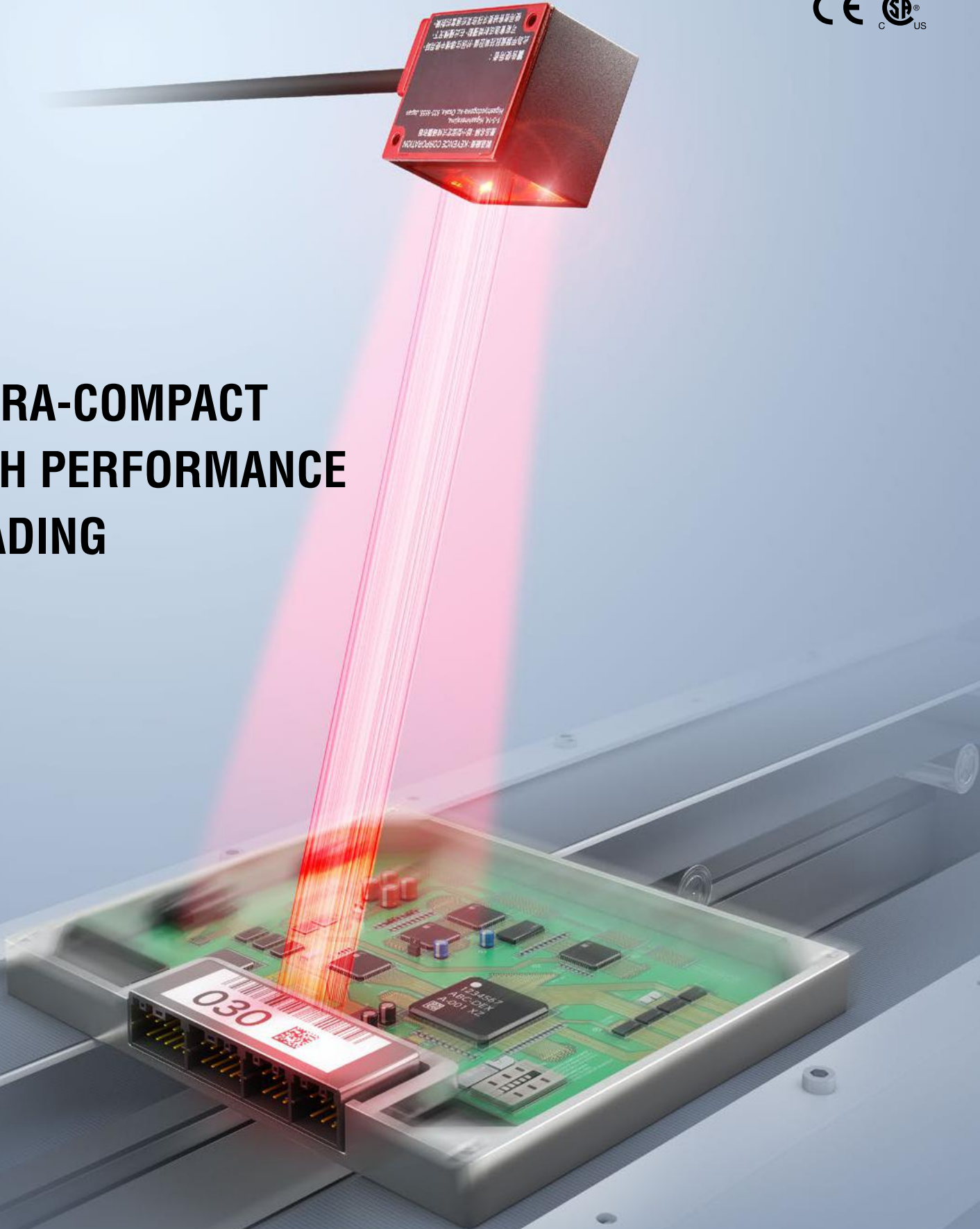


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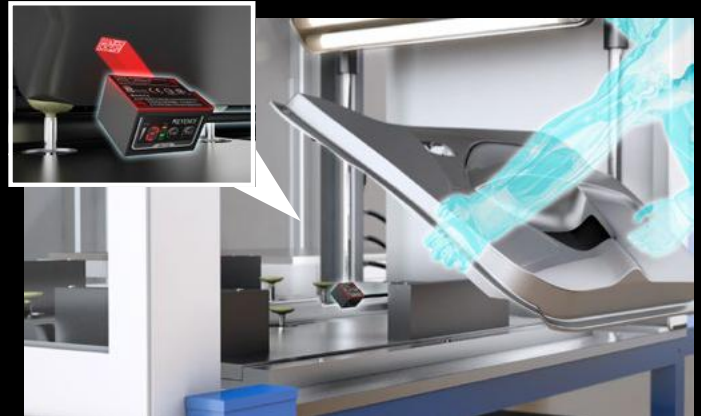
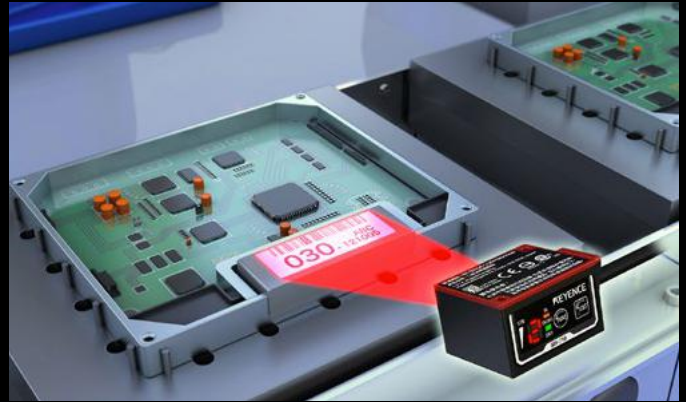
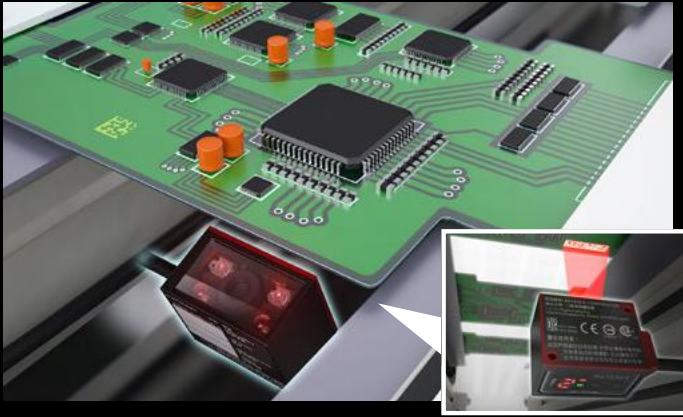
NEW Ultra-compact 1D and 2D Code Reader
SR-700 Series



ULTRA-COMPACT HIGH PERFORMANCE READING



SR-700 Series



C O M P A C T B O D Y

ADVANCED PROCESSING FOR STABLE, HIGH-QUALITY READING

EXCELLENT READING CAPABILITY THROUGHOUT THE FIELD OF VIEW

A built-in lens minimizes aberration to ensure stable reading even at the edges of the field of view.



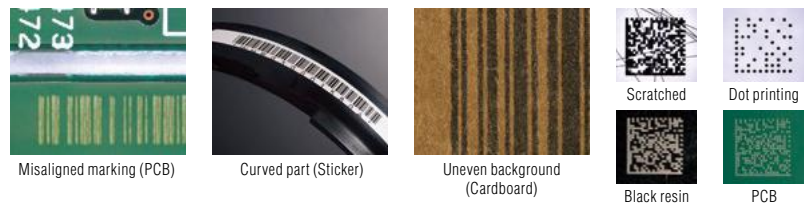
READING UNAFFECTED BY MOUNTING ANGLE

Geometric correction enables reliable code reading even when the code appears distorted.



EASILY READ DAMAGED OR IRREGULARLY PRINTED CODES

New algorithms provide best-in-class reading capability even when the code is hard to read.



Misaligned marking (PCB)

Curved part (Sticker)

Uneven background (Cardboard)

Black resin

PCB

POWERFUL HIGH SPEED READING

BURST READ FUNCTION:

Acquires up to 10 consecutive images. The decoding process is performed after imaging for high speed code detection.

