## vLocPro2

# Precision and reliability when locating



- Smaller and lighter than the previous model
- More than double the battery power
- Available functions can be switched on and off as needed
- Customisable start screen

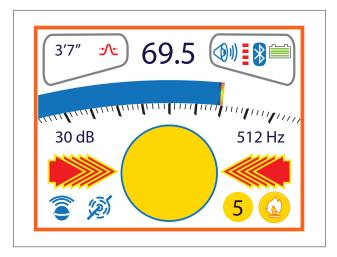


#### **DESCRIPTION**

#### vLocPro2

The vLocPro2 builds on the functions of the first vLocPro for improved locating efficiency.

- Carbon-reinforced plastic housing
- Protection class IP 54 for use in any weather conditions
- Colour display
- High-speed processor
- Several location modes with orientation using a compass
- A large number of available frequencies
- Depth/amperage at the press of a button or sustained
- Normal and modulated audio modes (separately selectable for the operating modes "current", "radio" and "active")
- Signal direction for improved reliability in locating
- Optional "time-off" function
- Rechargeable and alkaline batteries
- Optional accessories



## The vLocPro2 includes the following additional functions:

- Plug & Play Bluetooth (customer-installed)
- Lithium-ion rechargeable batteries (including new battery management software) with more than four-fold longer service life\*
- MyLocator2 configuration management software for vLoc Series 2

(\*Comparison of vLocPro with NiMH and vLocPro2 with lithium-ion rechargeable batteries at 22  $^{\circ}\text{C})$ 

Equipment set Applications	vLocPro2 standard 1 W	vLocPro2 standard 5 W	vLocPro2 Signal Direction 5 W	vLocPro2 Bluetooth – Signal Direction 5 W	vLocPro2 standard 10 W	vLocPro2 Signal Direction 10 W	vLocPro2 Bluetooth – Signal Direction 10 W
Ground survey	✓	✓	✓	✓	✓	✓	✓
Routing	✓	✓	✓	✓	✓	✓	✓
Drawing plans	✓	✓	✓	✓	✓	✓	✓
Cable selection & read-out	_	✓	✓	✓	✓	✓	✓
CCP (100 Hz cathode corrosion protection)	✓	✓	✓	<b>√</b>	✓	<b>√</b>	✓
Camera/probe location	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Locating non-metallic lines together with probes (pigs)	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Sheath fault location	_	✓	✓	✓	✓	✓	✓

#### **Transmitter**

Several transmitters are available for use with the vLoc receivers. All transmitters are equiped for inductive mode via internal transmitter coil, direct connection and signal clamp operation.

- The single watt Loc-1Tx is a transmitter with three frequencies for close range applications.
- The 5 watt **Loc-5Tx** transmitter offers several frequencies, signal direction (SD) and sheath fault location modes.
- The 10 watt **Loc-10Tx** transmitter includes the maximum available number of frequencies and true 10 W power as well as signal direction (SD) and sheath fault location modes.
- The **Loc-5Tx** and the **Loc-10Tx** can transmit two frequencies simultaneously.
- The Loc-1Tx, Loc-5Tx and Loc-10Tx all have built-in batteries.



The use of GPS with location devices is on the rise in our industry. The compatibility of vLoc2 systems with a number of GPS receivers enables the user to select a GPS device of the required precision which also meets budget constraints.

- Combined GPS location with location data (such as depth, amperage, etc.)
- Date and time stamp upon concluding the location Collection of location data for use in card databases or reports
- New Plug & Play Bluetooth module which you can install





#### **RECEIVER ACCESSORIES** (specify receiver model when ordering accessories)

#### A frame

For determining the position of the sheath fault



#### Reader antenna

For cable identification



#### **Bluetooth**

Enables connection via Bluetooth to other Bluetooth devices, such as GPS receivers. The user can equip receivers of the vLoc Series 2 with the Bluetooth module at a later date.



#### Charging cable (12 V DC)

4 m long cable for charging the receiver battery in a vehicle



## Rechargeable battery and charging unit for the receiver

Lithium-ion rechargeable batteries and charging unit



#### **Holux receivers**

Our receivers are compatible with many GPS devices via Bluetooth, including high-precision GPS devices.



#### **TRANSMITTER ACCESSORIES** (specify transmitter model when ordering accessories)

#### **Transmitter clamps**

For putting a transmission signal onto cables if direct accessing is not possible. Diameter 50 mm, diameter 100 mm, diameter 125 mm, 450 mm flexible.



