



JTY-HF-GST102E

Conventional Reflective Beam Detector

Description

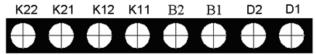
JTY-HF-GST102E Conventional Reflective Beam Detector is a non-addressable smoke detector with infrared optical beam. With excellent built-in microprocessor, the detector can carry out system adjustment, drift compensation of ambient data, and judgment of fire and fault through fixed algorithm, indicate states through LEDs, provide signals by output relays. The sensitivity of the detector can be set through hand-held programmer in field, to suit different application conditions. With new and reasonable design, the detector is simple to install and align. What's more, it is very esthetically pleasing. The detector is suitable for various applications including large storage zones, shopping malls, fitness centers, gyms, exhibition halls, hotel lobbies, printing houses, garment factories, museums and prisons. It is also used for those areas with light smoke.

Features and Benefits

- Wide operating voltage range, large monitoring areas.
- Combination of the emitting and receiving part makes mounting easy and optical pathway accurate.
- Built-in microprocessor enables intelligent judgment about fire alarm and fault.
- The detector can calibrate easily, which ensures a single person complete adjustment in short time. It's also convenient to operate.
- Self-diagnostic function can monitor the internal fault.
- Drift compensation for factors changing, such as a certain of dust accumulation, positional excursion and ageing transmitter.
- Dry contact outputs for fire and fault signals.
- Three sensitivity levels can be set in field.
- Attractive and decent appearance.

Terminals and Installation Holes

The terminals of the detector are shown as below.

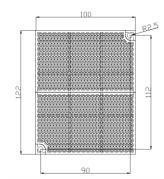


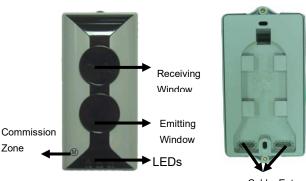
D1 & D2: 24VDC power supply, non-polarized

B1 & B2: Loop connection for programmer, non-polarized K11 & K12: Alarm output, normally open in standby state, close in fire condition

K21 & K22: Fault Output, normally open in standby state, close in fault state

Below figures show the detector appearance.





Cable Entry

Application

The detector must be used together with reflector(s). The quantity of reflector(s) to be used (1 or 4) depends on the distance from the detector to the reflectors.

Sealing the gaps by glue, the protection rate can reach IP66.

The bean length can be set by changing device type through programmer as per below table, to provide better performance.

Mounting Distance	Туре
8 - 20m	51
20 - 40m	52
40 - 70m	53
70 - 100m	54

Recommended Cabling

1.0mm² above twisted pair connecting with K11, K12, K21 and K22.

1.5mm² above BV cable connecting with D1 and D2 of power line.

