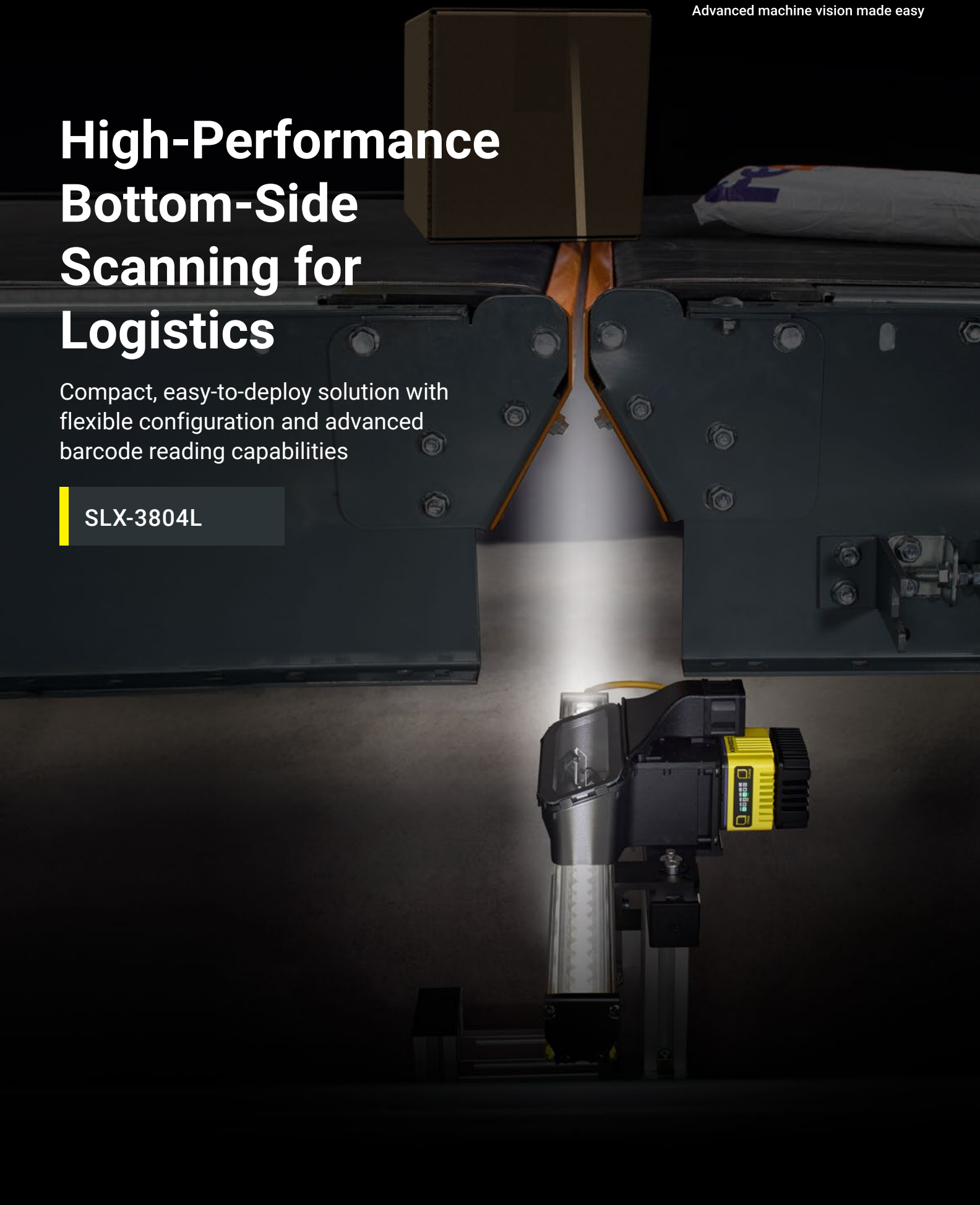
COGNEX

Advanced machine vision made easy

High-Performance Bottom-Side Scanning for Logistics

Compact, easy-to-deploy solution with flexible configuration and advanced barcode reading capabilities

SLX-3804L



Compact, Flexible, Intuitive Bottom-Side Barcode Scanning Solution

SLX-3804L



Superior scanning performance

The SLX-3804L delivers 99.9% read rates with advanced decoding, specialized optics, and stable under-conveyor mounting for reliable bottom scanning in tight spaces.

