SURVEYOR VFT

TCP/IP, Fiber and Twisted-Pair High-Performance Camera Dome

- Coaxial video transmission standard; TCP/IP, fiber and UTP transmission card options
- ViconNet Version 5 (TCP/IP) converts to digital video for viewing and control on Kollector® Digital Video Recorders and ViconNet workstations
- Fiber-optic option transmits video and control data to fiber optic receivers over long distances
- UTP option transmits video up to 3000 ft over unshielded twisted pair
- Lowest current draw in its class
- DIP-switch selectable competitive camera dome protocols eliminate the need for external translators
- On-board memory retained in housing; designed for easy installation and servicing
- 360° continuous rotation pan-and-tilt drive with a variety of color domes available
- Color 22X, 22X with ExView™, day/night 23X and 35X camera options, maximum 420X optical/digital zoom
- EIS (image stabilizer) on 35X model
- High-resolution in 23X and 35X versions (540 TVL)
- Indoor or outdoor, ceiling or pendant configurations
- Digital Slow Shutter feature for enhanced low-light applications
- Wide Dynamic Range (23X and 35X) provides best contrast for high quality images
- Outdoor version provides environmental protection, pressurized (PRS) and maximum security (M) versions available
- Convenient integration into any existing CCTV matrix system
- GUI provides configuration of all features
- 23X/35X version provides Digital Noise Reduction (DNR) and enhanced sensitivity
- Enhanced autofocus

SurveyorVFT™ Camera Dome System is a compact, lightweight and intelligent security device comprised of a camera, pan/tilt drive, receiver and CPU-based electronics all in an attractive and covert enclosure. SurveyorVFT can be programmed and operated using any Pilot or NOVA™ control systems and enhanced Vicoax®II protocol. It is available in a variety of indoor and outdoor versions and can be configured with a variety of camera and lower dome types. Refer to Table 1.

The basic SurveyorVFT provides video transmission over coaxial cable. Options are available that provide TCP/IP (ViconNet®), fiber-optic and twisted-pair (UTP) video transmission. Each of these options includes an interface board that allows the specific type of video transmission. An appropriate receiver is required.

The ViconNet® provides support for network connection to Kollector Digital Video Recorders and ViconNet Workstations via ViconNet software. A pre-installed network interface board allows direct plug-in to a system network switch. Video from the camera is available to all network recorders and workstations for live view and recording.

The Vicon SurveyorVFT camera dome can be used in conjunction with competitive PTZ drivers through DIP-switch selection.

The SurveyorVFT is designed for easy snap-in installation. The drive simply snaps into the housing. When removed, the housing retains all programmed functions in its on-board memory. The customer interface board snaps down for easy access and the PCB provides removable terminal blocks for simple wiring connections. The SurveyorVFT has one of the lowest current draws compared to other domes in its class.

There are four camera types available, each with NTSC and PAL versions. The basic model is a 22X high-resolution camera/lens (CA in the model number). Another 22X model is available with ExView™ CCD technology (22XEX). The third version is a 23X day/night camera/lens and the fourth is a 35X day/night camera/lens. The day/night models feature wide dynamic range (WDR) and noise reduction (DNR/FNR). See Technical Information and Table 3 for camera features. The outdoor units are provided with a blower and thermostatically-controlled heater. Several mounting accessories are available to fit almost any installation need. Refer to Table 1 for specific SurveyorVFT models and mounting options.

There are 79 programmable preset positions, each having a variable preset solve accuracy of 0.1°. Programmable azimuth and compass is displayed on screen. There are 8 compass headings (N, NE, E, SE, S, SW, W, NW) (22XEX/23X/35X only) and pan and tilt degrees displayed with a 1° resolution. 16 individual programmable privacy masks are available. Motion detection capability is available on day/night models. For each preset, there are 6 programmable zones for motion detection, each having 3 sensitivity levels.

Alarm inputs can be individually programmed. Programmable titling is provided for the camera and every preset position, alarm, relay and sector and titles can be enabled or disabled individually or globally.

Eight tours (4 on 22X) are available with 32 steps per tour. Pan and tilt functions are externally controlled, continuously variable and programmable to be enabled or disabled. There is a programmable autopan function.

