

LR-ZH500CP

Rectangular w/ M8 connector type, 500 mm

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model		LR-ZH500CP*1
Type		U.C.D. Function Distance based laser sensor
Appearance		Rectangular
Output		PNP
Cable connection		M8 connector, 4-pin
Detectable distance		35 to 500 mm 1.38" to 19.69"(465 to 0)*2
Standard detectable deviation		35 to 180 mm 1.38" to 7.09": 9 mm 0.35" 180 to 300 mm 7.09" to 11.81": 25 mm 0.98" 300 to 400 mm 11.81" to 15.75": 40 mm 1.57" 400 to 500 mm 15.75" to 19.69": 50 mm 1.97"
Display resolution		1 to 5 (1 to 5 mm 0.04" to 0.20")
Spot size		Approx. ø3 mm ø0.12"
Response time		1.5 ms / 10 ms / 50 ms selectable
Light source	Type	Red laser (660 nm)
	Laser class	Class 2 laser product (IEC60825-1) Class II Laser product (FDA(CDRH) Part1040.10)
Function	Indicator	3-digit 7-segment display (white), output indicator (yellow), DATUM indicator (orange), 1 spot indicator (green)
	Timer	OFF/ON delay/OFF delay/One-shot
Specifications	Power voltage	10 to 30 VDC, including 10% ripple (P-P), Class 2 or LPS
	Power consumption	450 mW or less (18 mA or less at 24 V, 34 mA or less at 12 V)
	Control output	PNP Open collector, Applied voltage 30 VDC or less, Control current 100 mA or less, Residual voltage 1.2 V or less at 10 mA or less, 2 V or less at 10 to 100 mA
	Protection circuit	Protection against reverse power connection, output overcurrent, output surge, reverse output connection
	Output operation	Light-ON / Dark-ON selectable
	External input	Input time calibration: 35 ms or more ON, 35 ms or more OFF Laser emission stop: 2 ms or more ON, 20 ms or more OFF Short-circuit current NPN: 1 mA or less/PNP: 2 mA or less
Environmental resistance	Enclosure rating	IP68 (IEC60529), IP69K (DIN40050-9), NEMA 4X, 6P, 13 (NEMA250), ECOLAB*3, Diversey*3
	Insulation resistance	20 MΩ or more (500 VDC)
	Ambient light	Incandescent lamp: 10,000 lux or less Sunlight: 20,000 lux or less at 250 mm 9.84"*4 Incandescent lamp: 2,000 lux or less Sunlight: 4,000 lux or less at 500 mm 19.69"*4
	Ambient temperature	-10 to +50 °C 14 to 122 °F (No freezing)

	Storage temperature	-25 to +75 °C -13 to 167 °F (No freezing)
	Relative humidity	35 to 85 % RH (No condensation)
	Withstand voltage	1,000 VAC, 50/60 Hz, 1 min
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions
	Shock resistance	1,000 m/s², 6 times in each of the X, Y, and Z directions
Material		Case: SUS316L, Display: PES, Lens cover: PMMA with scratch-resistant coating, Packing/Connector ring: FKM
Accompanying items		Instruction Manual, FDA warning/certification/identification label, Laser warning/explanation labels
Weight		Approx. 55 g

*1 IO-Link specification v.1.1/COM2 (38.4 kbps) is supported. You can download a setup file from the KEYENCE website. If using the product in an environment in which downloading files over the internet is not possible, contact your nearest KEYENCE office.
*2 Display readings can be used as a guide for the detecting distance. When the setting value is tuned, the readout shifts. When the value exceeds "-99", "-FF" is displayed.
*3 Have passed resistance tests with cleaning agents from multiple manufactures.
*4 When the response time is 10 ms

Dimensions

* Download CAD file or product manual for larger image/text and more detail.

lr-zh500c_dimension_01.gif

LR-ZH500CN/ZH500CP/ZH500C3P

