

LR1200D23 · 905 NM

CLASS-1 D SERIES

LR1200D23

LASER CLASS

CLASS 1

IEC 60825-1

High-accuracy Ø23 tube module with IP67 lens protection, built for industrial and outdoor ranging. 4–1,200 m at ±1 m, 10 cm resolution, 2–10 Hz over UART-TTL.

MAX RANGE	ACCURACY	WEIGHT	INTERFACE
4–1,200 m	±1 m	≈ 20 g	UART-TTL

TECHNICAL SPECIFICATIONS

FULL SHEET

Laser wavelength	905 nm ± 5 nm
Laser divergence	< 6 mrad
Optical material	Resin aspheric lens
Receiver aperture	20 mm ± 0.05 mm
Ranging range	4–1,200 m
Ranging accuracy	$\delta \leq \pm 1\text{ m}$, $4\text{ m} \leq d < 1,000\text{ m}$
Ranging frequency	2–10 Hz
Interface	UART-TTL (customizable)
Baud rate	115200 bps
Supply voltage	3.3–5 V (recommended $\geq 3.5\text{ V}$)
Operating power	< 0.8 W continuous · $\approx 0.6\text{ W}$ average
Operating temperature	-20 to +55 °C (-40 °C custom)
Storage temperature	-40 to +60 °C
Protection rating	Lens cavity IP67
Laser safety class	IEC Class 1
Dimensions	Ø23 mm × 45.6 mm
Weight	≈ 20 g



APPLICATION FIT

- INDUSTRIAL RANGING
- OUTDOOR INSTRUMENTS
- SECURITY OPTICS

Standard 8-byte UART frame (0x55 0xAA header, function code, 4 data bytes, checksum); distance returned ×10 for a one-decimal reading. Full integration manual ships with samples.