Instruction Manual

VDOT-S6 Base

Sounder Base
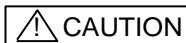
Before Installation

Please read these instructions carefully and keep for future reference.

The information in this document is subject to change without notice. For updates please refer to our website.

⚠ CAUTION

Do not use the products outside the rated power supply voltage range specified in the Specifications. It may cause a fire or damage to equipment.

⚠ CAUTION
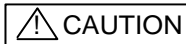
Do not disassemble, repair, or modify the products. It may cause a fire or electric shock.

⚠ CAUTION

Make sure to turn the power off before commencing any wiring work. Otherwise it may cause electric shock or damage to equipment.

Note: Follow the requirements for the installation of the products in accordance with the Specifications. Otherwise it may cause malfunction.

Note: Do not install the product in any location where oil, dust, iron powder, chemicals, or hydrogen sulphide may occur or affect the product. It may cause damage to equipment.

Section 1 – INTRODUCTION

VDOT-S6 Base is a detector base with sounder which is individually or collectively controlled by Velocity MMP Control Panel series using addressable system and designed to be used with the model VDOT-PY, VDOT-PYH, VDOT-DPH, and VDOT-H2 detector head.

The detector base has 4 sound patterns which are continuous, march, ANSI 3 temporal and 4 temporal patterns. These patterns which are used in and around buildings can be selected by the control panel. Only ANSI 3 temporal pattern shall be used for UL Listed applications.

The sounder pressure level at 3 m (10 ft.) from the base is over 85 dB.

127 bases can be connected to a loop of the control panel.

The base is designed to be mounted to 3-1/2" octagonal, 4" octagonal or 4" square electrical box.

Section 2 – TERMINALS

VDOT-S6 Base is supplied with 5 terminals as standard. The terminals of VDOT-S6 Base are configured as follows:

Terminal	Description
1	SLC positive
3	Not used
6	SLC negative
I+	Aux. supply positive
I-	Aux. supply negative
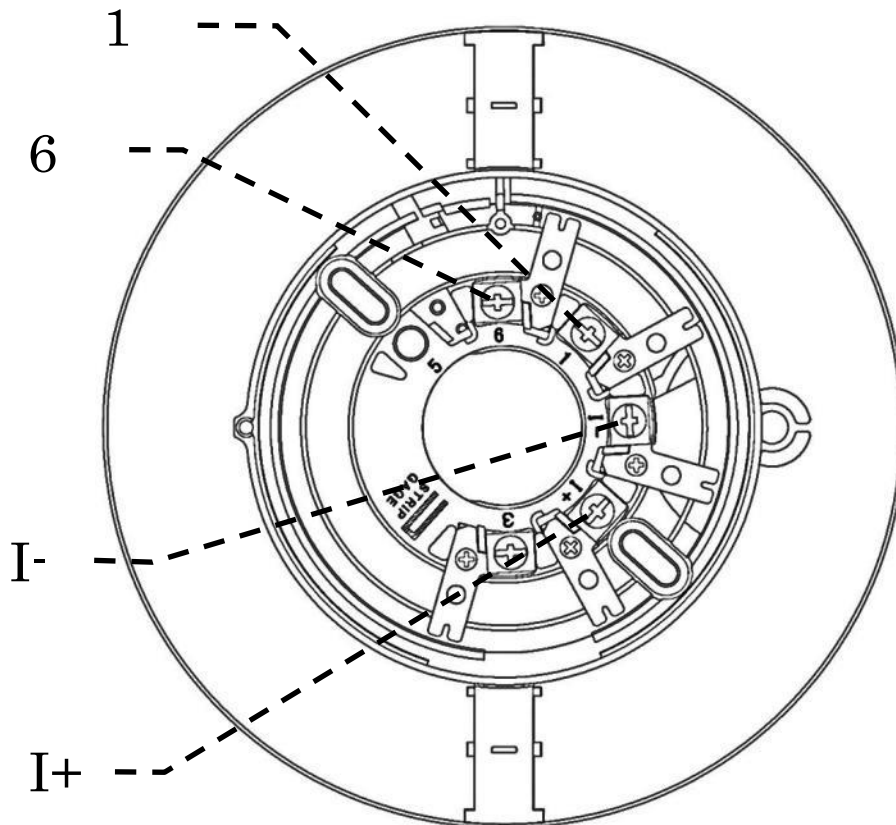
Figure 1: Position of terminals