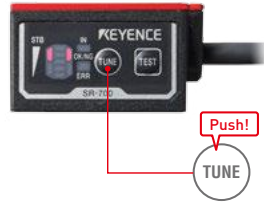
HIGH-SPEED IMAGE CAPTURE:

The built-in ultra-high-intensity LED and high-speed digital signal processor (DSP) capture moving objects effectively, even with a short exposure time. (Reference: Max. 170 m/min with a KEYENCE test label)

EASY TUNING

Easily optimize reading settings

The optimal brightness and filter settings are automatically selected using the buttons on the main unit.



Tuning is also available through the setting software.
SR-H6W

CODE VERIFICATION FUNCTION

Verification based on code quality standards

OUTPUT DATA **AD-ERMT-55841:8**
TOTAL GRADE JUDGMENT
Judgment can also be performed for each grading criteria

*This function is designed for 2D codes (QR, DataMatrix, GS1 Composite, PDF417).



SUPPORTED STANDARDS

- ISO/IEC 15415
- ISO/IEC TR 29158(AIM DPM-1-2006)
- ISO/IEC 16022
- SAE AS9132
- SEMI T10-0701

BUILT-IN TEST MODE

Visual indication of reading success

Pressing the TEST button starts the reading rate measurement mode.



MATCHING LEVEL JUDGMENT FUNCTION

Compare the print quality of scanned codes

Higher contrast and print quality are indicated by a larger matching level, as shown below:

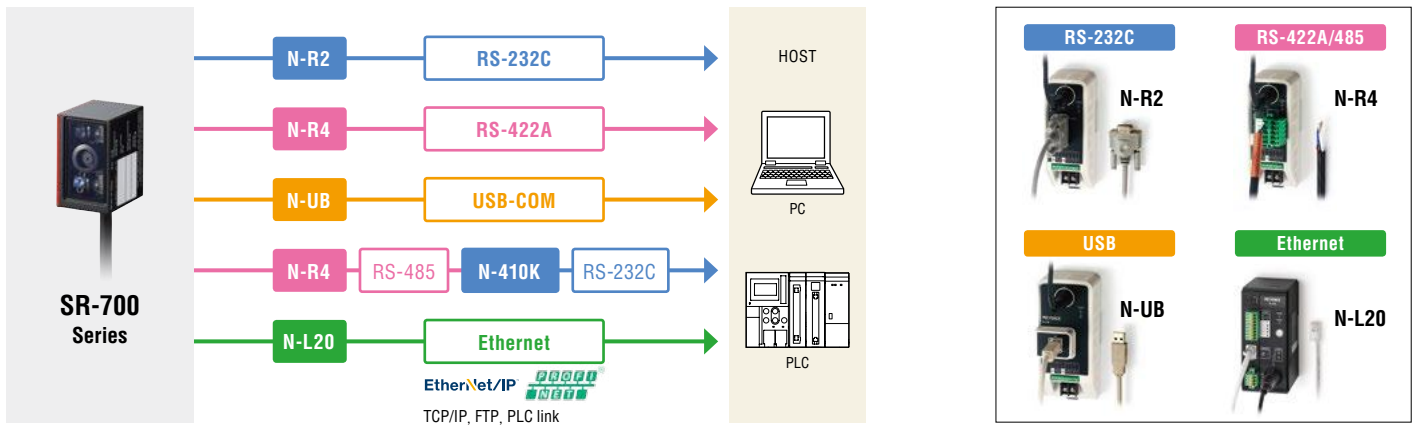
Reading rate **100%**
Matching level **75**



Reading rate **100%**
Matching level **43**

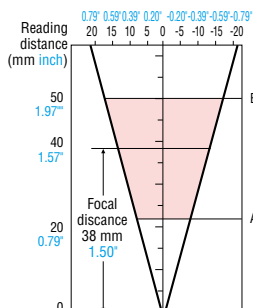


SYSTEM CONFIGURATION DIAGRAM

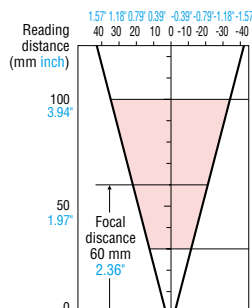


READING RANGE CHARACTERISTICS [TYPICAL]

