

PROJECTED BEAM TYPE SMOKE DETECTOR

FDG SERIES

FEATURES

- Can protect a wide or high ceiling area with a span of up to 100m.
- Automatic sensitivity compensation for contamination or a slight shift in the optical system.
- The synchronized system in light transmitting and light receiving prevents a false alarm.
- Simple alignment procedure for Light Transmitter, Light Receiver and projected light beam path.
- A remote operation test switch(option) is available for remote operation test.
- No special means is required for fixing.
- Approved by Japan Fire Equipment Inspection Institute.

DESCRIPTION

The NOHMI's projected beam type smoke detector consists of a Light Transmitter and a Light Receiver, which are installed face to face at a distance of 5 to 100m between them, and initiates a fire alarm upon detecting a predetermined obscuration rate in the beam path along its entire length between them.

The total loss of the received light or a 50% or more reduction of the received light from the originally received light initiates a trouble signal.

The NOHMI's projected beam type smoke detector is suitable to protect buildings with a high ceiling (lower than 20m), such as Hall, Atrium, Gymnasium, Warehouse and Factory.

Model FDG117-X has a higher sensitivity than model FDG217-



X and is recommended to use for areas with a ceiling which is higher than 15m.

The arrangement of the detectors is recommended as follows.

- The face-to-face distance shall be in a range of 5 to 100m.
- The spacing between two pairs of detectors shall be 14m or less.
- The detector shall be installed in an area, the ceiling height of which does not exceed 20m.
- The detector shall be positioned at such a height that the light beam path is higher than 80% of the ceiling height.
- The horizontal distance from any portion (on the same level with the light beam path) in an area to be protected to the light beam path shall be more than 0.6m and less than 7m.

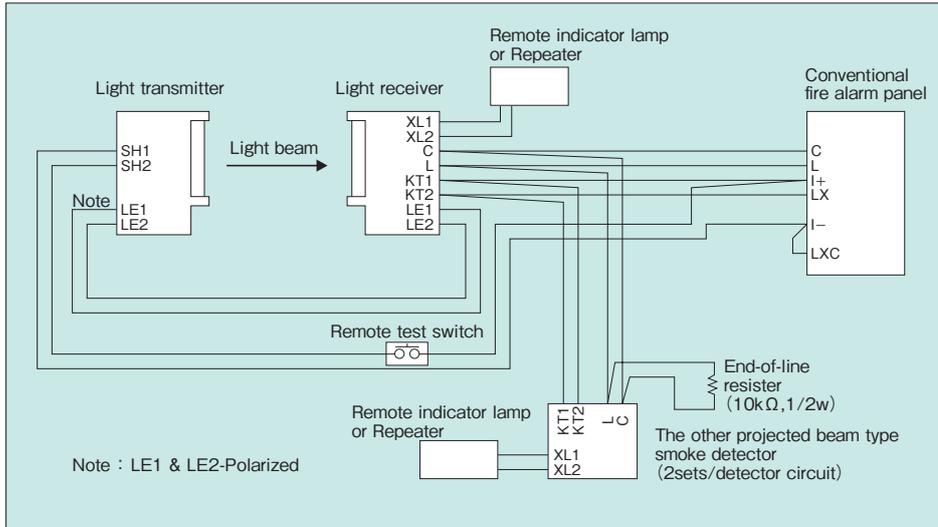
SPECIFICATIONS

Model No.	FDG117-X	FDG217-X
SENSITIVITY	See the table for monitoring distance v.s. sensitivity	
MONITORING DISTANCE	5 to 100m	
RATED VOLTAGE AND CURRENT (with Light Transmitter and Light Receiver)	Fire alarm signal circuit (L-C) : 24VDC, 75mA Trouble signal circuit (KT1-KT2) : 24VDC, 75mA Remote test circuit (SH1-SH2) : 24VDC, 5mA	
QUIESCENT CURRENT	Fire alarm signal circuit (L-C) : 600 μ A Trouble signal circuit (KT1-KT2) : 1 μ A	
INDICATOR	Light Transmitter : Green LED (Power-on) Red LED (Testing) Light Receiver : Red LED (Fire alarm) Yellow LED (Trouble)	
AMBIENT TEMPERATURE	-10 to 55°C	
LIGHT BEAM PATH ANGLE ADJUSTMENT	Vertical : 10° Horizontal : 20°	
MATERIALS	Cover : ACS resin Front plate : Polycarbonate resin Base : Steel plate	
MAXIMUM NO. TO BE CONNECTED	2sets/detector circuit	
WEIGHT	Light Transmitter : Approx. 0.9kg Light receiver : Approx. 0.8kg	

