

# VPh Sensor User Manual



**VPh Sensor User Manual**

Document Number DVXXXX

01-May-18

Rev. A



# VPh Sensor User Manual

## Contents

1.0	Safety .....	3
2.0	Introduction .....	3
3.0	Features .....	5
4.0	How To .....	6
5.0	Specifications .....	9

DRAFT

# VPh Sensor User Manual

## 1.0 Safety

### FOR SAFE BATTERY USE:

Keep the batteries out of children's reach

Any battery may leak battery acid if mixed with a different battery type, if inserted incorrectly (put in backwards) or if all batteries are not replaced or recharged at the same time. Do not mix old and new batteries. Don not mix alkaline, standard (carbon-zinc), rechargeable (nickel-metal hydride, nickel-cadmium), or Lithium (Thionyl Chloride) batteries.

Any battery may leak battery acid or explode if disposed of in fire or any attempt is made to charge a battery not intended to be recharged. Never recharge a cell of one type in a recharger mad for a cell of another type.

Discard leaky batteries immediately. Leaky batteries can cause skin burns or other personal injury. When discarding batteries, be sure to dispose of them in the proper manner, according to your state and local regulations.

Remove batteries before storing product for a prolonged period of time. Batteries let in the unit may leak and cause damage.

Recommended type batteries – 3.6V lithium disposables, Thionyl Chloride (Li-SOCI<sub>2</sub>). NEVER mix battery types. Change batteries when product ceases to operate satisfactorily.

**DO NOT** use the AC adapter if it has been exposed to liquids, has been dropped, or is damaged.

Protect the power cord. Place it so it is not walked on or pinched by appliance or other items.

**Warning:** this product is not explosion proof and is not rated for intrinsically safe installations.

## 2.0 Introduction

The VPh sensor integrates with Mesa's ViewPoint software version 1.X or above. The VPh 900 MHz sensor operated in the 902 to 928 ISM band.

This device compiles with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

<VPh Sensor Label>

# VPh Sensor User Manual

## 2.1 FCC NOTICE

### WARNING

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- \* Reorient or relocate the receiving antenna.
- \* Increase the separation between the equipment and receiver.
- \* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- \* Consult the dealer or an experienced radio/TV technician for help.

Operation with non-approved equipment is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

**Exposure Notice:** To satisfy RF exposure requirements, this device and its antennas must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

## 2.2 Industry Canada

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

# VPh Sensor User Manual

## 3.0 Features

### 3.1 Button and LED Sequences

VPh has a single button and corresponding LED sequence(s) to be use in order to turn on, connect, and check the status of the VPh sensor. VPhs button is located on the top right of the ViewPoint Monitoring System label, just to the right of the LED.



Status	Button Press	Description
Power Up/Connect	Two button presses within one second	LED will display short pulses showing the sensor is turned on and looking for connections. As VPh assesses link partners the LED pulses will become shorter until the LED goes solid for 10 seconds indicating a connection has be established.
Status Check (Normal)	Single button press for < 3 seconds	LED will display solid for 10 seconds indicating that the sensor is connected.
Status Check (Broken Link)	Singe button press for < 3 seconds	LED will pulse a single time indicating a broken link state
Status Check (Deep Sleep)	Single button press for < 3 seconds	LED will pulse twice indicating the sensor is in Deep Sleep mode. Follow Power Up/Connect process to wake sensor up.
Fast Transmit Mode	Two button presses within one second (while linked)	Transmit current reading and engage fast transmit mode

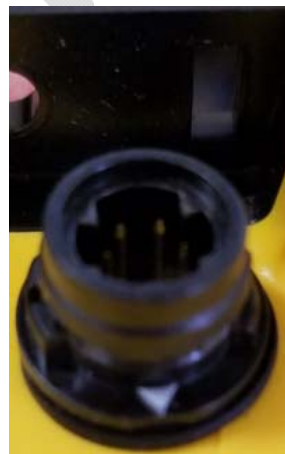
# VPh Sensor User Manual

		where readings will be transmitted every minute for 15 minutes
Reconnect	Two button presses within one second (broken link)	Resets link state and restarts the connection process

