



# Certificate

of  
**Approval**  
of  
**Components and Systems**

*Holder of the Approval:*

**Zeta Alarm Systems**  
72 Morfa Road  
GB- Hafod, Swansea SA1 2EN

<i>Approval No.:</i>	<i>No. of pages:</i>	<i>Valid from:</i>	<i>Valid to:</i>
<b>G 206102</b>	<b>9</b>	<b>13.02.2010</b>	<b>12.02.2014</b>

*Subject matter of the Approval:*

**Line-Type Smoke Detectors**  
**Type Fyreye 50 RV; Fyreye 100 RV**

*Use:*

**in Automatic Fire Detection and Fire Alarm Systems**

*Basis for approval:*

**DIN EN 54-12:2003-03 - Line Detectors using an Optical Light Beam**  
**VdS 2504:1996-12 - Smoke Detectors, Sect. 5.6**  
**VdS 2344:2005-12 - Procedure Guidelines**

Köln (Cologne), 11.02.2010

**Schüngel**  
Managing Director

**i.V. Hesels**  
Head of the VdS Certification Body

**This approval** is valid only for the specified component/system as submitted for the test

- together with the parts listed in enclosure 1
- documented in the technical papers acc. to enclosure 2 (N/A for systems)
- for application in the specified fire protection and security installations. Use of the subject matter of the approval, is subject to the hints/comments of enclosure 3.

The validity of the approval can be extended upon application. Application for extension shall be submitted six months before expiry of the current approval at the latest.

This certificate may only be reproduced in its present form without any modification including all enclosures. All changes of the underlying conditions of this approval shall be reported at once to the VdS Certification Body enclosing the required documentation.

Any advertising with this VdS approved component/system shall reflect the correct contents of the certificate and shall not violate the trade practice rules.



Deutscher Akkreditierungs Rat  
DAT-ZE 005/92

**VdS Schadenverhütung GmbH**  
Zertifizierungsstelle  
Amsterdamer Str. 174  
D-50735 Köln  
A company of the German Insurance Association (GDV) (German federation of insurance companies)  
Accredited by the "Deutsche Akkreditierungsstelle Technik (DATech)" as a certification body for the areas of fire protection and security



To Certificate of Approval No. G 206102

Date 11.02.2010

The approved component/system comprises the following parts:

Description of component	Type	Applicant's Registration No.	Approval number of component (only complete for system approval)
Optical Line-Type Smoke Detector Optical Line-Type Smoke Detector Low Level Controller	Fyreye 50RV Fyreye 100RV LLC		



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Date 11.02.2010

The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
VdS Test Report No. BMA 03057 dated 07.11.2003  VdS Software Test Report No. SW-2001210 dated 24.10.2003			
<b>Fyreye 50RV:</b>			
General Assembly	0206-17-05, issue 5	19.01.10	1
50RV P.C.B. Assembly	0208-04-03, issue 3	10.06.05	1
P.C.B. Assembly	0208-06, issue 6	22.06.05	2
Dual LED Cable Assy.	0423-01, issue 1	13.11.02	1
Power/Data Cable Assy.	0517-01, issue 1	17.07.03	1
General Assembly Parts List	IL0206-17-05, issue 5	19.01.10	1
50RV P.C.B. Assembly Parts List	IL0208-04-03, issue 3	10.06.05	1
P.C.B. Assembly Parts List	IL0208-06, issue 6	22.06.05	4
Dual LED Cable Assy. Parts List	IL0423-01, issue 1	13.11.02	1
Power/Data Cable Assy. Parts List	0517-01, issue 1	17.07.03	1
50RV Control Software	0457-01, issue 1	17.03.03	



