



VIVAX
METROTECH

VM-810

Technical Specifications V2.5



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A. Description and Typical Applications

Item	Parameter	
Model Number	VM-810 Receiver	VM-810 Transmitter
	VX213-01	VX213-02
Description	Single high-frequency locator receiver and transmitter	
Uses	Locating & pinpointing the position of buried pipes and cables	

B. Receiver Characteristics

Item	Parameter	
Construction	- High-impact thermoplastic (ABS) injection molded housing - Retractable aluminum antenna tube	
Weight	3.1lbs (1.4kg)	
Dimensions	Collapsed: 22in(L) x 8.3in(W) x 11in(H) (560mm x 210mm x 280mm) Extended: 31.1in(L) x 8.3in(W) x 11in(H) (790mm x 210mm x 280mm)	
Display Type	Black & white TFT 2.7" LCD WQVGA display (400 x 240 pixels)	
Receiver Antennas	3 x Peak antennas, 1 x compass antenna	
Batteries	2 x D-Cell alkaline batteries	
Battery Life	Typically 65 hours of continuous use at 70°F (21°C)	
Environmental	IP54	
Manufacturing	Designed and manufactured per ISO 9001:2015	
External Connectors	- 1 x 3.5mm Headphone jack - 1 x Mini USB socket for software update - 1 x 4-pin Accessory jack	
Temperature Range	Operating: -4°F to 122°F (-20°C to 50°C)	
Compliance/Approvals	Complies with European standard CE (Directive 99/5/EC) • EN 55011 • EN 61000-4-2 • EN 61000-4-3 • EN 61000-4-8	Complies with FCC Rules Part 15 • CFR 47 Part 15: 2006
What's In the Box	- VM-810 Receiver - Hard case - Mini-USB cable - User handbook	

Compatible Accessory Options	- D22 Sonde, 8ft/2.4m depth range – 83kHz - D38 Sonde, 16.3ft/5m depth range – 83kHz - D64 Sonde, 26ft/8m depth range – 83kHz - Headphones with 3.5mm jack
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C. Receiver Operational

Item	Parameter	
Information Displayed	- Signal strength: Numeric value - Distance-sensitive Left/Right Centerline offset needle indicator - Compass: +/- 90° line direction indicator - Battery indicator - Depth and current reading	
Audio Indication	- Tones for Left or Right - Fading when close to the centerline - Silence when centered or the signal is too weak	
Configuration	Easy One-button operation: - Automatic backlight control - Short Press – On - Long press – Off - Short press when the unit is switched On – Depth and Current reading	
Operating Frequencies	83.1kHz (83,077.5 Hz)	
Operating Modes	- Peak locate - Sonde	
Gain / Scaling Control	Automatic Gain control	
Performance Using Single Undistorted Signal Source	Trace accuracy:	- Distance Sensitive Left/Right Guidance™
	Current measurement accuracy:	- 5% of actual current – up to 10ft (3m) - 10% of actual current – up to 20ft (6m)
	Depth measurement accuracy:	- 10 feet (3m): +/-5% or 2" - 20 feet (10m): +/-10%
	Locate and depth accuracy are quoted for 20 degC and average soil conductivity. It is also assumed the return current localisation is deep compared to the target cable	
Compatible with Transmitters	810 Classic, 810DX and VM-810Tx, vLoc-3Tx series	

A. Transmitter Characteristics

Item	Parameter	
Construction	High-impact thermoplastic (ABS) injection molded housing	
Weight	2.95 lbs (1.34kg)	
Dimension	9.4in(L) x 4.6in(W) x 7.2in(H) (239mm x 117mm x 182 mm)	
Power Options	Standard battery pack - using 6 x alkaline "D" cells	
Battery Life	At 70°F (21°C) - continuous use Output Power Alkaline 1 watt > 60 hours	
Environmental	IP54	
Manufacturing	Designed and manufactured per ISO 9001:2015	
External Connectors	3-pin XLR connection socket	
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) • EN 55011 • EN 61000-4-2 • EN 61000-4-3 • EN 61000-4-8	Complies with FCC Rules Part 15 • CFR 47 Part 15
What's In the Box	- VM-810 Transmitter - 1 x direct connection lead (XLR plug on two (red/black) 10ft (3.5m) long cables with crocodile clips) - 1 x Ground stake - Transmitter shoulder strap	
Compatible Accessories Options	- 2in (50mm) transmitter clamp - 4in (100mm) transmitter clamp - 5in (125mm) transmitter clamp - 18in (450mm) transmitter clamp - Live Plug Connector - Live Cable Connector - Ground Extension Spool - Telco Clip Connection Lead	

B. Transmitter Operational

Item	Parameter
Location Modes	- Induction mode – applies signal inductively using the internal antenna - Direct connection mode - applies signal directly to the cable by clipping one output lead to the cable, the other to an independent ground - Clamp mode – applies signal using an inductive clamp (toroid) that is placed around the target cable * Modes are automatically selected when an accessory is plugged in. * Default mode (no accessories) is induction.
Transmitting Frequency by Mode	Induction mode / Direct connection mode / Clamp mode: 83.1kHz (83,077.5Hz)
Transmitting Mode	In accordance with FCC part 15:
Power output	- 1 watt – in High output level - 1/3 watt – in Low output level
Maximum Output Voltage	60V RMS
Maximum Output Current	150mA RMS constant power
Output Protection	Output protected against accidental connection to up to 240V AC (50/60Hz)
Audio indication	- Connection quality – variable beep rate sound showing the better signal applied - Low battery warning
Controls	Use pushbuttons to select: - Power button: On / Off - Output level button: Low / High - Audio button: Off / Low / High
Compatible Receivers	VM-810, 810DX, 810 classic, vLoc3 Rx series

C. Shipping and Packaging (Full Kit)

Item	Parameter
Shipping Weight	18.7lbs (8.5kg) (Full Kit)
Shipping Dimension	26in(L) x 12.2in(W) x 18.1in(H) (660mm x 310mm x 460mm)

D. Warranty

Item	Parameter
Warranty	- Receiver and Transmitter -12 months - Extended warranty available

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

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.

Third-Party Services Disclaimer Use of GNSS correction services or cloud platforms may require third-party subscriptions and are subject to their terms and availability.

Feature Availability Disclaimer: Certain features, frequencies, or accessories may only be available in specific markets due to regional regulations or product certifications. Please consult your local Vivax-Metrotech representative for availability in your area.

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