Akribos people counting sensor VC1020 and VC1050
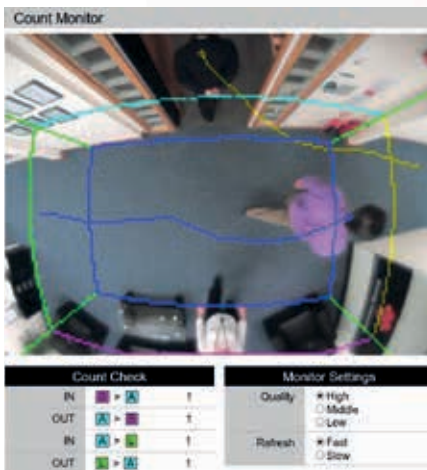
Multi-directional people counting devices with 97% accuracy* for occupancy level and retail analytics applications

VC1050

VC1020

Akribos is a compact, multidirectional, indoor, 3D modelling, video based people counter which analyses in real time and with 97% accuracy* pedestrian traffic flow into retail stores, shopping centres, public facilities, conventions, exhibitions centres, transport hubs (rails, aeroports, etc.).

The Akribos Sensor processes counts, stores and automatically transfers the traffic data collected to a PC or 3rd party analytics software to create key-performance reports and dashboards.
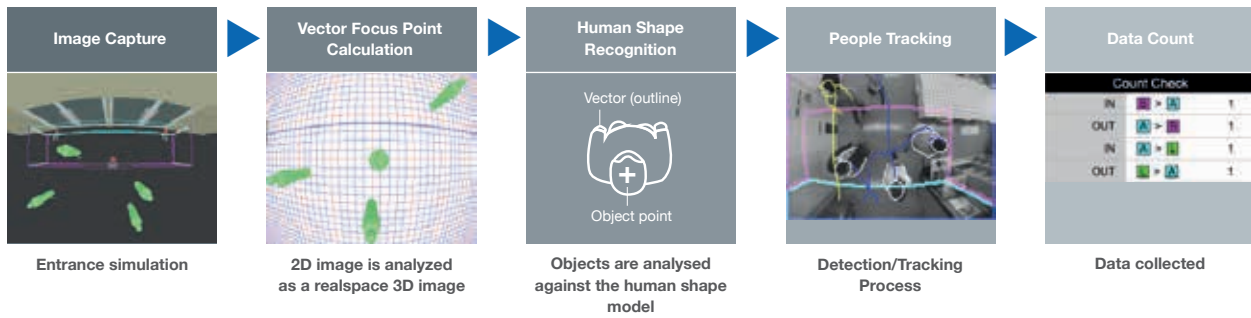
- Indoor 3D video based people counting sensor
- Automated Data transfer via TCP/IP in XML or TXT format
- Works with 3rd Party Analytics/building occupancy software
- Real time multi-directional traffic count (in/out – left/ right/straight)
- Tracks complicated movements (people standing still, stopping, turning back, crowds)
- Easy set-up with pre-configured multicount area settings
- Object shape recognition, direction recognition & 3D warping
- Sensor not easily affected by shadows or sunlight
- Live video stream with remote web access
- Count data storage up to 30 days
- Wide count area **maximum 4.5m**
- Installation height up 6 meters (via licence key)
- Single and multistore applications
- Easy to install, configure, manage and maintain
- Simple Web-based setup interface

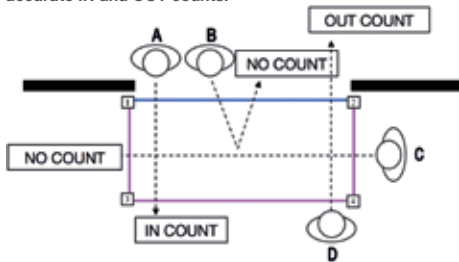*with up to 65 moving people in one scene

Patented image recognition technology: Vector Focus Point Method*

Akribos uses state-of-the-art patented image recognition technology to identify, track and automatically count the number of people passing under the sensor.
*(PATENTS: US7006693, US6873712, EP 1640912)

Image Capture	Vector Focus Point Calculation	Human Shape Recognition	People Tracking	Data Count
Entrance simulation	2D image is analyzed as a realspace 3D image	Objects are analysed against the human shape model	Detection/Tracking Process	Data collected

In/out counting method

A counting area is setup specifically for each entrance/location to enable accurate IN and OUT counts.

