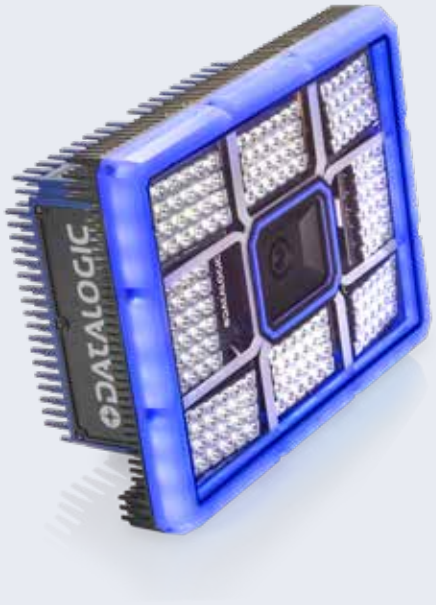
MATRIX 830™

Highest Throughput Delivered with Simplicity



MATRIX 830™ – HIGH PERFORMANCE 2D READER

The MATRIX 830 is the innovative 16Mpx 2D image-based reader setting a new paradigm for logistic applications with high-speed transportation systems on all conveyor sizes, and speeds up to 3.2 m/s

With the very high resolution 16 MP sensor, and 3 focus methods including dynamic, sequential, or SW adjustable focus, the Matrix 830 captures the highest resolution and in focus images ideally suited for 1D and 2D barcode reading and image based beyond barcode features. The MATRIX 830 reader creates a new optical standard for unattended data capture solutions. With state-of-the-art image senor that is 6000 pixels wide a single device can cover the complete width of wide transport methods. The Matrix 830's 16Mpx sensor and combined with multiple lens options, The complete field of view can be realized without the need for folding mirrors. The Matrix 830 introduces the world's first optional integrated range sensor, eliminating the need for an external dimensioning device to provide focus input for the industry leading dynamic focus of the Matrix 830.

ENHANCED SOFTWARE FEATURES

PackTrack™ capability allows the MATRIX 830 to minimize the gap between objects and increase the system productivity. FPGA hardware acceleration for real time image elaboration. Captured images are stored on-board and optionally transferred to external supports through the integrated Gigabit Ethernet connectivity depending on model.

EASY INTEGRATION

Installation and configuration are made easy with multi-language, browser based, on board HTML web server interface e-GENIUS™ as well as

X-Press™ setup interface and integrated aiming lasers. Fully compatible with WebSentinel™ PLUS for real time performance monitoring.

The MATRIX 830 reader is ready to interface Ethernet IP enabled PLCs with two Ethernet TCP/IP and two serial communication interfaces. SyncNet4™ Technology allows enables a simplified way to network multiple devices in

a solution with a single interface. A dedicated high-speed image saving port for all the devices in a solution, further enhances the integration in any data capture solution.

RUGGED INSIDE AND OUT

Rugged metal enclosures with an IP65 rating, which can withstand cleaning with harsh cleaners. Breakthrough heat management without fans, to maintain optimal processor and sensor performance with an operating temperature up to 50 °C, guarantees a long-life cycle in the harshest industrial environments.

FEATURES

- 16 MP image sensor, up to 30 FPS at full resolution
- Patented dynamic, Sequential, or SW adjustable focus system offering extended depth of field
- Continuous, no-flashing white illumination, with a rectangular shape to optimize reading on wide belts
- Region Of Interest Windowing for higher frame rate
- Next generation decode algorithm for outstanding decoding capability on 1D, 2D, Stacked, or Postal Symbologies
- Gigabyte Ethernet for high-speed connectivity
- PackTrack capability for closer item spacing
- Multiple format image saving from full definition to a highly compressed .jpg
- Datalogic's 360-degree bezel feedback technology with programmable colors provides multiple options for visual feedback
- Dual laser aiming for ease of installation e-GENIUS browser-based interface compatible with any kind of operating system and hardware platform including PC's and Tablet
- Extreme Industrial grade: IP65 for harsh environments with 0 to 50 °C / 32 to 122 ºFoperating temperatures

APPLICATIONS

Transportation & Logistics:

- Automated sorting
- Dimension Weigh Scan System
- Non conveyable Auto dimension systems
- Carton and tote traceability
- OCR, Hazmat, Package analytics, cross belt cell inspection, label blurring
- Extended image saving

Distribution and Retail:

- Order fulfillment and verification
- Multimedia sorting
- Reverse Logistics process

