

## ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR

## VDOT-PY



### Description

#### Introduction

The VDOT-PY is an attractively-styled, low profile, analog addressable, photoelectric smoke detector for use with the VelocityMMP control panel series in analog fire alarm systems. This analog addressable photoelectric smoke detector has a specific detector address to provide exact detector locations throughout the installation. This allows for constant monitoring of the detector sensitivity and reports the detectors condition to the fire alarm control panel.

#### Detector Models

The VDOT-PY has a new sophisticated smoke chamber design and an orange sensor LED which can provide the same sensitive detection regardless of the type of smoke.

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

The VDOT-PY has two terminals for connection onto the two wire loop. The remaining terminal provides a switched current sink function which operates when the detector goes into alarm condition, suitable for the operation of an auxiliary function such as a remote indicator. Terminal 3 (RIL) is limited to 2mA.

### 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                |

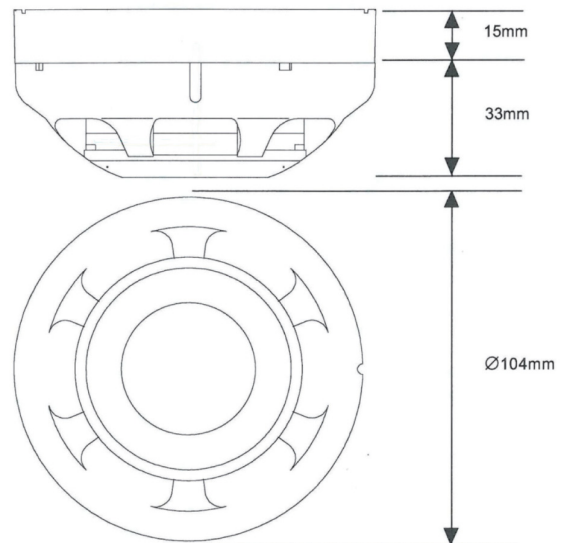
\* The Model VDOT-UB4-6 base is intended for applications where a 4 inch square or octagonal electrical junction box is required.

\*\* 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.

### Features

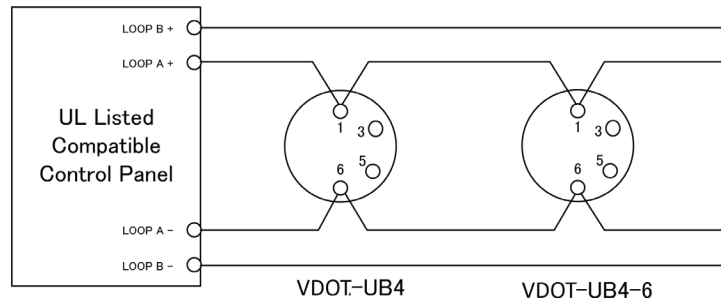
- Responds well to both black and white smoke.
- Low Profile, stylish appearance.
- Low monitoring current.
- OMNIVIEW™ 360° LED.
- Remote indicator output.
- Locking mechanism to avoid unauthorised removal.
- Supplied with protective dust cover.
- Address settable from 001 to 254 by a dedicated programmer.
- Automatic sensitivity compensation.
- Adjustable sensitivity via control panel software.
- Corresponds to auto-test function of Velocity MMP series control panel.

### Dimensions:



## Wiring

SLC Line impedance is 50Ω at maximum and the maximum length is 2km. Use cable AWG12-20 for wiring.



## Terminals

The VDOT-PY detectors all have three terminal connections and the terminals are configured as follows:

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

Note: Terminal 3 is used for the Relay Mounting Base VDOT-STB-RL

## Specifications

| Specifications               | VDOT-PY                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------|
| Detector Element             | LED : Peak wavelength 630 nm<br>Photodiode : High-output, high-speed silicon photodiode       |
| LED Visual Indicator         | Stand-by - Flashing green LED<br>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                  | 0.69 %/Ft. to 2.86 %/Ft                                                                       |
| 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)<br>φ104 mm x H 48 mm (Detector head and VDOT-UB4 Base) |
| Weight                       | 105 g (Detector head only)<br>170 g (Detector head and VDOT-UB4)                              |
| Standard                     | UL268                                                                                         |

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



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