Section 3 – DIMENSIONS
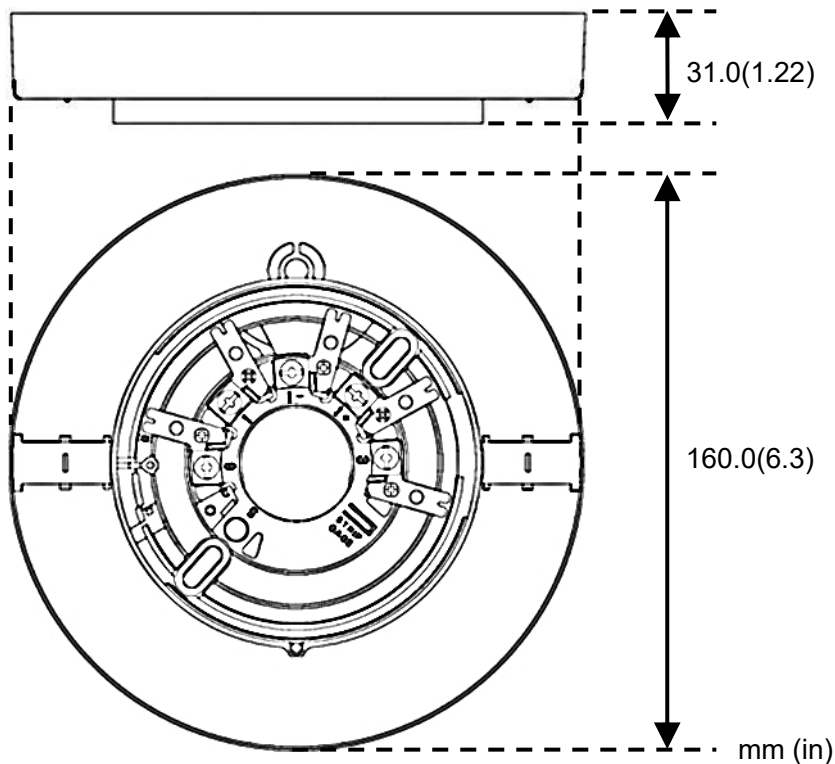
31.0(1.22)

160.0(6.3)

mm (in)

Figure 2: Dimension of VDOT-S6 Base

Section 4 – DETECTOR MODELS

VDOT-S6 Base is available for use with the VDOT series detectors. It is important to use the correct detector for each application. The standard range of detectors available is as follows:

Model	Description	Instruction Manual
VDOT-PY	Analog addressable photoelectric smoke detector	GLT-299-7-1
VDOT-PYH	Analog addressable combination photoelectric smoke and heat detector 57°C (135°F) with 8.3°C (15°F) rate of rise	GLT-299-7-4
VDOT-H2	Analog addressable heat detector 57°C (135°F) with 8.3°C (15°F) rate of rise	GLT-299-7-2
VDOT-DPH	Analog addressable combination photoelectric smoke (dual wave length) and heat detector 57°C(135°F) with 8.3°C (15°F) rate of rise	GLT-299-7-5

Section 5 – GENERAL OPERATION

VDOT-S6 Base is controlled by Fire Alarm Control Panel series for emitting alarm and selecting sound pattern. The panel initiates the sound of the base individually or collectively and also the panel selects the sound from 4 patterns which are continuous, march, ANSI 3 temporal and 4 temporal according to a "Job data" (site-specific data). Only ANSI 3 temporal pattern shall be used for UL Listed applications.

When the base is disconnected from SLC, the control panel indicates fault warning. Meanwhile, if the fault warning caused by open or short circuit on the AUX. power circuit is required to be indicated on the panel, use PCE and VDOT-MiniIP as described in Section 8.

Section 6 – ADDRESS SETTING

The VDOT-S6 Base requires compatible addressable communications to the control panel in order to function properly. All sounder bases have random addresses from the factory before installation. The VDOT-AD2 Address Programmer is used for setting the address between 1 and 254 decimal of all devices prior to installation. See Annex A for the handling. Once addressed, connect to Fire Alarm Control Panel series.

