

FG-BD100 BEAM DETECTOR

FAMCO

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PRODUCT OVERVIEW

Reflective Beam Detector has built in Laser beam pointing and Digital guide display for real user friendly alignment method. The Laser beam pointing accurately point the exact location where to mount mirror and with additional digital guide display allows to monitor and guide on the actual light intensity between the mirror and detector which cannot be seen by our naked eye making it more easy and convenient in alignment commissioning.

FG-BD100 has four adjustable operational ranges between 8 to 20, 20 to 40, 40 to 70 and 70 to 100 metres beside with three adjustable sensitivity setting ranges from 2.6dB, 3.8dB and 5.8dB to meet the specific environmental requirement. FG-BD100 works on the principle of reflective infrared beam obscuration. Used in conjunction with a reflector, it will notify the fire alarm panel when the infrared beam is obscured by smoke.



Features

- > EN54-12 Compliance.
- > Hassle free alignment, built with digital guide display and laser beam pointing.
- > Employ single-ended design through reflective mirror.
- > Four ranges wide monitoring from 8-100 meters via encoder.
- > Built-in microprocessor.
- > Self-diagnosis function can monitor for internal faults.
- > Automatic compensation for factors weakening received signals, such as dust contamination, positional movement and ageing of the transmitter.
- > Fire and Fault interfacing relays.
- > Attractive and pleasing appearance.
- > Real User friendly alignment method.

MODEL	DESCRIPTION
FG-BD100	REFLECTIVE BEAM DETECTOR



Technical Specification

• Standard

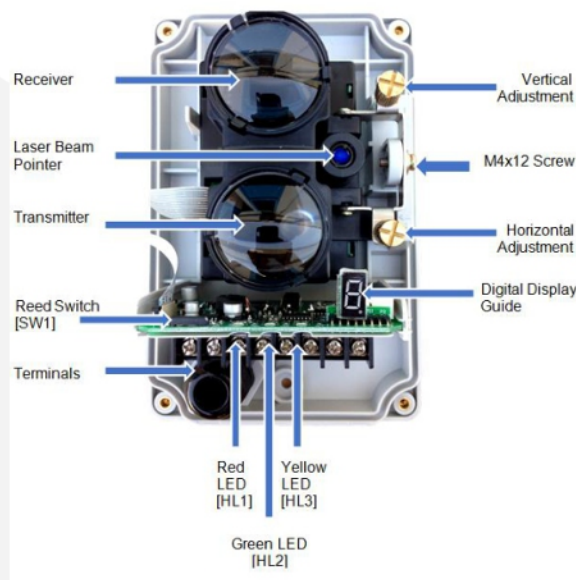
Listed : LPCB Approval.
Compliance : EN54-12
Fire Detection and Alarm Systems: BS 5839 Part 1 : 2002

• Specification

Operating Voltage : 20 - 28 V DC
Current Parameters
Standby : 23 mA
Commission : 56 mA
Alarm : 33 mA

• Beam Sensor Sensitivity [Via Encoder]

Level 1 : 2.6 dB High Sensitivity
Level 2 : 3.8 dB Medium Sensitivity
Level 3 : 5.8 dB Low Sensitivity



• Beam Pathway Length [Via Encoder]

Span 1 : 8 to 20 meters Limited Path
Span 2 : 20 to 40 meters Short Path
Span 3 : 40 to 70 meters Normal Path
Span 4 : 70 to 100 meters Long Path

• Beam Pathway Angle

: ±0.4° Directional.

• Alignment Guide

: Laser Beam Pointer

• Digital Display Guide

: Nixie Tube.

• LED Indicator Guide

Red : Fire
Yellow : Fault
Green : Alignment

• Reset Time

: Less than 2 second

• Relay Capacity [Fire & Fault]

: Normally Open & close/ 2.0 A; 30 VDC

• Physical

Material / Colour : ABS / White
Dimension(mm) / Weigh : L: 190.87 x W: 126.87 x H: 91.96 / 440g
Weight : 0.130 kg with base

• Environmental

Operating Temperature : -10°C to +50°C
Ingress protection Rating : IP30[IP66 glue seal-for permanent fixing]
Humidity : 0 - 95%

Smoke Detector Technical Data

Fireguard FG 318 series optical smoke detectors are designed to respond to a wide spectrum of fires and ease installation. The FG318 series Multisensors use Advance Photoelectric technology in conjunction with fixed temperature heat sensor to further extend its capabilities as a smoke detector. Every unit is individually tested and calibrated to ensure high reliability and prevent false alarms.

Product Features : LPCB EN54 APPROVED

- 2 or 4 wire models
- Dual LEDs for 360° visibility
- Advanced Photoelectric smoke technology
- Easy installation and maintenance
- Durable sensor head, excellent smoke access.
- Five-year limited warranty
- N/C (normal/close)-N/O (normal/open) selectable relay output

Options:

- AR (Auto Reset) function for security systems (optional for 4 wire models)
- Sensor base option: standard and Shottky Diode
- Remote LED



Sensor Specification :