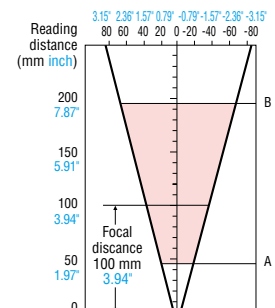
SR-700HA: HIGH-RESOLUTION TYPE			
Code type	Cell size	A	B
2D	0.08 0.003"	31 1.22"	39 1.54"
	0.127 0.005"	27 1.06"	42 1.66"
	0.25 0.010"	22 0.87"	50 1.97"



SR-700: CLOSE-RANGE TYPE			
Code type	Cell size Narrow bar width	A	B
2D	0.127 0.005"	50 1.97"	70 2.76"
	0.25 0.010"	40 1.57"	80 3.15"
Barcode	0.127 0.005"	46 1.81"	74 2.91"
	0.33 0.013"	30 1.18"	100 3.94"



SR-710: MIDDLE-RANGE TYPE			
Code type	Cell size Narrow bar width	A	B
2D	0.25 0.010"	65 2.56"	130 5.12"
	0.5 0.020"	45 1.77"	165 6.50"
Barcode	0.127 0.005"	75 2.95"	110 4.33"
	0.5 0.020"	45 1.77"	195 7.68"



SPECIFICATIONS

Main unit



Model		SR-700HA	SR-700	SR-710	
Type		High-resolution type	Close-range type	Middle-range type	
Laser pointer	Light source	Visible semiconductor laser (Wavelength: 660 nm)			
	Output	60 µW			
	Pulse duration	200 µs			
	Laser class	Class 1 Laser Product (IEC60825-1, FDA (CDRH) Part 1040.10 ⁻¹)			
Lighting	Light source: High intensity red LED				
Reading	Supported code	Barcode	*2	CODE39, ITF, 2of5 (Industrial 2of5), COOP 2of5, NW-7 (Codabar), CODE128, GS1-128, GS1 DataBar, CODE93, JAN/EAN/UPC, Trioptic CODE39, CODE39 Full ASCII, Pharmacode	
		2D code	QR, MicroQR, DataMatrix (ECC200), GS1 DataMatrix, PDF417, MicroPDF417, GS1 Composite (CC-A, CC-B, CC-C)		
	Minimum resolution	Barcode	-	0.127 mm 0.005"	0.127 mm 0.005"
		2D code	0.082 mm 0.003"	0.127 mm 0.005"	0.19 mm 0.008"
	Reading distance (typical examples)	Barcode	-	30 to 100 mm 1.18" to 3.94" (Narrow bar width = 0.33 mm 0.01")	45 to 195 mm 1.77" to 7.68" (Narrow bar width = 0.5 mm 0.02")
		2D code	22 to 50 mm 0.87" to 1.97" (Cell size = 0.25 mm 0.01")	40 to 80 mm 1.57" to 3.15" (Cell size = 0.25 mm 0.01")	45 to 165 mm 1.77" to 6.50" (Cell size = 0.5 mm 0.02")
Focal distance	38 mm 1.50"		60 mm 2.36"	100 mm 3.94"	
Field of view (Typical example at focal distance)	26 mm × 17 mm 1.02" × 0.67"		42 mm × 27 mm 1.65" × 1.06"	70 mm × 45 mm 2.76" × 1.77"	
I/O	Control input	2 inputs (IN1 and IN2), non-voltage input (contact, solid-state)			
	Control output	4 NPN open collector outputs (OUT1 to 4) 30 mA or less (24 V or less) Residual voltage 0.8 V or less, leakage current 0.1 mA or less			
	RS-232C	Transmission speed	9600, 19200, 38400, 57600, 115200 bps		
		Supported protocol	No-protocol, MC protocol, SYSWAY, KV STUDIO		
USB	USB 2.0 Full Speed compliant				
Environmental resistance	Enclosure rating	IP65			
	Ambient temperature	0 to +45°C 32 to 113 °F			
	Ambient storage temperature	-10 to +50°C 14 to 122 °F (No freezing)			
	Relative humidity	35 to 95% RH (No condensation)			
	Ambient luminance	Sunlight: 10000 lux, Incandescent lamp: 6000 lux, Fluorescent lamp: 2000 lux			
	Operating environment	No dust or corrosive gas present			
Vibration	10 to 55 Hz Double amplitude 1.5 mm 0.06"; 3 hours each in X, Y and Z directions				
Rating	Power voltage	5 VDC ±5%, -10%			
	Current consumption	630 mA or less			
Weight	Approx. 160 g (including cable)				