Vicon Product Facts | FC UL CE | **Model No:** SurveyorVFT | **Product Code:** See Table 1 | **SEC: 3** | **SPEC: V134** | **REV: 611**

Vicon part number 8009-7134-05-05 | *Product specifications subject to change without notice.* | **1**

Features	SVFT-22CA	SVFT-22EX	SVFT-23X	SVFT-35X
Digital/Total Zoom	12/264X	12/264X, ExView	12/276X	12/420X
Focal Length	4-88 mm	4-88 mm	3.6-82.8 mm	3.4-119 mm
Horizontal Resolution	470 TVL	470 TVL	540 TVL	540 TVL
Wide Dynamic Range (WDR)	N/A	N/A	Yes	Yes
Image Stabilization	N/A	N/A	N/A	EIS
Digital Noise Reduction	N/A	N/A	Yes	N/A
Pan View	360° continuous	360° continuous	360° continuous	360° continuous
Tilt View	-2.5 - 92.5°	-2.5° - 92.5°	-2.5° - 92.5°	-2.5° - 92.5°
Pan Speed	Variable, 0.1 - 120°/sec	Variable, 0.1 - 360°/sec	Variable, 0.1 - 360°/sec	Variable, 0.1 - 360°/sec
Tilt Speed	Variable, 0.1 - 90°/sec	Variable, 0.1 - 150°/sec	Variable, 0.1 - 150°/sec	Variable, 0.1 - 150°/sec
Optical Zoom Speed	<1.8 sec, end to end	<1.8 sec, end to end	<1.8 sec, end to end	<1.8 sec, end to end
Preset Capability	79 programmable	79 programmable	79 programmable	79 programmable
Tours/Autotours	4/NA	8/2	8/2	8/2
Privacy Mask	N/A	16	16	16
Alarms	4 inputs/1 relay output	4 inputs/1 relay output	4 inputs/1 relay output	4 inputs/1 relay output
In-Ceiling/Indoor/Outdoor Rating	IP51/IP52/IP66	IP51/IP52/IP66	IP51/IP52/IP66	IP51/IP52/IP66

Model Number	Product Code	Environment/ Cable Type*	Camera Type/Format	Mount Type	Optical Zoom/ Total Zoom	Lower Dome Type
SVFT-C22	8701-00	Indoor/Coax	Color/NTSC	Ceiling	ExView 22x/264x	Smoked
SVFT-C22C	8701-01	Indoor/Coax	Color/PAL	Ceiling	ExView 22x/264x	Smoked
SVFT-P22	8704-00	Indoor/Coax	Color/NTSC	Pendant	ExView 22x/264x	Smoked
SVFT-P22C	8704-01	Indoor/Coax	Color/PAL	Pendant	ExView 22x/264x	Smoked
SVFT-W22	8707-00	Outdoor/Coax	Color/NTSC	Pendant	ExView 22x/264x	Clear
SVFT-W22C	8707-01	Outdoor/Coax	Color/PAL	Pendant	ExView 22x/264x	Clear
SVFT-C23	8702-00	Indoor/Coax	Color/NTSC (day/night; WDR; DNR)	Ceiling	23x/276x	Clear
SVFT-C23C	8702-01	Indoor/Coax	Color/PAL (day/night; WDR; DNR)	Ceiling	23x/276x	Clear
SVFT-P23	8705-00	Indoor/Coax	Color/NTSC (day/night; WDR; DNR)	Pendant	23x/276x	Clear
SVFT-P23C	8705-01	Indoor/Coax	Color/PAL (day/night; WDR; DNR)	Pendant	23x/276x	Clear
SVFT-W23	8708-00	Outdoor/Coax	Color/NTSC (day/night; WDR; DNR)	Pendant	23x/276x	Clear
SVFT-W23C	8708-01	Outdoor/Coax	Color/PAL (day/night; WDR; DNR)	Pendant	23x/276x	Clear
SVFT-W35	9102-00	Outdoor/Coax	Color/ NTSC (day/night; WDR; DNR, image stabilizer)	Pendant	35x/420x	Clear
SVFT-W35C	9102-01	Outdoor/Coax	Color/ PAL (day/night; WDR; DNR, image stabilizer)	Pendant	35x/420x	Clear
SVFT-C22CA	8741-00	Indoor/Coax	Color/NTSC	Ceiling	22x/264x	Smoked
SVFT-C22CA-C	8741-01	Indoor/Coax	Color/PAL	Ceiling	22x/264x	Smoked
SVFT-P22CA	8742-00	Indoor/Coax	Color/NTSC	Pendant	22x/264x	Smoked
SVFT-P22CA-C	8742-01	Indoor/Coax	Color/PAL	Pendant	22x/264x	Smoked
SVFT-W22CA	8743-00	Outdoor/Coax	Color/NTSC	Pendant	22x/264x	Clear
SVFT-W22CA-C	8743-01	Outdoor/Coax	Color/PAL	Pendant	22x/264x	Clear

For the ViconNet (V5) option, add -75 (-76 for PAL) to the product code; for Fiber Optic (F) option, add -30 (-31 for PAL) to the product code; for the UTP (T) option, add -40 (-41 for PAL) to the product code.
*Outdoor units include a blower and thermostatically-controlled heater.

