



VIVAX

METROTECH

indepthTM
UTILITY SOLUTIONS
281-969-8530

vLoc3-5000 System

Technical Specifications V1.6





A. Description and Typical Applications

Item	Parameter
Model Name	vLoc3-5000
Model Number	VX224-01
Description	Multi-purpose precision buried utility locator receiver
Intended Use	Locating & pinpointing the position of buried pipes and cables Collect data for analysis and mapping

B. Characteristics

Item	Parameter
Construction	High impact thermoplastic (ABS) injection molded housing
Weight	4.6lbs (2.1kg)
Dimensions	12.6in(L) x 4.9in(W) x 26.6in(H) (321mm x 124mm x 676mm)
Display Type	Transmissive 480 x 272 Pixel, 16-bit Color, High Visibility LCD, 4.3"/10cm
Receiver Antennas	Two sets of Omnidirectional Antennas, each comprising: <ul style="list-style-type: none"> • Two Compass Antennas • Two Horizontal Antennas • Two Vertical antennas
Batteries	- Six x AA Alkaline batteries - Rechargeable custom Lithium-ion batteries with 100-240V AC mains charger
Battery Life	- Alkaline – typically 12 hours intermittent use at 70°F (21°C) - Lithium-ion – typically 27 hours intermittent use at 70°F (21°C) * With backlight activated, battery life varies with temperature, re-charging cycles are approximately 500 times the life cycle
Environmental	IP65 and NEMA 4
External Connectors	- Accessory Socket – to charge the internal batteries and attach accessories - Mini USB socket for data transfer and software updates
Temperature Range	Operating: -4°F to 122°F (-20°C to 50°C), Storage: -40°F to 140°F (-40°C to 60°C)
Compliance and Approvals	<ul style="list-style-type: none"> - Complies with European standard CE (Directive 99/5/EC) <ul style="list-style-type: none"> • EN 55011 • ETSI EN 301 489-1 • ETSI EN 301 489-3 - Complies with FCC Rules Part 15

	<ul style="list-style-type: none"> • EN 61000-4-2: A1 & A2 • EN 61000-4-3 • EN 61000-4-8: A1 • ETSI EN 300 330-2 	<ul style="list-style-type: none"> • CFR 47 part 2 • CFR 47 Part 15
Manufacturing	Designed and manufactured per ISO 9001:2015	
What's In the Box	<ul style="list-style-type: none"> - vLoc3-5000 Receiver - USB data transfer cable - Custom lithium-ion battery pack - 100-240V AC mains charger - Six x AA Alkaline battery holder - Six x AA Alkaline batteries - User handbook - Carry bag or hard case (decided at the time of ordering) 	
Compatible Accessories	<ul style="list-style-type: none"> - MLA (Marker Locator Attachment) to locate buried EMS Markers - A-frame fault locator - Remote Antenna (Stethoscope) - Vehicle Charging DC Lead - TX-Link - Factory installed, for remote operation of the Loc3 series transmitter - Range of Sondes (waterproof, self-contained transmitters for use in nonmetallic pipes & ducts) 	

C. Operational

Item	Parameter
Information Displayed	<p>Information screen:</p> <ul style="list-style-type: none"> - Real-time horizontal accuracy in 2DRMS - SiS Reset - GPS coordinates - Current on the line - Depth reading - Logging options <p>Status Bar Information:</p> <ul style="list-style-type: none"> - Antenna configuration: Peak, Peak with arrows, Broad Peak, Null, Delta Null, Omni Directional Peak, Omni Directional Broad - Line location - depth & current measurement - Battery condition - Speaker volume - Bluetooth and GNSS status (If installed) - Radio link to transmitter status (if installed) <p>Locate screen (Classic display):</p>

	<ul style="list-style-type: none"> - Signal strength - moving bar graph & numeric value - Bar graph color-coded indicating distortion level - Peak level indicator - Proportional left/right indication - Compass: full 360°-line direction indicator - Gain level (in dB) - Frequency selected - Product configuration menu & submenus, including GNSS status and data logging transfer status. - Customer definable start-up screen - Depth and current - Warnings (if activated) - Plug and play automatic recognition of accessories - Accessory specific custom screens <p>Customer definable start-up screen</p>
<p>Locate Perspectives</p>	<ul style="list-style-type: none"> - Classic Locate – moving bar graph with a value showing signal strength - Vector Locate Screen – fully automatic locate including offset, depth and locate uncertainty - Transverse Graph Screen - visual assessment of locate quality and distortion - Plan View Screen – fully automatic graphical representation of the cable position independent of cable direction, including depth/current and locate uncertainty. - Sonde Locate Screen – directing arrow to move to the Sonde position along the polar axis
<p>Configuration</p>	<p>The Intuitive setup menu enables the user to configure:</p> <ul style="list-style-type: none"> - Set up frequency selection to toggle by "f" pushbutton - Setup location mode selection to toggle by "m" pushbutton - Setup screen views selection to toggle by long press "m" pushbutton - Units of measure (feet/meters) - Sound (Pitch) – normal or modulated - Language - Continuous depth and current options - Loudspeaker level - Backlight - Bluetooth pairing if installed - Transmitter Radio Link if installed - Warnings (Excessive Tilt, Overhead Signal, Shallow Cable, Signal Overload) - Auto shut down – configurable to power down at five minutes, ten minutes, or never