Note: Address setting for VDOT-S6 Base needs to be executed in the condition of being unwired to SLC.

Section 7 – INSTALLATION

The product must be installed in accordance with the applicable NFPA standards, local codes and jurisdictional authorities. Failure to follow these instructions may result in failure of the detector to report an alarm condition.

Note: ZETA ALARMS LIMITED is not responsible for the product which is improperly installed, maintained and tested.

The sounder base is designed to be mounted to 3-1/2" octagonal, 4" octagonal or 4" square electrical conduit box. Before installing the product, check the continuity, polarity and insulation resistance of all wiring. Check that siting is in accordance with the site system drawings and conforms to all applicable local codes such as NFPA 72.

In normal use, the **VDOT-S6 Base** will be installed at ceiling level or wall position. Please refer to specific detector instruction manual for details. Pass the field wiring through the cable opening in the center and from the rear of the base. Install the base to the electrical box with screws via the base mounting holes. Connect the field wiring to the base terminals, as detailed in Figure 5.

Install the detector head by inserting it into the base and turning clockwise until the notch in the detector rim aligns with base locking screw. To avoid unauthorized removal, turn the locking screw counterclockwise until the screw extends out about 4 mm (3/16") from the rim of the base (See Figure 4).

Note: If the detector is installed on a high ceiling where a tool (ladder, etc.) is needed, it is not recommended to use the locking screw.

⚠ CAUTION
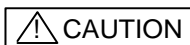
Smoke and heat detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.
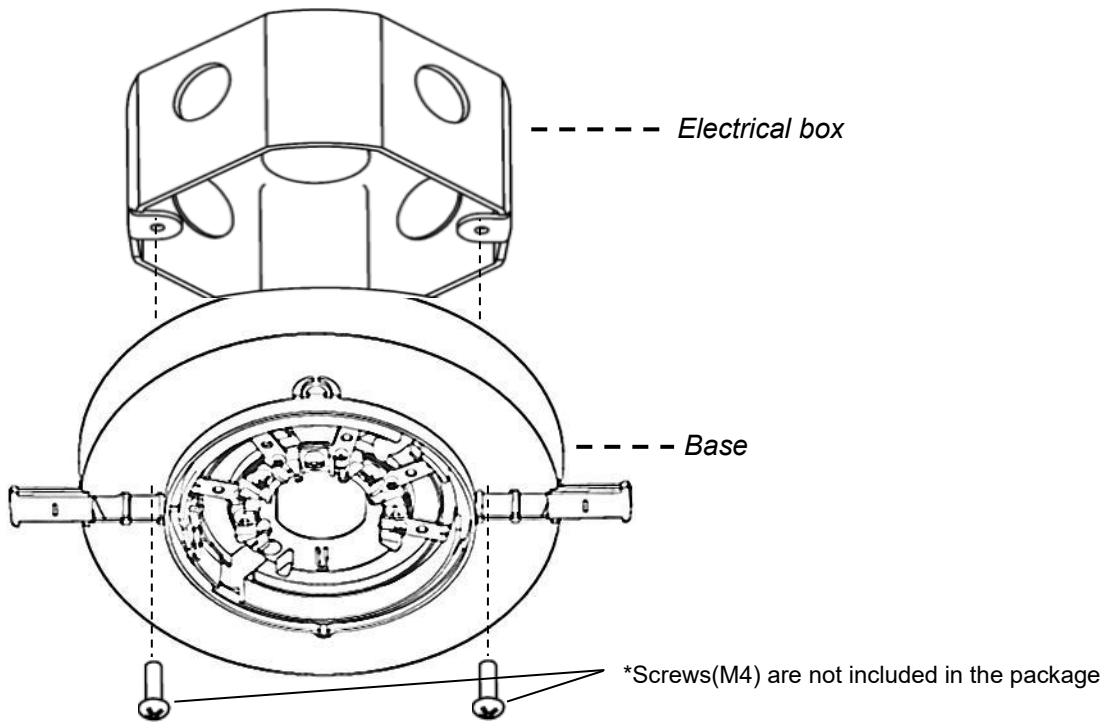