Table 1: SurveyorVFT Models and Options

Vicon Product Facts	FC UL CE	Model No: SurveyorVFT	Product Code: See Table 1	SEC: 3	SPEC: V134	REV: 611

2

Model Number	Product Code	Description
V-VID-BAL	6518-20	Tranceiver, transmits or receives video and Vicoax data up to 1000 ft; used as receiver for UTP dome
V652R-NVT	7453-00	Receiver, converts UTP video to composite up to 3000 ft from transmitter (does not support Vicoax systems)

Table 1 (cont'd): UTP Receiver Options

Model Number	Product Code	Description
VF-1400R	8421-00	Receiver, for SurveyorVFT transmission, simplex video and duplex RS-422 data
VF-1400RR	8421-02	Receiver, for SurveyorVFT transmission, simplex video and duplex RS-422 data
VF-SR-20/2	8423-00	Card cage with power supply

Table 1 (cont'd): Fiber Optic Receiver Options

Model Number	Product Code	Description
SVFT-SMK	8377-00	Ceiling/Pendant, indoor, smoked (gray) tint
SVFT-CHR	8378-00	Ceiling/Pendant, indoor, chrome
SVFT-GLD	8379-00	Ceiling/Pendant, indoor, gold

Table 1 (cont'd): SurveyorVFT Lower Domes

Model Number	Product Code	Description
SVFT-UWM	8352-00	Wall mount, indoor/outdoor
SVFT-UCM	8351-00	Ceiling mount, indoor/outdoor
SVFT-UPM-1	8348-10	Parapet mount, outdoor
SVFT-URM-1	8349-10	Roof mount, outdoor
SVFT-UCP	8373-00	Ceiling panel, indoor
SVFT-WM	8350-00	Wall mount, short, indoor/outdoor
SVFT-IC-MKT	8374-00	In-ceiling mount kit, indoor
SVFT-SOF	8724-00	Soffit mount, outdoor

Table 1 (cont'd): SurveyorVFT SurveyorVFT Mounting Options

Model Number	Product Code	Description
S24WPS-1	7028-10	Single-channel, 120 VAC input, 24 VAC output, 2 amps. for indoor and outdoor SurveyorVFT Camera Domes
S24PS/S24PS-230	7027-00/7027-01	Single-channel,120/ 230 VAC input, 24 VAC output, 2.5 amps. for indoor SurveyorVFT Camera Domes
S28PS-1	7029-10	Single-channel, 120 VAC input, 28 VAC output, 2.15 amps, for indoor SurveyorVFT Camera Domes
S28WPS-1/ S28WPS-230	7030-10/7030-01	Single-channel, 120/230 VAC input, 28 VAC output, 3 amps, for outdoor SurveyorVFT Camera Domes
V2448-175PS	6410-20	Four channel, 120 VAC input, 24/28 VAC output (jumper selectable), 7/6.25amps (total), for indoor SurveyorVFT Camera Domes
V248-600PS	8438-00	Eight channel, 120 VAC input, 24 VAC output, 25 amps (total), for indoor SurveyorVFT Camera Domes
V248-300PS	6422-10	Eight channel, 120 VAC input, 24/28 VAC output (jumper selectable), 12.5/10 amps (total), for indoor SurveyorVFT Camera Domes
V2416-600PS	8437-00	Sixteen channel, 120 VAC input, 28 VAC output, 26 amps (total), for indoor SurveyorVFT Camera Domes

Caution: Be aware that some of these power supplies are for indoor use only. Also note that on multi-channel units, the amperage stated is the total for all channels. To assure sufficient current to individual cameras, connect only the number of cameras that use less than the maximum supply current.

Table 1 (cont'd): SurveyorVFT SurveyorVFT Power Supplies

Vicon Product Facts	FC UL CE	Model No: SurveyorVFT	Product Code: See Table 1	SEC: 3	SPEC: V134	REV: 611

ELECTRICAL

Drive Type: Electrical motorized pan and tilt with electronic control.

Camera Types: Units available in color and day/night (NTSC/PAL) formats and a variety of zoom and feature capabilities.