#### LPC separation filter

For transferring the transmitter signal to cables with up to 240 V AC

#### Transmitter supply cable (12 V DC)

10 m cable for powering the transmitters through a vehicle



#### Rechargeable batteries and charging units for the transmitters

Loc-5Tx (5 watt transmitter), Loc-10Tx (10 watt transmitter), NiMH rechargeable batteries and charging units







#### **PROBE ACCESSORIES** (specify transmitter model when ordering accessories)

#### Battery-operated, stand-alone transmitters



**Type: D18**Diameter: 18 mm
Depth to 4 m



**Type: D38**Diameter: 38 mm
Depth to 5 m



**Type: D64**Diameter: 64 mm
Depth to 8 m



**Type: D23F**Diameter: 23 mm
Depth to 7 m

#### **TECHNICAL DATA\***

**Typical Applications** 

Description Multi-purpose precision locator receiver

Uses Locating & pinpointing the position of buried pipes and cables

**Receiver Assembly** 

Construction ■ Carbon fiber reinforced antenna tube

■ High impact thermoplastic (ABS) injection molded housing

Weight 2.1 ka

Dimensions (L x W x H) 262 mm x 122 mm x 639 mm **Display Type** Sharp TFT LCD 1/4 VGA color display,

89 mm

Receiver Antennas

2 x Peak antennas, 1 x null antenna, 1 x compass antenna

**Batteries Options** 

■ Rechargeable custom Lithium-ion batteries with 100 - 240 V AC mains charger

■ Replaceable (6 x standard Alkaline AA batteries) batteries can be used when required

■ Alkaline – typically 12 hours intermittent use at 21 °C

■ Lithium-ion – typically 40 hours intermittent use at 21 °C (with full backlight turned on). Re-charging cycles approx. 500 times life cycle. Battery life varies with temperature.

Bluetooth

**Battery Life** 

Plug and Play custom Bluetooth interface **External Connectors** 

1 x Socket for accessories port (analogue & digital)

1 x Mini USB socket for data transfer / programming

1 x Socket for battery charger

1 x Standard USB (Memory stick) socket for data transfer

Compliance/Approvals

■ Complies with European standard CE (Directive 99/5/EC)

• EN 55011

• EN 61000-4-2: A1 & A2

FN 61000-4-3

• EN 61000-4-8: A1

• ETSI EN 300 330-2

• ETSI EN 301 489-1

• ETSI EN 301 489-3

■ Complies with FCC Rules Part 15

• CFR 47 part 2

• CFR 47 Part 15

**Standard Accessories** 

■ USB data cable

■ 100-240V AC mains charger (Lithium-ion battery)

■ Soft carry bag (Roll around bag if purchased with transmitter)

User handbook

**Optional Accessories** 

Portable Transmitters: Loc-1Tx, Loc-5Tx, Loc-10Tx

Sondes (waterproof self-contained transmitters for use in pipes & ducts)

• D18-33-SR44 – 18 mm (ø) x 80 mm (L), 33 kHz, range 4.5 m, 2 x button cell batteries

• D38-33-AA – 38 mm (ø) x 105 mm (L), 33 kHz, range 5 m, 1 x AA battery

• D38-09-AA – 38 mm (ø) x 105 mm (L), 9.82 kHz, range 5 m, 1 x AA battery

• D38-83-AA – 38 mm (ø) x 105 mm (L), 83 kHz, range 5 m, 1 x AA battery

• D64-33-6LR61 – 64 mm (ø) x 186 mm (L), 33 kHz, range 8 m, 1 x 6LR61 battery

• D64-09-6LR61 – 64 mm (ø) x 186 mm (L), 9.82 kHz, range 28 m, 1 x 6LR61 battery

• D64-83-6LR61 – 64 mm (ø) x 186 mm (L), 83 kHz, range 8 m, 1 x 6LR61 battery

 D23F-512-AA / D23F-640-AA – 23 mm (ø) x 456 mm (L), 512Hz or 640Hz, range 7 m, flexible sonde in 3 sections for use in cast iron pipes as well as non metallic pipes, 1 x AA battery

■ A-frame USB (for Sheath Fault Finding)

■ Remote Antenna USB

■ Custom Bluetooth Module (Easy Fit)

■ GPS Module (Requires custom Bluetooth module above)

■ Vehicle charging lead (Lithium-ion battery)

#### **Operational**

#### Information Displayed

- Signal strength moving bar graph & numeric value
- Mode indication ("Peak", "Null", "Broad Peak", "Sonde" and "Peak with proportional left/right arrows" location)
- Proportional left/right indication
- Compass: full 360° line direction indicator
- Plug and play automatic recognition of accessories
- Accessory specific custom screen
- Line location depth & current measurement
- Sonde location depth measurement
- Gain level (in dB)
- Frequency selected
- Battery condition
- Speaker volume
- Operating frequency
- Bluetooth and GPS status
- Configuration menu & submenus
- Start up screen product and USB accessories software revision
- Customer definable start up screen

#### Configuration

Intuitive setup menu enables user to configure:

