

AV7000 8K



Introducing the AV7000 8K, the next-generation 8,000-pixel wide linear imager that is redefining standards in the T&L market. This advanced solution is designed to deliver exceptional optical performance, enhanced Auto-ID capabilities, and powerful software tools for image processing, data storage, operational analysis, and process optimization.

Equipped with a state-of-the-art 8K CMOS sensor and exclusive Datalogic patented technologies, the AV7000 8K delivers high-definition images and software functionalities that surpass customer expectations.

With its wide field of view, the AV7000 8K captures detailed, high-definition images in a single shot across conveyors up to 1200 mm wide—eliminating the need for multiple partial images.

Thanks to Datalogic's patented Pulsed Lighting System, the multi-sided AV7000 8K reading station now occupies 50% less space than traditional non-pulsed lighting systems, making it the perfect choice for space-constrained applications.

The AV7000 8K excels in demanding image processing applications, including HazMat identification, OCR, package analytics, cross-belt inspection, and label-sensitive text blurring. It ensures secure communication and supports multiple formats, providing reliable solutions for critical tasks.

Designed for the most demanding parcel sorting applications, the AV7000 8K is the ideal choice for Express Courier services and Retail Distribution companies, offering high-definition imaging and unmatched performance.



Pulsed
Lighting
System



High performance 8K
linear Imager



Digital
Zoom



Single shot
high definition
image



High speed
auto-focus
system



Stop-N -Go
reading
capabilities



Enhanced decoding
library



Web browser
configuration tool



LINUX
Operating
System

HIGHLIGHTS

- 8K CMOS sensor with 40 % greater sensitivity
- Single view high quality picture for large conveyors
- Patented Autofocus System offering extended DoF
- Patented PLS technology, reducing the footprint of the reading station by 50%
- Patented Digital Zoom technology assuring constant DPI resolution
- Enhanced decode algorithm for challenging 1D and 2D bar codes
- Multiple format image saving from full definition to highly compressed JPG
- Browser based interface, compatible with any kind of OS and HW platform including PC and Tablet
- Redundant architecture with no single point of failure
- Software tools for image saving and data intelligence.
- Linux operating system

TARGET MARKETS AND APPLICATIONS

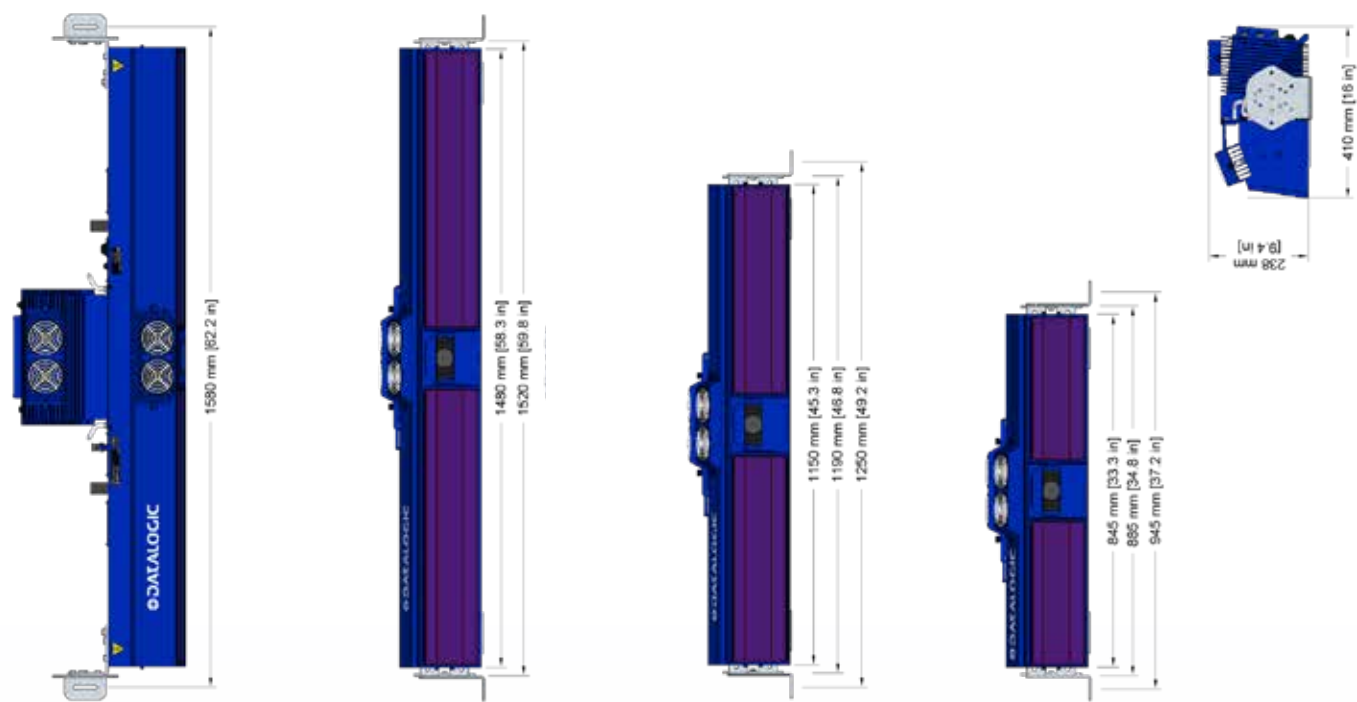
- High speed Parcel sortation
- Dimension Weigh Scan System
- OCR and Videocoding
- Extended ID and image saving redundant architecture (double controller, tachometer, photo-eye and closed EBC loop)

