MATRIX 410N™

DATALOGIC

Matrix 410N™ is an industrial 2D imager purpose-built for the most complex traceability applications in material handling and logistics, equipped with an ultra-fast image sensor that performs at 2.0 megapixels with a frame rate of 45 frames per second.

The Matrix 410N™ offers multiple communication options for increase flexibility and cost-effectiveness. The industrial imager offers Ethernet connectivity embedded, including standard communication such as TCP/IP, HTTP, FTP, as well as common industrial fieldbus communication protocols, like PROFINET IO, EtherNet/IP, Modbus TCP/IP.

In addition to flexibility, Matrix 410N™ is equipped with features for increased ease of use and configurability, with the option for a single or multi-device layout for scanning over large areas or multiple signs.

Powered by DL.CODE, Matrix 410N™ software offers an easy-to-use graphical user interface, while supporting in-line monitoring functionality, including live image display, reading statistics and diagnostics. The Matrix 410N™ also has image saving capability for reading case review, such as no reads, storing up to 3,000 images either onboard or at an external FTP client.

The embedded laser aimer and the patented Green Spot - projected onto the scanning area - offers the user a quick scanning area determination and to easily acknowledge a reading without any external accessory or software.

IDENTIFICATION

HIGHLIGHTS

- Patented ultra-fast strobed lighting with stable effect for operator
- Patent Pending Packtrack 2D for short object gapping in sortation applications
- Embedded Ethernet connectivity, with common protocol support: PROFINET IO, ETHERNET/IP, TCP/IP, FTP, HTTP
- On board image storage saving up to 3,000 image (scaled)
- External connection box with parameter back up memory and display
- Increased flexibility with single reading point or multiple device cluster with easy configuration
- Laser pointing system, good read Green Spot, focusing aiming system
- Remote, web-based WebSentinel software with image archiving database

APPLICATIONS

- **Distribution & Retail**
  - Manual Presentation
  - Small Objects Sorting
  - Totes content scanning
- **Warehouse**
  - End of line, Carton/objects, single or multi-side scanning
- **Automotive**
  - Part traceability in assembly
- **Medical & Pharmaceutical**
  - Automated storage/retrieval
  - Automated Order fulfilment/validation

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TECHNICAL DATA

	PHYSICAL CHARACTERISTICS	
Dimensions	123 x 60,5 x 87 mm (4.84 x 2.38 x 3.42 in) with protective lens cover	
Weight	482 g (17 oz.) with lens and internal illuminator	
Case material	Aluminum	
Operating temperature	0° to +50 °C (32 to 122°F)	
Storage temperature	-20 to 70 °C (-4 to 158 °F)	
Humidity	90% non condensing	
Protection class	IP67	
	PERFORMANCE	
Optical features	MATRIX 410N -5xx-xxx	MATRIX 410N -7xx-xxx
	SXGA (1280 x 1024)	UXGA (1600 x 1200)
	CMOS sensor	CMOS sensor
Frame rate	60 frames/s	45 frames/s
Reading angles	Max. Pitch: ± 35°; Tilt: 0-360°	
Readable symbologies	1D and Stacked: IL 2/5, Code 128, Code 39, EAN/UPC, PDF417, Micro PDF417, Pharmacode, GS1 DataBar (RSS) family, and many more	
	2D: Data Matrix, QR Code, Micro QR, Maxicode, Aztec	
	Postal: Royal Mail, Japan Post, Planet, Postnet and many more	
Communication interface	RS232 + RS232/RS422/RS485 up to 115.2 Kbit/s	
	Ethernet IEEE 802.3 10 Base T and IEEE 802.3U 100 BaseTX compliant	
	ID-NET™ port up to 1 Mbps	
Connectivity modes	Pass Through, Master/Slave, Ethernet point to point	
Digital inputs	2 opto-isolated. Polarity insensitive and SW Programmable.	
Digital outputs	3 SW programmable PNP/NPN (short circuit protection). OUT3 programmable as input Output current 100 mA max, Saturation voltage < 3 V @ 100 mA	
Programming method	X-PRESS™ Human Machine Interface	
	Windows™ based SW (DL.CODE™) Ethernet link	
User interface	X-PRESS™ Human Machine Interface	
	Beeper, Programmable Push Button, LEDs (Status, Com, Trigger, Good, Ready, Power on, Network presence, Good read Spot)	
Code quality verification	AIM DPM, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 16022, ISO/IEC 18004, AS9132A	
	ELECTRICAL CHARACTERISTICS	
Power supply	10 to 30 VDC	
Power consumption	8 W max; 5W typical	

MODELS AND ACCESSORIES

	P/N	DESCRIPTION
Matrix 410N Reader Body	937401082	MATRIX 410N 500-010 1.3MP-60FPS-ETH
	937401083	MATRIX 410N 700-010 2.0MP-45FPS-ETH
Focusing Lenses	93ACC1793	LNS-1006 6MM C-MOUNT LENS
	93ACC1794	LNS-1109 9MM C-MOUNT LENS
	93ACC1795	LNS-1112 12,5MM C-MOUNT LENS
	93ACC1796	LNS-1116 16MM C-MOUNT LENS
	93ACC1797	LNS-1125 25MM C-MOUNT LENS
	93ACC1798	LNS-1135 35MM C-MOUNT LENS
	93ACC1799	LNS-1150 50MM C-MOUNT LENS
Internal Lighting modules	93A401019	LT-001 INTERNAL LT RED NARROW ANGLE
	93A401020	LT-002 INTERNAL LT RED WIDE ANGLE
	93A401021	LT-003 INTERNAL LT WHITE NARROW ANGLE
	93A401023	LT-005 INTERNAL LT BLUE FOR DPM
	93A401022	LT-004 INTERNAL LT WHITE WIDE ANGLE
	93A401024	LT-006 INTERNAL LT RED SUPERNARROW ANGLE
	93A401030	LT-007 INTERNL LT RED SUPERNAR+LASER P
	93A401026	LT-010 HI POWER LT BLUE SUPERNARROW
	93A400031	LT-011 HI POWER LT RED SUPERNARROW

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