MATRIX 830™

TECHNICAL SPECIFICATIONS

OPTICAL FEATURES	
Sensor Type	CMOS,16 MPixels
Frame Rate	Up to 30 fps full resolution
Optical Lens	16mm, 25 mm
Focus System	Dynamic, Sequential, SW Adjustable [Optional integrated Range sensor to support dynamic focus]
Illumination	Integrated White
Feedback	360degree RGB LED bezel
Aiming	Dual laser
DECODING CAPABILITY	
1D and Stacked Codes	Code 128 (GS1-128); Code 39 (Standard and Full ASCII); Code 32 · MSI; Standard 2 of 5; Matrix 2 of 5; Interleaved 2 of 5; Codabar; Code 93 · Pharmacode; EAN-8/13 - UPC-A/E (including Addon 2 and Addon 5); GS1 DataBar Family; PDF417 (Standard and Micro PDF417)
2D Codes	Data Matrix ECC 200 (Standard, GS1 and Direct Marking); QR Code (Standard and Direct Marking); MicroQR Code; Maxicode
Postal Codes	Aztec Code Postal; Australia Post; Royal Mail 4 State Customer; Kix Code; Japan Post; PLANET; POSTNET; POSTNET (+BB); Intelligent Mail; Swedish Post
SYSTEM	
Operating System	Linux
Real-Time Clock	Time and date stamping under software control or battery backed up RTC with option of NTP synchronization
COMMUNICATIONS INTERFACE	
Communication Interfaces	3x 1GB Ethernet TCP/IP, 2x serial communication interfaces
Internal Communication System	SyncNet4 Technology
Connectivity Modes	Primary/secondary, Ethernet Point to Point
Programming Method	e-GENIUS multi-language, browser based on board HTML web server interface

ELECTRICAL	
Supply Voltage	24 VDC +/- 20%
Power Consumption	5.5A (8A max)
PHYSICAL CHARACTERISTICS	
Dimensions	31.7 x 41.9 x 15.9 cm / 12.5 x 16.5 x 6.3 in
Weight	9.7Kg / 21.38 pounds
Chassis Material	Die Cast Aluminum
ENVIRONMENTAL	
Humidity	95% non-condensing
Protection Class	IP65
Vibration Resistance	SINE vibration as per EN60068-2-6 10-50 Hz: 0.4mm / 50-500 Hz: 2g 2h on all axis
Shock Resistance	EN60068-2-27, 15 g / 11 ms /3 times up and 3 times down on the primary axis.
Fan Life	L10 @ 40 degrees C: 50,000 hours
Temperature	Operating: 0 to 50 °C / 32 to 122 °F Storage/Transport: -20 to 70 °C / -4 to 158 °F
SAFETY & REGULATORY	
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use.
Environmental Compliance	Complies to EU RoHS
Regulatory	EN55032 Emissions for Class A digital device; EN61000-6-2 Electromagnetic Compatibility; FCC part 15 for Class A digital device; CSa for US and Canada, CE
Laser Safety	Class 2 laser according to IEC 60825-1:2014, EN 60825-1:2014+A11:2021
Led Safety	LED Risk Group 2 at a distance of 20 cm as per EN62471:2008
WARRANTY	
Warranty	2-Year Factory Warranty