MODELS AND ACCESSORIES

Field of View	up to 1400 mm (55.12 in)
Max Resolution	110 to 260 pixels/inch (DPI) *
Scan Rate	33,000 scans/s (33kHz)
Imager Sensor Features	High Speed CMOS Line Scan (8192 pixels)
Optical lens	90 mm, 110 mm and 140 mm *
Aperture Angle	15° to 45° *
Readable Barcodes	All Standard 1D and 2D Symbolologies
IP Rating	IP65
Dimensions (Typical Value)	with external fans and Short Illumination: 845x416x237 mm [33.3x16.4x9.3 in] with external fans and Medium Illumination: 1150x416x237 mm [45.3x16.4x9.3 in] with external fans and long Illumination: 1480x416x237 mm [58.3x16.4x9.3 in]
Weight	11kg [24 lbs]
Temperature Range	Operating: 0° to 50° C [32° to 122° F] Storage: -20° to 70° C [-4° to 158° F]
Power Supply/Consumption	23-26VDC at illuminator connector
Case Material	Aluminum die-cast
Ethernet	1 Gigabit Ethernet for decoding data to Host (may also be used for setup) 1 Gigabit Ethernet for image file transfer to Host
Serial Ports	1 Main (COM) RS232/RS485FD opto-isolated serial port up to 115.2 Kbit/s 1 Aux RS232 opto-isolated serial port up to 115.2 Kbit/s
Internal Communication System	SyncNet Technology
Digital Inputs	3 x Inputs (2 + 1 x "Encoder"), optocoupled, NPN/PNP
Digital Outputs	2 x Outputs SW programmable, optocoupled, event driven, NPN

* Depends on model and/or application type

MECHANICAL DRAWINGS



MODELS

MODEL	DESCRIPTION	PART NUMBER
AV7000 8K Reader		
AV7000-1000	140mm f/5.6 STD	934001000
AV7000-1100	140mm f/5.6 SHORT RANGE	934001010
AV7000-1200	110mm f/8.0	934001020
AV7000-1300	90mm f/8	934001030
AI7000 Illumination		
AI7000-800	SHORT LIGHTING SYS	934001100
AI7000-1100	MEDIUM LIGHTING SYS	934001110
AI7000-1500	LONG LIGHTING SYS	934001120
AI7000-800W	SHORT WHITE LIGHTING SYS	934001200
AI7000-1100W	MEDIUM WHITE LIGHTING SYS	934001210
AI7000-1500W	LONG WHITE LIGHTING SYS	934001220

Rev. 01, 02/2025



AV7000 12K

Redefining Logistics Leadership in Ultra-High Definition



Introducing the AV7000 12K, the next-generation 12,000-pixel wide linear imager that is redefining standards in the T&L market. This advanced solution is designed to deliver exceptional optical performance, enhanced Auto-ID capabilities, and powerful software tools for image processing, data storage, operational analysis, and process optimization.

