



■ Description

The **EVA-DPH** is an attractively-styled, low profile combined photoelectric smoke and heat detector for use with the fire alarm control panel of NFU-7000 series.

The EVA-DPH Dual Optical Detector goes one step further and uses both **IR and blue LEDs** to provide a more accurate measurement of particles within the chamber. By calculating the ratio of these light sources, which operate at different wavelengths, the EVA-DPH can determine the particle size and thus distinguish between smoke and non-combustion products such as steam and dust. This patented, award winning technology is unique to Nittan and provides an excellent solution to false alarms in areas prone to steam and dust, including hotels, hospitals and other areas of multiple occupancy.

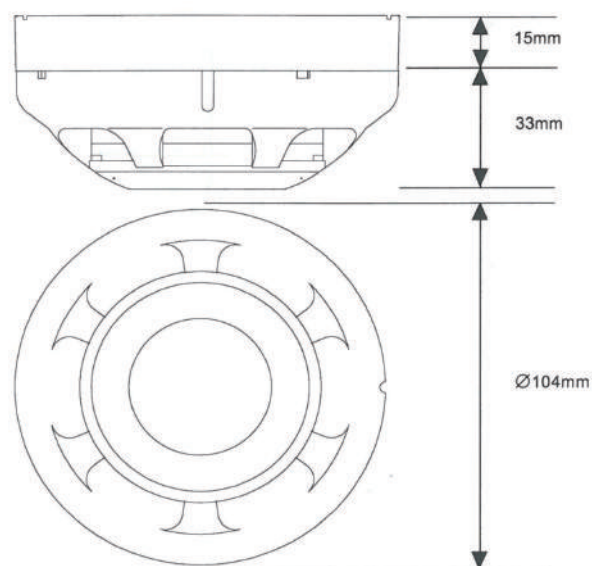
The EVA-DPH initiates an alarm in response to both rapid **rate-of-rise conditions** and **fixed heat** (57°C). Heat portion incorporates a highly linear thermistor circuit, with the thermistor mounted externally. The specially designed cover protects the thermistor while allowing maximum air flow. The thermistor circuit produces a voltage proportional to temperature which is scaled, and transmitted as a digitally encoded value to the control panel.

This detector has a chemically etched, **stainless steel insect screen** therefore reducing the ingress of insects and airborne contaminants.

■ Features

- Smoke detector discriminates between smoke and steam particles for reducing false alarm
- Heat detector detects rate of rise and fixed temperature
- Well suited for hotels, hospitals, and restaurant
- Low profile, stylish appearance
- Low monitoring current
- OMNIVIEW™ 360° LED
- Remote indicator output
- Locking mechanism to avoid unauthorized removal
- Supplied with protective dust cover
- Address settable from 001 to 254 by a dedicated programmer
- Automatic sensitivity compensation
- Adjustable sensitivity via control panel software
- Corresponds to auto-test function of NFU-7000 series control panel

Dimensions



■ Mounting Base Models

Model	Description	Instruction Manuals	Diameter	Number of Terminals
EVA-UB4	Standard mounting base	DW1401959 Rev.K1	104 mm (4 inch)	4
EVA-UB4-6*	Larger mounting base	DW1401959 Rev.K1	160 mm (6 inch)	4
EVA-S6 Base	Sounder mounting base	DW1401960 Rev.K1	160 mm (6 inch)	5
EVA-STB-RL	Relay mounting base	DW1401853 Rev.K1	104 mm (4 inch)	6
EVA-STB-SCI	Short circuit isolator base	DW1401852 Rev.K1	104 mm (4 inch)	4
STBA-ADP**	Adapter mounting plate	DW1402124 Rev.K1	160 mm (6 inch)	NONE

* The Model EVA-UB4-6 base is intended for applications where a 4 inch square or octagonal electrical junction box is required.

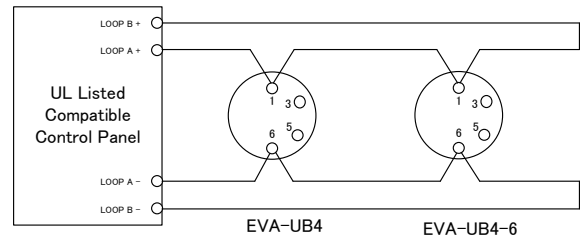
** The STBA-ADP Adapter Mounting Plate is intended for the EVA-STB-RL Relay Mounting Base and EVA-STB-SCI Short Circuit Isolator base for applications where a 4 inch square or octagonal electrical junction box is required.

Terminal connections

The EVA-DPH detector is supplied, as standard, with three terminals. The terminals on the EVA-DPH detector head is configured as follows:

Terminal	Description
1	SLC Positive
6	SLC Negative
3	To activate the EVA-STB-RL relay base

Wiring



■ Specifications

Specifications	EVA-DPH	
Detector Element	Smoke	Blue LED (Peak wavelength 940 nm)
	Particle	IR LED Photodiode (Peak wavelength 465 nm) (High-sensitivity, Low dark current photodiode)
	Heat	Thermistor (Negative temperature coefficient)
LED Visual Indicator	Stand-by - Flashing green LED Alarm - Solid red LED with flashing green	
Operating Voltage	20 VDC to 38 VDC Peak	
System Voltage	35 VDC	
Stand-by Current	200 μ A	
Alarm Current (with red LED)	5 mA	
Sensitivity	0.5 %/Ft. to 0.96 %/Ft.	
Fixed Heat Alarm Temperature	57 °C (135 °F)	
Rate of Rise Detection	Responds to greater than 8.3 °C (15 °F) / min.	
Operating Temperature	-10 °C to +55 °C (14 °F to 131 °F)	
Storage Temperature	-20 °C to +60 °C (-4 °F to 140 °F)	
Relative Humidity	\leq RH 95 % non-condensing	
Addressing Method	Soft addressing, Non-Volatile EEPROM	
Address	1 to 254 (decimal)	
Maximum quantity per loop	254 units	
Material	IDEMITSUKOSAN R2200	
Dimensions	ϕ 104 mm x H 33 mm (Detector head only) ϕ 104 mm x H 48 mm (Detector head and EVA-UB4 Base)	
Weight	105 g (Detector head only) 170 g (Detector head and EVA-UB4)	
Standard	UL268 and UL521	

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All specifications are subject to change without any notice.
For more information, contact with NITTAN.

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