- Setup frequency selection to toggle by "f" pushbutton
- Setup location mode selection to toggle by "m" pushbutton
- Sonde / line location
- Units of measure (feet/meter)
- Power and radio modes 50Hz or 60Hz environments
- Sound (Pitch) normal/modulated
- Language
- Continuous depth/current options
- Loudspeaker level
- Backlight
- Bluetooth pairing if fitted
- Auto shut down 2 or 5 minutes or never

#### **Internal Data Logging**

- At least 1000 records.
- All parameters stored at each location including Depth, Current, Mode, Gain Setting, and Frequency.
- If connected to GPS (via Bluetooth) data also recorded with coordinates and date time.
- Files can be saved as .kml, .txt, .xls, .shp.
- Data transfer program MyLocator2 available from www.vivax-metrotech.com

# Operating Frequencies Pre-defined Frequencies

Frequency set listed below.

Configurable frequencies from 16 Hz to 200 kHz.

Signal Direction – Some specific models include a feature called SD (Signal Direction) in addition to the above the transmitter will have two combinations of SD frequency.

SD-USA 256 Hz/512 Hz SD-EUR 320 Hz/640 Hz

Vivax-Metrotech Corporation retains the right to make additions or deletions to this list at any time.

#### **Operating Modes**

- Peak
- Null
- Sonde
- Broad Peak
- Peak with proportional left/right arrows

#### Gain Control Data Logging

Manual gain using "+" or "-" with one touch to return to center (60 % of FSD)

#### ■ 1000 records

■ Records include depth, current, frequency, mode, gain setting, signal strength, GPS coordinate, date and time (if Bluetooth active)

#### Data Transfer

Uses vivax-metrotech software application tool available free of charge from www.vivax-metrotech.com. Data can be saved in following format: xlx, txt, fhp, kml (Google earth)

Performance Using Single Undistorted Signal Source Locate pinpointing accuracy:

■ up to 3 m - 3% of depth ■ over 3 m - 5% of depth

Depth measurement accuracy:

■ 3% of depth

Current measurement accuracy:

- 3% of actual current up to 3m
- 5% of actual current over 3m

Depth range: Dependent on strength of signal radiating to locator

Compatible with Transmitter Loc-1Tx, Loc-5Tx, Loc-10Tx

Sensitivity

Mode Sensitivity at 1 m

 $\begin{array}{lll} \textbf{50 Hz/Power mode} & 7.5 \text{ mA} \\ \textbf{Radio mode} & 20 \text{ } \mu \text{A} \\ \textbf{512 Hz/640 Hz} & 400 \text{ } \mu \text{A} \\ \textbf{8 kHz} & 40 \text{ } \mu \text{A} \\ \textbf{32 kHz and Above} & 25 \text{ } \mu \text{A} \\ \end{array}$ 

**Environmental** 

**Temperature Range** Operating: - 20 °C to 50 °C

Storage: - 40 °C to 60 °C

Weather Proof IP54 and NEMA 4
Shipping Weight 17 kg (with transmitter)

Shipping Dimension 765 mm x 285 mm x 445 mm (with transmitter)

(L x W x H)

703 Hill X 203 Hill X 443 Hill (With transmitter)

Warranty

Warranty 24 months

Upgrade

**Software** Software can be upgraded using a PC with USB port. Programs & locator software will be available via MyLocator2.

#### H. Holux Bluetooth GPS (Optional Accessory)

**Overview** The M-1200 high performance BluetoothTM GPS Receiver which featured with: Built-in rechargeable

Lithium-ion battery without external power supply

Weight 30

Dimension (L x W x H)

67 mm x 23 mm x 16 mm

Specification

■ Tracks up to 32 satellites

■ Receiver: L1, 1575.42 MHz

C/A code: 1.023 MHzUpdate rate: 1 Hz

Antenna type: built-in patch antennaMinimum signal tracked: -159 dBm

■ On/Off switch: slide switcher

■ Lithium-ion battery lasts for 15 hours of use

■ Accuracy better than 3 m when receiving SBAS correction signal

**LED Indication** ■ Bluetooth

■ Navigation update

■ Battery/charger status indication

Temperature Range

■ Store Temperature

- 20 °C to 60 °C
- 30 °C to 80 °C (without Lithium-ion battery)

■ Operation Temperature:

 $\bullet\,$  - 10 °C  $\,$  to 60 °C  $\,$ 

#### **Features**

#### **Enhanced Features**

- Reduced size and weight with enhanced ergonomic design
- Improved power management and Lithium-ion rechargeable batteries provide longer battery life (approx. 300 % improvement from vLocPro)
- Auto detects batteries type (Lithium-ion/Alkaline) and displays appropriate status
- Non-reflective display
- Enable/Disable auto shut off mode
- USB data logging (Future feature)
- Analogue channel (Future feature)
- Internal data logging (1000 records)

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<sup>\*</sup> We reserve the right to make technical changes.