- Testing the IP6X degree of protection of the flame sensor test report no.: LT/307/2024

**Gdańsk November 29, 2024**

