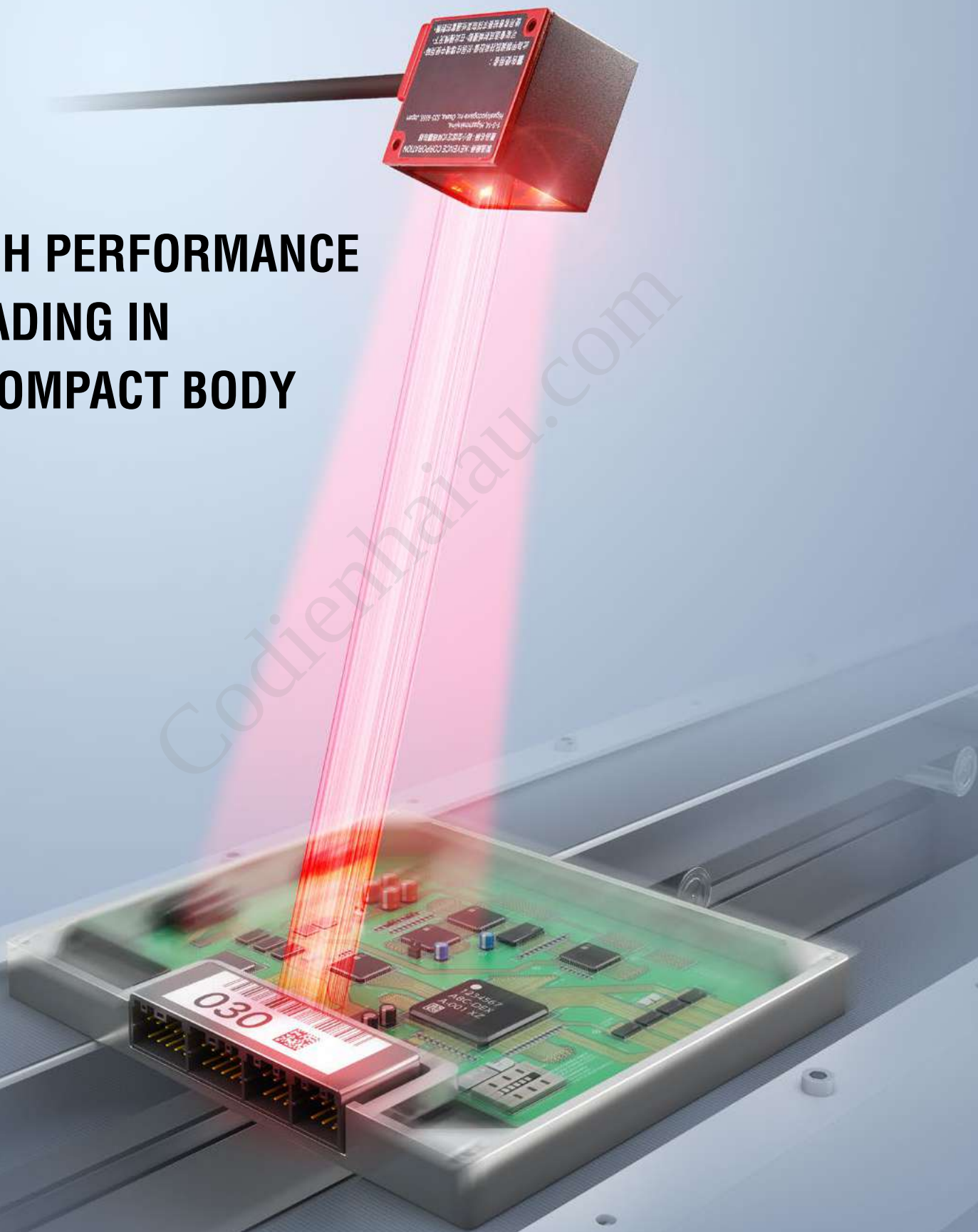
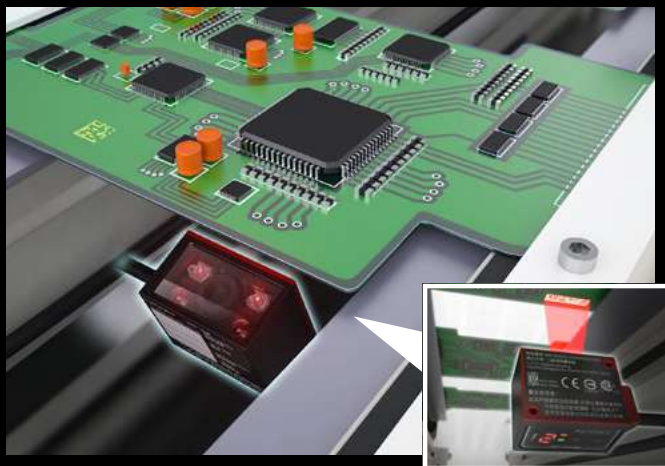


