VDOT-DPH

ADDRESSABLE DUAL OPTICAL/HEAT DETECTOR

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 restaurants.
- Low profile, stylish appearance.
- Low monitoring current.
- OMNIVIEWTM 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.
- Corresponds to auto-test function of Velocity MMP series control panel.

Description

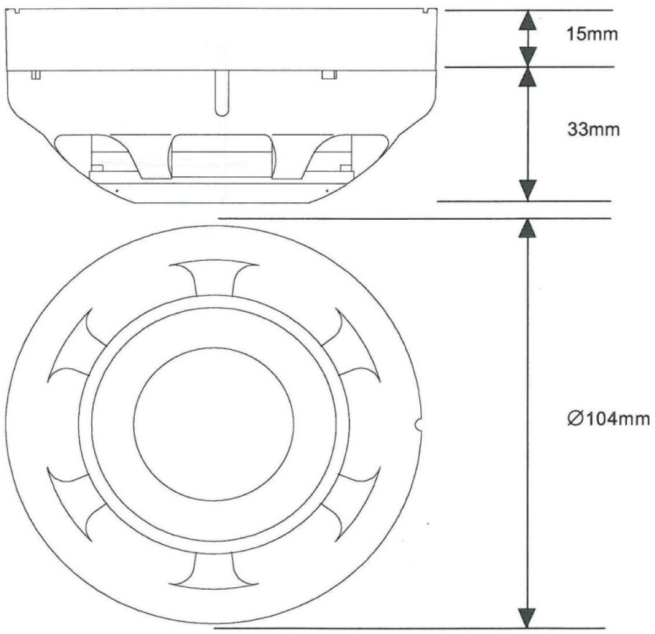
The VDOT-DPH is an attractively-styled, low profile combined photoelectric smoke and heat detector for use with the fire alarm control panel of Velocity MMP series.

The VDOT-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 VDOT-DPH can determine the particle size and thus distinguish between smoke and non-combustion products such as steam and dust. This patented (used under licence), award winning technology provides an excellent solution to false alarms in areas prone to steam and dust, including hotels, hospitals and other areas of multiple occupancy.

The VDOT-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.

Dimensions



Mounting Base Models

Model	Description	Instruction Manuals	Diameter	Number of Terminals
VDOT-UB4	Standard Mounting Base	GLT-299-7-6	104 mm (4 Inch)	4
VDOT-UB4-6*	Larger Mounting Base	GLT-299-7-7	160 mm (6 Inch)	4
VDOT-S6 BASE	Sounder Mounting Base	GLT-299-7-10	160 mm (6 Inch)	5
VDOT-STB-RL	Relay Mounting Base	GLT-299-7-9	104 mm (4 inch)	6
VDOT-STB-SCI	Short Circuit Isolator Base	GLT-299-7-8	104 mm (4 Inch)	4
VDOT-ADP**	Adaptor Mounting Plate	GLT-299-7-11	160 mm (6 Inch)	NONE

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

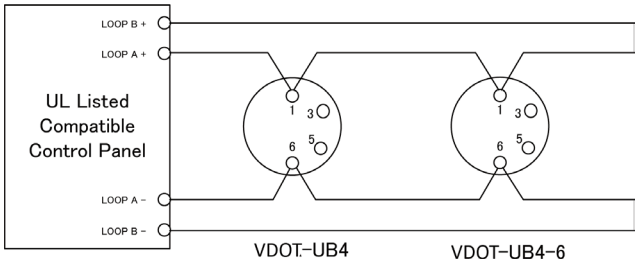
*** The VDOT-ADP Adaptor Mounting Plate is intended for the VDOT-STB-RL Relay Mounting Base and VDOT-STB-SCI Short Circuit Isolator base for applications where a 4 inch square or octagonal electrical junction box is required.*

Terminals

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

Terminal	Description
1	SLC Positive
6	SLC Negative
3	To activate the VDOT-STB-RL Relay Base

Wiring



Specifications

Specifications	VDOT-DPH	
Detector Element	Smoke	Blue LED (Peak wavelength 940 nm)
	Particle	IR LED (Peak wavelength 465 nm) Photodiode (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 µA	
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	≤ 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	φ104 mm x H 33 mm (Detector head only) φ104 mm x H 48 mm (Detector head and VDOT-UB4 Base)	
Weight	105 g (Detector head only) 170 g (Detector head and VDOT-UB4)	
Standard	UL268 and UL521	

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

Velocity DETECTION OVER TIME
The UL864 Brand Manufactured By Zeta Alarms Ltd
Zeta

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