*1 The laser classification for FDA (CDRH) is implemented based on IEC60825-1 in accordance with the requirements of Laser Notice No.50.

*2 Barcodes which fit into the visual field can be read.

Communication unit



Model	N-R2	N-R4	N-UB	N-L20
Interface	RS-232C	RS-422A/485	USB-COM	Ethernet*
Code reader power supply	5 VDC ±5%, (650 mA)			
Terminal block	Input	2 inputs (IN1 and IN2)/Input type: Bidirectional voltage input/Maximum input voltage rating: 26.4 VDC/ Minimum ON voltage: 15 VDC/Maximum OFF current: 1 mA		
	Output	4 outputs (OUT1 to 4)/Output type: Photo MOS relay output/Output rated load: 30 VDC, 100 mA/ Leakage current when OFF: 0.1 mA or less/Residual voltage when ON: 1 V or less		
Environmental resistance	Ambient temperature/Relative humidity	0 to +50°C/35 to 85% RH (No condensation)		
	Ambient storage temperature	-20 to +60°C -4 to 140 °F		
	Operating environment	No dust or corrosive gas present		
Vibration	10 to 55 Hz Double amplitude 1.5 mm 0.06" (N-L20: 0.3 mm 0.01"), 2 hours each in X, Y and Z directions			
Rating	Power voltage: 24 VDC (+10%, -20%)/Current consumption: 380 mA max.			
Weight	Approx. 135 g	Approx. 135 g (excluding connector)	Approx. 155 g	Approx. 150 g

*Supported protocol: TCP, UDP, FTP, BOOTP, EtherNet/IP™, PROFINET, KV STUDIO, MC protocol, OMRON PLC link.



CALL TOLL FREE TO CONTACT YOUR LOCAL OFFICE
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1-888-539-3623

www.keyence.com

SAFETY INFORMATION
Please read the instruction manual carefully in order to safely operate any KEYENCE product.

CONTACT YOUR NEAREST OFFICE FOR RELEASE STATUS

KEYENCE CORPORATION OF AMERICA

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KEYENCE CANADA INC.

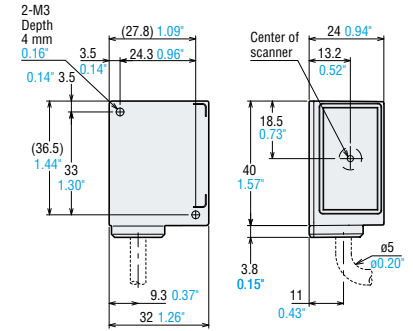
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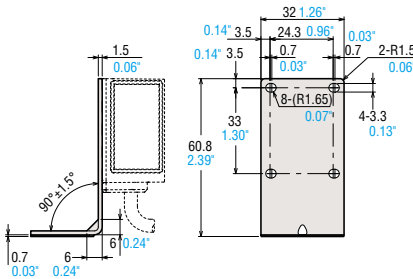
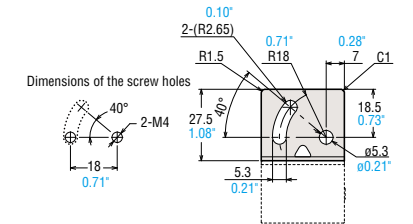
DIMENSIONS

Unit: mm inch

MAIN UNIT
SR-700/710/700HA



MOUNTING BRACKET



HEAD CABLE