**HIGH PERFORMANCE
READING IN
A COMPACT BODY**





C O M P A C T B O D Y

ADVANCED PROCESSING FOR STABLE & HIGH-QUALITY READING

EXCELLENT READING CAPABILITY THROUGHOUT THE ENTIRE FIELD OF VIEW

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



READING IS NOT AFFECTED BY MOUNTING ANGLE

The new geometric correction enables reliable code reading even when the code appears distorted.



EASILY READS DAMAGED OR IRREGULARLY PRINTED CODES

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



Misaligned marking (PCB)

Curved part (Sticker)

Uneven background (Card board)

Black resin

PCB

POWERFUL HIGH SPEED READING

BURST READ FUNCTION:

Acquires up to 10 consecutive images. The decoding process is performed after the continuous imaging, allowing a higher speed code detection.

HIGH-SPEED IMAGE CAPTURE PERFORMANCE:

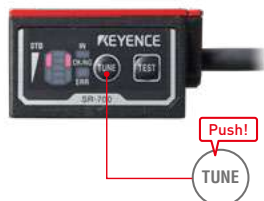
The built-in ultra-high-intensity LEDs and the high-speed digital signal processor (DSP) can capture moving objects effectively, even with a short exposure time.

(Reference: Max. 170 m/min with a KEYENCE test label)

EASY TUNING

Easily optimize reading settings

Optimum brightness and filter can be set automatically using the buttons on the main unit.



Tuning is also available through the setting software.
SR-H7W

TEST MODE PROVIDED

Visual indication of reading success

Pressing the TEST button starts the reading rate measurement mode.



IMAGE VERIFICATION FUNCTION

Verification based on image quality standards

OUTPUT DATA **AD-ERMT-55841:B**

TOTAL GRADE JUDGEMENT

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



MATCHING LEVEL JUDGING FUNCTION

Compare the print quality of scanned codes

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

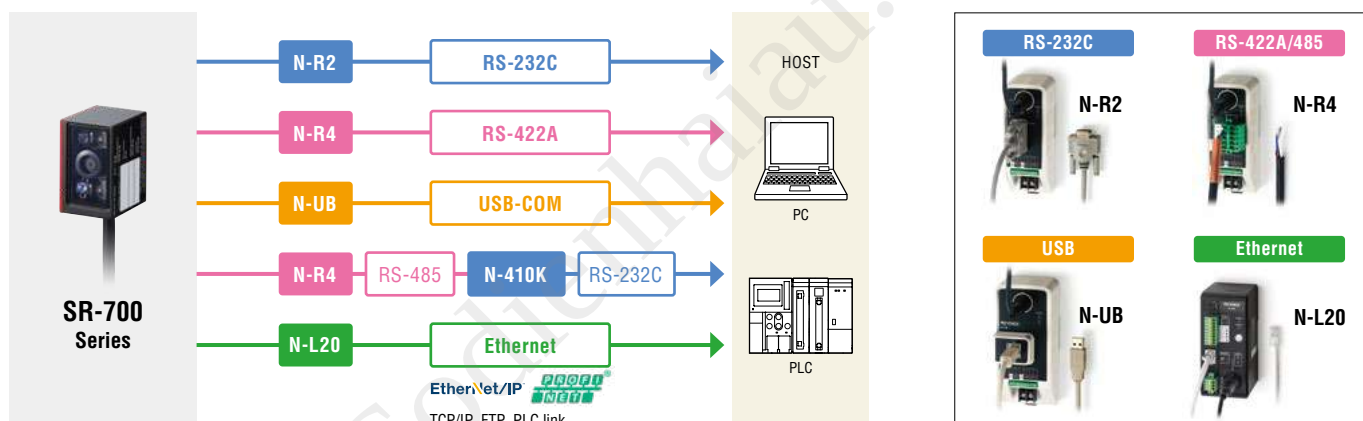
Reading rate **100%**
Matching level **75**