Input Voltage: 18-30 VAC. (Will operate within spec on voltages up to 32 VAC. For voltages between 30-32 VAC, use a Class 3 indoor/dry or outdoor/wet power supply.)

Maximum Power Cable Distance: See Table 2.

Maximum Current: Indoor:
Coax, Fiber, UTP: 1.0 A.
ViconNet (TCP/IP): 1.4 A.
Outdoor:
Coax, Fiber, UTP: 1.8 A.
ViconNet (TCP/IP): 2.3 A

Power Consumption: Indoor:
Coax, Fiber, UTP: 24 W.
ViconNet (TCP/IP): 34 W.
Outdoor:
Coax, Fiber, UTP: 50 W.
ViconNet (TCP/IP): 54 W.

Heat Equivalent: Indoor:
Coax, Fiber, UTP:
1.3 btu/min
(0.34 kg-cal/min).
ViconNet (TCP/IP):
1.9 btu/min
(0.49 kg-cal/min).
Outdoor:
Coax, Fiber, UTP:
2.8 btu/min
(0.7 kg-cal/min).
ViconNet (TCP/IP):
3.1 btu/min
(0.77 kg-cal/min).
Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.

Video Output Impedance: 75 ohms.

Standard Connector Types: Video Out: See version type.
Power: 2-position removable screw terminal block.
Control Input/Output: See version type.
Relay Output: See version type.
Alarm Input: 8-position removable screw terminal block.

Fuse: F1: 5x20 mm, 1.6 A 250 VAC slo-blo.
F2: 5x20 mm, 2.5 A 250 VAC slo-blo.

Radio-Frequency Emission Standard: FCC Class A.

OPERATIONAL

Video Pan View: 360°.

Video Tilt View: -2.5° (-2.5° above horizon) to 92.5° (-2.5° past vertical).

Pan Speed: Variable, 0.1 to 360°/sec (120°/sec in 22X).

Autopan Speed: Variable, 0.1 to 42°/sec; enable/disable.

Tilt Speed: Variable, 0.1 to 150°/sec (90°/sec in 22X).

Zoom and Focus Speed: Less than 1.8 sec from end to end.

Sectoring: 16 max, programmable for size and titling; capability to be blanked out (22XEX, 23X and 35X only).

Preset Capabilities: 79 individual programmable preset positions.

Preset Solving Speed: 1 sec nominal.

Preset Accuracy (Pan & Tilt): 0.1° maximum.

Tour Capabilities:	22X: 4 tours available. 22XEX/23X/35X: 8 tours available. 32 programmable events per tour. Events may be preset positions with speed control, alarm acknowledge, dwell time control, relay control, call autotours, tour repeat or anothertour, save/recall camera status.
Autotour Capabilities:	22XEX/23X/35X: 2 autotours available with 256 pan, tilt and zoom functions per autotour. Programming is done in real time with joystick and push buttons. Autotours not available on 22X model.
Alarm Capabilities:	4 alarm inputs, individually programmable. Functional state enable/disable. Report state (report on/off). Active state (high/low). Mode (manual, momentary or automatic) with programmable dwell time control. Set and reset action (preset solve, relay on/off, tour, autotour). Alarm titling.
Relay Output Capabilities:	1 relay output. Power-on state definition (on/off). Output type definition (momentary or latching). Relay function status titling. Resistive Load: 0.3A @125 VAC; 1.5A @30 VDC. Inductive Load: 0.15A @ 125 VAC; 0.75A @ 30 VDC.
Control Display:	On-screen, menu-driven system allowing full configuration of the dome.
Privacy Masks:	22XEX/23X/35X: 16 individual, programmable, zoom-scalable.

Scheduling:	Real time clock allows scheduling of up to 64 events, including presets, relays, alarms, tours or auto-tours (not on 22X).
Multilanguage Menu:	English, Spanish, French, Italian and German.
Day/Night (23X/35X) Features:	6 programmable motion detection zones with 3 sensitivity levels; image freeze during preset solve; flip (invert) video image.
Screen Titling Capabilities:	Programmable for camera, preset, sector, relay and alarms. Camera: 1 for each. Preset: 79 maximum. Sector: 16 maximum (22XEX/23X/35X only). Alarm: 4 maximum. Individual type date and time enable/disable; 20 characters maximum. Selectable position. Three text sizes for top 2 lines. Fade capability. Compass/azimuth, 8 compass headings (N, NE, E, SE, S, SW, W, NW). Not available on 22X.
Auto Baud:	Auto baud detection in RS-422/ RS-485 mode; 4800, 9600, 19,200 bps baud rates supported.
Absolute Position Control:	Available in RS-422/RS-485 mode. Pan/tilt: 0.125°; zoom: 0.125X.
Competitive Protocols:	DIP switch selectable.
Control Protocol Hardware:	Vicon: Vicon's Pilot/NOVA control systems, V1500X-SCCS sytem controller and keypads; NTCIP 1103 compatible hardware.

