



Type Approval Certificate

[Flame Detector]

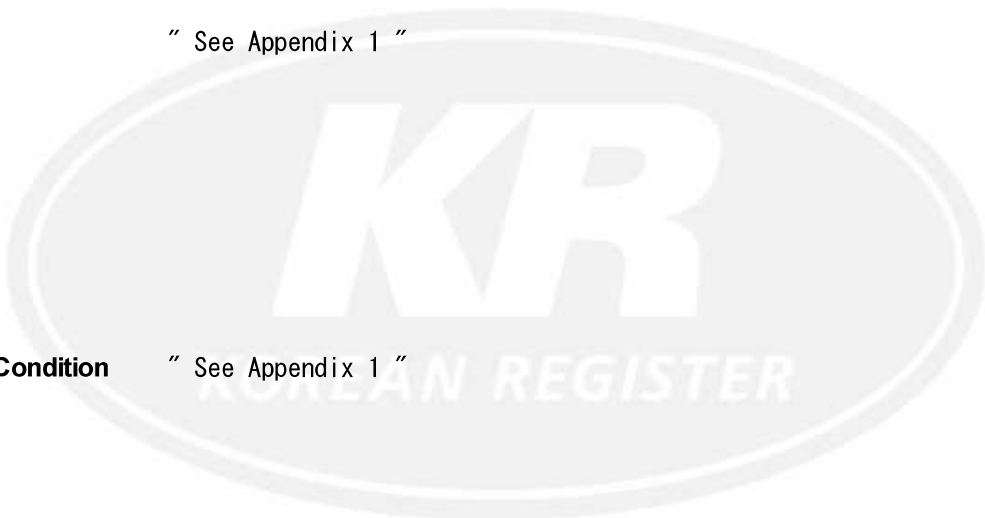
Initial Approval 10 October 2024

Manufacturer Autronica Fire and Security AS
Bromstadvegen 59, N-7047 Trondheim, Norway

Product Description Flame Detector

- Type : BG-301, BG-301-EXIA, BG-301-EXIC

" See Appendix 1 "



Approval Condition " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships and EN 54-10 and EN54-17

This Certificate is valid until 9 October 2029

Issued at Busan, Korea on 10 October 2024



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME24048567268) and certificate No.(CPH19730-FD010).



KOREAN REGISTER

*General Manager of
Marine & Ocean Equipment Team*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
 2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Product Description and/or Approval Condition

Date of Issue : 10 October 2024

A. Product Description

1. Product Specification

- Product Description
BG-301, BG-301-EXIA and BG-301-EXIC are interactive point flame detectors for detection of fires involving the combustion of carbonaceous materials.

- Product Specification

Type	Description
BG-301	Interactive IR3 flame detector with short circuit isolator
BG-301-EXIA	Interactive IR3 flame detector Ex ia version with short circuit isolator
BG-301-EXIC	Interactive IR3 flame detector Ex ic version with short circuit isolator

- Technical Data

	BG-301	BG-301-EXIA	BG-301-EXIC
Operating Voltage	24 VDC	Max 15.75VDC (requires Barrier Unit BZ-500)	24 VDC
Ex-Certificate	-	IECEX DNV 23.0068X	IECEX DNV 24.0013X

2. Approved Drawings and Documents

- Approved Document
- Product Datasheet, Doc-1005449-4 dated 2024-09-24

3. Test Reports, etc.

- Test Reports
- Report No. 1381/BA/23 dated 2024-02-22 issued by CNBOP-PIB
- Report No. DPL/003/039/24 dated 2024-02-20 issued by CTM
- Report No. LT/221.1/2024 dated 2024-06-03 issued by J. S Hamilton Poland
- Report No. LT/307/2024 dated 2024-06-03 issued by J. S Hamilton Poland
- Etc
- AutoFlame IR3 Flame Detector-Technical-Handbook, Doc-1005448-4 dated 2024-09-02

B. Approval Condition

1. Application & Limitation

- This approval is granted on the basis of the test reports and the approved documentation.
- Degree of protection is to be complied with Rule Pt.6 Ch.1 Sec.2 201.2. (5).
- The manufacturer is to inform this Society of all kinds of revisions of the equipment including the major changes of software. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- Explosion-proof certification by a notified/recognized Certification Body is not covered by this certificate. Ratings and Special Condition for Safe Use in hazardous areas are to be obtained from the relevant valid Ex-Certificate.
- Unless specially directed by the Administration, this approval is not to be construed as a substitute for a flag Administration's approval. This certificate may not be used for Korea flagged vessels.
- When this system is to be installed in the vicinity of a standard or a steering magnetic compass, it should have the minimum safe distance 5 m or more at which it may be mounted from such compasses.

2. Individual Product Cert. and Drawing Approval Requirement

- Individual product certification is not required.

Product Description and/or Approval Condition

Date of Issue : 10 October 2024

3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

4. Others

- 1) Test condition

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	-
Temperature	-40 ~ +70°C	-
Vibration	Acceleration $\pm 0.7g$	-
Degree of Protection	IP66/67	-
Salt Mist	Applied	-

< End of Certificate >



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