905 nm

DTOF SENSORS AND RANGEFINDERS



PRODUCT CATALOG | SEPTEMBER 2026 | ERDI TECH LTD

23
MODELS

Optical
SPECIFICATIONS
Model level data

Electrical
LIMITS

Mechanical
DIMENSIONS
Model level data

Conditions
PERFORMANCE
As stated per model

Documents
REFERENCES
Matching source files

Model specifications and source references
Cover image: LR1000E2. E2-series source photograph, shared across range variants; reproduced in the LR1000E2 manual.

About this catalog

This catalog presents ERDI 905 nm DToF sensors and laser rangefinder modules by model. The product entries distinguish update rate, target conditions, interfaces and mechanical format; model numbers are not a statement of guaranteed measuring range.

How to read the specifications

Each entry belongs to the exact model named at the top of the page. A range, pulse energy or safety statement for one model does not apply to another model.

Read maximum range together with target size, reflectivity, visibility and any other stated test conditions. Values described as typical, minimum or maximum retain that meaning.

TBC indicates that a value or supplied configuration requires confirmation. Where documents disagree, the affected entry carries a note rather than silently combining different versions.

Product illustrations identify the source document and are not dimensional drawings. Confirm mounting geometry using the controlled drawing for the supplied configuration.

This is a catalog of key specifications. The individual manual remains necessary for installation, electrical limits, handling and safety. Never infer system-level eye safety from wavelength alone.

Compare range only under the stated target reflectivity, target size, visibility and lighting conditions. A model number is not a range guarantee.

Rates describe distance-output updates, not optical pulse repetition. Confirm the firmware and ordered configuration before integration.

Use model-specific drawings and interface documentation. Lens-cavity IP ratings do not establish protection for exposed electronics or the completed host.

Observe the model manual's laser-safety and civilian-use restrictions. A source-stated laser class is not certification of the finished equipment.

Photographs and renderings are identified in their captions. Shared family illustrations do not establish interchangeability.

Product documents and contact

Use the links on each model page to view its product record and supporting documentation. For a technical inquiry, include the exact model, required quantity, application conditions and the parameter you need confirmed.

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Model directory

DToF sensors and rangefinders

Model	Product group	Page
LR1000E2	DToF sensors and rangefinders	5
LR1000E4	DToF sensors and rangefinders	6
LR1200E2	DToF sensors and rangefinders	7
LR1200E4	DToF sensors and rangefinders	8
LR1500E2	DToF sensors and rangefinders	9
LR1500E4	DToF sensors and rangefinders	10
LR2000E2	DToF sensors and rangefinders	11
LR2000E4	DToF sensors and rangefinders	12
LRF1200A1	DToF sensors and rangefinders	13
LRF3000A1	DToF sensors and rangefinders	14
SPD1200N0	DToF sensors and rangefinders	15
SPD1200N2	DToF sensors and rangefinders	16

Each model entry includes key specifications, conditions and its document reference.

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Model directory continued

DToF sensors and rangefinders

Model	Product group	Page
SPD1200N4	DToF sensors and rangefinders	17
SPD1200N3	DToF sensors and rangefinders	18
SPD1200ZG	DToF sensors and rangefinders	19
LRF22VB	DToF sensors and rangefinders	20
LRF50VB	DToF sensors and rangefinders	21
LRF50H	DToF sensors and rangefinders	22
LRF100H	DToF sensors and rangefinders	23
LRF200H	DToF sensors and rangefinders	24
LRF300H	DToF sensors and rangefinders	25
LRF600H	DToF sensors and rangefinders	26
LRF1500H	DToF sensors and rangefinders	27

Each model entry includes key specifications, conditions and its document reference.

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LR1000E2



E2-series source photograph, shared across range variants; reproduced in the LR1000E2 manual.

Compact 905 nm OEM rangefinder with 4-1000 m standard ranging, adaptive 3-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1000 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±(1 + 0.001D) m (D > 400 m) — Whiteboard target, 90% reflectivity: 2.3 × 2.3 m for the first distance interval; 2.3 × 4.6 m for the second.
Measurement update rate	3-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 13.3 × 24.6 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≤ 1 W
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1000E2_User_Manual_EN.pdf, pages 1, 2, 3, 4.

View LR1000E2 product and documentation

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LR1000E4



E4-series configuration rendering from the LR1000E4 manual; not a model-specific photograph.

Compact 905 nm OEM rangefinder with 4-1000 m standard ranging, adaptive 3-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1000 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±(1 + 0.001D) m (D > 400 m) — Whiteboard target, 90% reflectivity: 2.3 × 2.3 m for the first distance interval; 2.3 × 4.6 m for the second.
Measurement update rate	3-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 14.2 × 26.2 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≤ 1 W
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

The overview separately states up to 1200 m at night with 10 km visibility. The standard table remains 4-1000 m.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1000E4_User_Manual_EN.pdf, pages 1, 2, 3, 4.

