

VDOT-DPH
ADDRESSABLE DUAL OPTICAL/HEAT DETECTOR

■ 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.

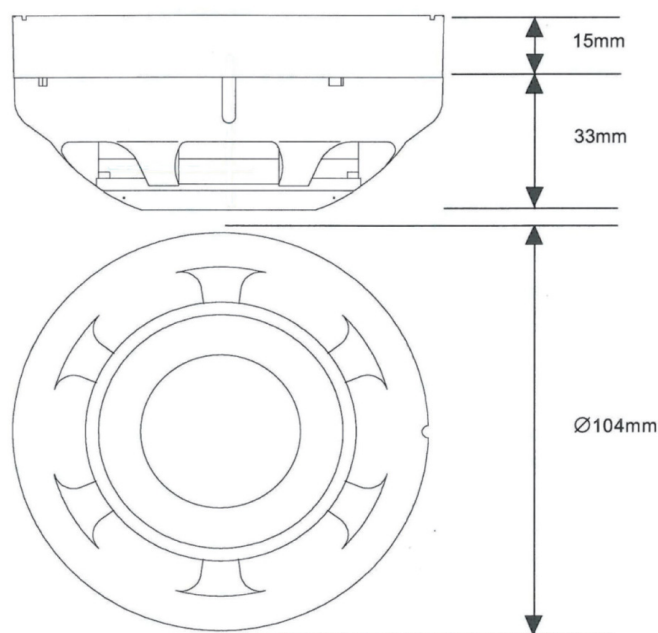
The VDOT-DPH Dual Optical Detector goes one step further and uses both IR and blue LEDs to provide a more accurate measurement of particles within the chamber. By calculating the ratio of these light sources, which operate at different wavelengths, the VDOT-DPH can determine the particle size and thus 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.

■ 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.
- 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.
- Corresponds to auto-test function of Velocity MMP series control panel.

■ 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.

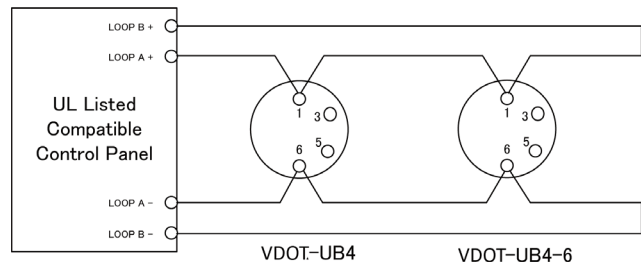
** The VDOT-ADP Adaptor Mounting Plate is intended for the VDOT-STB-RL Relay Mounting Base and VDOT-STB-SCI Short Circuit Isolator base for applications where a 4 inch square or octagonal electrical junction box is required.

■ 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 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 | ≤ 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.



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