Easy to set up, deploy, and maintain

The web-based UI enables fast installation, while the compact, dust-resistant design reduces downtime and maintenance for busy fulfillment centers.

Increase efficiency from scan to sort

The small-footprint SLX-3804L supports flexible under-conveyor placement, faster sortation response, and visibility into barcode issues.

Robust performance handles process variability, such as:

- Barcode quality, position, and orientation
- Conveyance transitions
- Package types



Key Applications



Induction line barcode capture

Improve sorting efficiency and reduce manual rework and recirculation by decoding 1D and 2D barcodes on the bottom of packages as they enter the sorting system.



Expand ship sorter scanning to six sides

Increase throughput in high-speed ship sorting operations by adding bottom-side scanning to a 5-sided Modular Vision Tunnel (MVT).



Add bottom-side reading to top-side scanning

Boost scanning performance for high-volume inbound or outbound workflows with bottom-side barcode reading.

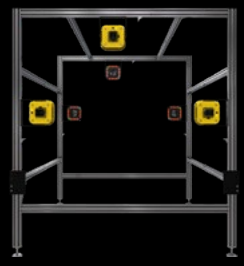


Luggage tag traceability

Improve airline baggage-tracking efficiency by adding bottom-side scanning for full 360° luggage tag scanning.

Looking for high-speed scanning solutions?

Learn more about our Modular Vision Tunnels at:
cognex.com/tunnel-scanning

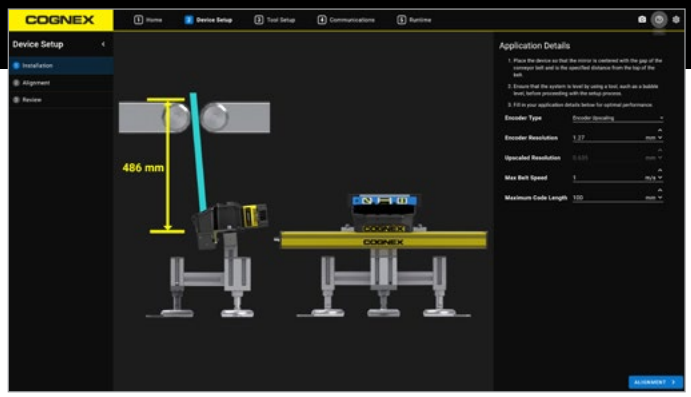


Key Features



High-speed 1D and 2D barcode reading

Reduce rework and recirculation costs with industry-leading decoding algorithms and real-time scanning that deliver fast, accurate results.



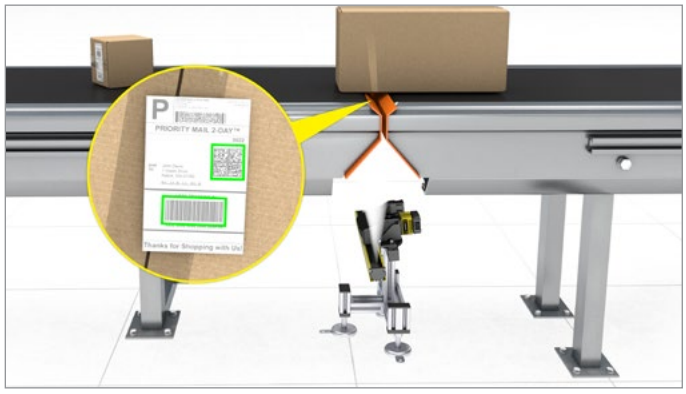
Web-based UI with guided setup

Minimize line downtime in busy fulfillment centers with an intuitive web UI and guided alignment that enables installation in under 45 minutes.



Wide-angle view, removable dust cover

Maximize read performance and uptime with an angled cover that limits dust buildup and can be removed in seconds for cleaning during operation.