Electrical box

Base

*Screws(M4) are not included in the package

Figure 3: Installation to electrical box

Locking Screw

Turn the locking screw counterclockwise until the screw extends out about 4mm (3/16") from the rim of the base.
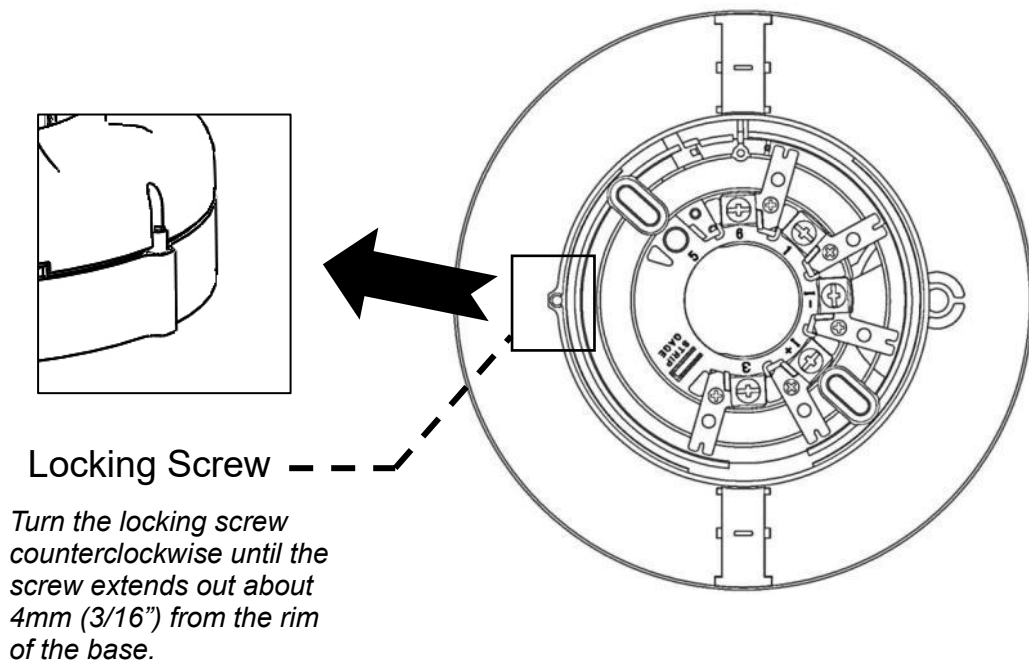
Figure 4: Position of locking screw

Section 8 – CONNECTIONS

Splice connector or terminal block should be used.

