



**A. Typical Applications**

Item	Parameter	Detail
<b>Sewers, drains, ducts</b>	Metallic or non-metallic pipes, conduits, ducts and chimney's	Use for visual inspection of the inside of the target pipe. Image can be viewed, recorded in a digital medium (MPEG4) and transferred to computer for copying or still image capture.
<b>System</b>	2 x Control module options  3 x reel options  4 x cable options  4 x camera options – all CCD color  2 x interconnect lead options	<b>Control Module:</b> vCamView, vCam Digital  <b>Reel:</b> Type M, type C, type P  <b>Cable:</b> 10mm x 100ft(30m) 10mm x 200ft(60m) 12mm x 200ft(60m) 12mm x 400ft(120m)  <b>Cameras:</b> - available in NTSC or PAL 33mm standard – fits 10mm cable 33mm self leveling – fits 10mm cable 38mm standard – fits 12mm cable 46mm self leveling – fits 12mm cable  <b>Interconnect leads:</b> 12ft(4m) long 25ft(8m) long

**B. Cable Reel Assembly (Standard Cart – Type C)**

Item	Parameter	Detail
<b>Pushrod Cable</b>	10mm x 100ft(30m) 10mm x 200ft(60m) 12mm x 200ft(60m) (Recommended)	Fiberglass epoxy rod with Kevlar strength layer. Abrasion and water resistant high impact copolymer outer sheath – 4000lbs (1800Kg) nominal breaking strain. Epoxy potted connection.
<b>Cable Diameter</b>	12 mm (0.47 inch)/ 10 mm (0.4 inch)	
<b>Reel Assembly Dimensions</b>	30-38 inch(H) x 25inch(W) x 17 inch(L) 760– 980mm(H)x635mm(W) x 430mm(L)	Roll around cart with shock absorbing suspension and adjustable handle manufactured in stainless steel



<b>Weight</b>	50.8lbs (23Kg)	
<b>Sonde Frequency</b>	512Hz, 640Hz, 33kHz	Frequency selectable on front panel of control module and on keyboard
<b>Sonde Output</b>	5 Watt	
<b>Sonde Range</b>	Typically 12ft (4m.)	In cast iron pipe – more in plastic pipe
<b>Interconnect Cable</b>	12ft(4m) long or 25ft(8m) long	
<b>Camera options</b>	D33/STD,D33/SL,D38/STD,D46/SL	Specify NTSC (USA) or PAL (Europe & China)

### C. Cable Reel Assembly (Type-M)

Item	Parameter	Detail
<b>Cable</b>	10mm x 100ft(30m) (Recommended) 10mm x 200ft(60m)	Fiberglass epoxy rod with Kevlar strength layer. Abrasion and water resistant high impact copolymer outer sheath - 1800Kg (4000lbs) nominal breaking strain. Epoxy potted connection.
<b>Cable Diameter</b>	10mm (0.4 Inch)	
<b>Reel Assembly Dimensions</b>	21 inch(H) x 20 inch(W) x 9 inch(L) 530mm(H) x 490mm(W) x 230mm(L)	
<b>Weight</b>	32lbs (14Kg)	
<b>Sonde Frequency</b>	512Hz, 640Hz, 33kHz	Frequency selectable on front panel of control module and on keyboard
<b>Sonde Output</b>	5 watts	
<b>Sonde Range</b>	Typically 12ft (4m.)	In cast iron pipe – more in plastic pipe
<b>Interconnect Cable</b>	12ft(4m) long or 25ft(8m) long	
<b>Camera options</b>	D33/STD,D33/SL	

### D. Cable Reel Assembly (Type-P)

Item	Parameter	Detail
<b>Cable</b>	12mm x 400ft(120m) (Standard)	Fiberglass epoxy rod with Kevlar strength layer. Abrasion and water resistant high impact copolymer outer sheath - 1800Kg (4000lbs) nominal breaking strain. Epoxy potted connection.
<b>Cable Diameter</b>	12 mm (0.47 inch)	
<b>Reel Assembly Dimensions</b>	35 inch(H) x 31 inch(W) x 17 inch(L) 870mm(H) x 780mm(W) 430mm(L)	Welded steel construction, heavy duty wheels, Anti lurch feet
<b>Weight</b>	53lbs (23.6Kg)	
<b>Sonde Frequency</b>	512Hz, 640Hz, 33kHz	Frequency selectable on front panel of



		control module and on keyboard
<b>Sonde Output</b>	5 watts	
<b>Sonde Range</b>	Typically 12ft (4m.)	In cast iron pipe – more in plastic pipe
<b>Interconnect Cable</b>	12ft(4m) long or 25ft(8m) long	
<b>Camera options</b>	D38/STD or D46/SL	

