

NEW PRODUCTS

HOKUYO

LASER SENSOR

LEX series CE

LONG DISTANCE/VISIBLE LASER BEAM WITH SMALL SPOT!

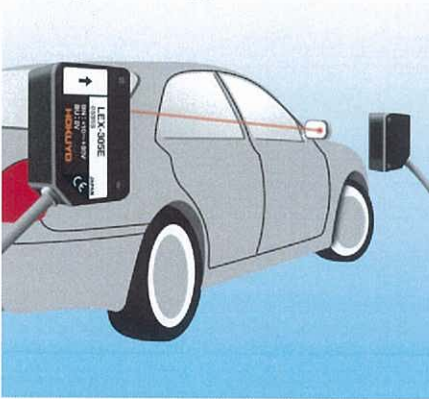
Generals

- * Visible Laser Beam
- * High Response Time, 0.25msec. or less
- * IP67, Water-Proof Structure
- * Close Installation Available



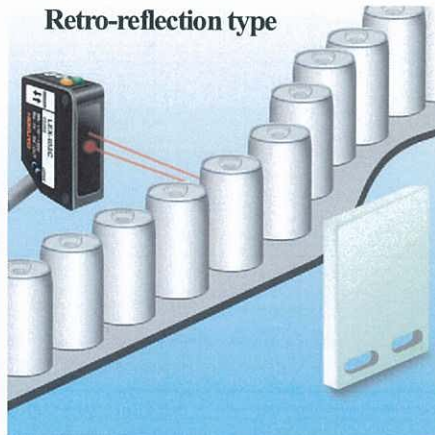
Applications

Through-beam type



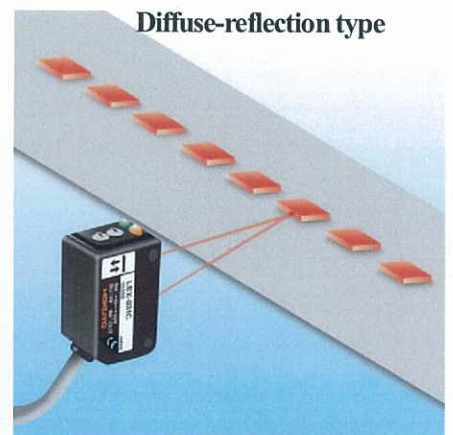
Objects with 2mm in diameter can be detected at 5m

Retro-reflection type



Small space between the objects in the high speed line can be detected

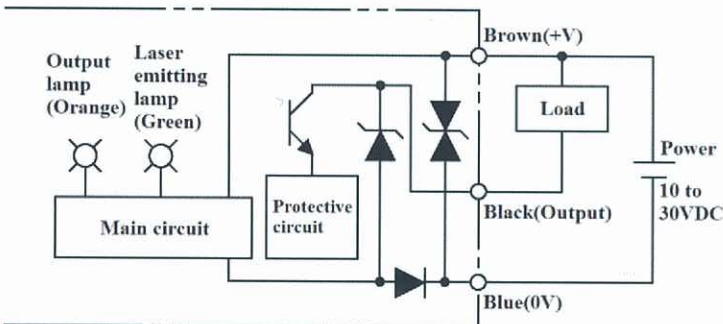
Diffuse-reflection type



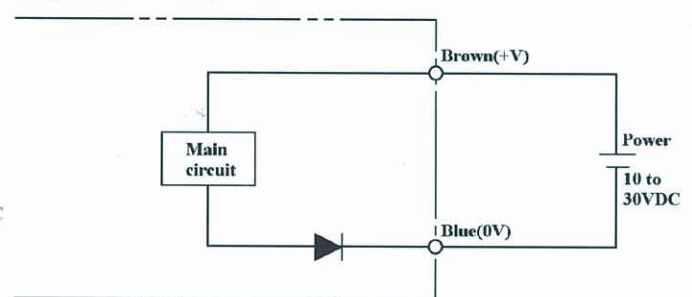
Small objects can be detected because of small spot and thin beam