LOOP+
LOOP-
LOOP+
LOOP-

UL Approved Control Panel Series

VDOT-S6   6   1   I-   I+

VDOT-S6   6   1   I-   I+

L-   L+
VDOT-MiniIP
A+   A-

A+   A-
VDOT-PCE

AUX. PWR+
AUX. PWR-

+24V
24VG

24 VDC Power supply isolated, regulated, power limited per NFPA 70, listed for fire protection with battery backup.

If the AUX. power supply circuit needs to be monitored to detect short circuit or open circuit, connect VDOT-PCE (end-of-line supervision module) to the end of the AUX. power supply circuit and VDOT-MiniIP to SLC. For details, refer to "PCE Instruction Manual".
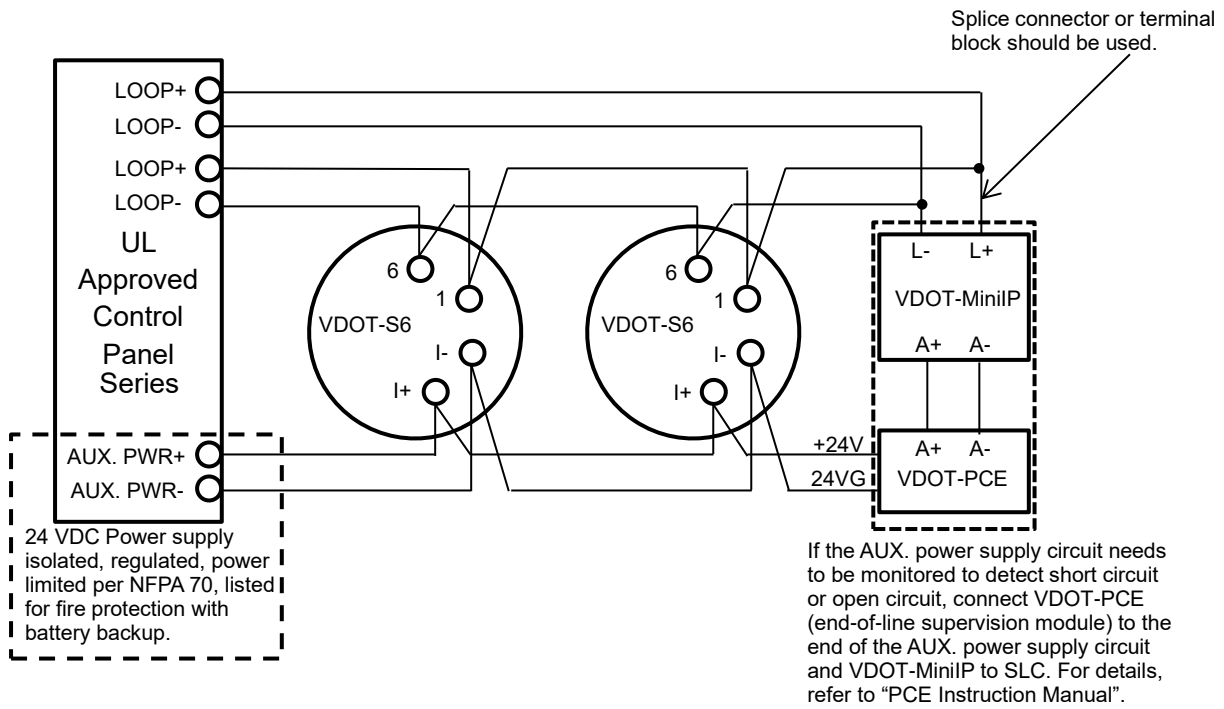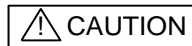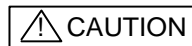
Figure 5: Connection to control panel series

⚠ CAUTION

Use cable AWG12-20 for wiring. Do not connect different gauge cables at one terminal in order to prevent loosening.

⚠ CAUTION

Do not connect cables in reverse polarity. Failure to connect the polarity correctly could result in damage to other equipment.

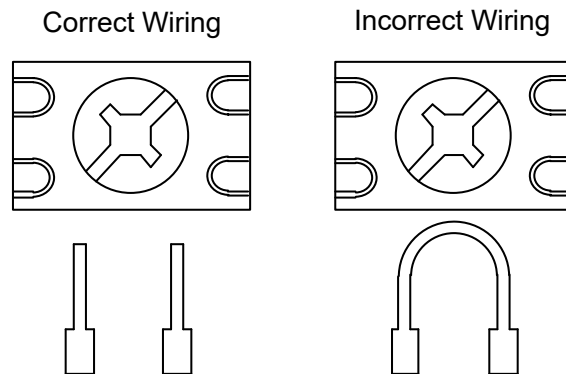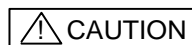Correct Wiring   Incorrect Wiring

Figure 6: Connection to terminals

⚠ CAUTION

For system monitoring — For terminals 1, 6, I+ and I- do not use looped wire under terminals. Break wire run to provide monitoring of connections.

Section 9 – MAINTENANCE

9.1   Maintenance

The **VDOT-S6 Base** is a high quality product engineered for reliability. In order to obtain optimum performance, periodic maintenance is required, at least in accordance with NFPA 72 chapter 14 "Inspection, Testing and Maintenance".

9.2   Routine Inspection

Ensure the detector head and the base are secure and undamaged.

9.3   Operation Test

The purpose of the Operational Test is to confirm the product's correct operation in response to an operation of initiating devices.

Notes: • Before testing, notify the proper authorities that the system is undergoing maintenance, and will temporarily be out of service.
    • Disable the system to prevent unwanted alarms.
    • All the **VDOT-S6 Bases** must be tested after installation and periodically thereafter.
    • Testing methods must satisfy the Authority Having Jurisdiction (AHJ).
    • When carrying out site testing of the product, the control panel must be set to "One Man Walk Test" mode prior to the test.

