



**VIVAX**  
**METROTECH**

# vCamMX-2+

Technical Specifications V1.0



## Worldwide Locations

### World Headquarters, United States of America

**Vivax-Metrotech Corporation**

3251 Olcott Street, Santa Clara, CA 95054, USA

T/Free : 1-800-446-3392

Tel : +1-408-734-3880

Fax : +1-408-734-1415

Website: [www.vivax-metrotech.com](http://www.vivax-metrotech.com)

Email : [SalesUSA@vxmt.com](mailto:SalesUSA@vxmt.com)

### Central/South America and the Caribbean

**Ventas para América Latina**

3251 Olcott Street, Santa Clara, CA 95054, USA

T/Free : 1-800-446-3392

Tel : +1-408-734-3880

Fax : +1-408-743-5597

Website: [www.vivax-metrotech.com](http://www.vivax-metrotech.com)

Email : [LatinSales@vxmt.com](mailto:LatinSales@vxmt.com)

### Canada

**Vivax Canada, Inc.**

41 Courtland Ave Unit 8, Vaughan, ON L4K 3T3, Canada

Tel : +1-289-846-3010

Fax : +1-905-752-0214

Website: [www.vivax-metrotech.ca](http://www.vivax-metrotech.ca)

Email : [SalesCA@vxmt.com](mailto:SalesCA@vxmt.com)

### United Kingdom

**Vivax-Metrotech Ltd.**

Unit 1, B/C Polden Business Centre, Bristol Road, Bridgwater, Somerset, TA6 4AW, UK

Tel : +44(0)1793 822679

Website: [www.vivax-metrotech.co.uk](http://www.vivax-metrotech.co.uk)

Email : [SalesUK@vxmt.com](mailto:SalesUK@vxmt.com)

### France

**Vivax-Metrotech SAS**

Technoparc - 1 allée du Moulin Berger, 69130 Ecully, France

Tel : +33(0)4 72 53 03 03

Fax : +33(0)4 72 53 03 13

Website: [www.vivax-metrotech.fr](http://www.vivax-metrotech.fr)

Email : [SalesFR@vxmt.com](mailto:SalesFR@vxmt.com)

### Germany

**Metrotech Vertriebs GmbH**

Am steinernen Kreuz 10a

D-96110 Schesslitz

Tel : +49 954 277 227 43

Website: [www.vivax-metrotech.de](http://www.vivax-metrotech.de)

Email : [SalesEU@vxmt.com](mailto:SalesEU@vxmt.com)

### China

**Vivax-Metrotech (Shanghai) Ltd.**

Building 10, Lane 1158 Zhongxin Rd.,  
Songjiang District, Shanghai, China, 201615

Tel : +86-21-5109-9980

Website: [www.vivax-metrotech.com](http://www.vivax-metrotech.com)

Email : [SalesCN@vxmt.com.cn](mailto:SalesCN@vxmt.com.cn)

## A. Typical Applications

Component	Specification
<b>Purpose</b>	A tool to inspect and produce digital video recordings and JPEG images of the interior of small-diameter drains, conduits, and ducts. The most typical application is the inspection of sewer laterals and plumbing.
<b>System Components</b>	<ul style="list-style-type: none"> <li>• <b>Viewing &amp; Recording Device:</b> vCamMX-2+ Control Module (supplied with a battery charger, accessory kit, and manual)</li> <li>• <b>Reel Options:</b> (all reels include pushrod, spring assembly, camera head (if ordered) and pipe insert sleeve) Type-MX Reel pushrod options of: <ul style="list-style-type: none"> <li>- 100 ft. / 30m</li> <li>- 150 ft. / 45m</li> </ul> </li> <li>• <b>Camera Head Options:</b> (Type-MX reel cameras are user-changeable) <ul style="list-style-type: none"> <li>- D26-HD      1" / 26 mm Self-leveling color camera</li> <li>- D18-HD      0.70" / 18mm Non-leveling color camera</li> </ul> </li> </ul>

vCamMX-2+ System	D26-HD Camera	D18-HD Camera
		

## B. vCamMX-2+ Control Module

Component	Specification
<b>Model Name</b>	vCamMX-2+
<b>Model Number</b>	VX112-01
<b>Dimensions</b>	14.2" (L) x 5.91" (W) x 12.6" (H) (360mm (L) x 150mm (W) x 320mm (H))
<b>Weight</b>	6.6lb (3kg)
<b>Power Supply</b>	DC Power: 12V DC external power supply powers the unit and charges internal batteries
<b>Fuse</b>	10 Amp – 250 Volt, glass, quick blow