Purpose-built optics and lighting

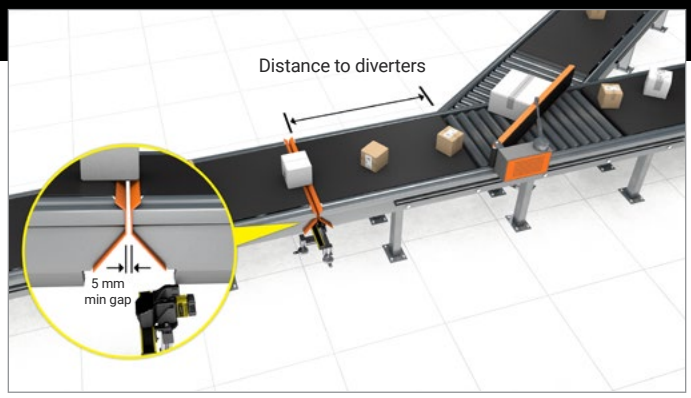
Achieve reliable decoding across small gaps with focused lighting and lensing that enable a compact design and shorter working distances than traditional line scan solutions.

Key Features



Safe, stable, retrofit ready

Ensure stable operation, enhance operator safety, and simplify retrofits with a compact design that fits in space-constrained areas under conveyors.



Real-time decoding

Optimize floor space, reduce hardware costs, and boost throughput by processing codes faster, allowing diverters to be placed closer to scan points.

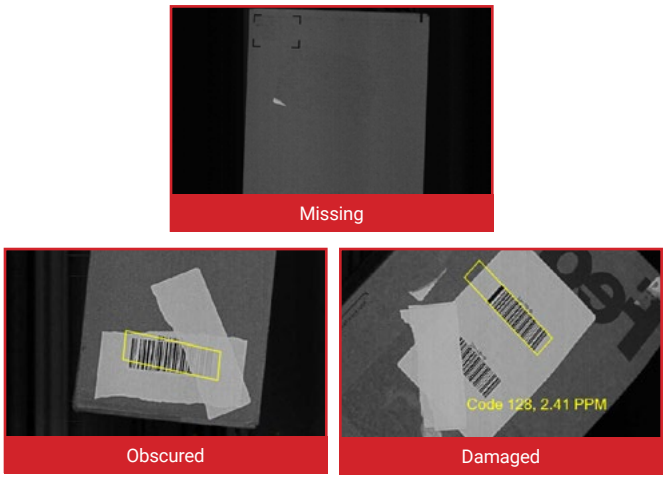
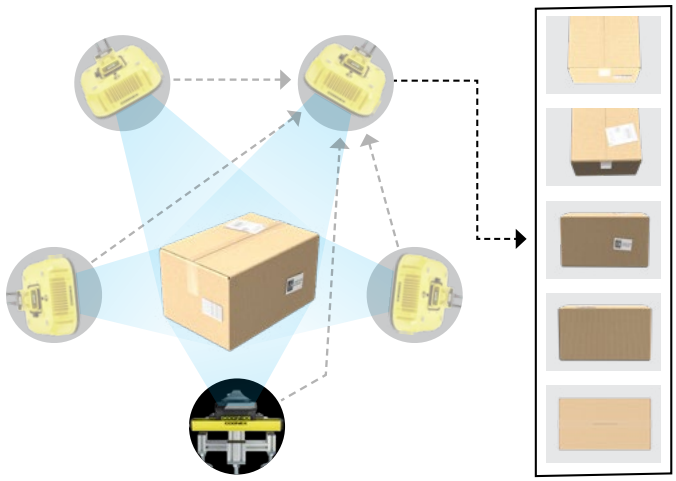


Image analysis of unreadable codes

Eliminate manual rework and maximize throughput by automatically categorizing barcode failures for optimizing upstream processes.



Easy tunnel integration

Multi-Reader Sync support simplifies tunnel integration for full 6-sided scanning and image offload.

