

LX300 SERIES · Versatile Industrial Code Reader

One-Touch Setup+ / AI Decoding Engine

Setup in <10 seconds · Easier · More convenient · More efficient



Flexible optical
configurations



Next-generation
AI decoding



Over 1.92M decoding
parameter configurations



Intelligent interference
protection

Short- and long-range code reading for new energy, automotive manufacturing, electronics (3C), semiconductors, warehousing and logistics.

Product Features

Modular Code Reading Platform

Interchangeable hardware, optics, communications and accessories. Modular configurations cover 99% of production-line reading scenarios.

Modular illumination

Direct / polarized lighting as standard; replaceable diffuse-light and UV modules. Red is standard; blue and white modules are optional.

Modular image sensors

1.2 / 2.4 / 5 / 20 MP options. Select global or rolling shutter to suit the application.

Modular communications

EtherNet/IP, PROFINET, Modbus, TCP, FTP and RS-232 hardware modules. Enable or select modules for industrial buses, host systems and PLCs on different automation platforms.



Modular lenses

Interchangeable 8 / 12 / 16 / 25 mm fixed-focal-length lenses; standard C-mount and custom lenses. Change lenses for close-range microcodes or distant large-item codes while retaining the reader body.

Modular cabling

Power and Ethernet cables selected independently; 3 m / 5 m lengths. Standard 100 Mbps cable for fixed installations; optional Gigabit-rated high-flex cable for cable carriers.

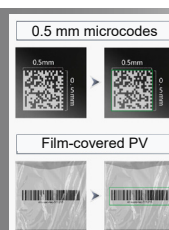
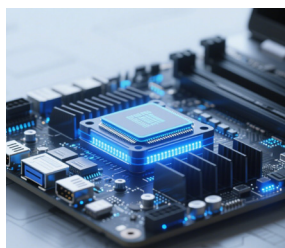
Modular accessories

Independently fitted magnifying lenses, laser protection covers and diffuse-light covers. Configure for glare, strong ambient light and confined spaces without changing the reader body.

Typical Reading Applications

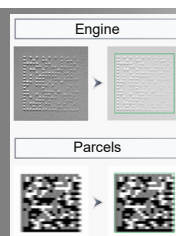
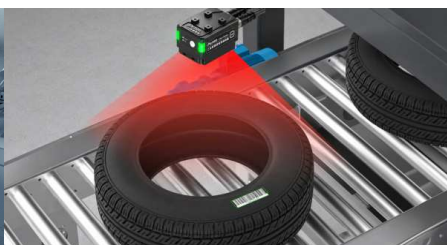
Close-range reading of small codes

For electronics, semiconductors and new energy: metal surfaces (aluminum cans / stainless steel), film-covered labels, high-density microcodes (PCB / UDI), oily or scratched codes, and codes distorted on curved surfaces.



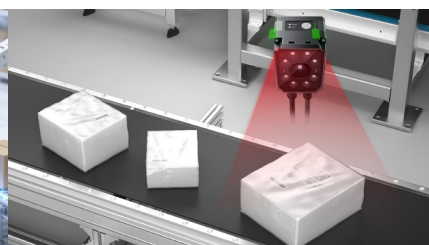
Long-range reading of moving codes

For warehousing, logistics, automotive assembly and packaging: highly reflective curved surfaces (engine codes, plated wheels and can codes on high-speed lines), plus fast-moving logistics labels.



Extended-range reading with a wide field of view

For warehousing, logistics and new energy: extended working distance, wide field of view and deep depth of field, including parcel sorting and warehouse palletizing.



Product Features

Next-Generation One-Touch Setup+

Ready at a touch

Start setup with the reader button or host software. No field application engineer or on-site engineering support is required.

Fast automatic setup

One trigger optimizes lighting and focus and selects algorithms, completing setup in under 10 seconds.

Improved performance

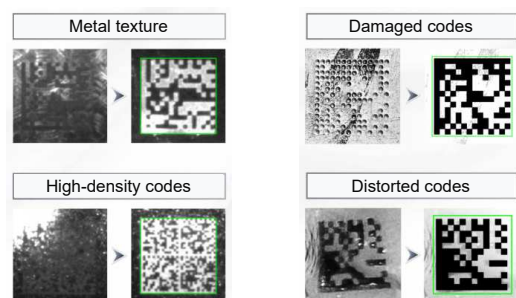
Covers >90% of common decoding scenarios. AI and conventional algorithms keep the overall deviation rate below 10% for stable long-term operation.

Next-Generation AI Decoding

A new high-performance AI processor combines AI with conventional decoding algorithms for fast, reliable reading of challenging industrial codes.

Vision algorithm engine

Over 1.92 million built-in decoding parameter configurations improve efficiency and reduce decoding time.



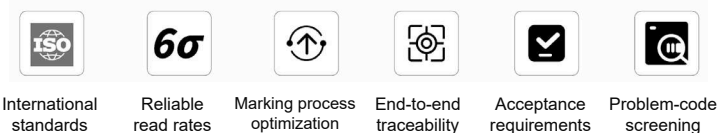
AI decoding

One-Touch Setup+ with Max Mode enables an intelligent decoding vision agent, improving read rates for the most challenging codes.

Barcode Quality Verification

Reliable barcode quality verification for industrial traceability and quality control.

Supports ISO/IEC 16022, ISO/IEC 15415 and ISO/IEC TR 29158, used as acceptance criteria by leading automotive, electronics and medical manufacturers.



