VIVAX METROTECH

Loc3-25Tx, 25-Watt Transmitter

Technical Specifications V1.5

VIVAX METROTECH

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A. Description and Typical Applications

Item	Parameter
Model Name	Loc3-25Tx
Model Number	VX222-02
Description	25-Watt Low-Frequency transmitter for buried utility locating and pipeline defect mapping
Designed Use	- Transmitting active signals for long-distance pipeline location - Transmitting active signals for the location of buried pipes and cables - Transmitting active signals for the location of coating defects on buried pipes

B. Characteristics

Item	Parameter
Construction	High-impact ABS plastic
Weight	7.05lbs (3.19kg)
Dimension	13.1in(L) x 7.2in(W) x7.3in(H) *(332mm x 182mm x 185mm)*
Display Type	- Monochrome-dot-matrix graphic LCD with LED backlight - 2.4in x 1.3in *(60mm x 32mm)*
Power Supply	- Li-Ion rechargeable battery tray with AC to DC adapter (Optional 12 x D Cell Alkaline battery tray (output limited to 10W))
Battery Life	**Output Power** / **Alkaline** / **Li-Ion (Rechargeable)** 25-watt / N/A / 4 hours *10-watt / 4 hours / 6 hours *When using Alkaline batteries, the output is limited to 10 watts *Continuous use at 70ºF *(21ºC)* with the backlight activated. The battery life varies with temperature, battery type and quality. Recharging cycles are approximately 500 times the life cycle. Based on the maximum output into a 50-ohm load and 50% duty cycle.
Environmental	IP54
External Connectors	- 1 x speakON® socket for clamps and connection leads - 1 x Mini-USB socket for firmware updates - 1 x socket for battery charger & 12V DC power in - 1 x fuse socket (output protection) with 1.6A/250V fuse
Temperature Range	- Operating:-4ºF to 122ºF *(-20ºC to 50ºC)* - Storage:-40ºF to 140ºF *(-40ºC to 60ºC)*

Compliance/Approvals	- Complies with European standard CE (Directive 99/5/EC) (Pending) • EN 55011 • EN 61000-4-3 • EN 61000-4-2: A1 & A2 • 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 (Pending) • CFR 47 part 2 • CFR 47 Part 15
Manufacturing	Designed and manufactured per ISO 9001:2015
What's In the Box	- Loc3-25Tx Transmitter - Ground stake - Transmitter carry bag - DC/AC Power supply for rechargeable battery - Direct Connection Leads (10ft (3.5m) red/black leads)
Compatible Accessories Options	- 2-inch *(50mm)* transmitter clamp - 4-inch *(100mm)* transmitter clamp - 5-inch *(125mm)* transmitter clamp - 9-inch *(230mm)* transmitter clamp - 18-inch *(450mm)* flexible transmitter clamp - Ground Extension Spool - Backpack - Carry Bag - Connection leads with Telco or heavy-duty clips - Live Plug Connector *(LPC Separation Filter)* - to connect and use the transmitter on lines carrying up to 240V AC - LCC Live Cable Connector - to connect and use the transmitter on lines carrying up to 480V AC - Alkaline battery tray for 12 x D Cell (output limited to 10W) - 12V DC Vehicle Power Lead - for powering and charging the optional rechargeable battery from a vehicle - Adapter, 3-Pin XLR to speakON® for clamps and connection leads

C. Operational

Item	Parameter
Information Displayed	- Current (numeric) - Volts - Resistance - Frequency of output signal - Beeper volume (three levels & off) - Battery condition icon - Output Step bar graph showing the proportion of signal current successfully applied - High voltage warning if utility-to-ground potential exceeds 21V (DC or AC peak) - Animation icon confirming connection mode (Direct connection or Clamp)
Transmitting Modes	- ***Direct connection mode*** applies a signal directly to the cable by clipping one output lead to the cable and the other to an independent ground. - ***Clamp mode*** – applies a signal using an inductive clamp (aka toroid or coupler) placed around the target pipe or cable. *****Compatible frequencies of 8kHz and above. - *****Modes are automatically selected when an accessory is plugged in.

Transmitting Frequency by Mode			
Direct Connection Mode	- 3Hz/98Hz - 3Hz/128Hz - 4Hz/98Hz - 4Hz/128Hz; - ELF1-3Hz/6Hz/98Hz;	- ELF2-3Hz/6Hz/128Hz; - ELF3-4Hz/8Hz/98Hz; - ELF4-4Hz/8Hz/128Hz; - 3Hz/6Hz/512Hz;	- 3Hz/6Hz/640Hz; - 4Hz/8Hz/512Hz; - 4Hz/8Hz/640Hz - 20Hz to 9.82kHz
Clamp Mode	8kHz to 9.82kHz		
Transmitting Mode **Power Output**	In accordance with FCC part 15: - Frequencies under 45 kHz - 25 watts - 25 watts Li-Ion rechargeable battery or external 19V 180W power adapter: - 10 watts when using alkaline batteries		
Maximum Output Voltage	- Li-Ion rechargeable battery, or external 19V 180W power adapter: 130V peak - 12V power adapter: 42V peak		
Maximum Output Current	- 1 Amp RMS constant output *(4 Amps Peak)* *Dependent on frequency and mode		
Output Protection	- Maximum utility-to-ground potential (operating): 21V (DC or AC peak) - Output protected against accidental momentary connection to up to 230V AC (rms)		
Audio Indication	- Connection quality – Increased beep rate indicates a better-applied signal - Beep to confirm the action		
Controls	- Use pushbuttons to select: • On/Off • Frequency • Output level Information (volts & resistance) / Setting (volume, frequency & multi-mode)		
Compatible Receivers	vLoc3 series		

D. Rechargeable Battery Tray

Item	Parameter
Description	Li-Ion rechargeable battery tray with charger
Input/output	- Input DC12V 3A - Output DC18V-93.6 Wh
Battery Type	Li-Ion battery

Temperature Range	- Operating: 14ºF to 122ºF *(-10ºC to 50ºC)* - Charging: 32ºF to 113ºF (*0℃ to 45℃)* - Storage: -4ºF to 140ºF *(-20ºC to 60ºC)*
Storage humidity	≤ 75% RH
Weight	Battery Tray: 3.31lbs. *(1.5kg)*
Dimension	13.1in(L) x 7.2in(W) x2.9in(H) *(332mm x 182mm x 73mm)*
Shipping Weight	4.6lbs *(2.1kg)* (Battery Tray)
Shipping Dimension	16.1in(L) x 10.2in(W) x 6.7in(H) *(410mm x 260mm x 170mm)*
Warranty	12 months

E. Shipping and Packaging

Item	Parameter
Shipping Weight	14.4lbs. *(6.5kg)*
Shipping Dimensions	15.7in(L) x 11.8in(W) x 8.7in(H) *(400mm x 300mm x 220mm)*

F. Warranty

Item	Parameter
Warranty	- 12 months - Extended warranty available

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Performance Disclaimer Actual performance may vary depending on environmental conditions, user technique, and signal interference.

Software & Firmware Disclaimer Functionality described may depend on the software or firmware version installed. Features are subject to modification through future updates.

Battery & Power Disclaimer Battery life is estimated and may vary based on settings, usage, temperature, and battery age.

Calibration Disclaimer Self-Test results confirm system consistency with factory calibration but do not replace periodic professional calibration if required by company policy or regulation.

Compliance Disclaimer Compliance with regional standards may vary by country. Users are responsible for ensuring the product is used in accordance with local laws and regulations.

Use Case Disclaimer The system is intended for professional utility locating and should not be used for purposes outside the manufacturer's defined scope.

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