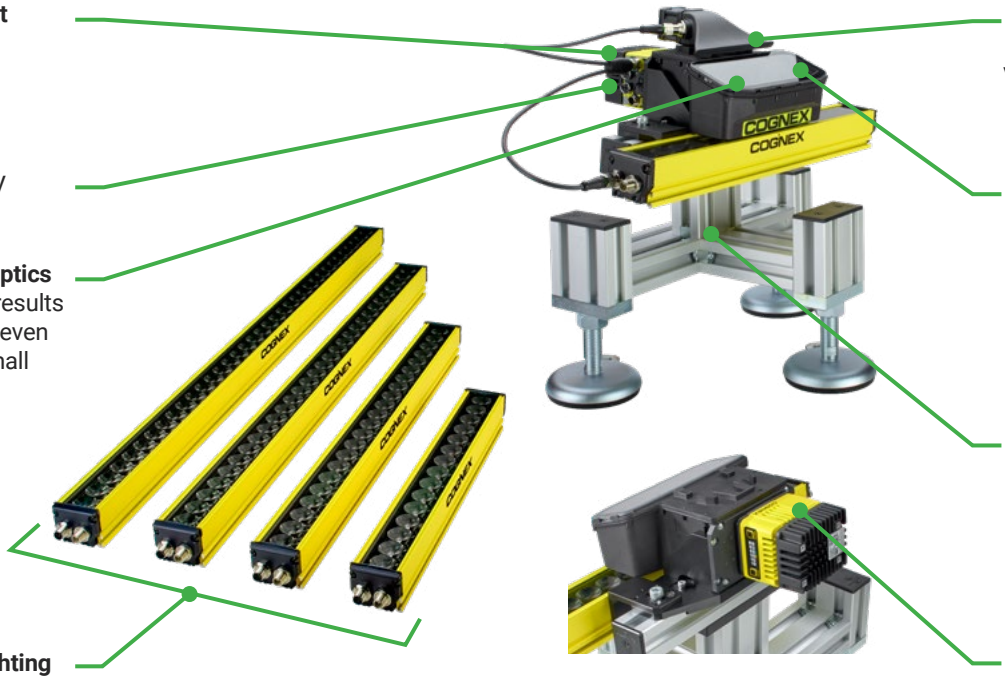
Process More Packages Per Hour with Innovative Machine Vision Technology

Gigabit Ethernet ensures fast communication speeds

Powered by 24V

Purpose-built optics enable reliable results at high speeds, even through very small gaps

Flexible LED lighting options improve contrast, for higher accuracy and increased performance across various belt widths



Low-profile blower accessory keeps the viewport clear of dust

Downward sloping magnetic dust cover minimizes distortion caused by dust and simplifies maintenance

Small form factor fits easily underneath conveyors, reducing the risk of operator interference

4K sensor provides superior detail for precise code reading

Drive increased Operational Equipment Efficiency

The SLX-3804L streamlines workflows, reduces manual labor, and enhances throughput, improving OEE.

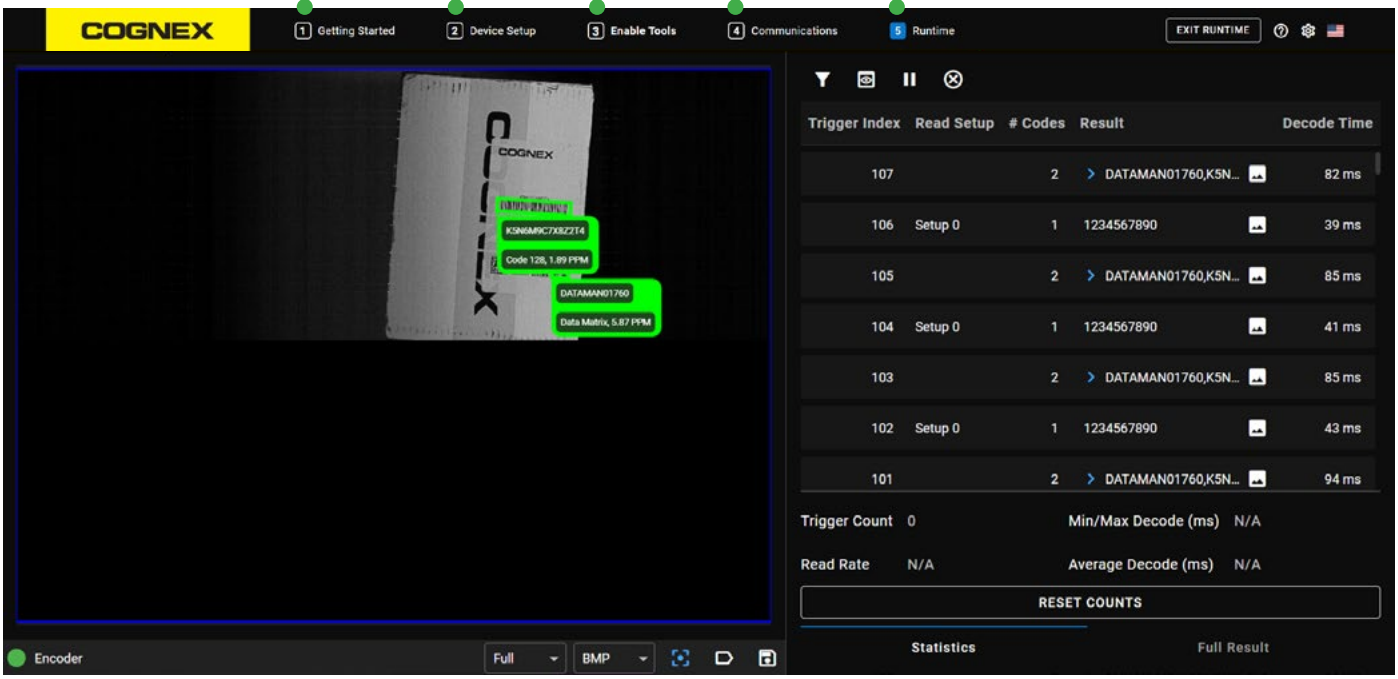
Identify issues sooner by offloading images of failed reads to analyze scanning performance and improve vendor compliance.