Note on Competitive Protocols: All companies make changes and improvements in their products. Because this product can interface with equipment not manufactured by Vicon, there is a possibility that the interface protocols may have changed since Vicon tested this product with the interfacing equipment. Vicon recommends purchasing a single unit for bench testing prior to purchasing and installing this product in quantity.

The Vicon SurveyorVFT is designed to store PTZ preset locations on the internal memory. Certain manufacturers' controllers are designed to store PTZ preset locations in the controller. Therefore preset functionality in the Vicon dome will not work correctly with these types of controllers.

Vicon Product Facts	FC UL CE	Model No: SurveyorVFT	Product Code: See Table 1	SEC: 3	SPEC: V134	REV: 611

5

COAXIAL/UTP VERSIONS

Control Protocol Software: Vicon's Surveyor Direct Control program run on a standard PC type computer with an RS-422/485 half duplex protocol interface.

Control Protocol Format:
(See Note on Competitive Protocols) Vicon: RS-422 or RS-485 protocol. Communication is simplex or half duplex operation at 4800, 9600 or 19,200 baud or Vicon's enhanced VicoaxII protocol (superimposed data on composite video signal) automatically detected upon power up. RS-485 protocol utilizes full tri-state outputs for daisy chain capability

Pelco: Pelco D Protocol (3/2/99); RS-485 N.8.1, simplex 2400 bps, duplex 4800 bps.

Sensormatic/AD: RS-422/RS-485 communication protocols user's guide Rev. A (csd 05/00); RS-422/RS-485 duplex N.8.1 4800 bps. May require RS-422 converter, RCSN422.

Ultrak: KD6, KD6-Z control protocols; RS-485 simplex E.8.1, 9600 bps.

Philips: Receiver/Driver/Auto Dome control code protocol; RS-232 simplex N.8.1, 2400 or 9600 bps.

Kalatel: Non-repeating transmit commands; RS-422 simplex N.8.1, 9600 bps.

Cohu: MPC System RS-422 interface; RS-422 duplex N.8.1, 9600 bps.

Panasonic: Panasonic conventional and new camera protocol.

NTCIP: 1103 protocol compatible.

Note: All companies make changes and improvements in their products.

Because this product can interface with equipment not manufactured by Vicon, there is a possibility that the interface protocols may have changed since Vicon tested this product with the interfacing equipment. Vicon recommends purchasing a single unit for bench testing prior to purchasing and installing this product in quantity.

Connector Types: Video Out:
Coax: BNC-F.
UTP: 3-position removable screw terminal block.
Control Input/Output: 8-position removable screw terminal block.
Relay Output: 8-position removable screw terminal block.

FIBER-OPTIC VERSION

Receiver Specs: Video:
I/O Level: 1 V p-p.
I/O Impedance: 75 ohms.
Bandwidth: 8 MHz.
Differential Gain: 5%.
Differential Phase: 5°.
SNR: 60dB.
Data:
Data Rate: Up to 19.2 Kbps.
Optical:
Wavelength: 850/1300 nm.
Loss Budget (62.5u): 12 dB.
Connector: ST.
Fiber: One multimode, 62.5u.

Connector Types: Video Out: ST type.
Control Input/Output: ST type.
Relay Output: 8-position removable screw terminal block.

VICONNET VERSION (LAN/TCP/IP)

Communication Protocol Hardware: Vicon's Kollector Digital Recorders and ViconNet Workstations.

Note: Pelco is a registered trademark of Pelco. Sensormatic is a registered trademark of Tyco International Limited. Philips/Bosch is a trademark of Koninklijke Philips Electronics N.V. Kalatel is a trademark of GE Interlogix. Ultrak is a trademark of Honeywell Inc. Cohu is a trademark of Cohu, Inc.

Vicon Product Facts | **Model No:** SurveyorVFT | **Product Code:** See Table 1 | **SEC: 3** | **SPEC: V134** | **REV: 611**

6

LAN Interface: 100 Mbps, TCP/IP Unicast.

Connector Types: Video Out: RJ-45 jack.
Network: Ethernet 100Base-T RJ-45 jack. 10/100 Mbps required for network connection.
Relay Output: 3-position removable screw terminal block.
Audio: 2 1/8-in. phono jacks.

