



LR-ZH490CB

M18 threaded mount w/ M12 connector type, 490 mm



SPECIFICATIONS

Model	LR-ZH490CB ¹	
Type	U.C.D. Function Distance based laser sensor	
Shape	M18 Threaded mount	
Output	NPN/PNP selectable	
Cable connection	M12 connector, 4-pin	
Detectable distance	25 to 490 mm (465 to 0) ²	
Standard detectable deviation	25 to 170 mm: 9 mm 170 to 290 mm: 25 mm 290 to 390 mm: 40 mm 390 to 490 mm: 50 mm	
Display resolution	1 to 5 (1 to 5 mm)	
Spot diameter	Approx. ø3 mm	
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
Rating	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)
Specifications	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 , Diversy 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 ⁴
		Incandescent lamp: 2,000 lux or less Sunlight: 4,000 lux or less at 490 mm ⁴
	Ambient temperature	-10 to +50 °C (No freezing)
	Storage temperature	-25 to +75 °C (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, 2 hours in each of the X, Y, and Z directions	
Shock resistance	1,000 m/s ² , 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	
Accessories	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.

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