**E. Camera Assembly D38/STD (Standard)**

Item	Parameter	Detail
<b>Dimension</b>	1.5 inch (D) x 2 inch (L) 38mm(D) x 53mm(L)	excluding removable skid
<b>Weight</b>	0.48lbs (219g)	
<b>Camera Type</b>	Color CCD camera assembly	NTSC or PAL camera (specify when ordering)
<b>Camera Housing</b>	Stainless steel	Removable – requires special remove tool
<b>Camera lens</b>	Sapphire – scratch resistant	
<b>Horizontal Resolution</b>	420 TVL	
<b>Focus Point</b>	12inch (300mm)	
<b>Min. illumination</b>	1.5 LUX	
<b>Lighting</b>	6000 MCD illumination LED x 18pcs	Luminous intensity
<b>Removable Skid</b>	Aluminum skid: (Color code – Yellow) 2inch (D) x 1.9 inch (L) 52mm (D) x 48mm(L)	Removable – requires 2.5mm Allen key

**F. Camera Assembly D46/SL (Self leveling)**

Item	Parameter	Detail
<b>Dimension</b>	1.9 inch (D) x 2.6 inch (L) 46mm (D) x 65.5mm(L)	excluding removable skid
<b>Weight</b>	391g (0.86lbs)	
<b>Camera Type</b>	Color CCD camera assembly	NTSC or PAL camera (specify when ordering)
<b>Camera Housing</b>	Stainless steel	Removable – requires special remove tool
<b>Camera lens</b>	Sapphire – scratch resistant	
<b>Horizontal Resolution</b>	420TVL	
<b>Focus Point</b>	12inch (300mm)	
<b>Min. illumination</b>	1.5 LUX	
<b>Lighting</b>	6000 MCD illumination LED x 27pcs	Luminous intensity
<b>Removable Skid</b>	Aluminum skid: (Color code – Red) 2.4 inch (D) x 2 inch (L) 60mm(D) x 49mm(L)	Removable – requires 2.5mm Allen key



**G. Camera Assembly D33/STD (Standard)**

Item	Parameter	Detail
<b>Dimension</b>	1.3 inch (D) x 1.8 inch (L) 33mm(D) x 45mm(L)	excluding removable skid
<b>Weight</b>	0.28 lbs (128g)	
<b>Camera Type</b>	Color CCD camera assembly	NTSC or PAL camera (specify when ordering)
<b>Camera Housing</b>	Stainless steel	Removable – requires special remove tool
<b>Camera lens</b>	Sapphire – scratch resistant	
<b>Horizontal Resolution</b>	420 TVL	
<b>Focus Point</b>	12inch (300mm)	
<b>Min. illumination</b>	0.5LUX	
<b>Lighting</b>	6000 MCD illumination LED x 15pcs	Luminous intensity
<b>Removable Skid</b>	Aluminum skid: (Color code – Silver) 1.6 inch (D) x 1.4 inch (L) 41mm (D) x 36mm(L)	Removable – requires 2.5mm Allen key

**H. Camera Assembly D33/SL (Self leveling)**

Item	Parameter	Detail
<b>Dimension</b>	1.3 inch (D) x 2.4 inch (L) 33 mm (D) x 62 mm(L)	excluding removable skid
<b>Weight</b>	0.45lbs (205g)	
<b>Camera Type</b>	Color CCD camera assembly	NTSC or PAL camera (specify when ordering)
<b>Camera Housing</b>	Stainless steel	Removable – requires special remove tool
<b>Camera lens</b>	Sapphire – scratch resistant	
<b>Horizontal Resolution</b>	420TVL	
<b>Focus Point</b>	12inch (300mm)	
<b>Light sensitivity</b>	0.5 LUX	
<b>Lighting</b>	6000 MCD illumination LED x 12 pcs	Luminous intensity
<b>Removable Skid</b>	Aluminum skid: (Color code – Green) 1.6 inch (D) x 1.4 inch (L) 41mm(D) x 36mm(L)	Removable – requires 2.5mm Allen key

**I. Control Module: (vCam view does not include MPEG4, Titler, Keyboard)**

Item	Parameter	Detail
<b>Dimension</b>	13 inch (H) x 9.5 inch (W) x 16.7 inch (L) 330mm(H) x 240mm(W) x 425mm(L)	
<b>Weight</b>	26.1lbs (11.8Kg)	