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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
CPU Circuit Diagram	0208-02CPU, issue 2	15.04.04	2
Interface Circuit Diagram	0208-02 Interface, issue 2	31.07.03	2
Transmitter Circuit Diagram	0208-03 Transmitter, issue 3	06.01.03	2
Receiver Circuit Diagram	0208-02 Receiver, issue 2	14.01.05	2
Front Label for Installation Guide	0040-077-01	19.01.10	1
Back Label for Installation Guide	1115-04-01, issue 1	02.07.08	1
Installation Guide (English & German)	22318.18.04, issue 4	02.07.08	27
Label for Installation Guide	22318.18.04, issue 4	18.05.06	1
Installation Guide (English)	22318.18.04, issue 4	30.05.06	12
Installation Guide (German)	22318.19.03 issue 3	07.03.06	12
Thumb Wheel	0035-B, issue B	26.03.01	1
Divider	0038-03, issue 3	19.09.02	1
Back Moulding C/W Gasket	0041-02(3), issue 2(3)	15.11.01	1
Outer Cover Moulding	0283-02(1), issue 2(1)	23.10.03	1
Spring Post	0199-03, issue 3	05.10.04	1
Backplate	0204-01, issue 1	05.10.04	1
Test Filter	0209-02, issue 2	29.06.01	1
M3 Stud	0223-01, issue 1	02.05.01	1
Inner Moulding (Painted)	0235-03, issue 3	26.05.06	1
PCB Label (50RV)	0459-04, issue 4	10.06.05	1
Reflective Prism (c/w polybag)	23901.01, issue 1	03.05.06	1
Lens, Clear	19828.02.F, issue F	26.05.06	1
Serial No. Label	23097.01.A(1), issue A(1)	29.08.05	1



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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Product Label	0970-21-03, issue 3	30.05.06	1
Carton Label	0977-21-03, issue 3	30.05.06	1
<b>Fyreye 100RV:</b>			
General Assembly	0206-18-05, issue 5	19.01.10	1
100RV P.C.B. Assembly	0208-05-03, issue 3	10.06.05	1
Dual LED Cable Assy.	0423-01, issue 1	13.11.02	1
Power/Data Cable Assy.	0517-01, issue 1	17.07.03	1
General Assembly Parts List	IL0206-10-05, issue 5	30.05.06	2
100RV P.C.B. Assembly Parts List	IL0208-05-03, issue 3	10.06.05	1
Dual LED Cable Assy. Parts List	IL0423-01, issue 1	13.11.02	1
Power/Data Cable Assy. Parts List	0517-01, issue 1	17.07.03	1
100RV Control Software	0458-01, issue 1	17.03.03	
CPU Circuit Diagram	0208-02CPU, issue 2	15.04.04	2
Interface Circuit Diagram	0208-02 Interface, issue 2	31.07.03	2
Transmitter Circuit Diagram	0208-03 Transmitter, issue 3	06.01.03	2
Receiver Circuit Diagram	0208-02 Receiver, issue 2	14.01.05	2
Front Label for Installation Guide	0040-077-01, issue 1	19.01.10	1
Label for Installation Guide	1115-04-01, issue 1	02.07.08	1
Installation Guide (English & German)	22318.18.04, issue 04	02.07.08	27
Thumb Wheel	0035-B, issue B	26.03.01	1
Divider	0038-03, issue 3	19.09.02	1