Person	Walking Path	Count Result	Remarks
A	Blue Line > Pink Line	**In Count**	
B	Blue Line > Blue Line	**No Count**	Track back
C	Pink Line > Pink Line	**No Count**	Cut Across Area
D	Pink Line > Blue Line	**Out Count**	

Multi-directional count

Simple entrance and exit count	In/out count and traffic flow direction	Escalator and lift use	Store attraction rate
Counting entering and exiting traffic	Counting: ▪ In/out traffic ▪ Left and right flow	▪ Research on escalator and lift use ▪ Analysis on floor usage	Comparing: ▪ Traffic in the walkway ▪ Versus entrance rate in a shop

Specifications

Features	VC1020	VC1050	Features	VC1020	VC1050
	Surface or ceiling mount	**Flush mount**		**Surface or ceiling mount**	**Flush mount**
Exterior dimensions	85mm H x 193mm W x 34mm D 3,35in. H,x 7.6in. W x 1.34in. D	Frame Φ120 mm (4.72 in)x H.68mm (2,7in) , Unit Body :Φ94 mm (3.7 in) x H. 66 mm (2.6 in)	Led indicator	Power, counting and error	
Sensing technology	Monocular camera. Angle of view: Horizontal 128 degrees, Vertical 95 degrees		External terminals	RJ45 connector and DC Jack	RJ45 connector
Operating environment	Indoor use		Unit Initializing time/Start-up time	30 sec.	
Color variation	White		Count data delivery	Push: FTP, SFTP, FTPS. Pull: TCP/IP	
Installation height	Standard: 2.3m to 4.2m (7.5ft to 13.7ft) *High: 4.0m to 6.0m (13.1ft to 19.7ft)		Video image output	Video image output	
Image sensor	CMOS image color sensor 1/4 size (640 x 480 pixel)		Error detection (monitor LED)	Camera error	
Count accuracy	65 people is the maximum number of people we can detect in a single screen		Recorded data	IN and OUT count data recorded every minute stores 30 days of data	
Illuminance	Over 100Lux		Setup tool	Settings via webrowser	
Supply power voltage	VDC 48V (PoE: IEEE802.3af Class 0)/ 24VDC (DCJack)	DC 48V (PoE : IEEE802.3af Class 0)	Certifications	CE ClassA, FCC ClassA, C-Tick, KC	CE ClassA, FCC ClassA, KC
Electricity consumption	Max 7W		Counting method	3D virtual modeling	
Operating temperature	0˚C to 50˚C (32˚F to 122˚F)		Coverage area	1.8m W (at 2.3m H) (7.5ft.) 4.5m W (at 3m to 4.2m H) (9.8ft. to 13.8ft.) *Approx. 4m W (at 6m H) (19.7ft.)ABS/PC UL94 V-O/ White	
Operating humidity	30% to 85% non-condensing		Counting	IN/OUT/multiple directions, leave out shadows, sunlights/lighting and shopping carts	
IP rating	IP32		Counting area patterns	8 count patterns/multiple count lines (4 lines 8 directions)	
Weight	Approx. 220g (7.76oz)	Approx. 190 g (6.7 oz)	LAN wiring	Category 5-UTP cable or higher, Maximum cable length 100m to hub	
Materials	ABS/PC UL94 V-O/ White		LAN Specifications	10/100Base-T(X), Protocols : TCP/UDP (IPv4), ARP,ICMP,SNTP,FTP,HTTP	

Analytic software

The data transferred by the Akribos sensors in XML or Text format will be easily used by an existing analytics software.

If there is no analytics software in place at the customer's site, a third party software provided by Xenometric can be used to create dashboard and reports.
A free demo software is available here: http://optex.xenometric.com
Username: Retail /Password: Demo