Equipped with a state-of-the-art 12K CMOS sensor and exclusive Datalogic patented technologies, the AV7000 12K delivers high-definition images and software functionalities that surpass customer expectations. The AV7000 12K is the ideal choice for applications with very high density barcodes, down to 6mil, and for wide belt transports and cross belt sorters.

With its wide field of view, the AV7000 12K captures detailed, high-definition images in a single shot across conveyors up to 1600 mm wide—eliminating the need for multiple partial images.

Thanks to Datalogic's patented Pulsed Lighting System, the multi-sided AV7000 12K reading station now occupies 50% less space than traditional non-pulsed lighting systems, making it the perfect choice for space-constrained applications.

The AV7000 12K excels in demanding image processing applications due to the very high DPI images it can capture with the 12000 wide pixel and multiple lens options, including HazMat identification, OCR, package analytics, cross-belt inspection, and label-sensitive text blurring. It ensures secure communication and supports multiple formats, providing reliable solutions for critical tasks.

Designed for the most demanding parcel sorting applications, the AV7000 12K is the ideal choice for Express Courier services and Retail Distribution companies, offering high-definition imaging and unmatched performance.



Pulsed
Lighting
System



High performance
12K linear Imager



Digital
Zoom



Single shot
high definition
image



High speed
auto-focus
system



Stop-N -Go
reading
capabilities



Enhanced decoding
library



Web browser
configuration tool



LINUX
Operating
System

HIGHLIGHTS

- High line rate, 12K wide linear imager sensor
- Single view high quality picture for very large conveyors up to 1600mm
- Patented Autofocus System offering extended DoF
- Patented PLS technology, reducing the footprint of the reading station by 50%
- Patented Digital Zoom technology assuring constant DPI resolution
- Enhanced decode algorithm for challenging 1D and 2D bar codes
- Multiple format image saving from full definition to highly compressed JPG
- Browser based interface, compatible with any kind of OS and HW platform including PC and Tablet
- Secure communications
- Operating system easily updated to comply with global SW security requirements
- Redundant architecture with no single point of failure
- Software tools for image saving and data intelligence.
- Linux operating system