Data logging	<ul style="list-style-type: none"> - 50 million record internal storage - Data can also be transferred for storage, via cellular connectivity, into the cloud using the Vivax-Metrotech application, VM MAP - All parameters stored at each location including depth, current, date, time, mode, gain setting, frequency, locate uncertainty, longitude, latitude, and height above sea-level 	
Data Transfer	<ul style="list-style-type: none"> - Via the Vivax-Metrotech "MyLocator3" software application available free of charge from www.vivax-metrotech.com. Data can be saved in csv, klm, shp, txt, xls and xlsx formats. The transfer is via a USB cable connection from the locator to the host computer. <p>Or</p> <ul style="list-style-type: none"> - Cellular transfer to the VMMap Cloud (Vivax-Metrotech Cloud) via the VMMap mobile app 	
Operating Frequencies	<ul style="list-style-type: none"> - Configurable frequencies from 98Hz to 200kHz <ul style="list-style-type: none"> • Power 50Hz and 60Hz • Radio 10.0kHz - 22.7kHz bandwidth - Signal Direction - enhanced product model giving the direction of outgoing current: <ul style="list-style-type: none"> • SD-USA: 256Hz/512Hz, SD-EUROPE: 320Hz/640Hz - Signal Select – a real-time measurement of signal bleed-over caused by capacitive or inductive coupling to other utilities: <ul style="list-style-type: none"> • SIS-491Hz, SIS-982Hz, SIS-8440Hz, SIS-9.82kHz, SIS-35kHz 	
Operating Modes	<ul style="list-style-type: none"> - Peak, Peak with arrows, Broad Peak - Null, Delta Null - Omni Directional Peak, Omni Directional Broad 	
Gain Control	<p>Manual gain using "+" or "-" keys</p> <p>One-touch of "+" or "-" keys rescales to 60% of the bar graph scale</p> <p>In Vector Screen, "+" and "-" keys act as zoom feature to keep target utility in view</p> <p>In the Transverse Graph screen, "+" key saves the screen graph, "-" key clears the screen</p>	
Accuracy	Locate pinpointing accuracy:	<ul style="list-style-type: none"> - Over 9ft (3m) – +/- 5% of depth - Up to 9ft (3m) – +/- 3% of depth
	Depth measurement accuracy:	+/- 5% of depth
	Current measurement accuracy:	<ul style="list-style-type: none"> - +/- 5% of actual current – over 9ft (3m) - +/- 3% of actual current – up to 9ft (3m)
	Depth range:	Dependent on the strength of the signal radiating to the locator
	* Performance rated using a single undistorted signal source	
Compatible Transmitters	Loc-10SiSTx, and Loc3-10SiSTx	

D. Communications

Item	Parameter
Bluetooth	<ul style="list-style-type: none"> - Internal Bluetooth for communicating with: - External GPS or data logging devices - Apple® devices - Android™ devices
GPS	<ul style="list-style-type: none"> - GPS, GLONASS, Galileo - 2.5m accuracy - Internal GNSS module
Transmitter Link	Optional Tx-Link (Remote transmitter control from the receiver)

E. Shipping and Packaging

Item	Parameter
vLoc3-5000 Receiver in a SOFT KIT BAG.	Shipping Weight: 16lbs. (7.3kg). Shipping Dimension: 30in(L) x 11in(W) x 14in(H) (762mm x 279mm x 356mm)
vLoc3-5000 Receiver in a HARD CASE.	Shipping Weight: 20lbs. (9.1kg). Shipping Dimension: 34in(L) x 15in(W) x 20in(H) (864mm x 381mm x 508mm)

F. Warranty

Item	Parameter
Warranty	<ul style="list-style-type: none"> - Two years - Optional extended warranty available

G. Software Updates

Item	Parameter
Software	The software can be upgraded using a PC with a USB port. Program updates & locator software updates are available via the free MyLocator3 app.

Disclaimer: Product and accessory specifications and availability information are subject to change without prior notice.



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