<b>Storage</b>	<ul style="list-style-type: none"> <li>• USB Port – Supports up to 128 GB Removable USB Drives</li> <li>• SD Card Slot – Supports up to 64GB Removable Class 10 SD Cards</li> </ul>
<b>File Format</b>	<ul style="list-style-type: none"> <li>• MP4 Video</li> <li>• JPEG Still image capture</li> </ul>
<b>Display</b>	8" (20cm) Daylight viewable TFT LCD (800x600) (diagonal measurement)
<b>Environmental</b>	<ul style="list-style-type: none"> <li>• Water-resistant to IP65 (IEC 60529-Light shower) (lid closed)</li> <li>• Shock resistant (IEC 60068-2-31) (lid closed)</li> </ul>
<b>Temperature Range</b>	<ul style="list-style-type: none"> <li>• Storage: -4°F to 158°F (-20°C to +70°C)</li> <li>• Operating: 14°F to 122°F (-10°C to +50°C)</li> </ul>
<b>Manufacturing</b>	Designed and manufactured under ISO 9001:2015
<b>Battery</b>	An Internal Lithium-ion rechargeable battery (supplied with a 12V charger)
<b>Battery Life</b>	<ul style="list-style-type: none"> <li>• Internal Lithium-ion rechargeable batteries</li> <li>• Time to a full charge = Six hours</li> <li>• Runtime is typically eight hours with Sonde on, nine hours with Sonde off (at 70°F (21°C) (with a full backlight on)</li> <li>• Re-charging cycles are approximately 500 times the life cycle. Battery life varies with temperature.</li> </ul>
<b>Battery Indicators</b>	<ul style="list-style-type: none"> <li>• The charging indicator on the left side panel glows red while charging and glows green when fully charged</li> <li>• A battery icon on the status bar shows the battery level and running power source</li> </ul>
<b>Mounting</b>	The control module is permanently attached to the Type-MX reel frame.
<b>Operating System</b>	The software is upgradeable via USB port with files from the Vivax-Metrotech website, local distributor or factory.
<b>Options and Accessories</b>	Smartphone/tablet app for video streaming, image capturing, adding text and file sharing
<b>What's in the Box</b>	<ul style="list-style-type: none"> <li>• vCamMX-2+ Control Module</li> <li>• Accessory Bag which includes: <ul style="list-style-type: none"> <li>- Flat Screwdriver</li> <li>- AC/DC Power Lead</li> <li>- Camera and spring removal and installation tools</li> <li>- Charger with power cable</li> <li>- Fuse x 2</li> <li>- USB Thumb drive</li> <li>- Quick Guide</li> <li>- Manual</li> </ul> </li> </ul>

## Operator Controls

Controls	Functions
<b>Camera LED Dimmer</b>	Push-button control on the front panel to adjust the brightness of the camera LEDs
<b>Distance Counter</b>	<p>Push-button control on the front panel to zero distance count*</p> <p>The approximate distance of the pushrod deployed, in feet or meters, is displayed on the LCD with the option to appear in still images or recorded video.</p>
<b>Sonde Operation</b>	<ul style="list-style-type: none"> <li>• Push-button control on the front panel turns Sonde on, cycles through available frequencies, and then off</li> <li>• The Push-button glows green, and the Sonde icon appears on the status bar on the LCD when active</li> </ul>
<b>Microphone Operation</b>	<ul style="list-style-type: none"> <li>• Push-button control on the front panel turns the internal microphone on and off</li> <li>• Push-button glows red, and the microphone icon appears on the status bar on the LCD when active</li> </ul>
<b>Power On/Off</b>	<ul style="list-style-type: none"> <li>• Push-button control on the front panel turns the unit on and off</li> <li>• Push-button glows green, and the battery icon appears on the status bar on the LCD, showing the battery status and power source</li> </ul>
<b>Recording Control</b>	<ul style="list-style-type: none"> <li>• Push-button on the front panel, push to record, push a second time to stop recording</li> <li>• Push-button glows red when recording, and a flashing icon appears on the status bar on the LCD when recording</li> </ul>
<b>Image Capture</b>	<ul style="list-style-type: none"> <li>• Press the push-button on the front panel, and the image is captured to the USB drive</li> <li>• A JPEG icon flashes on the LCD, confirming the image capture</li> </ul>
<b>Video Playback control</b>	<ul style="list-style-type: none"> <li>• Push buttons on the front panel to pause the video, rewind/fast forward, play and stop</li> <li>• Icons appear on the status bar to advise which function is active</li> </ul>
<b>Digital Zoom</b>	The Push-button on the front panel toggles through 2 X view zoom mode, then off.
<b>On-Screen Display (OSD)</b>	<ul style="list-style-type: none"> <li>• OSD displays the system time, date, and distance of the deployed pushrod</li> <li>• Option to move OSD to the top of the screen, the bottom of the screen or off</li> <li>• Option to change the OSD colors to black, white, green or yellow</li> </ul>
<b>Text Overlay</b>	<ul style="list-style-type: none"> <li>• Use the on-screen keyboard to add text comments</li> <li>• Save unlimited pages of text comments</li> <li>• Option to use a USB keyboard or wireless keyboard dongle</li> <li>• Add text to the screen by using the vCam Mobile Controller app</li> </ul>
<b>Wi-fi</b>	30" / 10m Wi-fi range for use with our VMC tablet/smartphone streaming and recording app.