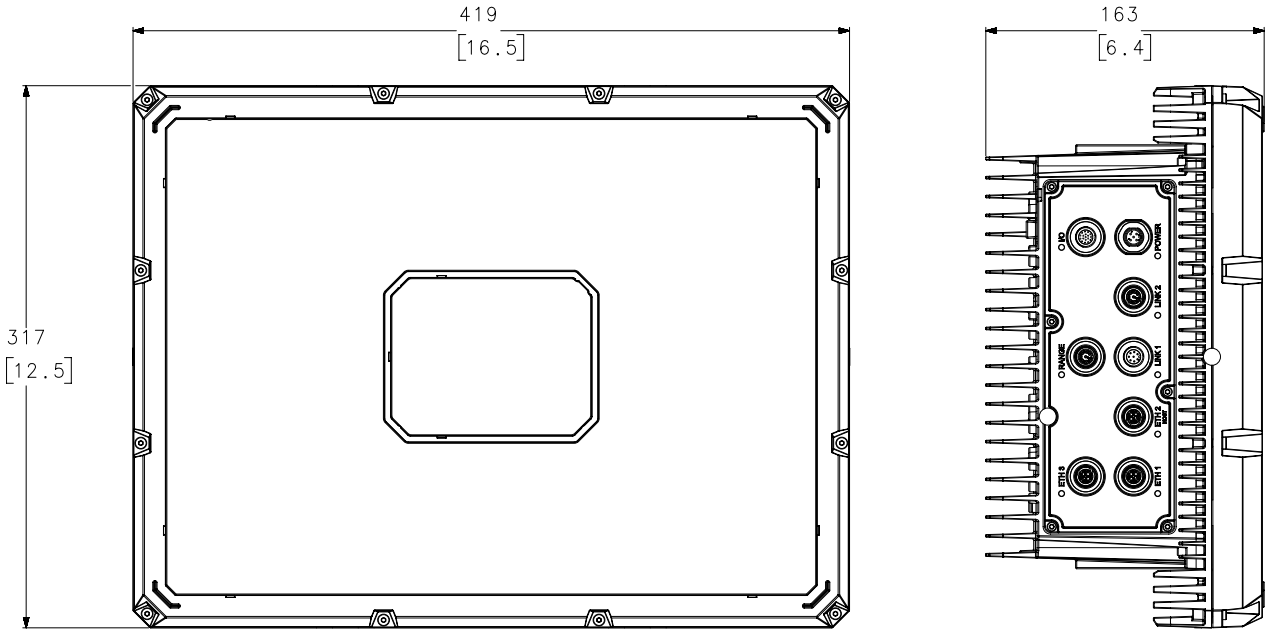
MODELS

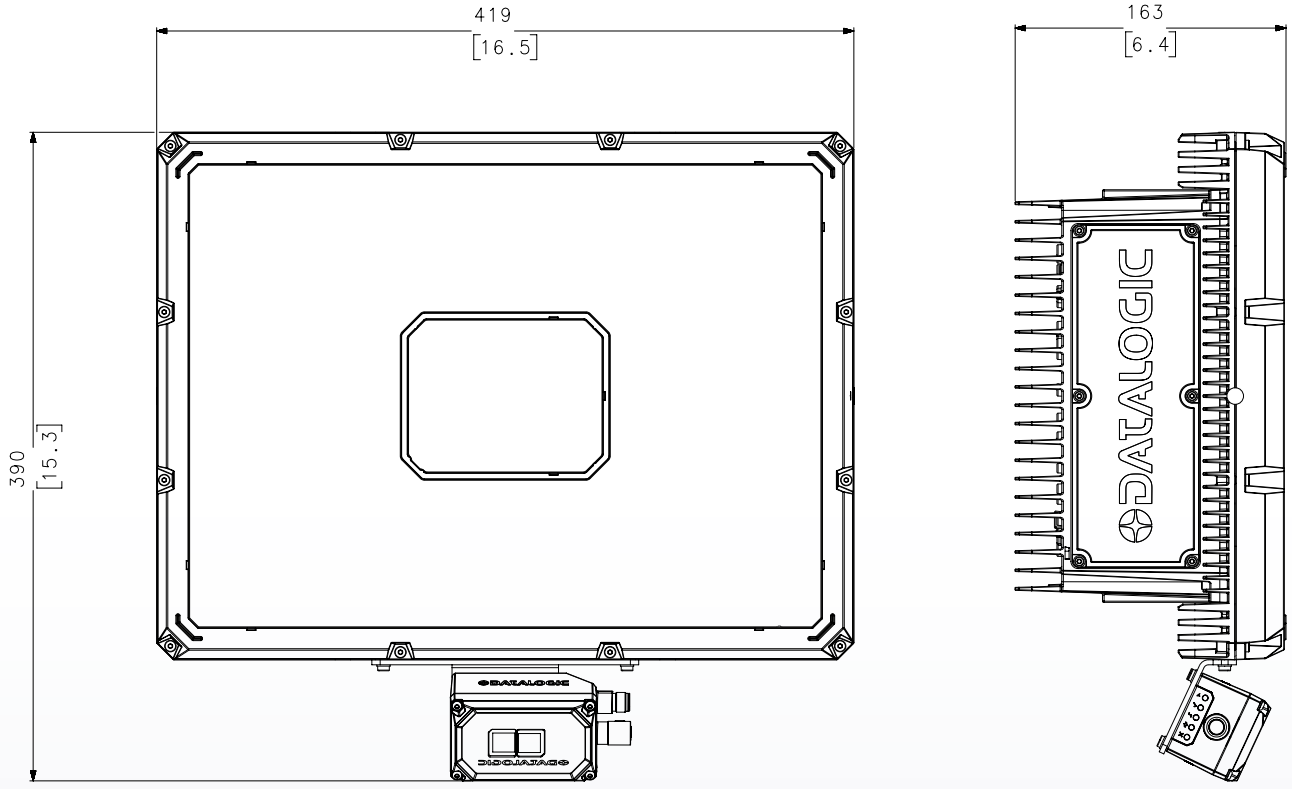
PART NUMBER	MODEL AND DESCRIPTION
901640003	MATRIX 830, 16Mpx; 16 mm lens, W/ Integrated Range Sensor
901640004	MATRIX 830, 16Mpx; 16 mm lens
901640005	MATRIX 830, 16Mpx; 25 mm lens

ACCESSORIES

PART NUMBER	DESCRIPTION
93ACC0453	Integrated Display connection board for Matrix 830/930
93ACC0454	Range Sensor fore Matrix 830/930

DIMENSIONS





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