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



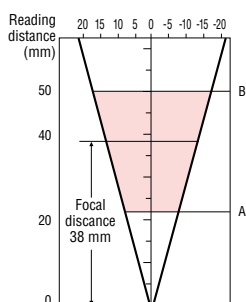
SYSTEM CONFIGURATION DIAGRAM



READING RANGE CHARACTERISTICS [TYPICAL]

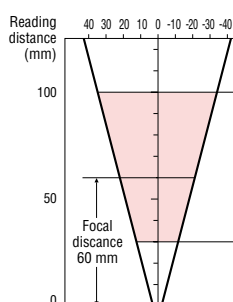
SR-700HA: HIGH-RESOLUTION TYPE

Code type	Cell size	A	B
2D	0.08	31	39
	0.127	27	42
	0.25	22	50



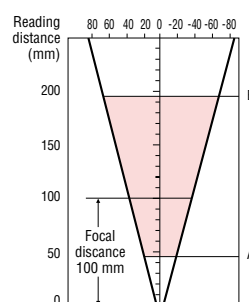
SR-700: CLOSE-RANGE TYPE

Code type	Cell size Narrow bar width	A	B
2D	0.127	50	70
	0.25	40	80
Barcode	0.127	46	74
	0.33	30	100



SR-710: MIDDLE-RANGE TYPE

Code type	Cell size Narrow bar width	A	B
2D	0.25	65	130
	0.5	45	165
	0.127	75	110
Barcode	0.5	45	195



SPECIFICATIONS

Main unit



Model*3			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 [†])		
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	0.127 mm
		2D code	0.082 mm	0.127 mm	0.19 mm
	Reading distance (typical examples)	Barcode	—	30 to 100 mm (Narrow bar width = 0.33 mm)	45 to 195 mm (Narrow bar width = 0.5 mm)
		2D code	22 to 50 mm (Cell size = 0.25 mm)	40 to 80 mm (Cell size = 0.25 mm)	45 to 165 mm (Cell size = 0.5 mm)
	Focal distance	38 mm		60 mm	100 mm
	Field of view (typical example at focal distance)	26 mm × 17 mm		42 mm × 27 mm	70 mm × 45 mm
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		
	Ambient storage temperature		-10 to +50°C (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, 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 fitted into the visual field range in size can be read.

*3 We have prepared the specific model for use in India only.
Please contact us if you need the details.

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			
	Operating environment	No dust or corrosive gas present			
	Vibration	10 to 55 Hz Double amplitude 1.5 mm (N-L20: 0.3 mm), 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

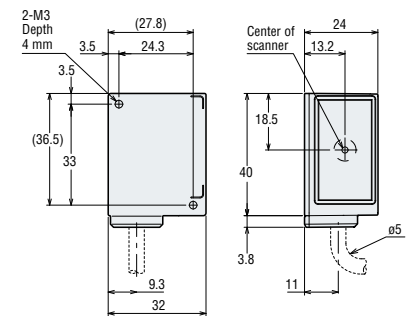
*Supported protocol: TCP, UDP, FTP, BOOTP, EtherNet/IP™, PROFINET, KV STUDIO, MC protocol, OMRON PLC link.

DIMENSIONS

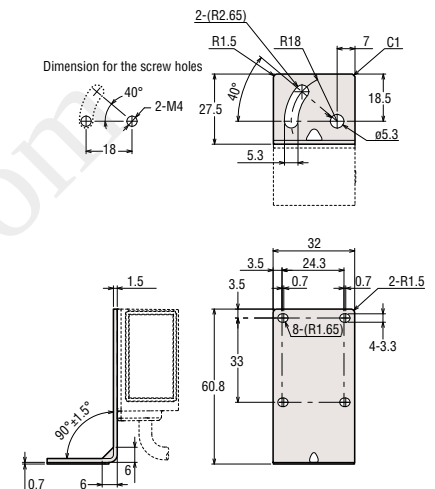
Unit: mm

MAIN UNIT

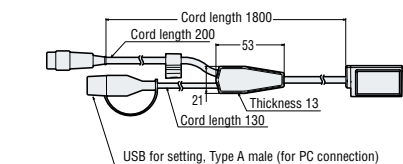
SR-700/710/700HA



MOUNTING BRACKET



HEAD CABLE



SAFETY INFORMATION

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

GLOBAL NETWORK

CONTACT YOUR NEAREST OFFICE FOR RELEASE STATUS

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CZECH REPUBLIC
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