



VIVAX
METROTECH

vLoc3-DM Receiver

Technical Specifications V1.0



VIVAX
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A. Typical Applications

Item	Parameter
Description	Pipeline defect mapper receiver
Uses	<ul style="list-style-type: none"> - 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

B. vLoc3-DM Receiver 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	Transmissive 480 x 272 Pixel, 16-bit Color, High Visibility 4.3"/10cm LCD
Receiver Antennas	Two sets of omni directional 3D antennas and a Low Frequency Field Sensor Foot
Battery	<ul style="list-style-type: none"> - Six x AA Alkaline batteries - Rechargeable custom Lithium-ion batteries with 100-240V AC mains charger
Battery Life	<ul style="list-style-type: none"> - Alkaline – typically 12 hours intermittent use at 70°F (21°C) - Lithium-ion – typically 27 hours intermittent use at 70°F (21°C) (with full backlight turned on). Re-charging cycles over 500 times life cycle. Battery life varies with temperature.
Environmental	<ul style="list-style-type: none"> - IP65 and NEMA 4
External Connectors	<ul style="list-style-type: none"> - Accessory Socket – to change the internal batteries and attach accessories - Mini-USB socket for data transfer and programming
Temperature Range	<ul style="list-style-type: none"> - 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 • 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

	<ul style="list-style-type: none"> • ETSI EN 301 489-3 - Complies with FCC Rules Part 15 <ul style="list-style-type: none"> • CFR 47 part 2 • CFR 47 Part 15
Standard Accessories (comes with receiver)	<ul style="list-style-type: none"> - Attachable Low Frequency Sensor Foot - Mini-USB data transfer cable - Custom lithium-ion battery pack - 100-240V AC mains charger - Six x AA Alkaline battery holder (with batteries) - User handbook - Receiver carry bag - Factory-fitted GPS Module
Compatible Accessory Options	<ul style="list-style-type: none"> - A-frame fault locator - Remote Antenna (Stethoscope) - Vehicle Charging DC Lead - Range of Sondes (waterproof self-contained transmitters for use in pipes & ducts)

C. vLoc3-DM Receiver Operational

Item	Parameter
Information Displayed	<ul style="list-style-type: none"> - DM Locate Screen – Signal strength bar graph and compass, Current Profile Graph, Auto Walk-back, Info Log screen, Graph Review screen - Distance from last measurement counter - Total survey distance indicator - DM A-Frame Screen – Forward/Reverse and Magnitude Fault indicators, Fault Log and Graphing, Left/Right locate arrows - Standard Locate Screen Signal strength bar-graph with Peak, Peak with arrows, Null, Broad, Delta Null, Omnidirectional Peak, Omnidirectional Broad - Transverse Graph Screen - visual assessment of locate quality and distortion - Sonde Locate Screen - directing arrow to move to the Sonde position along the polar axis - Vector Locate Screen – fully-automatic locate including offset, depth and locate uncertainty - Plan View Screen – fully-automatic graphical representation of the cable position independent of cable direction - Signal strength - moving bar graph & numeric value - Proportional left/right indication - Forward/Reverse SD current flow indicator arrows

	<ul style="list-style-type: none"> - Compass: full 360°-line direction indicator - Plug and play automatic recognition of accessories - Accessory specific custom screens - Line location - depth & current measurement - Sonde location - depth measurement - Gain level (in dB) - Frequency selected - Battery condition - Speaker volume - Bluetooth and GPS status - Product configuration menu & submenus - Customer definable start up screen
Configuration	<p>Intuitive setup menu enables user to configure:</p> <ul style="list-style-type: none"> - 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/modulated pitch - Language - Continuous depth/current options - Loudspeaker level - Backlight brightness - Bluetooth pairing if fitted - 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 - Files can be saved as .kml, .txt, .xls, .shp, csv - 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	<p>Uses Vivax-Metrotech “MyLocator3” software application tool available free of charge from www.vivax-metrotech.com. Data can be saved in xlx, txt, shp, kml (Google earth) formats.</p>
Operating Frequencies	<ul style="list-style-type: none"> - Configurable frequencies from 16Hz to 200 kHz - ELF) 3Hz/6Hz/98Hz - (ELF) 4Hz/8Hz/98Hz - 3Hz/6Hz/512Hz

	<ul style="list-style-type: none"> - 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 current flow. - SD-USA: 256Hz/512Hz, SD-EUROPE: 320Hz/640Hz 										
Operating Modes	<ul style="list-style-type: none"> - DM Profile Mapping - A-Frame Fault Find - Classic Locate (2-section Bar graph) - Transverse Graph - Plan View (Omnidirectional) - Vector Locate (Lateral Position & Depth) - Sonde Locate 										
Gain / Scaling Control	<p>Manual gain using "+" or "-" "with one touch to return to center (50% of FSD)</p> <p>"+" or "-" "used to rescale the vector screen dependent on cable depth and offset</p>										
Accuracy	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Locate pinpointing accuracy:</td> <td> <ul style="list-style-type: none"> - Over 9ft (3m) – 5% of depth - Up to 9ft (3m) – 3% of depth </td> </tr> <tr> <td>Depth measurement accuracy:</td> <td>3% of depth</td> </tr> <tr> <td>Current measurement accuracy:</td> <td> <ul style="list-style-type: none"> - 5% of actual current – over 9ft (3m) - 3% of actual current – up to 9ft (3m) </td> </tr> <tr> <td>Depth range:</td> <td>Dependent on strength of signal radiating to locator</td> </tr> <tr> <td colspan="2">Performance rated using a single undistorted signal source</td> </tr> </table>	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:	3% 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 strength of signal radiating to locator	Performance rated using a single undistorted signal source	
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Compatible Transmitters	Loc-150Tx										

D. Shipping and Packaging

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

E. Warranty

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

F. Firmware Updates

Item	Parameter
Software	Software can be upgraded using a PC with USB port. Programs & locator software are available via MyLocator3 app.

All products are designed and manufactured in accordance with ISO 9001:2008.

Disclaimer: Product and accessory specification and availability information is subject to change without prior notice.