1) Take any necessary precautions to limit the sounding of the alarm sounders/bells and fire service summoning device.

2) Test the detector in accordance with each detector's instruction manual as specified in Section 4. Check that the LED indicator on the detector illuminates. When the detector goes into an alarm status, confirm that the base emits the alarm (sound pattern) which is configured in the Job data.

3) After the detector has given the alarm condition, the detector automatically is reset from the control panel. It may be necessary to allow a short time to elapse before resetting the detector.
Confirm that the alarm of the base stops sounding.

4) If the base fails these tests it should be returned for repair.

Section 10 – SPECIFICATIONS

SLC Applied Voltage	Rated Range 20VDC to 38VDC
AUX. Supply Voltage	Rated Range 16VDC to 33VDC
SLC Current Consumption	Standby 0.5mA Alarm 1.4mA
AUX. Supply Current Consumption	Standby 0.5mA Alarm 20mA
SLC Line Impedance	Up to 50ohms (See note 1)
AUX. Supply Line Impedance	1.76 ohms@85 bases in alarm
UL Ambient Installation Temperature Range	0℃（32°F) to 38℃（100°F)
Operating Temperature Range	-10℃（14°F) to 55℃（131°F)
Storage Temperature Range	-20℃（-4°F) to 60℃（140°F)
Max Relative Humidity	Up to 95％ RH, non-condensing
Environment	Indoor dry use only
Addressing Method	Soft addressing, non-volatile EEPROM
Address	1 – 254 (dec)
Maximum Quantity per Loop	127 units (See Note 1)
Terminal	AWG12 - 20
Dimensions	Φ160.0 mm x 31.0 mm H (Φ6.3" x 1.22" H)
Weight	Approximately 170g (6.0 ounces)
Conformity	UL268 and UL464

Note 1: Refer to the Installation and Operation Manual of control panel NFU-7000 series to determine correct loop load and maximum loop resistance for devices connected to each loop.

FOR WARRANTY SERVICE, RETURN TO:

ZETA ALARMS LIMITED

72-78 MORFA ROAD, SWANSEA, SA1 2EN

http://www.zetaalarmsystems.com

Section 11 – WARRANTIES

11.1. Zeta warrants to the customers that:

(a)   all products supplied hereunder will be of merchantable quality and will comply with any specification agreed between Zeta and customer.

(b)   it is not aware of any rights of any third party in the market which would or might render the sale of the products, or the use of any of the trade marks on or in products, or the use of any of the trade marks on or in relation to the products, unlawful.

11.2. In the event of any breach of the Zeta's warranty in Clause 1.1(a) whether by reason of defective materials, production faults or otherwise, Zeta's liability shall be limited to:

(a)   replacement of the products in question; or

(b)   at the Zeta's option, repayment of the price where this had been paid.
And the warranty period is three (3) years from the shipment from Zeta's factory.

11.3. Notwithstanding anything to the contrary in this warranty terms, Zeta shall not be liable to the customer by reason of any representation or implied warranty, condition or other term or any duty at common law, or under the express terms of this warranty terms, for any consequential loss or damage whether for loss of profit or otherwise and whether occasioned by the negligence of Zeta or its employees or agents or otherwise, arising out of or in connection with any act or omission of Zeta relating to Zeta or supply of the products, their use by any customer.

11.4. Customer shall indemnify Zeta against all loss, damages, liabilities, costs and expenses which Zeta may suffer or incur as a result of or in connection with any breach by customer of this warranties terms or any laws or regulations of any jurisdiction or any rules of any governing authorities.

Annex A
Quick Instruction of VDOT-AD2

This quick instruction of VDOT-AD2 is prepared to VDOT-S6 Base. Please refer to "VDOT-AD2 programmer instruction manual (GLT-299-7-19 Rev.0)" for details.

Preparation

1. Connect the cable, which has 10/100base-T connector at the end and alligator clips at the other end, to the left side of the VDOT-AD2.
2. VDOT-AD2 requires two 9v PP3 batteries.
   a) Before inserting the batteries, confirm the VDOT-AD2 is switched off and check polarity of battery, or damage could result.

