



Newland AIDC
Scanning Made Simple



NLS-SOLDIER180W

FIXED MOUNT BARCODE SCANNER

FEATURES

New Generation of AI Processor Platform

Integrated with advanced AI algorithms and ISP functionality, the NLS-Soldier 180W delivers exceptional barcode reading performance in challenging industrial environments, including low-contrast, multi-code, and cluttered backgrounds, significantly enhancing decoding accuracy and stability.

Advanced Liquid Lens Autofocus Technology

With advanced liquid lens autofocus technology, the NLS-Soldier 180W enables fast and precise focus control, offering high flexibility in reading.

Rich Communication Interface

NLS-Soldier 180W integrates RS-232 and Ethernet interfaces (supporting Profinet, Ethernet/IP, and ModbusTCP), and includes two IO ports for input and output.

Fast and Rich Configuration Method

Through the NSet software, the scanner can be configured with a variety of functions, including device grouping, multi-barcode output, script editing, and more. Equipped with powerful self-learning capabilities, the device enables one-click image and scanning setup, greatly simplifying scanner configuration.

High Protection Industrial Structure Design

Featuring an IP65-rated protection and a compact design, it is suitable for complex and space-constrained industrial environments.

Multiple Models for Diverse Scenarios

The Soldier 180W offer different angle options : NP and SP, both equipped with direct and polarized lighting for versatile illumination. Compatible with accessories such as magnifier, diffuser, and reflector, they are designed to meet a wide range of application needs.



Manufacturing



NSet



2D Barcode



Ethernet



IP Sealing



Industrial protocols

NLS-SOLDIER180W

Performance

Main unit	Model	NLS-Soldier180W-V3-SP	NLS-Soldier180W-V3-NP
	Type	Long-distance type	Standard type
Optical	Sensor	CMOS image sensor	
	Number of Pixels	1280 × 960 pixels	
	Focus	Liquid lens	
	Illumination	4 High-intensity red LEDs	
	Illumination (optional)	White LED/blue LED/ultraviolet LED/infrared LED	
	Polarized Filter	Half polarized (standard)	
	Effective Focal Length	13.7mm	6.8mm
	Field of View	Horizontal 15.2°; Vertical 11.3°	Horizontal 38°; Vertical 28.7°
Reading specifications	Supported 1D symbol	EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, Codabar, Code128, Code93, ITF-6, ITF-14, Interleaved 2 of 5, Industrial 2 of 5, Standard 2 of 5, Matrix 2 of 5, Code 39, Code 11, MSI-Plessey, Plessey, Deutsche14, Deutsche12.	
	2D symbol	QR Code, Data Matrix, PDF417, Aztec Code, Micro QR.	
	Minimum 1D Resolution	0.8mil	1mil
	2D Resolution	2mil	2mil
	Reading Distance	40 to 1500mm	40 to 1000mm
	Motion Tolerance	2m/s	
	Min. Symbol Contrast	≥25%	

Physical

Mechanical/ Electrical specifications	Dimensions	45 (W) × 59.2 (D) × 25 (H)		
	Weight	185g		
	Prompt	Buzzer, LED		
	Power Voltage	24V ± 10%		
	Current	Operating	200mA (max)	
	@24V DC	Standby	70mA	
	Input	Minimum ON voltage: ±5V; Maximum rated voltage: ±30V; 2 inputs.		
	Output	Maximum rated current: 50mA per channel; Maximum voltage (OFF state): ±30V; 2 outputs.		
	Communication Interface	RS-232, TCP/IP, UDP, FTP, Modbus TCP, Ethernet/IP, Profinet, MELSEC/SLMP		

Environmental

Environmental Resistance	Working Temperature	-20°C to 50°C
	storage Temperature	-40°C to 70°C
	Relative Humidity	5%-95% (non-condensing)
	Static Discharge	±16 kV (air discharge), ±8 kV (contact discharge)
	Enclosure Rating	IP65

Accessories

Accessories	Cable	Ethernet cable, RS232 + I/O cable
	Adapter	Input 100-240V, output DC 24V/1.5A
	Others	Fixed bracket, Diffuser (optional), Reflector (optional), Magnifier (optional)

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NLS-SOLDIER180W

Certification

Certification

CE, RoHS 2.0, IEC 60825-1, IEC 62368, IEC 62471, BIS, KC

Reading range

Distance and Range: mm , Density: mil

NLS-Soldier180W-V3-SP			
	Density	Distance	Range
1D	0.8	97	26×19
	4	487	130×96
	10	1218	325×243
2D	2	135	36×27
	5	338	90×67
	8	541	144×107
	15	1015	270×203

NLS-Soldier180W-V3-NP			
	Density	Distance	Range
1D	1	47	32×24
	4	189	130×97
	10	472	325×242
2D	5	131	90×67
	10	262	180×134
	15	393	271×201
	20	525	362×269

Specifications are subject to change without notice.

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