Streamline workflows and improve process efficiency with automated bottom-side reading, reducing manual rework and recirculation.

Maximize uptime and throughput with hardware designed to minimize dust buildup and reduce maintenance.

Deploy Applications in Minutes with a Web-Based UI and Guided Workflow

1. Find the device and open the home screen.
2. Configure application details and trigger set up.
3. Select and train tool(s) to be used.
4. Configure communications protocols.
5. Enter runtime monitoring view.



Common UI across all SLX products

The SLX portfolio features a common software user interface, reducing operator training time and enabling smoother operations and faster deployment at scale.



Specifications

SLX-3804L				
Models	**SLX-3804L-BR-MXSC SLX-3804L-BR-MXS1C[1]**	**SLX-3804L-BR-MSC SLX-3804L-BR-MLCC[2]**	**SLX-3804L-BR-MMC**	**SLX-3804L-BR-MLC**
Optical and Imaging				
Field of View	400 mm (16 in)	600 mm (24 in)	800 mm (32 in)	1000 mm (39 in)
Minimum 1D Code Size	0.15 mm (6 mil)	0.18 mm (7 mil)	0.25 mm (10 mil)	0.33 mm (13 mil)
Minimum 2D Code Size	0.30 mm (12 mil)	0.36 mm (14 mil)	0.56 mm (22 mil)	0.64 mm (25 mil)
Material Handling				
Minimum Conveyor Height	480 mm (19 in)	538 mm (21.2 in) 370 mm (14.6 in)[2]	492 mm (19.4 in)	598 mm (23.5 in)
Minimum Conveyor Gap	5 mm (0.20 in)			
Maximum Conveyor Speed	3.3 m/s (650 fpm)			
Line Scan Image Sensor & Lighting				
Bit Depth	8-bit monochrome			
Image Sensor Type and Properties	1" CMOS, 3.45 x 3.45 µm square pixels			
Image Resolution	Line-scan resolution: 4096			
Maximum Image Resolution	4096 x 16376 (64 MP)			
Lens Mount Type	C-Mount			
Line Rate (Maximum, Full Resolution)	84 kHz (11.9 µs per line)			
Lighting	External LED bar light, white			
Connectivity & Communications				
Discrete Inputs	1 opto-isolated, acquisition trigger input. Up to 3 general-purpose inputs when connected to the Breakout cable.			
Discrete Outputs	Up to 4 high-speed outputs when connected to the Breakout cable.			
Status Outputs	Pass/Fail LED and Indicator Ring, Network LED and Error LED			
Connectors	M12			
Networking Communications	2 Ethernet ports, 10/100/1000 BaseT with auto MDIX. IEEE 802.3 TCP/IP Protocol. Supports DHCP, static, and link-local IP address configuration. One port supports TSN networks. RS-232: RxD, TxD according to TIA/EIA-232-F			
Communication Protocols	SLMP, RS-232, SFTP, TCP/IP, Ethernet/IP™, Modbus TCP, PROFINET®			
SLX-3804L Power & Electrical				
Power Requirements	24 V DC ± 10%, 2.0 A maximum			
Average Power Consumption	7 W			
Maximum Power Consumption	14 W			
Output Power (for Blower)	24 V DC ± 10%, 1.0 A maximum			
Bar Lights (White) Power & Electrical	**400 mm**	**600 mm**	**800 mm**	**1000 mm**
Power Requirements (Amps In)	1.84 A	2.6 A	3.85 A	4.12 A
Power Consumption	44.16 W	62.33 W	85.89 W	98.9 W
Physical & Environmental				
Dimensions	H: 98 mm (3.9 in), L: 231.5 mm (9.1 in), W: 260 mm (10.2 in)			
Weight	Base kit with mounting bracket: 2,150 g			
Min/Max Operating Temperature	0–40 °C (32–104 °F)			
Min/Max Storage Temperature	-20–80 °C (-4–176 °F)			
Operating & Storage Humidity	<95% non-condensing			
Materials	Die-cast and extruded aluminum and zinc housing			
Mounting (Screw Hole Pattern)	Pattern: Two M8 slots - 9.0 mm (0.35 in) x 24.38 mm (0.96 in)			
	Pattern: 220mm (8.7 in) spacing, Slot length in direction of travel			
Reliability & Compliance				
Shock (Shipping and Storage)	IEC 60068-2-27: 500 shocks in each polarity of each (X, Y, and Z) axis, 3000 shocks total, semi-sinusoidal, 6 g, 10 ms			
Vibration (Shipping and Storage)	IEC 60068-2-6: vibration test in each of the three main axis for 2 hours @ 5 Gs (10 to 55 Hz at 55 m/s^2/0.35 mm)			
Certifications	TÜV SÜD NRTL, CE, EU RoHS, FCC, KCC, China RoHS			

