81 Series



DATASHEET





PASSIVE TERAHERTZ PEOPLE-SCREENING CAMERA

Thruvision 8116 is a very high-performance people-screening camera, designed and optimised to detect a range of items on both stationary and moving people in very high throughput environments.

BENEFITS

COMPREHENSIVE SECURITY

Detects all types of metallic and non-metallic materials, including clothing, liquids, electronics, tobacco, foodstuffs and paper.

Shows concealment size, shape and location, in realtime, to allow rapid decision making without the need for physical pat-down.

RESPECTFUL

Cannot distinguish age, ethnicity or gender, and complies with GDPR.

SAFE

Safe for everyone, including pregnant women, children and people with implanted medical devices.

RELIABLE

Built-in redundancy and resilience supports mission critical operations.

FEATURES

ULTIMATE SENSOR TECHNOLOGY

Features Thruvision's patented very high-performance 16-channel sensor technology, combining speed and resolution to give the ultimate screening performance in all ConOps.

SmartSCREEN READY

8116 features built-in hardware support for Thruvision's intelligent SmartSCREEN software feature package.

Dynamic DETECT READY

8116 features built-in support for Thruvision's unique Al-based automatic concealed item detection software.

DESIGN

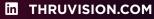
NEW FULLY INTEGRATED PLATFORM DESIGN

Mobile, modular design provides a convenient operating platform for screening operations.

Integrated high-performance PC with touchscreen display.

Rugged wheels for rapid deployment.

Battery powered option for up to 4 hours operation away from mains power.





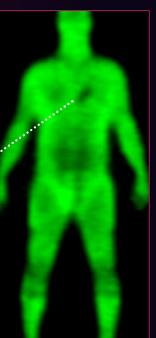
8116

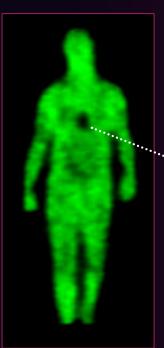
DETECTION CAPABILITY

SpotCHECK

Penknife detected on stationary person, with SloScan, at 2.5 m distance.







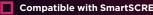
WalkTHRU PLUS

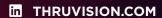
Packet of cigarettes detected on walking person at 3.5 m distance.



CONCEPT OF OPERATIONS	PEAK FLOW RATE (PEOPLE/HR)	35CL SPIRITS	PACKET CIGARETTES	METAL WATCH	USB PENDRIVE	
		9MM HANDGUN	KITCHEN KNIFE	50x50 MM DRUGS	SMALL PENKNIFE	
REPRESENTATIVE MINIMUM CONCEALED ITEM SIZE			THE STATE OF THE S			
SpotCHECK	UP TO 300	8104	8104	8108	8116	
WalkTHRU	UP TO 600 (WITH PAUSE)	8104	8108	8116		
WalkTHRU PLUS	600 - 1,200 (NO PAUSE)	8108	8116			
	1,200 - 1,800 (NO PAUSE)	8116				

■ Compatible with DynamicDETECT ■ Requires SloScan (NOT compatible with DynamicDETECT) ■ Compatible with SmartSCREEN







CAMERA SPECIFICATIONS

MODEL NUMBER	TV-CAM-8116				
CAMERA					
Terahertz Sensor	Passive, very high-performance senso operating at 250 GHz frequenc				
Terahertz Image Refresh Rate	Up to 28 lines/sec, depending on scan mode				
Screening Field Of View At 3m / 9.8 ft	H 1.8 m (70.9 in) W 1.1 m (43.3 in				
Video Camera	Colour HD stereo vision depth camera				
Video Camera Frame-Rate	15 fps				
Optimum Screening Distance	2.5 - 3.5 m (8.2 - 11.2 ft)				
ELECTRICAL					
Operating Voltage	Rated range 100 to 240 V a.c., 50 to 60 Hz				
Power Consumption	140 W Max				
Connectivity	Mains a.c. (power), Ethernet (data)				
PHYSICAL					
Dimensions	H 633 mm (24.9 in) L 635 mm (25.0 in) W 285 mm (11.2 in)				
Weight	34 kg (75 lb)				
ENVIRONMENTAL					
Ambient Air Operating Temperature	5 - 28 °C (41 - 82 °F)				
Optimum Ambient Air Operating Temperature	18 - 22 °C (64 - 72 °F)				
Storage Temperature	0 - 40 °C (32 - 104 °F)				
Ambient Operating Environment	Indoors, dry and preferably air-conditioned location				
Operating Humidity	20 to 90 % RH, non-condensing				
Maximum Operating Altitude AMSL	2,000 m (6,560 ft)				
APPROVALS & PATENT	rs				
Conformity	CE, UKCA				
ЕМС	EN 55032:2015 + A11:2020 (emissions), EN 55035:2017 + A11:2020 (immunity), EN 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, 47 CFR Part 15B (FCC)				
Safety	CB, IEC 62368-1:2018, EN IEC 62368-1:2020 + A11:2020, AS/NZS 62368:1:2022, CSA C22.2 No. 62368-1:19, JIS C 62368-1 (2021), UL 62368-1:2019				
Vibration	ETSI EN 300-019-2-2 (T2.2 vibration) when transported in original Thruvision packaging				
Patents	See www.thruvision.com/patents for details				