Sockets and Jacks	Functions
<b>Video Out</b>	<ul style="list-style-type: none"> <li>• Color-coded industry-standard RCA female socket for video out</li> <li>• Video out with OSD via mini-USB port</li> </ul>
<b>Microphone</b>	The internal microphone is at the top center of the LCD.

<b>Media Sockets</b>	USB 2.0 and SD card socket located in the media compartment supports up to 128GB USB 2.0 Drives and 64GB SD Cards
<b>DC Power</b>	12V 1 Pin male circular socket for DC power cable assembly

## C. Type-MX Reel Features

Component	Specification
<b>Model Name</b>	Type-MX Reel
<b>Model Number</b>	VX112-02
<b>Pushrod Construction</b>	Fiberglass rod, conductors, and coax with a high-density Polyethylene Jacket
<b>Pushrod Length Options</b>	100ft. (30m)   150ft. (45m)
<b>Pushrod Diameter</b>	0.39" (10mm)
<b>Minimum Break Strength</b>	4000lbs (1800kg)
<b>Bend Radius</b>	Approximately 40 times the pushrod diameter Minimum bend radius approximately 3"/75mm
<b>Sonde Frequencies</b>	33kHz, 512Hz, and 640Hz. Selectable at the time of control module feature setup
<b>Sonde Output/Range</b>	<ul style="list-style-type: none"> <li>1-Watt output</li> <li>Locatable depth up to 9 ft (3m)</li> </ul>
<b>Pushrod Tracing</b>	The reel post is for connecting an external utility locating transmitter. When connected and energized, the entire length of the pushrod can be traced with a buried utility locator.
<b>Termination Spring</b>	Field serviceable spring assembly consisting of the spring, coiled cable, and lanyard
<b>Distance Counter</b>	The encoder driver is accurate to 0.33ft (0.1m) resolution*
<b>Dimensions</b>	20.9" (L) x 12.7" (W) x 22.4" (H) (531mm (L) x 322mm (W) x 570mm (H)).
<b>Weight</b>	100 ft. (30m): 30 lbs. (14 kg)   150 ft. (45m): 37 lbs. (17 kg)
<b>Environmental</b>	Water-resistant to IP65
<b>Construction</b>	Stainless-steel tubular frame with carbon fiber pushrod drum
<b>Manufacturing</b>	Designed and manufactured under ISO 9001:2015
<b>Braking/Locking</b>	Hand tightening the friction brake slows the pushrod cage. Moving the brake lever left/right to lock/unlock the pushrod drum
<b>Options and Accessories</b>	Drip Bag
<b>What's in the Box</b>	<ul style="list-style-type: none"> <li>Type-MX Reel with Pushrod, spring and Interconnect Cable</li> <li>Plastic Cable Insertion Sleeve</li> </ul>