1 Includes cyan filter
2 Low clearance option (shorter working distance)

Components and accessories

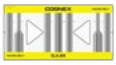
Power, I/O, and Connectivity

	Product ID	Description
	CPS-8A-78-L	Emparro Power Supply 8A 7/8" - L
	CIO-MB-PNP-L	Master Breakout Board PNP-L
	CIO-PD-4	Power Distribution Board (PDB)
	CIO-HS-4	Hybrid Switch (HS)
	CCB-CIO-P4141-XXX	Power chain L-coded
	CCB-CPS-A3E11-XXX	Emparro Input 7/8" to C14 Cable
	CCB-CPS-344533-XXX	Two Channel Emparro Output L-Coded Cable
	CCB-CIO-40021-XXX	External/Light Cable
	CCB-CIO-53001-XXX	Primary Cable 12pin
	CCB-CIO-40507-XXX	Shielded Secondary Cable 4pin
	DMA-PS-110VAC-24DC	Single Reader Laptop Power Supply, 110VAC, United States
	DMA-PS-220VAC-XX	Single Reader Laptop Power Supply, 220VAC; "XX" denotes country option: EU=European Union, UK=United Kingdom, CN=China, AU=Australia
	CCB-CIO-42751-000	Murr, M12 Cable T-Splitter
	CCB-CIO-FLEX-IN-3	Input W cable, Single Device, 3m
	CCB-CIO-51001-XXX	Ethernet chain X-coded
	DMA-RTCBLE-IP65-XXX	USB-C to USB-A Angled Cable
	CCB-84901-2001-XXX	X-Coded Ethernet Cable

Lighting Options

	Product ID	Description
	IVSL-BR400-WHI-P	400 mm White LED Bar Light
	IVSL-BR600-WHI-P	600 mm White LED Bar Light
	IVSL-BR800-WHI-P	800 mm White LED Bar Light
	IVSL-BR1000-WHI-P	1000 mm White LED Bar Light