CAMERA/LENS

Specifications: Refer to Table 3.

VIDEO TRANSMISSION

Maximum Distances: Coax: 1100 ft (350 m), cable dependant.
Vicoax: 1500 ft up to 140° F (60° C); 1000 ft up to 165° F (74° C).
UTP: up to 3000 ft (915 m), model dependant.
Fiber: 1 mile min.; longer distances available dependant on cable quality.
ViconNet: 100 meters without repeater.

MECHANICAL

Application: Indoor or outdoor.

Mounting: In-ceiling or indoor/outdoor pendant.
See Table 1 for compatible Vicon mounts.

Housing Types: Indoor pendant housing and outdoor pendant housing with sunshield.

Pendant Mount Size/Thread: Standard 1-1/2 inch male NPT pipe thread or metric equivalent.

Lower Dome Types: Units available for indoor or outdoor in a variety of colors. See Table 1.

Dimensions: See Figure.
Indoor Ceiling
Diameter (D1): 7.1 in. (180 mm).
Height (H): 9.7 in. (246 mm).
Indoor Pendant
Diameter (D1): 8.0 in. (203 mm).
Height (H): 10.0 in. (254 mm).
Outdoor Pendant
Diameter (D1): 9.0 in. (228 mm).
Height (H): 10.3 in. (262 mm).
Lower Dome
Diameter (D2): 5.9 in. (150 mm).

Weight: Indoor Ceiling: 5.1 lb (2.3 kg).
Indoor Pendant: 4.7 lb (2.1 kg).
Outdoor Pendant: 7.7 lb (3.5 kg).

Construction: In-ceiling: black anodized aluminum.
Indoor pendant: molded plastic.
Outdoor pendant: die-cast aluminum with molded plastic sunshield.

Color: Off-white housing and sunshield.

Shipping Dimensions: Height: 11.6 in. (294 mm).
Width: 16.1 in. (409 mm).
Depth: 19.9 in. (505 mm).

Shipping Weight: In-Ceiling: 8.9 lb (4.0 kg).
Indoor Pendant: 8.5 lb (3.9 kg).
Outdoor Pendant: 11.3 lb (5.1 kg).

Shipping Volume: 2.2 ft^3 (0.06 m^3).

ENVIRONMENTAL

Operating Temperature Range: Indoor units: 32 to 132° F (0 to 55° C).
Outdoor units: -29 to 165° F (-34 to 74° C) in accordance with NEMA 2.1.5.1 STD 2; -40 to 132° F (-40 to 55° C) continuous rotation.

Operating Humidity Range: Indoor: 0 to 90% relative, non-condensing.
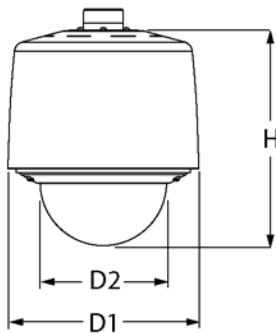Outdoor: 100% relative, non-condensing.

Storage Temperature Range: -40 to 150° F (-40 to 65° C).

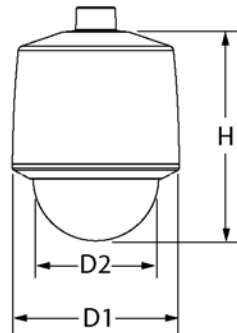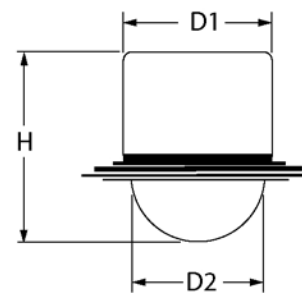| Wire Size (AWG) Annealed Copper Wire	Distance ft (m)							
	Indoor				Outdoor			
	24 VAC		28 VAC		24 VAC		28 VAC	
	Coax, Fiber, UTP	ViconNet	Coax, Fiber, UTP	ViconNet	Coax, Fiber, UTP	ViconNet	Coax, Fiber, UTP	ViconNet
20	300 (91)	215 (66)	500 (152)	350 (107)	165 (65)	130 (40)	280 (85)	217 (66)
18	469 (143)	336 (102)	781 (238)	547 (167)	258 (102)	203 (62)	438 (134)	340 (104)
16	750 (229)	538 (164)	1250 (381)	875 (267)	413 (126)	325 (99)	700 (213)	544 (169)
14	1200 (366)	860 (262)	2000 (610)	1400 (427)	660 (262)	520 (159)	1120 (341)	870 (265)
12	1875 (572)	1344 (410)	3125 (953)	2188 (667)	1031 (314)	812 (248)	1750 (533)	1359 (414)

