

LR-ZH490CB

M18 threaded mount w/ M12 connector type, 490 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-ZH490CB*1
Type		U.C.D. Function Distance based laser sensor
Appearance		M18 Threaded mount
Output		NPN/PNP selectable
Cable connection		M12 connector, 4-pin
Detectable distance		25 to 490 mm 0.98" to 19.29" (465 to 0)*2
Standard detectable deviation		25 to 170 mm 0.98" to 6.69": 9 mm 0.35" 170 to 290 mm 6.69" to 11.42": 25 mm 0.98" 290 to 390 mm 11.42" to 15.35": 40 mm 1.57" 390 to 490 mm 15.35" to 19.29": 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	NPN open collector/PNP Open collector selectable, 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 240 mm 9.45"*4 Incandescent lamp: 2,000 lux or less Sunlight: 4,000 lux or less at 490 mm 19.29"*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, Nut: SUS316L, Lock washer: SUS304
Accompanying items		Instruction Manual, FDA warning/certification/identification label, Laser warning/explanation labels
Weight		Approx. 75 g

*1 IO-Link specification v.1.1/COM2 (38.4 kbps) is supported. (LR-ZH490CB : Only when PNP output is selected.) 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.