## vCam *View & Digital* Datasheet (EN)

<b>Power Supply</b>	AC 110V / 220V, 12V DC external power supply	AC power – charge internal batteries
<b>Recording Format</b>	MPEG4 (vCam Digital only)	
<b>Recording Device</b>	MPEG4 Recorder with playback function (vCam Digital only)	60GB Capacity
<b>Video Format</b>	NTSC / PAL	Automatic selection
<b>Display</b>	8 inch LCD	(diagonal measurement)
<b>Counter incremental</b>	Magnetic sensor 0.33ft (0.1m.) resolution	Provides approx measurement of cable deployed – output written to counter display and video display
<b>Internal Batteries</b>	Ni-MH rechargeable	Charger is internal
<b>Sound Recording</b>	- Internal Microphone (standard) - Socket for external microphone	Includes on/off switch & microphone active light (LED)
<b>Video In/Out</b>	Industry Standard RCA (Phono) Socket	
<b>USB Interface</b>	USB upload cable	For upload video files to computer
<b>Standard Data</b>	DATE, TIME, DISTANCE, BATTERY, REEL TYPE	
<b>Free Text</b>	24 character x 9 lines (vCam Digital only) per page – 16 pages	Keyboard entry with adjustable screen positioning
<b>Display Position</b>	Recessed display for easy viewing under sunlight	Use handle to adjust viewing angle
<b>Keyboard</b>	Full Alpha / numeric keyboard	Silicon rubber – water & dirt resistant

### J. Environmental:

Item	Parameter	Detail
<b>Camera</b>	Water resistance up to 6 BAR	
<b>Reel</b>	Water resistance to IP54	Can be hosed down on pressured washed.
<b>Control Module</b>	Water resistant (lid closed) Shock resistant (lid closed)	IEC 60529 (Light shower) IEC 60068 -2-31
<b>Temperature Range</b>	Storage: -20 °C to +70 °C (-4°F to 158°F) Operate: -10 °C to +50 °C (14°F to 122°F)	
<b>Shipping (Dimensions / Weight)</b>	<b>Control Module:</b> 18.2 inch(H)x 22.5 inch(W) x 15.6 inch(L) 454mm(H) x 563mm(W) x 390mm(L) <b>Weight:</b> 40.6lbs (18.4Kg)  <b>Type-C Reel (with camera &amp; interconnect cable):</b> 33.2inch(H) x 19.6 inch(W) x 30.4 inch(L) 830mm(H) x 490mm(W) x 760mm(L)	Carton packaging (weight inclusion of packaging and product)



	<p><b>Weight:</b> 83.9 lbs (38Kg)</p> <p><b>Type-P Reel (with camera &amp; interconnect cable):</b>            32.3inch(H) x 21.7 inch(W) x 19.7 inch(L)            820mm(H) x 550mm(W) x 500mm(L)</p> <p><b>Weight:</b> 78.2 lbs (35.5Kg)</p> <p><b>Type-M Reel (with camera &amp; interconnect cable):</b>            23 Inch (H) x 22.8 Inch (W) x 10 Inch (L)            590mm (H) x 580mm (W) x 260mm (L)</p> <p><b>Weight:</b> 43.3 lbs (19.6Kg)</p>	
--	--	--

**K. Options:**

Item	Parameter	Detail
<b>Pushrod Cables &amp; Reels</b>	Specify at time of ordering which reel type and cable diameter and length required	See reel specifications fo which cable fits which reel
<b>Standard and Self leveling Camera</b>	Specify at time of order which camera is required, and what video system (NTSC or PAL)	See camera specifications for which camera type fits which cable size
<b>Adjustable skid</b>	100mm (4 inch) to 200mm (8 inch)	For 12mm cable applications only
<b>Insertion tube</b>	Used to protect the cable while inserting	

**L. Service items:**

Item	Parameter	Detail
<b>Camera Removal tool</b>	Used to remove the camera head	Specify if required
<b>Repair kits</b>		Contact Vivax for list of available repair kits
<b>Service exchange camera program</b>	A limited number of 'service exchange' cameras are generally available at reduced cost provided the broken camera is returned	

**M. Warranty:**

Item	Parameter	Detail
<b>Standard limited warranty</b>	1 year	
<b>Display</b>	3 months	
<b>MP4 Recorder</b>	1 year	



**J. Warnings:**

Dimensions and weight conversions are approximate (metric data is the most accurate)

MPEG recorder and LCD display used in this product are consumer products and models change frequently – VIVAX attempts to ensure that the minimum features listed here are present in every recorder – some additional features may change from model to model.

VIVAX continues to update and improve its products – information on this data sheet may have changed or been superseded – check with your local sales representative or VIVAX for updates.