TARGET MARKETS AND APPLICATIONS

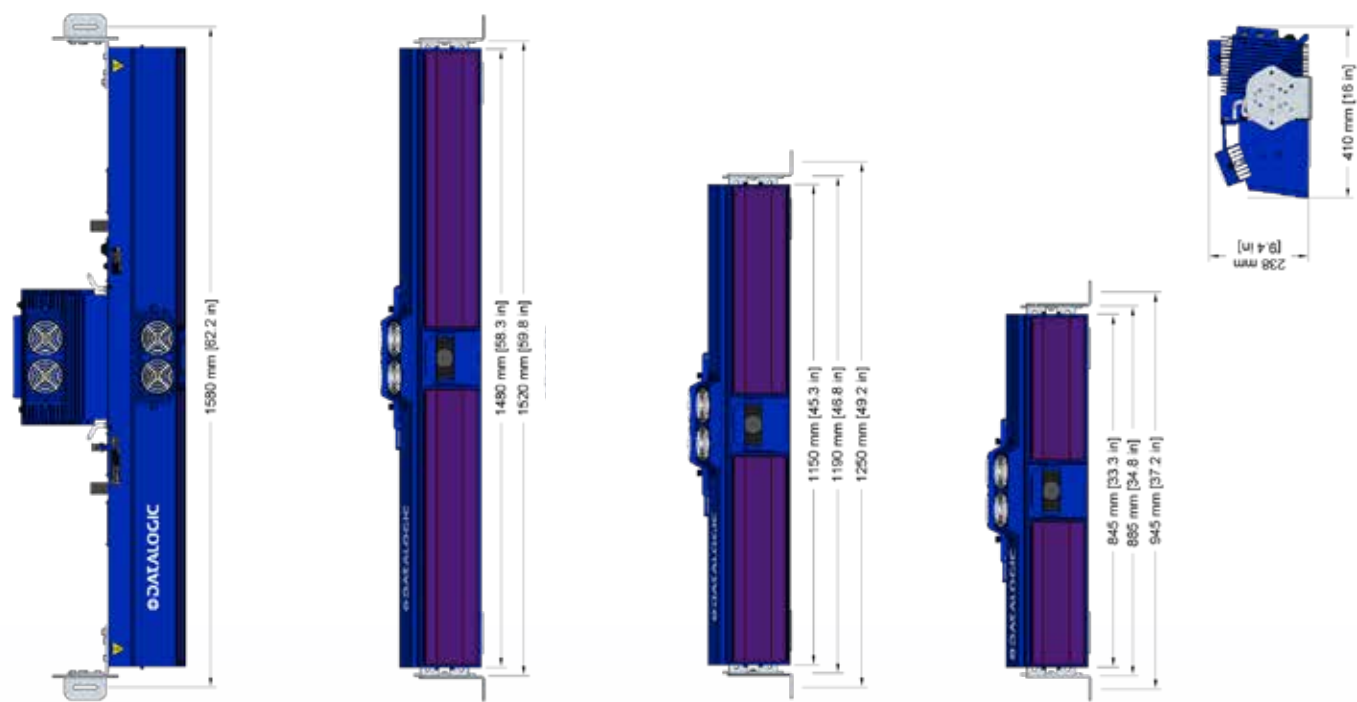
- High speed Parcel sortation
- Cross belt sorters
- High density barcodes
- Dimension Weigh Scan System
- OCR, Hazmat, and package identification
- Extended ID and image saving
- Redundant architecture (double controller, tachometer, photo-eye and closed EBC loop)

MODELS AND ACCESSORIES

Field of View	up to 1600 mm (63 in)
Max Resolution	Ip to 320 pixels/inch (DPI) *
Scan Rate	Up to 40,000/s (40kHz)
Imager Sensor Features	High Speed CMOS Line Scan (12288 pixels)
Optical lens	80 mm, 100 mm and 120 mm *
Aperture Angle	15° to 45° *
Readable Barcodes	All Standard 1D and 2D Symbolologies
IP Rating	IP65
Dimensions (Typical Value)	with external fans and Short Illumination: 845x416x237 mm [33.3x16.4x9.3 in] with external fans and Medium Illumination: 1150x416x237 mm [45.3x16.4x9.3 in] with external fans and long Illumination: 1480x416x237 mm [58.3x16.4x9.3 in]
Weight	11kg [24 lbs]
Temperature Range	Operating: 0° to 50° C [32° to 122° F] Storage: -20° to 70° C [-4° to 158° F]
Power Supply/Consumption	23-26VDC at illuminator connector
Case Material	Aluminum die-cast
Ethernet	1 Gigabit Ethernet for decoding data to Host (may also be used for setup) 1 Gigabit Ethernet for image file transfer to Host
Serial Ports	1 Main (COM) RS232/RS485FD opto-isolated serial port up to 115.2 Kbit/s 1 Aux RS232 opto-isolated serial port up to 115.2 Kbit/s
Internal Communication System	SyncNet Technology
Digital Inputs	3 x Inputs (2 + 1 x "Encoder"), optocoupled, NPN/PNP
Digital Outputs	2 x Outputs SW programmable, optocoupled, event driven, NPN

* Depends on model and/or application type

MECHANICAL DRAWINGS



MODELS

MODEL	DESCRIPTION	PART NUMBER
AV7000 12K Reader		
AV7000-2000	AV7000 12k linear camera with 120mm f/5.6 lens	934002000
AV7000-2100	AV7000 12k linear camera with 100mm f/5.6 lens	934002100
AV7000-2200	AV7000 12k linear camera with 80mm f/8 lens	934002200
AI7000 Illumination		
AI7000-1100	MEDIUM LIGHTING SYS	934001110
AI7000-1500	LONG LIGHTING SYS	934001120