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Type of document	Manufacturer's identification	Date	Number of Pages
Back Moulding C/W Gasket	0041-02(3), issue 2(3)	15.11.01	1
Outer Cover Moulding	0283-02(1), issue 2(1)	23.10.03	1
Spring Post	0199-02(2), issue 2(2)	04.07.01	1
Backplate	0204-01, issue 1	05.10.04	1
Test Filter	0209-02, issue 2	29.06.01	1
M3 Stud	0223-01, issue 1	02.05.01	1
Inner Moulding (Painted)	0235-03, issue 3	26.05.06	1
PCB Label (100RV)	0460-04, issue 4	10.06.05	1
Lens, Clear	19828.02.F, issue F	26.05.06	1
Serial No. Label	23097.01.A(1), issue A(1)	29.08.05	1
Reflective Prism (IMO) C/W Polybag	23901.01, issue 1	03.05.06	1
Product Label	0970-18-04, issue 4	19.01.10	1
Carton Label	0977-18-04, issue 4	19.01.10	1
<b>Low Level Contoller (LLC)</b>			
Low Level Controller Assy.	0400-02-02, issue 2	01.11.04	2
Potting Box/PCB Assy.	0601-02, issue 4	01.11.04	1
P.C.B. Assy:	0321-04, issue 4	01.11.04	1
Connector/Cable Assy.	0404-01, issue 1	08.11.02	1
Low Level Controller Assy.	IL0400-02-02, issue 2	01.11.04	2
Potting Box/PCB Assy. Parts List	IL0601-02, issue 2	01.11.04	1
P.C.B. Assy: Parts List	IL0321-04, issue 4	01.11.04	1
Connector/Cable Assy. Parts List	IL0404-01, issue 1	06.11.02	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
PCB Schematic	0321-04 Schematic, issue 4	10.06.04	1
Potting Box	0413-01, issue 1	06.11.02	1
Drilled Potting Box	0414-01, issue 1	06.11.02	1
Potting Compound Spec.	0415-01, issue 1	06.11.02	1
Control Software	0433-02, issue 2	19.03.03	1
Control Software	0597-01, issue 1	17.10.03	1
Fascia Plate	0462-00-01, issue 1	27.03.03	1
Fascia Plate (Machined)	0462-01-01, issue 1	27.03.03	1
Terminal Block (4-Way)	0464-01, issue 1	26.03.03	1
Installation Guide (English)	22318.21.01, issue 1	07.03.03	1
Installation Guide (German)	22318.24.01, issue 1	19.05.03	1
Product Label	0452-01, issue 1	07.03.03	1
Part No. Label (Connector/Cable Assy.)	0406-01, issue 1	06.11.02	1
Wiring Label	0409-01, issue 1	16.11.02	1
Part No. Label (Potting Box/PCB)	0602-02, issue 2	01.11.04	1
Product Label	0452-02, issue 2	01.11.04	1
FFE Info Label	0454-01, issue 1	07.03.03	1
Key Switch	0416-01, issue 1	31.03.03	1
Fascia Plate (Machined and Printed)	0462-02-01, issue 01	27.03.03	1
Terminal Block 4- Way	0464-01, issue 1	26.03.03	1
Anti-Static Precaution Label	23066.02.A, issue A	04.11.95	1
Serial No. Label	23097.00.B(1), issue B(1)	14.01.00	1
Installationsanleitungen			



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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Fyreye 50RV/100RV (Englisch)	22318.18.04, issue 4	30.05.06	12
Fyreye 50RV/100RV (Deutsch)	22318.19.03, issue 3	17.03.06	12
Fyreye 50RV/100RV Low Level Controller (LLC) (English)	22318.21.01, issue 1	02.04.03	1
Fyreye 50RV/100RV Low Level Controller (LLC) (German)	22318.24.01, issue 1	19.05.03	1
Installation Guide Label	1115-04-01	01.02.07	1





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Instructions for the application of the approval component/system (see enclosure 1):

Range Type Fyreye 50RV:	5 m - 50 m
Range Type Fyreye 100RV:	50 m - 100 m
Voltage supply:	(10.2 - 30.0) V DC
Quiesc. current consumption:	< 4 mA, no indication
Current consumption at alarm/fault:	< 15 mA
Required time period RESET control:	> 5 s
Temperature range:	-10°C - 55°C
Tolerance of achsis deviation at 35% receiv.:	detector $\pm 1.0^\circ$ , Prisma $\pm 5.0^\circ$
Alarm threshold:	1.63 dB (25%), 2.78 dB 35%, 6.02 dB (50%)
Infrared wave length:	880 nm
Max. dimensions of detector:	width 130 mm, height 210 mm, depth 120 mm
Weight:	0.670 kg