## D. Camera Heads for the Type-MX Reel

### D26-HD, 1-inch (26mm) self-leveling color camera

Component	Specification
Model Name	D26-HD
Model Number	VX112-3
Application	Used with the Type-MX reel in pipe diameters from 2 to 4 inches / 50 to 101mm
Resolution	1080p, 25 FPS
Focus Point	5" (13cm)
Aperture / Field of View	114°
Lighting	103 Lumens Measure at 1 meter in 4-inch cast iron pipe
Auto Upright	Cantilever self-leveling design
Construction	Stainless-steel housing with scratch-resistant Sapphire lens
Environmental	Water resistance up to 11 BAR pressure
Temperature Range	Storage: -4°F to 158°F (-20°C to +70°C), Operating: 14°F to 122°F (-10°C to +50°C)
Manufacturing	Designed and manufactured under ISO 9001:2015
Dimensions Installed	1.02" (Dia.) x 1.41" (L) / 26mm (Dia.) x 35.9mm(L) without standard skid 1.33" (Dia.) x 1.41" (L) / 33.7mm (Dia.) x 35.9mm(L) with standard skid
Weight	0.14lbs (0.065kg) without standard skid 0.16lbs (0.073kg) with standard skid
Options	Optional 2.5 and 3" guide skids (57 and 75mm) Camera exchange program
What's in the Box	D26-HD Camera, Standard Skid

### D18-HD 0.70" / 18mm fixed position camera head

Component	Specification
Model Name	D18-HD
Model Number	VX113-2
Application	Used with the vCam Drain in pipe diameters from 1-1/2 to 3 inches / 38 to 75mm
Resolution	1080p 25FPS
Focus Point	5" (13cm)

<b>Aperture / Field of View</b>	90°
<b>Lighting</b>	69 Lumens Measure at 1 meter in 4-inch cast iron pipe
<b>Auto Upright</b>	None, fixed position, non-leveling camera
<b>Construction</b>	Stainless-steel housing with scratch-resistant Sapphire lens
<b>Environmental</b>	Water resistance up to 11 BAR pressure
<b>Temperature Range</b>	Storage: -4°F to 158°F (-20°C to +70°C), Operating: 14°F to 122°F (-10°C to +50°C).
<b>Dimension Installed</b>	0.73" (Dia.) x 0.71" (L) / 18.6mm (Dia.) x 18.1mm (L) without standard skid 1.0" (Dia.) x 0.73" (L) / 25.6mm (Dia.) x 18.6mm (L) Diameter with standard skid installed
<b>Weight</b>	0.029lbs (0.013kg) without standard skid 0.035lbs (0.016kg) with standard skid
<b>Options</b>	2.25" / 57mm Guide Skid, Camera exchange program
<b>What's in the Box</b>	D18-HD Camera, Standard Skid, Removal and installation tools

## E. vCamMX-2+ System Shipping Weights\*

<b>Model</b>	<b>Dimensions and Weights</b> (Includes control module, accessory kit, charger, reel with pushrod, spring assembly, and insert sleeve)
<b>100ft/30m System</b>	<ul style="list-style-type: none"> <li>Dimension: 22.8" (L) x 15" (W) x 28" (H) (580(L) x 380(W) x 700(H) mm).</li> <li>Weight: 42lbs. (19 kg)</li> </ul>
<b>150ft/45m System</b>	<ul style="list-style-type: none"> <li>Dimension: 22.8" (L) x 15" (W) x 28" (H) (580(L) x 380(W) x 700(H) mm).</li> <li>Weight: 45 lbs. (21 kg)</li> </ul>
<b>D26-HD Camera Head</b>	<ul style="list-style-type: none"> <li>Dimensions: 3.5" (L) x 3.5" (W) x 4.9" (H) (90(L) x 90 (W) x 125(H) mm)</li> <li>Weight: 0.26lbs (0.12kg)</li> </ul>
<b>D18-HD Camera Head</b>	<ul style="list-style-type: none"> <li>Dimensions: 3.5" (L) x 3.5" (W) x 4.9" (H) (90(L) x 90 (W) x 125(H) mm)</li> <li>Weight: 0.13lbs (0.06kg)</li> </ul>

\*Shipping dimensions and weights are approximate.

## F. Warranty

<b>Item</b>	<b>Parameter</b>
<b>Warranty</b>	<ul style="list-style-type: none"> <li>Control module: One year</li> <li>Reels &amp; Pushrod: One year</li> <li>Camera heads: One year</li> <li>Accessories: One year</li> </ul>



## G. Note



\*The distance count shown on the LCD is designed to provide an estimate. The camera should always be located with care using a Sonde or Pipe and Cable Locator.

Shipping dimensions and weights are approximate.

This product's LCD is a consumer product, and models may change. Vivax-Metrotech Corporation attempts to ensure that the minimum features listed here are present in every LCD, and some additional features may vary from model to model.

**Disclaimer** - Vivax-Metrotech Corporation will continue to update and improve its products. The information in these specifications is subject to change, obsolescence, or superseding. Check with your local sales representative or Vivax-Metrotech Corporation for updates.