MATRIX 210N™

◇DATALOGIC

Datalogic's Matrix 210N™ offers extreme reading performance with integrated Ethernet & PROFI-NET in an ultra-compact housing.

With a WVGA image sensor able to capture up to 60 frames per second, and a flexible and powerful illuminator, the Matrix 210N™ offers best-in-class reading performance for direct part-marked bar codes.

Unrivaled decoding libraries running on a high speed hardware platform deliver superior reading performance and decoding rates. With these combined features the Matrix 210N supports high throughput systems which results in improved production efficiency.

Both read data and captured images are transferred using the on-board Ethernet ports. The captured images can be either saved internally or easily and quickly uploaded to external PCs for storage or offline analysis.

Compact dimensions with straight, right angle, or electronic variable focus options provide superb contact reading capabilities and simple mechanical integration into small spaces.

Installation and maintenance are extremely easy with the X-PRESS™ Interface. X-PRESS features a five LED bar graph with a multifunction key for immediate access to functions such as Aiming, Setup, Automatic Learning, and Test Mode.

The Green Spot - projected onto the scanned object – provides easy and real-time feedback of the reading status without any additional software or accessories.

HIGHLIGHTS

- Integrated Ethernet, PROFINET, EtherNet/IP, interfaces
- Dynamic focus liquid lens models
- High performance DPM bar code reading
- On-board image saving
- Outstanding decoding capability on DPM and printed 1D & 2D standard codes
- Straight and right angle models for smart mounting
- ID-NET™ reader clustering/networking
- Ultra-fast image acquisition for high speed production lines
- Industrial Protection: ESD-safe, YAG, IP65

APPLICATIONS

Electronic
- PCB board tracking
- Electronic products tracking

Pharmaceutical & Chemical
- Pharmaceutical manufacturing and packaging
- Supply chain traceability

OEM
- Chemical & Biomedical Analysis Machines
- Print & Apply systems
- Document Handling

MATRIX 210N™

TECHNICAL DATA

	FIXED FOCUS MODELS	ELECTRONIC FOCUS CONTROL MODEL
Dimensions	Straight optic 50 x 25 x 45 mm (1.97 x 0.98 x 1.77 in) Right angle optic 54 x 32 x 45 mm (2.13 x 1.26 x 1.77 in)	61 x 25 x 45 mm (2.40 x 0.98 x 1.77 in)
Weight	204 g. (7.2 oz.) with cable	237 g. (8.4 oz.) with cable
Case material	Aluminum, plastic protective window cover	
Operating temperature	0° to 50° C (32 to 122 °F)	0° to +45 °C (32 to 113°F)
Storage temperature	–20 to 70 °C (-4 to 158 °F)	
Protection class	IP65	
Esd safe	YES, with ESD Safe front cover accessory	
Yag laser protection	YES, with YAG cut filter accessory	
Power supply	Standard: 10 VDC to 30 VDC	
Power consumption	0.4 to 0.15 A, 4.5 W max	
Sensor	Image Resolution 780 x 480 WVGA - CMOS global shutter	
Frame rate	60 frames/s	
Optical focus control	Fixed	Variable, Electronic focus control
Aiming system	Blue Ring LED system	Dual laser pointer (CDRH/IEC Class II)
Readable symbologies	1D Codes: all standard 1 dimensional symbologies 2D Codes: Data Matrix, QR Code, Micro QR, Maxicode, Aztec Postal Codes: Royal Mail, Japan Post, Planet, Postnet and many more	
Embedded communication interfaces	Ethernet 10/100: EtherNet/IP, PROFINET, TCP/IP, UDP, FTP, MODBUS TCP Serial RS232/RS422/RS485 up to 115.2 Kbit/s + Aux RS232	
Reader networking	Datalogic ID-NET™	
Connectivity modes	Master/Slave, Ethernet point to point	
Digital inputs	2 opto-isolated. Polarity insensitive and SW Programmable.	
Digital outputs	2 SW programmable, opto-coupled	
Programming method	Windows™ based SW (DL.CODE™) via Ethernet	
User interface	X-PRESS™, Embedded Human Machine Interface Beeper, Push Button, 7 LEDs (Status, Comm. , Trigger, Good Read, Ready, Power on, Network)	
Code quality metrics	AIM DPM, ISO/IEC 15416	

MODELS

	P/N	STRAIGHT OPTICS	P/N	RIGHT ANGLE OPTICS
Standard	937501241	MATRIX 210N 211-110 WVGA-NEAR-ETH-ST	937501250	MATRIX 210N 211-010 WVGA-NEAR-90-ETH-ST
	937501242	MATRIX 210N 212-110 WVGA-MED-ETH-ST	937501251	MATRIX 210N 212-010 WVGA-MED-90-ETH-ST
	937501243	MATRIX 210N 213-110 WVGA-FAR-ETH-ST	937501252	MATRIX 210N 213-010 WVGA-FAR-90-ETH-ST
ESD Safe	937501259	MATRIX 210N 211-111 WVGA-NEAR-ETH-ES	937501268	MATRIX 210N 211-011 WVGA-NEAR-90-ETH-ES
	937501260	MATRIX 210N 212-111 WVGA-MED-ETH-ES	937501269	MATRIX 210N 212-011 WVGA-MED-90-ETH-ES
	937501261	MATRIX 210N 213-111 WVGA-FAR-ETH-ES	937501270	MATRIX 210N 213-011 WVGA-FAR-90-ETH-ES
SESD Safe YAG laser protection	937501274	MATRIX 210N 211-112 WVGA-NEAR-ETH-ESYF	937501277	MATRIX 210N 211-012 WVGA-NEAR-90-ETH-ESY
	937501275	MATRIX 210N 212-112 WVGA-MED-ETH-ESYF	937501278	MATRIX 210N 212-012 WVGA-MED-90-ETH-ESYF
	937501276	MATRIX 210N 213-112 WVGA-FAR-ETH-ESYF	937501279	MATRIX 210N 213-012 WVGA-FAR-90-ETH-ESYF
Electronic focus control	937501282	MATRIX 210N 235-110 WVGA-DPM-LL-ETH-STD		
	937501283	MATRIX 210N 235-111 WVGA-DPM-LL-ETH-ES		
	937501284	MATRIX 210N 235-112 WVGA-DPM-LL-ETH-ESYF		

READING CHARACTERISTICS

MODELS	FOCUS DISTANCE	FIELD OF VIEW @ FOCUS DISTANCE	PPI (Pix per Element) @ FOCUS DISTANCE	TYP. 1D AND STACKED CODE RESOLUTION	2D CODE RESOLUTION		READING DISTANCE	
	mm (in)	mm (in)		mm (mils)	mm (mils)	mm (in)	Min. mm (in)	Max. mm (in)
MATRIX 210N 211-xxx NEAR	45 (1.77)	35 x 22 (1.38 x 0.87)	545	0.10 (4)	Max. Typ.	0.13 (5) 0.19 (7.5)	42 (1.65) 36 (1.42)	53 (2.08) 61 (2.40)
MATRIX 210N 212-xxx MEDIUM	65 (2.56)	50 x 32 (1.97 x 1.26)	380	0.15 (6)	Max. Typ.	0.19 (7.5) 0.25 (10)	54 (2.13) 47 (1.85)	90 (3.54) 101 (3.97)
MATRIX 210N 213-xxx FAR	105 (4.13)	80 x 50 (3.15 x 1.97)	238	0.20 (8)	Max. Typ.	0.25 (10) 0.38 (15)	85 (3.35) 70 (2.76)	135 (5.31) 192 (7.55)

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