



VIVAX
METROTECH

vLoc3-5000 System

Technical Specifications V1.7



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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 of intermittent use at 70°F (21°C) - Lithium-ion – typically 27 hours of intermittent use at 70°F (21°C) * With the 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	- Complies with European standard CE (Directive 99/5/EC) <ul style="list-style-type: none"> • EN 55011 <ul style="list-style-type: none"> • 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 - 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 - Lodging 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

	<ul style="list-style-type: none"> - 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 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 - Warnings (Excessive Tilt, Overhead Signal, Shallow Cable, Signal Overload) - Auto shut down – configurable to power down at five minutes, ten minutes, or never
<p>Data logging</p>	<ul style="list-style-type: none"> - 50 million records of internal storage - Data can also be transferred for storage via cellular connectivity into the cloud using the Vivax-Metrotech application, VMMAAP - 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 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 the "+" or "-" keys rescales to 60% of the bar graph scale</p> <p>In Vector Screen, "+" and "-" keys act as zoom feature to keep the 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	- Internal Bluetooth for communicating with:

	<ul style="list-style-type: none"> - 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

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.