Model	2/4 wire	Thermal	Voltage DC	Standby Current (Max)	Alarm Current (Max)	Surge Current (Max)	Star-Up Time (Max)	Permissible Current (Max)	Frequency	Alarm contact	Base model
FG 318-2	2		12~35V	35µA	70mA	40µA	60Sec	80 mA	3-5 Sec		P/N852001
FG 318-2-LED	2		12-35V	35µA	70mA	40Ma	60Sec	80 mA	3-5 Sec		P/N852001
FG 318-4-12	4		10.2~13.8 V	35µA	35mA		60Sec	80 mA	3-5 Sec	Form A/B	P/N852001
FG 318-4-24	4		20.4~27.6 V	35µA	35mA		60Sec	80 mA	3-5 Sec	Form A/B	P/N852001
FG 318-2H	2	57°C	12~35V	35µA	70mA	40µA	60Sec	80 mA	3-5 Sec		P/N852001
FG 318-2H-LED	2	57°C	12-35V	35µA	70mA	40µA	60Sec	80 mA	3-5 Sec		P/N852001
FG 318-4H-12	4	57°C	10.2~13.8 V	35µA	35mA		60Sec	80 mA	3-5 Sec	Form A/B	P/N852001
FG 318-4H-24	4	57°C	20.4~27.6 V	35µA	35mA		60Sec	80 mA	3-5 Sec	Form A/B	P/N852001

iQ458 series **Conventional Smoke detectors**

Fireguard IQ series detectors are UL listed compatible with most of the panels.

Fireguard IQ series conventional smoke detectors are engineered to the best quality and durability in accordance with UL standards. They work with all conventional fire control panels and SECURITY panels. Series detector also comes as a multisensor smoke and heat detector. Your perfect choices of reliable smoke detectors that completely meet the strictest testing in UL lab.



Product Features

- 2 or 4 wire model with universal voltage input (9-33V)
- Dual LEDs for 360° total visibility
- Advanced detection and discrimination algorithms
- Easy installation and maintenance
- Sleek low-profile design
- Durable sensor. No need for replacement
- SMD circuit board design
- N/C - N/O selectable relay output
- Five-year limited warranty
- Regular 100 mm base or large 125 mm base

Model	2 wire	4 wire	Smoke Alarm	Heat Alarm	Remote LED	12VDC	24VDC	UL Approval	Relay Output
iQ458S-2	■		■			■	■	■	
iQ458S-2M	■		■			■	■	■	
iQ458S-4		■	■			■	■	■	■
iQ458-4M		■	■			■	■	■	■
iQ458S-2L	■		■		■	■	■	■	
iQ458S-2LM	■		■		■	■	■	■	
iQ458H-2	■			■		■	■	■	
iQ458H-2M	■			■		■	■	■	
iQ458H-4		■		■		■	■	■	■
iQ458H-4M		■		■		■	■	■	■
iQ458H-2L	■			■	■	■	■	■	
iQ458H-2LM	■			■	■	■	■	■	
iQ458SH-2	■		■	■		■	■	■	
iQ458SH-2M	■		■	■		■	■	■	
iQ458SH-4		■	■	■		■	■	■	■
iQ458SH-4M		■	■	■		■	■	■	■
iQ458SH-2L	■		■	■	■	■	■	■	
iQ458SH-2LM	■		■	■	■	■	■	■	

Specifications:

Voltage: 9-33v

Standby current: 50µA

Alarm Current: 80mA for 2 Wire, 40mA for 4 Wire, 90mA for 2L & 2LM Models

Surge Current: 170µA

Start up time: 60 Sec

Reset Time: <3 Sec

Reset voltage: <1v

Sample Cycle: 5 Sec

Remote Output: 15mA maximum diode gate

Alarm indicator: Continuously emitting red LED light

Humidity range: 0% to 95% relative humidity, non condensing

Alarm contact: (for 4-wire) N/O or N/C operation, Form A, 1.0 A @ 30 VDC/0.5A @ 125VAC

Height: 46mm, Diameter: 100mm, Weight: 130g with base

iQ568 series **Analog Addressable Smoke / Heat detectors**

Fireguard IQ series Analog addressable detectors are UL listed compatible with Fireguard iQ series panels.

Fireguard IQ series detectors are engineered to the best quality and durability in accordance with UL standards. iQ Series detector also comes as a multisensor smoke and heat detector. Your perfect choices of reliable smoke /heat detectors that completely meet the strictest testing in UL lab.

Product Features

- Dual LEDs for 360° total visibility
- Advanced detection and communication protocol
- Easy installation and maintenance
- Sleek low-profile design
- Durable sensor. No need for replacement
- SMD circuit board design
- Five-year limited warranty
- Regular 100 mm base or large 125 mm base



Model	Photo electric Smoke	Heat Alarm	Remote LED	Thermal	Voltage DC	UL Approval	Base Model
iQ568D-H		■		59°C	17v-28v	■	iQ5772 iQ5782
iQ568D-HL		■	■	59°C	17v-28v	■	iQ5774 iQ5784
iQ568D-S	■			N/A	17v-28v	■	iQ5772 iQ5782
iQ568D-SL	■		■	N/A	17v-28v	■	iQ5774 iQ5784
iQ568D-SH	■	■		59°C	17v-28v	■	iQ5772 iQ5782
iQ568D-SHL	■	■	■	59°C	17v-28v	■	iQ5774 iQ5784

Specifications:

Smoke sensitivity: $(2.12 \pm 0.61)\%ft$ (UL 268 standard) 0.09 to 0.14 dB/m (EN 54-7 standard)

Ceiling Space: 15m rating for heat sensor

Voltage: 17-28v

Standby current: 500µA

Start-Up Current: 800µA

Alarm Current: 5mA (Max@24V)

Start up time: 30 Sec

Reset voltage: <3v

Remote Output: 2 mA maximum open collector

Humidity range: 0% to 95% relative humidity, non condensing

IP rating: IP-42

Height: 46mm, Diameter: 100mm, Weight: 150g with base

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