STAND SPECIFICATIONS

	OPERATOR STATIONS				CAMERA STANDS					
Туре	Mains						Battery			
Model No: TV-MNT-	OSM	OSB-UK	OSB-EU	OSB-US	Mains CSM	CSB-UK	CSB-EU	CSB-US		
Description	Mains powered Operator Station	Operator Station for UK spec battery	Operator Station for EU spec battery	Operator Station for US spec battery	Mains powered Camera Stand	Camera Stand for UK spec battery	Camera Stand for EU spec battery	Camera Stand for US spec battery		
COMPATIBIL	ΙΤΥ									
Recommended Usage		SpotCHEC	<, WalkTHRU, V	ValkTHRU Plus	WalkTHRU, WalkTHRU Plus					
ELECTRICAL										
Rated Voltage Range & Frequency	100-240 V a.c., 50-60 Hz	220 to 240 V a.c., 50/60 Hz	230 V a.c., 50 Hz	100 to 120 V a.c., 50/60 Hz	100-240 V a.c., 50-60 Hz	220 - 240 V a.c., 50/60 Hz	230 V a.c., 50/60 Hz	100 to 120 V a.c., 50/60 Hz		
Power Consumption (Max With Camera)	700 W			1,700 W	160 W			1,160 W		
External Connections	Mains a.c	Mains a.c. (power), RJ45 Ethernet (data), HDMI, USB3				Mains a.c. (power), RJ45 Ethernet (data)				
COMPUTE										
Processor			8th Ge	n Intel Core i7	N/A					
RAM	16 GB DDR4 dual-channel RAM			N/A						
Storage	500 GB SSD (Boot/OS), 2 TB HDD (Storage)			N/A						
GPU		NVIDIA RTX 3060Ti			N/A					
Operating System	Microsoft Windows 10 Enterprise 64-bit							N/A		
DISPLAY										
Screen Diagonal		60.5 cm (23.8 in)				N/A				
Screen Type	IPS touchscreen				N/A					
Native Resolution	1,920 x 1,080 px				N/A					
Aspect Ratio	16:9				N/A					
Brightness (Typical)	300 cd/m ²				N/A					
Static Contrast Ratio (Typical)	1,000:1				N/A					
PHYSICAL										
Dimensions H x L x W	Mains type: 1,659 x 925 x 539 mm (65.3 x 36.4 x 21.2 in) Battery types: 1,659 x 1,120 x 547mm (65.3 x 44.1 x 21.5in)			Mains type: 1,110 x 925 x 539 mm (43.7 x 36.4 x 21.2 in) Battery types: 1,110 x 1,120 x 547 mm (43.7 x 44.1 x 21.5 in)						
Weight (with camera)	Mains type: 85 kg (187 lb) Battery types: 107 kg (236 lb)			Mains type: 71 kg (156 lb) Battery types: 93 kg (205 lb)						
ENVIRONMEN	TAL									
Ambient Environment					Indoors	, dry and prefei	ably air-condit	ioned location		
Operating Temp		5 to 28 °C (41 to 82 °F)								
Relative Humidity		20 to 80% RH, non-condensing								
Storage Temp		0 to 55 °C (32 to 131 °F)								
Operating Altitude (Max)	2,000 m (6,560 ft) AMSL									
APPROVALS										
Conformity								CE, UKCA		
ЕМС		EN 55032:2015 + A11:2020 (emissions), EN 55035:2017 + A11:2020 (immunity), EN 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, 47 CFR Part 15B (FCC)								
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