Technical Specification

Operating Voltage Loop 24VDC (15V~28V) Commission current ≤20mA Standby current ≤12mA Alarm current ≤22mA Angle of Adjusting -6° ~ +6° Maximum angular misalignment ±0.5° Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway 8m~100m Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m ABS, Gray Dimensions 206mm X 95mm X 95mm Ingress Protection Rating IP20 without glue-seal treatment Weight 450g			
Standby current Alarm current Alarm current Angle of Adjusting Maximum angular misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating IP20 without glue-seal IP66 through glue-seal treatment	Operating Voltage	Loop 24VDC (15V~28V)	
Alarm current Alarm current Angle of Adjusting Maximum angular misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating IP20 without glue-seal IP66 through glue-seal treatment	Commission current	≤20mA	
Angle of Adjusting Maximum angular misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Rating Level 1: the highest sensitivity Level 2: middle sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Amaximum ditty≤95%, non condensing Amaximum monitoring area: 14 x100 =1400m² Maximum width: 14m ABS, Gray IP20 without glue-seal treatment	Standby current	≤12mA	
Maximum angular misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Maximum ditty≤95%, non condensing Assimum width: 14m Maximum width: 14m ABS, Gray IP20 without glue-seal treatment	Alarm current	≤22mA	
misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Level 1: the highest sensitivity Level 2: middle sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing 8m~100m Asximum monitoring area: 14 x100 =1400m² Maximum width: 14m ABS, Gray Dimensions Length of Optical Pathway IP20 without glue-seal IP66 through glue-seal treatment	Angle of Adjusting	-6° ~ +6°	
misalignment Level 1: the highest sensitivity Level 2: middle sensitivity Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Rating Level 1: the highest sensitivity Level 2: middle sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Maximum ditty≤95%, non condensing Am~100m Amaximum monitoring area: 14 x100 =1400m² Maximum width: 14m ABS, Gray IP20 without glue-seal IP66 through glue-seal treatment	Maximum angular	±0.5°	
Sensitivity LevelLevel 2: middle sensitivityOperating EnvironmentTemperature: -10°C ~ +50°C Relative Humidity≤95%, non condensingLength of Optical Pathway8m~100mMonitoring AreaMaximum monitoring area: 14 x100 =1400m² Maximum width: 14mMaterial and Color of of EnclosureABS, GrayDimensions206mm X 95mm X 95mmIngress Protection RatingIP20 without glue-seal treatment	misalignment		
Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing Length of Optical Pathway Maximum monitoring area: 14 x100 = 1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Level 3: low sensitivity Temperature: -10°C ~ +50°C Relative Humidity≤95%, non condensing 8m~100m Asximum monitoring area: 14 x100 = 1400m² Maximum width: 14m ABS, Gray IPSO without glue-seal IPSO without glue-seal treatment	Sensitivity Level	Level 1: the highest sensitivity	
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Operating EnvironmentRelative Humidity≤95%, non condensingLength of Optical Pathway8m~100mMonitoring AreaMaximum monitoring area: 14 x100 =1400m² Maximum width: 14mMaterial and Color of of EnclosureABS, GrayDimensions206mm X 95mm X 95mmIngress Protection RatingIP20 without glue-seal IP66 through glue-seal treatment		Level 3: low sensitivity	
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Condensing Length of Optical Pathway Maximum monitoring area: 14 x100 = 1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Condensing Am~100m Aaximum monitoring area: 14 x100 = 1400m² Maximum width: 14m ABS, Gray IP20 without glue-seal IP66 through glue-seal treatment		Relative Humidity≤95%, non	
Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Pathway Maximum width: 14m ABS, Gray 206mm X 95mm X 95mm IP20 without glue-seal IP66 through glue-seal treatment	Environment	condensing	
Pathway Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions Ingress Protection Rating Maximum monitoring area: 14 x100 =1400m² Maximum width: 14m ABS, Gray IPSO without glue-seal IP20 without glue-seal treatment	Length of Optical	8m~100m	
Monitoring Area =1400m² Maximum width: 14m Material and Color of of Enclosure Dimensions 206mm X 95mm X 95mm Ingress Protection Rating IP20 without glue-seal treatment	Pathway	011 10011	
Maximum width: 14m Material and Color of of Enclosure Dimensions 206mm X 95mm X 95mm Ingress Protection Rating IP20 without glue-seal IP66 through glue-seal treatment		,	
Material and Color of of Enclosure Dimensions Ingress Protection Rating ABS, Gray 206mm X 95mm X 95mm IP20 without glue-seal IP66 through glue-seal treatment	Monitoring Area	=1400m ²	
of Enclosure Dimensions 206mm X 95mm X 95mm Ingress Protection Rating IP20 without glue-seal IP66 through glue-seal treatment		Maximum width: 14m	
Dimensions 206mm X 95mm X 95mm Ingress Protection Rating IP66 through glue-seal treatment	Material and Color of	ABS, Gray	
Ingress Protection IP20 without glue-seal Rating IP66 through glue-seal treatment	of Enclosure		
Rating IP66 through glue-seal treatment	Dimensions	206mm X 95mm X 95mm	
ii oo iii oogii gaac oodi ii odiiii oii	Ingress Protection	IP20 without glue-seal	
Weight 450g	Rating	IP66 through glue-seal treatment	
Weight 450g	Weight	450g	

Ordering Information and Compatible Products

Part No.	JTY-HF-GST102E	
Device	Conventional Reflective Beam Detector	
Name		

Accessories and Tools



Part No.: JTY-HM/F-GST102

Device name: Reflector