VIVAX METROTECH

vLoc3-DM

Technical Specifications V1.4

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A. Description and Typical Applications

Item	Parameter
Model Name	vLoc3-DM
Model Number	VX222-01
Description	Pipeline defect mapper receiver
Intended Use	- Locating and pinpointing coating defects on buried pipelines - Profiling the CP current distribution on a pipeline network - Identification of short circuits from pipelines to other structures - Long-distance pipeline location - Locating & pinpointing the position of buried pipes and cables

B. Characteristics

Item	Parameter
Construction	High-impact thermoplastic (ABS) injection molded housing
Weight	5.7lbs (*2.6kg*)
Dimensions	12.3in(L) x 4.6in(W) x 30.8in(H) (*312mm x 116mm x 783mm*)
Display Type	High-Visibility Color Display, 4.3”/10cm with 480 x 272 resolution
Receiver Antennas	- Two sets of Omnidirectional Antennas, each comprising: • Two Compass Antennas • Two Horizontal antennas • Two Vertical antennas - Low-Frequency Field Sensor Foot
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 70ºF (21ºC) - Lithium-ion – typically 27 hours of intermittent use at 70ºF (21ºC) * With the backlight activated, battery life varies with temperature; re-charging cycles are approximately 500 times the life cycle
Environmental	IP65
External Connectors	- Accessory Socket – to change the internal batteries and attach accessories - Mini-USB socket for data transfer and programming
Temperature Range	- Operating: -4ºF to 122ºF (-20ºC to 50ºC)

	- Storage: -40ºF to 140ºF (-40ºC to 60ºC)	
Compliance and Approvals	- Complies with European standard CE (Directive 99/5/EC) • EN 55011 • EN 61000-4-2: A1 & A2 • EN 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
Manufacturing	Designed and manufactured per ISO 9001:2015	
What's In the Box	- vLoc3-DM Receiver - Attachable Low-Frequency Field Sensor Foot - Factory-fitted GPS Module - Bluetooth module - Custom lithium-ion battery pack - 100-240V AC mains charger - Six x AA Alkaline battery holder - Mini-USB data transfer cable - User handbook - Padded carry bag	
Compatible Accessories	- A-frame fault and holiday 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	**Information screen:** - Real-time horizontal accuracy in 2DRMS - Distance from last logged current point - Current direction - DM current warning - GPS coordinates - Current on the line - Depth reading

	- Logging options - Enter the graph screen option **Status Bar Information:** - 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 - Low-frequency field sensor connected **Locate screen (Classic display):** - Distance from last recorded reading (if GPS is active) - 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 - Configuration menus, including GNSS status and data logging transfer status - Depth and current - Warnings (if activated) - Plug and play automatic recognition of accessories - Accessory specific custom screens **Customer definable start-up screen**
Locate Perspectives	- **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
Configuration	**The intuitive setup menu enables the user to configure the following:** - Setup 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 – normal or modulated pitch - Language - Continuous depth/current options - Loudspeaker level - Backlight brightness - Bluetooth pairing - 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	- 50 million records of internal storage - Data can also be transferred for storage via cellular connectivity into the cloud using the Vivax-Metrotech application, VMMAP - 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	- 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. **Or** - Cellular transfer to the VMMap Cloud (Vivax-Metrotech Cloud) via the VMMap mobile app
Operating Frequencies	- Configurable frequencies from 98Hz to 200 kHz - ELF) 3Hz/6Hz/98Hz - (ELF) 4Hz/8Hz/98Hz - 3Hz/6Hz/512Hz - 4Hz/8Hz/512Hz - 4Hz/8Hz/640Hz - 3Hz/6Hz/640Hz - Power 50Hz and 60Hz - Radio 22.7kHz, 10kHz bandwidth - Signal Direction” (SD) - enhanced frequency indicating the direction of the transmitter’s signal. SD-USA: 256Hz/512Hz, SD-EUROPE: 320Hz/640Hz
Operating Modes	- Peak, Peak with arrows, Broad Peak - Null, Delta Null - Omni Directional Peak, Omni Directional Broad
Gain Control	- Manual gain using "**+**" or "**-**"keys - One-touch of "**+**" or "**-**" keys rescales to 60% of the bar graph scale - In Vector Screen, "**+**" and "**–**" keys act as zoom feature to keep the target utility in view - In the Transverse Graph screen, the "**+**" key saves the screen graph, "**–**"key clears the screen

Accuracy	Locate pinpointing accuracy:	- Over 9ft *(3m)* – 5% of depth - Up to 9ft *(3m)* – 3% of depth
	Depth measurement accuracy:	+/- 5% of depth
	Current measurement accuracy:	- 5% of actual current – over 9ft *(3m)* - 3% of actual current – up to 9ft *(3m)*
	* *Performance rated using a single undistorted signal source*	
Compatible Transmitters	Loc3-25Tx, Loc-150Tx	

D. Shipping and Packaging

Item	Parameter
Shipping Weight	15.7lbs (*7.1kg*)
Shipping Dimension	14.1in(L) x 11in(W) x 29.8in(H) (*358mm x 279mm x 756mm*)

E. Warranty

Item	Parameter
Warranty	- Two years - Optional extended warranty available

F. 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 specification and availability information are subject to change without prior notice.