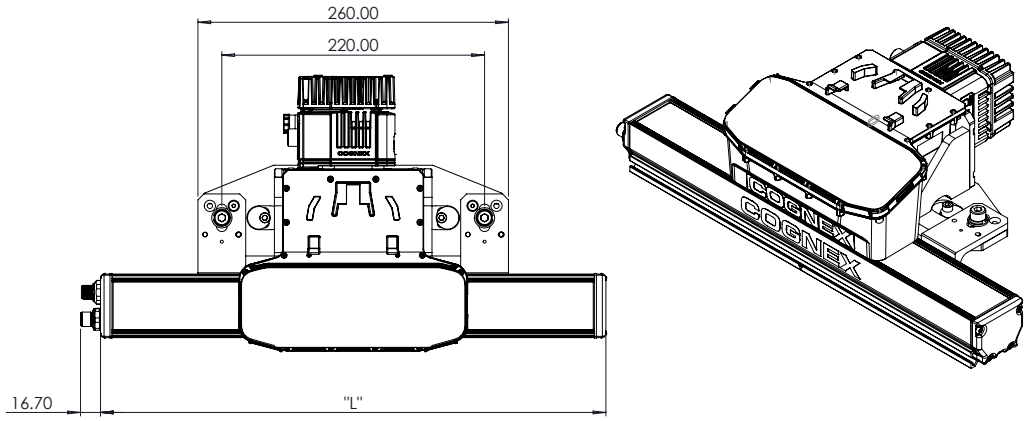
Optional Accessories

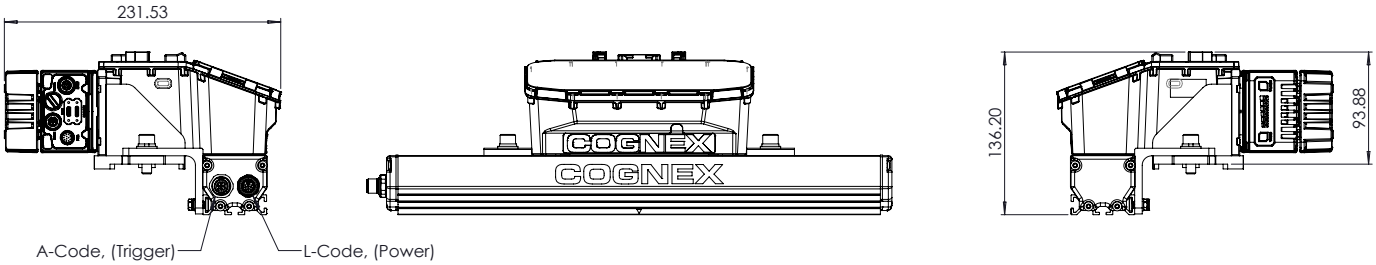
	Product ID	Description
	SLX-BR-BLOWER	Blower Attachment for SLX-3804L with Cable
	SLX-BR-COVER	Glass Dust Cover (Removable)
	CALIBRATION-300	Calibration/Alignment Target for SLX-3804L (300 mm)
	CALIBRATION-500	Calibration/Alignment Target for SLX-3804L (500 mm)
	CALIBRATION-700	Calibration/Alignment Target for SLX-3804L (700 mm)

Dimensions

SLX-3804L

Download CAD files





Customer Success

Industry-leading support that works the way *you* want, from self-service resources to a global network of experts

Plan & Deploy **Run & Support** **Expand & Optimize**

From initial planning to full-scale implementation, Cognex makes using advanced machine vision easy.

During planning and deployment, you'll get curated guidance on product choices and setup, single-click registration, and image-based AI training to get going quickly.

Once you're validated and in production, we keep you at peak performance with connected support and self-service training to take you from beginner to expert.

And over time, we help you scale up through a broad portfolio of products with shared interfaces and capabilities, as well as easy access to data that helps you grow and optimize across multiple facilities.

cognex.com/customer-success



Solutions Experience Logistics Portfolio

The Cognex Solutions Experience (SLX) Logistics portfolio addresses the unique needs of the logistics industry, is easy to deploy, and offers robust barcode reading and AI-powered performance that enhances productivity, detects process errors, and optimizes processes for greater efficiency.

High-performance bottom-side barcode reader for induction lines and six-sided scanning solutions

SLX-3804L

High-resolution side-by-side detection and large-format top-side barcode reading

SLX-3816

High-performance item detection and classification

SLX-290

Barcode reading for zone routing systems and tote inspection

SLX-290



COGNEX

Advanced machine vision made easy

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