Table 2: Maximum Power Cable Distance

Domes

Outdoor configuration

Indoor configuration

Drop-ceiling configuration

Dimensions

Vicon Product Facts FC UL CE | **Model No:** SurveyorVFT | **Product Code:** See Table 1 | **SEC: 3** | **SPEC: V134** | **REV: 910**

8

Specifications	Model Number						
	SVFT-C22, SVFT-P22, SVFT-W22	SVFT-C22C, SVFT-P22C, SVFT-W22C	SVFT-C23, SVFT-P23, SVFT-W23	SVFT-C23C, SVFT-P23C, SVFT-W23C	SVFT-C22CA, SVFT-P22CA, SVFT-W22CA	SVFT-C22CA-C, SVFT-P22CA-C, SVFT-W22CA-C	SVFT-W35, SVFT-W35-C
	Product Codes						
	8701-00, 8704-00, 8707-00	8701-01, 8704-01, 8707-01	8702-00, 8705-00, 8708-00	8702-01, 8705-01, 8708-01	8741-00, 8742-00, 8743-00	8741-01, 8742-01, 8743-01	9102-00, 9102-01
	Formats						
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC/PAL
Type	Color	Color	Color	Color	Color	Color	Color
Optical Zoom	ExView 22X	ExView 22X	23X	23X	22X	22X	35X
Digital Zoom	12X	12X	12X	12X	12X	12X	12X
Total Zoom	264X	264X	276X	276X	264X	264X	420X
Image Device	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD	1/4-inch interline transfer CCD
Picture Elements	768(H) x 494 (V), 380,000 pixels	752(H) x 582 (V), 438,000 pixels	768(H) x 494 (V), 380,000 pixels	847(H) x 532 (V), 490,000 pixels	768(H) x 494 (V), 380,000 pixels	752(H) x 582 (V), 438,000 pixels	768(H) x 494 (V), 380,000 pixels/ 752(H) x 582 (V), 438,000 pixels
Scanning System	2:1 interlace, 525 lines 60 fields/sec	2:1 interlace, 625 lines 50 fields/sec	Progressive scan	Progressive scan	2:1 interlace, 525 lines 60 fields/sec	2:1 interlace, 625 lines 50 fields/sec	Progressive scan, normal or high-sensitive
Sensitivity	0.006 fc (0.06 lux), auto 1/4s 0.09 fc (1 lux), auto 1/60s	0.006 fc (0.06 lux), auto 1/3s 0.09 fc (1 lux) auto 1/50s	0.0009 fc (0.01 lux) auto 1/4s, IR OFF 0.009 fc (0.1 lux) auto 1/4 s, IR ON 0.09 fc (1 lux) auto 1/60s, IR ON	0.0009 fc (0.01 lux) auto 1/3s, IR OFF 0.009 fc (0.1 lux) auto 1/3s, IR ON 0.09 fc (1 lux) auto 1/50s, IR ON	0.2 fc (2 lux), 1/60s	0.2 fc (2 lux), 1/50s	0.0009 fc (0.01 lux) auto 1/4s, IR OFF 0.014 fc (0.15 lux) auto 1/60s, IR OFF 0.003 fc (0.033 lux) auto 1/4s, IR ON 0.05 fc (0.5 lux) auto 1/60s, IR ON (NTSC; 1/3s, 1/50s - PAL)
Horizontal Resolution	470 TV lines	470 TV lines	540 TV lines	540 TV lines	470 TV lines	470 TV lines	540 TV lines
S/N Ratio	More than 50 dB	More than 50 dB	More than 50 dB	More than 50 dB	More than 50 dB	More than 50 dB	50 dB
Synchronization	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)	Internal/External (line lock on AC line)

For the ViconNet option, add -75 (-76 for PAL) to the product code; for Fiber Optic (F) option, add -30 (-31 for PAL) to the product code; for the UTP (T) option, add -40 (-41 for PAL) to the product code.