## 4.0 How To

### 4.1 Connect, Disconnect, and Replace Probe

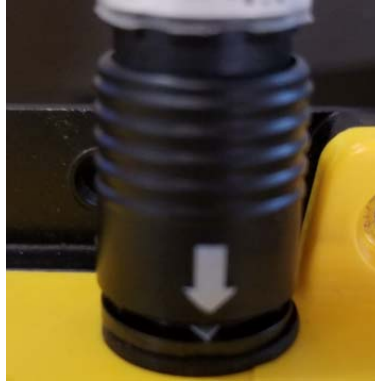
VPh utilizes a Hirose connector to simplify and streamline the process to connect, disconnect, and or replace the probe(s) utilized with the VPh sensor. The female portion of the Hirose connector has a specific pin-out that matches that of the male connector located on the VPh sensor.



# VPh Sensor User Manual

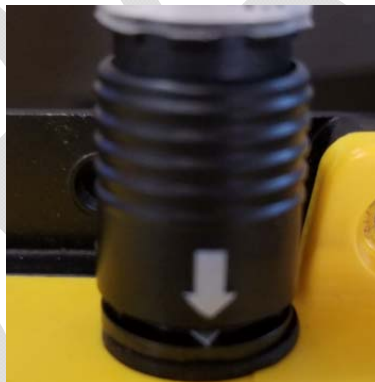
## 4.1.1 Connect Probe

In order to connect a probe (or extension cable) to the VPh sensor, match the arrow located on the probe connector with the triangle on the sensor connector and press down until seated.



## 4.1.2 Disconnect Probe

In order to disconnect/remove a probe (or extension cable) from the VPh sensor, pull up slightly on the ridged portion of the probe connector (it will slide up slightly) and disconnect from the sensor connector.

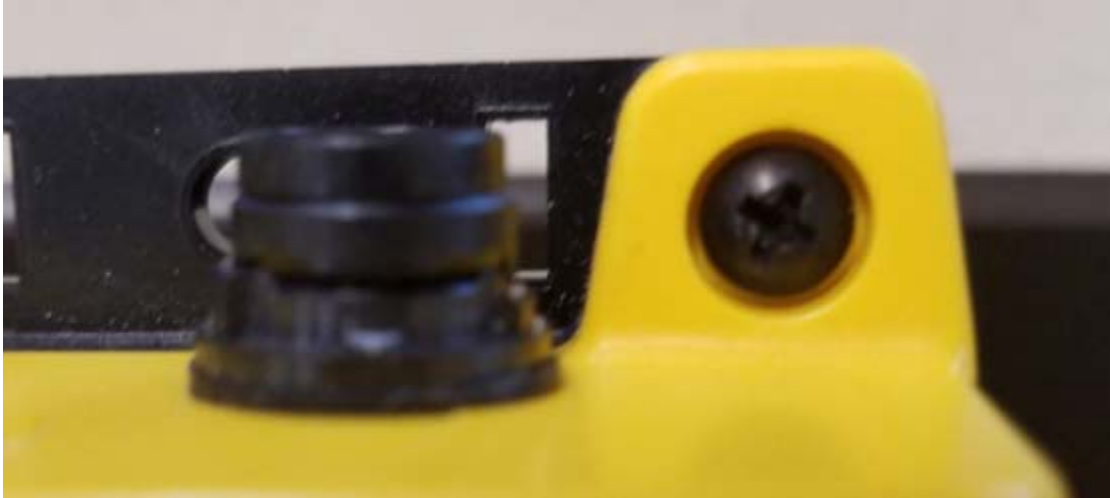


## 4.2 Battery Replacement

To Replace the (2) 1.5V alkaline batteries in the VPh sensor, remove the screw on the top right corner of the sensor and pull back the faceplate to open the unit.



# VPh Sensor User Manual



After replacing the batteries, place the front and rear faceplates back together, replace the screw and hold button for < 3 seconds.



# VPh Sensor User Manual

## 5.0 Specifications

### 5.1 Input Types

Type	Product Code	Application Range
3" Stainless Steel (Temperature)	72105-SS-12	-30 °C to +60°C
Temperature/Humidity	72112	+10°C to +40°C and 10% RH to 90%RH
Air Probe	72107	-30°C to +60°C

### 5.2 Sensor

Power	2 x AA Alkaline Battery
Memory	??
Installation	Velcro, Screw, or Tape
Size	2.6in W, 4.2in L, 1.6in H