Output circuit

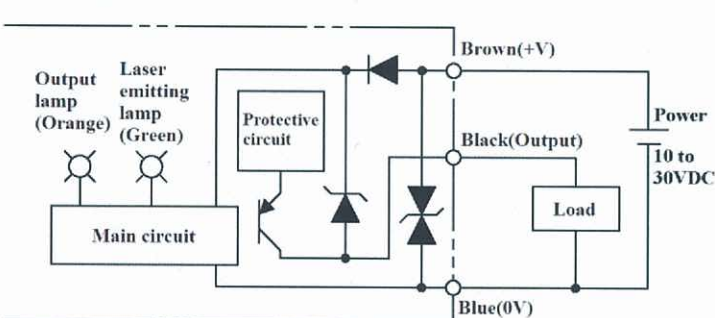
*NPN output



*Projector of through-beam



*PNP output

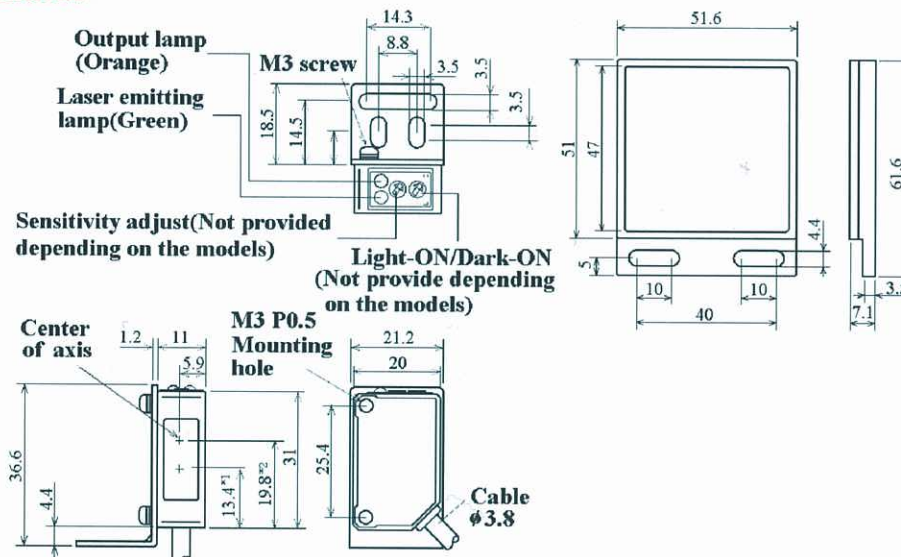


Specifications

Kinds	Through-beam		Retro-reflection		Diffuse-reflection	
	Model No.	LEX-305C	LEX-305A	LEX-103C	LEX-103A	LEX-031C
Output	NPN	PNP	NPN	PNP	NPN	PNP
Power source	10 to 30VDC(ripple 10% or less)					
Current consumption	15mA or less		20mA or less			
Light source	Visible semiconductor laser 650nm					
Laser class	JIS/IEC Class 1		JIS/IEC Class 2			
Max. power	390 μ W		3mW			
Life of laser beam	Approx. 50,000 hours(at 50 degrees C)					
Detectable distance	30m		0.1 to 10m *1		300mm *2	
Spot diameter *3	Approx. 30mm(at 30m)		Approx. 12mm(at 10m)		Approx. 1.5mm(at 300mm)	
Hysteresis					20% or less	
Response time	0.25msec or less					
Output	NPN/PNP open-collector output, 100mA, 30VDC or less, Residue voltage 1.8V 100mA or less					
Indicators	Laser emitting lamp(Green), output lamp(Orange), Green of the projector for through-beam type is stable lamp					
Operating mode	Changeover switch(L : Light-ON, D : Dark-ON)					
Connection	Cable type : 3.8mm in diameter, 2m long, 3-core(2-core for projector of through-beam type)					
Ambient illuminance	Incandescent lamp ; 3,000lux or less, sun light : 10,000lux or less					
Ambient temperature/humidity	-10 to +50 degrees C(-25 to +70 at stored), 35 to 85%RH(35 to 95 at stored), not icing, not condensing					
Vibration resistance	Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z direction					
Impact resistance	500m/s ² , each 3 time in X, Y and Z directions					
Withstand voltage	1,000VAC/min					
Isolation resistance	20M Ω or more(500VDC)					
Protective structure	IP67(IEC standard)					
Materials	Case : ABS resin, lens(front cover) : PMMA resin					
Weight	Projector : 45g, Receiver : 50g				50g	
Accessory	Bracket, screw		Bracket, screw, reflector		Bracket, screw	

*1 In case of the attached reflector, *2 In case of white paper with 100mm, *3 It is defined by $1/e^2$ (13.5%) of center strength.

External dimensions



Caution about laser beam

This product is emitting visible laser beam and is classified as Class 1/2 by JIS C6802/IEC Laser Safety standard. When exporting to USA, US laser control, FDA(Food and Drug Administration) is applied. Please ask us in details.

PHOTO SENSOR, LASER SENSOR, MICROWAVE SENSOR, COUNTER, AUTOMATIC DOOR



Warning

Don't look at optical parts directly or aim the laser beam at eyes. It may damage eyes or injury health.



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