Additional Software Functions

Multi-reader networking

Network multiple LX300 readers to combine fields of view and depths of field across the production line.



Burst Mode

For high-speed lines: multiple decoding attempts without precisely timed sensor triggers improve reading stability.

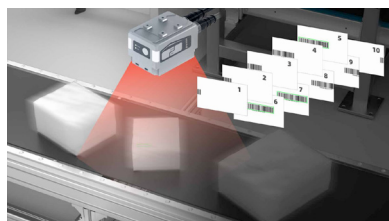


Image Curve Adjustment

New image-curve tools visualize brightness and contrast in the host software. Drag curves to optimize settings instead of trial and error. Fewer site tests and faster troubleshooting and recovery improve average setup efficiency by 40%.



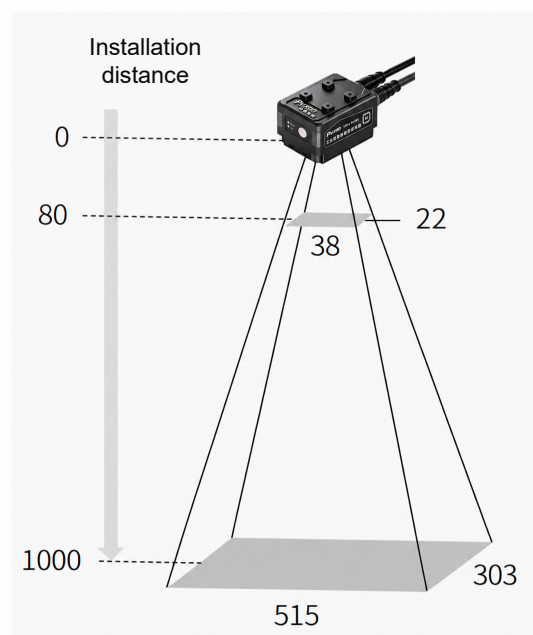
DM-N Algorithm

Optimizes Data Matrix decoding for oil contamination, scratches and low contrast. Configure the expected Data Matrix code length for targeted optimization and improved decoding.



▪ Reading Range

Focal length	D	H	V	Equivalent field angle
12 mm	70 mm	48 mm	28 mm	H: 30° V: 18°
	150 mm	102 mm	60 mm	
	300 mm	200 mm	117 mm	
	600 mm	405 mm	238 mm	
	1000 mm	680 mm	400 mm	
16 mm	80 mm	38 mm	22 mm	H: 22° V: 13°
	150 mm	74 mm	43 mm	
	300 mm	150 mm	88 mm	
	600 mm	304 mm	179 mm	
	1000 mm	515 mm	303 mm	
25 mm	200 mm	57 mm	33 mm	H: 15° V: 9°
	300 mm	90 mm	53 mm	
	500 mm	157 mm	92 mm	
	1000 mm	320 mm	188 mm	
	2000 mm	648 mm	381 mm	

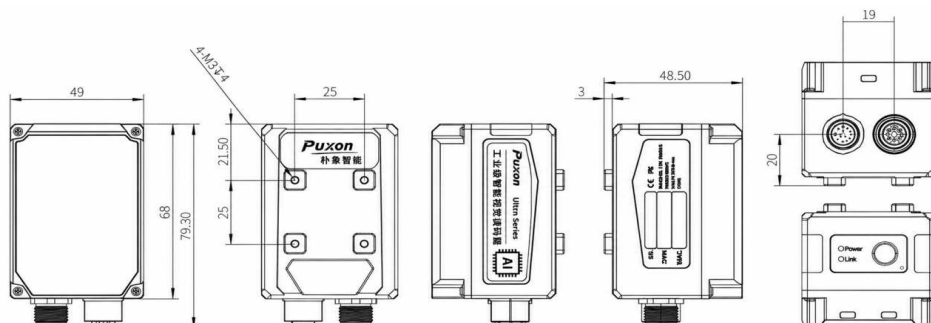


▪ Technical Specifications

Model*	LX310	LX320	LX350	LX390
Supported symbologies	2D: Data Matrix (ECC200), QR Code 1D: Code 39, Code 93, Code 128, EAN-13, EAN-8, UPC-E, Interleaved 2 of 5			
Image sensor	2048 × 1200 pixels Global shutter CMOS		2464 × 2064 pixels Global shutter CMOS	5120 × 3840 pixels CMOS
Max. acquisition rate	60 fps		30 fps	
Illumination*	Partially / fully polarized; partially polarized as standard			
Lighting color*	Red / blue / white / UV; red as standard			
Lens focal length*	8 / 12 / 16 / 25 mm			
Working distance	8 mm: 20–2000 mm / 12 mm: 60–2000 mm / 16 mm: 85–2000 mm / 25 mm: 220–2000 mm			
Focus system	Motor-driven autofocus			
Aimer	Two green LED aiming dots			
Interfaces	100 Mbps Ethernet, RS-232			
Protocols	TCP/IP, RS-232, EtherNet/IP (EIP), PROFINET (PN), Modbus TCP, MC			
Digital I/O	2 polarity-independent isolated inputs + 3 polarity-independent isolated outputs			
Barcode quality verification	ISO/IEC 15415, ISO/IEC 16022, ISO/IEC TR 29158 (AIM DPM-1-2006)			
Power supply	24 VDC ±10%			
Operating temperature	−20°C to +45°C			
IP rating	IP65			
Compliance	CE, FCC, RoHS			

* Confirm the actual model before ordering. Items marked * are configurable.

▪ Dimensions



Unit: mm