Indicate current address

1. Turn the power switch ON.
   a) For one second, all LED's are lit and the buzzer sounds.
2. Connect the red alligator clip to the terminal 1 of VDOT-S6 Base and the black alligator clip to the terminal 6.
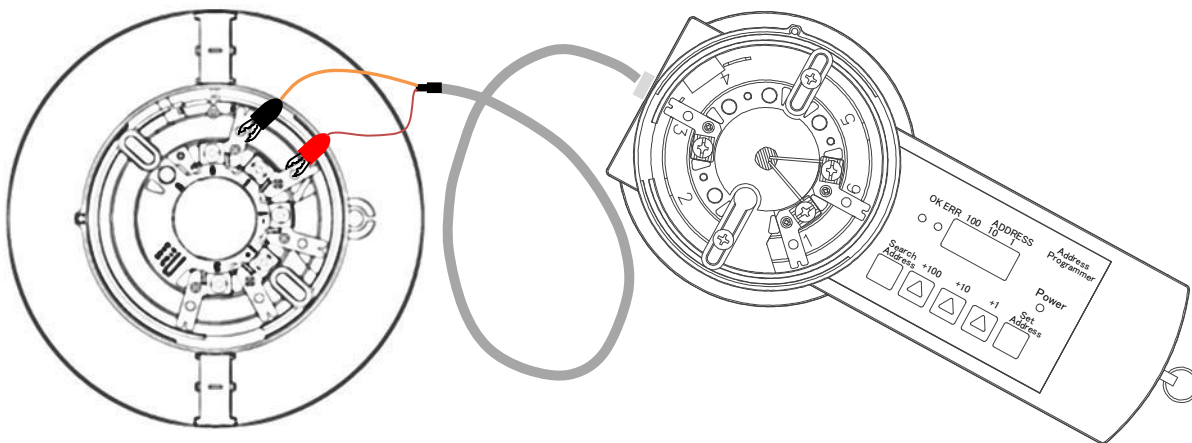

Figure A.1: Connection between VDOT-AD2 and VDOT-S6 Base

3. Press the [Search] Key
   a) Buzzer sounds, then the VDOT-AD2 starts transmitting to the base.
   b) Do not remove the base when transmitting, or damage could result.
4. The 7 segment LED reads [Customer code], [Type of device], [Address] in turn.
   a) The buzzer sounds, ERROR LED lights and the 7 segment LED display's an ERROR CODE when an unsupported or defective device is connected.

GLT-299-7-10 Rev.0
Jun 12, 2018

$$0.1\,1 \quad \rightarrow \quad 1\,2.3 \quad \rightarrow \quad 0\,0\,3.$$

↑   ↑   ↑

Customer code   Type of device   Address
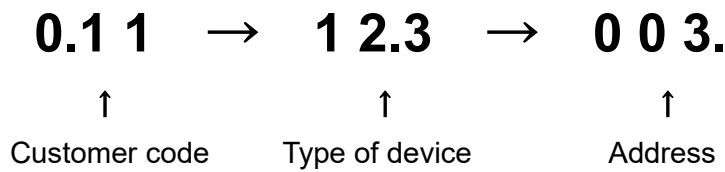
【Note - Dot position】

The 7 segment LED distinguishes the Customer Code, Type and Address by the dot position in the LED.

The information displayed by the 7 segment LED cycles every second and stops whilst displaying the [address] at the end of the second cycle.

Type of device is assigned to the base as below.

   VDOT-S6 Base: 120

Pressing any key at any time during the information collection cycle, forces the VDOT-AD2 to display the address, and await new address selection.

Set new address

1. +100, +10, +1 keys are used to select the new address.
2. Press the [Set] key.
   a) The buzzer sounds, and all LED's are turned off. The VDOT-AD2 then starts transmitting to the base.
   b) Do not remove the base.
3. The 7 segment LED shows the new address and "complete" LED lights. If an unsupported or defective device is connected the buzzer sounds, ERROR LED is lit and the 7 segment LED reads ERROR CODE.
4. To continue changing the address for another base, change the base and then repeat from paragraph 3.

To finish changing addresses, turn the POWER SW off.