

Range Finder Sensor LS-0940G-200C-15C-A7

Features

- High precision
- High measurement frequency
- More interface
- Friendly interface
- Small size
- Good real-time performance

Applications

- Proximity sensing
- Displacement sensing
- Water faucet
- Auto door
- Smart home, robot anti-collision system

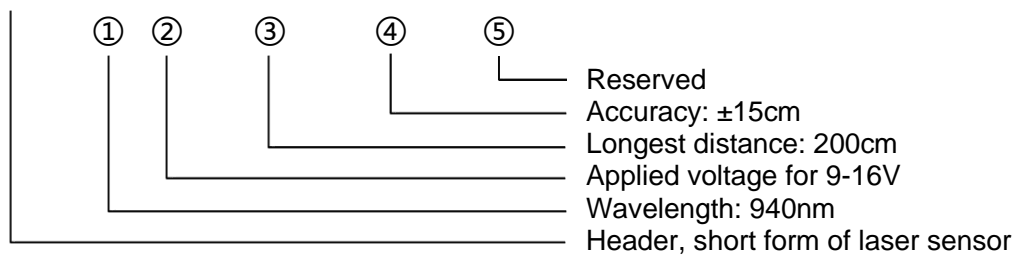


PRODUCT IDENTIFY

Part Number	Description
LS-0940G-200C-15C-A7	940nm VCSEL, Range finder sensor, 5~200cm, 100Hz

CODE RULES

e.g. LS - 0940G - 200C - 15C - A7



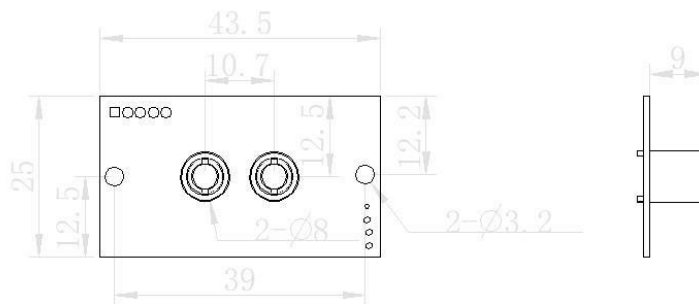
Description

Brightlaser offers all-purpose Laser proximity sensors which has completely solved the flaw of traditional infrared and the ultrasonic wave: low sensitivity, slow response, low reliability, big power consumption and so on; Providing with different sensing ranges of 0.3m, 0.8m and 2m. High quality optical design makes the proximity sensor small size, high measurement frequency, high reliability and fast heat dissipation, which are widely used in the field of proximity sensor, smart house, water faucet, auto-door, robot anti-collision system, etc.

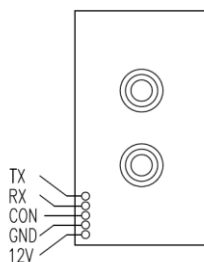
Specifications

Parameters	Typical values	Unit	Remarks
Model no.	LS-0940G-200M-15C-A7	-	
Range	5~200	cm	-
Accuracy	±15	cm	-
Repeatability	±15	cm	-
Resolution ratio	10	cm	-
Measured Frequency	100	Hz	-
Laser wavelength	940	nm	-
Divergence angle	< 5	mrad	-
Laser class	Class I	-	
Power voltage	9~16	V	-
Power consumption	< 0.5	W	-
Baud	115200	bps	-
Output interface	RS232	-	
Operating temperature	-30~60	°C	-
Storage temperature	-40~105	°C	-
Waterproof and dustproof	/	-	-
Housing material	Bare board (glass fiber + copper)	-	-
Dimensions	L43.5×W25×H12	mm	-
Installation size	39-M3	mm	See installation picture
Weight	20	g	-

Mechanical drawing (unit: mm)



RS232 Pin:



Output data format:

Host send format: frame(FF) + hexadecimal distance data frames(EE); Data unit: mm

For example: FF 01 03 EE

01 03 is expressed as: $01 * 256 + 03 = 259\text{mm}$

Distance is measured as: 259mm

The default state of this ranging is continuous measurement on power; the frequency is not adjustable.

Laser safety

The laser used in this device is classified as Class I, which is eye-safe one. Please refer to GB7247.1-2016 / IEC60825-1:2014 "Laser Product Safety: Part 1: Devices classifications, requirements and user's manual".

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Revision history

Revision	Date	Description
V.01	2020/01/07	The first official edition