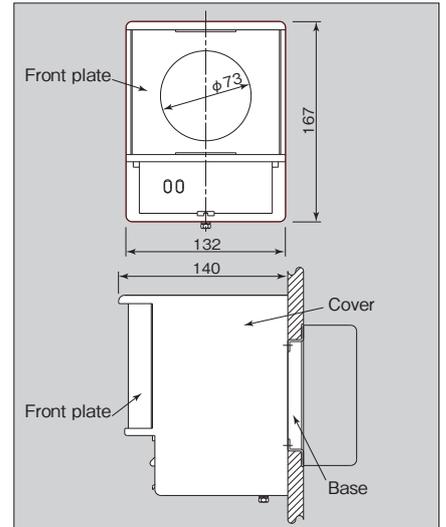
NOHMI BOSAI LTD.

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TYPICAL WIRING DIAGRAM



DIMENSIONS



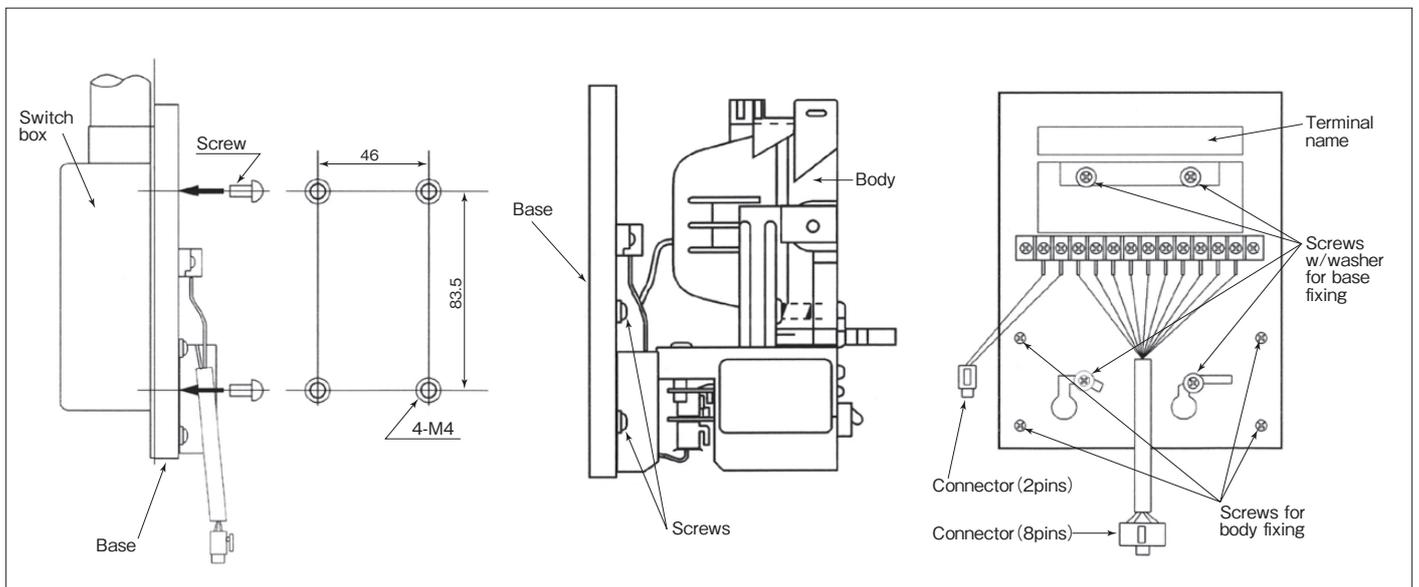
MONITORING DISTANCE V.S. SENSITIVITY

Monitoring distance (m)	Monitoring distance switch setting position	Sensitivity	
		FDG117-X	FDG217-X
5 to 20	Short	20%	30%
20 to 40	Medium	30%	50%
40 to 100	Long	50%	70%

SUPPLEMENTAL PRODUCT

Description		Model No.	Note
Tool box		FXG012B	Tools for test and adjustment
Ceiling mounting fixture		ZBD-TS	
Protection guard		FZP014	For wall mounting
Remote test switch	Surface mtg.	FTC012-1	
	Recess mtg.	FTC052-1	

INSTALLATION



- These instructions do not purport to cover all the details or variations in the equipment described, nor provide for every possible contingency to be met in connection with installation, operation and maintenance.
- Specifications are subject to change without notice. Contact Nohmi before relying on above specifications.
- Actual performance is based on proper application of the product by a qualified professional.
- Should further information be desired or should particular problems arise, which are not covered sufficiently for the purchaser's purposes, the matter should be referred to Nohmi or a distributor in your region.

NOHMI

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