Table 3: Camera/Lens Specifications

Specifications	Model Number						
	SVFT-C22, SVFT-P22, SVFT-W22	SVFT-C22C, SVFT-P22C, SVFT-W22C	SVFT-C23, SVFT-P23, SVFT-W23	SVFT-C23C, SVFT-P23C, SVFT-W23C	SVFT-C22CA, SVFT-P22CA, SVFT-W22CA	SVFT-C22CA-C, SVFT-P22CA-C, SVFT-W22CA-C	SVFT-W35, SVFT-W35-C
	Product Codes						
	8701-00, 8704-00, 8707-00	8701-01, 8704-01, 8707-01	8702-00, 8705-00, 8708-00	8702-01, 8705-01, 8708-01	8741-00, 8742-00, 8743-00	8741-01, 8742-01, 8743-01	9102-00, 9102-01
	Formats						
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC, PAL
Automatic Gain Control (AGC)	Adjustable to 30 dB	Adjustable to 30 dB	Adjustable to 30 dB	Adjustable to 30 dB	N/A	N/A	Adjustable to 30 dB
Backlight Compensation	Software adjustable background video level	Software adjustable background video level	Software adjustable background video level	Software adjustable background video level	ON/OFF	ON/OFF	ON/OFF
Iris Control	Automatic/ Manual	Automatic/ Manual	Automatic/ Manual	Automatic/ Manual	Automatic/ Manual	Automatic/ Manual	Automatic/Manual
Wide Dynamic Range	N/A	N/A	OFF/ON (Auto or Manual)	OFF/ON (Auto or Manual)	N/A	N/A	OFF/ON (Auto or Manual
Digital Noise Reduction	N/A	N/A	Yes	Yes	N/A	N/A	N/A
EIS (Image Stabilizer)	N/A	N/A	N/A	N/A	N/A	N/A	Yes (with digital zoom)
Video Focus	Automatic/ Manual 1.0 m (tele) - 0.01 m (wide)	Automatic/ Manual 1.0 m (tele) - 0.01 m (wide)	Automatic/ Manual 1.0 m (tele) - 0.01 m (wide)	Automatic/ Manual 1.0 m (tele) - 0.01 m (wide)	Automatic/ Manual	Automatic/ Manual	Automatic/Manual
White Balance	Automatic/ Manual Red/Blue Gain Level	Automatic/ Manual Red/Blue Gain Level	Automatic/ Manual Red/ Blue Gain Level	Automatic/ Manual Red/ Blue Gain Level	Automatic/ Manual; Red/Blue Gain Level	Automatic/ Manual; Red/ Blue Gain Level	Automatic/ Manual; Red/Blue Gain Level
Shutter Speed (sec)	Auto (DSS): 1/2-1/4K Man:1/2-1/30K	Auto (DSS): 1/1.5-1/4K Man:1/1.5-1/30K	Auto (default): 1/60-1/4K Auto (DSS): 1/2-1/4K Man:1/2-1/30K	Auto (default): 1/50-1/4K Auto (DSS): 1/1.5-1/4K Man:1/1.5-1/30K	1/60 - 1/30K	1/50 - 1/30K	Auto (default): 1/60-1/4K Auto (DSS): 1/2-1/4K Man:1/1-1/30K /Auto (default): 1/50-1/4K Auto (DSS): 1/1.5-1/4K Man:1/0.75-1/30K
Lenses							
Focal Length (mm)	4 - 88	4 - 88	3.6 - 82.8	3.6 - 82.8	4 - 88	4 - 88	3.4 – 119
Aperture max	f/1.6	f/1.6	f/1.6	f/1.6	f/1.6	f/1.6	f/1.4
Horizontal Angle of View	47° wide, 2.2° tele	47° wide, 2.2° tele	54° wide, 2.5° tele	54° wide, 2.5° tele	47.3° wide, 2.2° tele	47.3° wide, 2.2° tele	55.8° wide, 1.7° tele

Table 3: Camera/Lens Specifications (cont)

For the ViconNet (V5) option, add -75 (-76 for PAL) to the product code; for Fiber Optic (F) option, add -30 (-31 for PAL) to the product code; for the UTP (T) option, add -40 (-41 for PAL) to the product code.

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Vicon Product Facts	FC UL CE	**Model No:** SurveyorVFT	**Product Code:** See Table 1	**SEC: 3**	**SPEC:** V134	**REV: 910**

10

WIRELESS ACCESS

WORKSTATION

WORKSTATION

I-ONYX Series

V910

SWITCH

SVFT

SWITCH

Kollector Strike

WAN

VN-301T

ROUTER

KTX-4

NETWORK SWITCH

ROUTER

VN-VIEWER-64
displays up to 64 cameras
on 1 - 4 monitors

Kollector Force

MONITORS

(* with ViconNet version 4.0 and higher)

Kollector Force

KRX-3 *

KRX-3 *

KRX-3 *

NETSWITCH

VIRTUAL MATRIX
CONTROLLER *

MONITOR

VICON INDUSTRIES

11