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LR1200E2



E2-series source photograph, shared across range variants; reproduced in the LR1200E2 manual.

Compact 905 nm OEM rangefinder with 4-1200 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1200 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (6 m ≤ D < 500 m); ±(0.5 + 0.001D) m (500 m ≤ D ≤ 1200 m) — Whiteboard target, 90% reflectivity: 2.3 × 2.3 m for the first distance interval; 2.3 × 4.6 m for the second.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 13.3 × 24.6 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≈ 1 W — Approximate value in the specification table.
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1200E2_User_Manual_EN.pdf, pages 1, 2, 3, 4.

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LR1200E4



E4-series configuration rendering from the LR1200E4 manual; not a model-specific photograph.

Compact 905 nm OEM rangefinder with 4-1200 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1200 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±(1 + 0.001D) m (D > 400 m) — Target reflectivity and size are not specified in the accuracy table.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 14.2 × 26.2 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≈ 1 W — Approximate value in the specification table.
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

The table separately lists a 1500 m nighttime maximum. Do not present it as the standard daylight range.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1200E4_User_Manual_EN.pdf, pages 1, 2, 3, 4.

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LR1500E2



E2-series source photograph, shared across range variants; reproduced in the LR1500E2 manual.

Compact 905 nm OEM rangefinder with 4-1500 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1500 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (6 m ≤ D < 500 m); ±(0.5 + 0.001D) m (500 m ≤ D ≤ 1500 m) — Whiteboard target, 90% reflectivity: 2.3 × 2.3 m for the first distance interval; 2.3 × 4.6 m for the second.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 13.3 × 24.6 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≈ 1 W — Approximate value in the specification table.
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1500E2_User_Manual_EN.pdf, pages 1, 2, 3, 4.

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LR1500E4



E4-series configuration rendering from the LR1500E4 manual; not a model-specific photograph.

Compact 905 nm OEM rangefinder with 4-1500 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-1500 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±(1 + 0.001D) m (D > 400 m) — Whiteboard target, 90% reflectivity: 2.3 × 2.3 m for the first distance interval; 2.3 × 4.6 m for the second.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +55 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 14.2 × 26.2 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Weight	≤10 g
Operating power consumption	≈ 1 W — Approximate value in the specification table.
Ingress protection	IP67 — Lens cavity only; not a blanket rating for the exposed board or the complete host product.

For civilian equipment only. The model manual prohibits military applications.

The table separately lists an 1800 m nighttime maximum. Do not present it as the standard daylight range.

IP67 applies to the lens cavity only. Use the model-specific drawing for dimensional tolerances.

Reference: LR1500E4_User_Manual_EN.pdf, pages 1, 2, 3, 4.

View LR1500E4 product and documentation

LR2000E2



E2-series source photograph, shared across range variants; reproduced in the LR2000E2 manual.

Compact 905 nm OEM rangefinder with 4-2000 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-2000 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±0.4% of D (400 m < D ≤ 2000 m) — Target reflectivity and size are not specified in the accuracy table.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 13.3 × 24.6 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Operating power consumption	≈ 1.2 W — Approximate value in the specification table.
Weight	Approximately 10 g — Model manual, page 3.

For civilian equipment only. The model manual prohibits military applications.

The model specification leaves the protection rating blank. Do not inherit IP67 from another E-series variant.

Reference: LR2000E2_User_Manual_EN.pdf, pages 1, 2, 3, 4.

View LR2000E2 product and documentation

LR2000E4



E4-series configuration rendering from the LR2000E4 manual; not a model-specific photograph.

Compact 905 nm OEM rangefinder with 4-2000 m standard ranging, adaptive 2-10 Hz output and UART-TTL communication.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	4-2000 m — Standard range; actual reach depends on target and environment.
Ranging accuracy	±1 m (D ≤ 400 m); ±0.4% of D (400 m < D ≤ 2000 m) — Target reflectivity and size are not specified in the accuracy table.
Measurement update rate	2-10 Hz (adaptive) — Completed distance outputs; not the optical pulse-repetition rate.
Communication interface	UART-TTL — Custom configurations are specified separately.
Supply voltage	3.3-5 V
Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +60 °C
Mechanical drawing dimensions	25.7 × 14.2 × 26.2 mm — Drawing nominal values. Observe the individual tolerances in the model drawing; do not machine from the rounded summary alone.
Operating power consumption	≈ 1.2 W — Approximate value in the specification table.
Weight	Approximately 10 g — Model manual, page 3.

For civilian equipment only. The model manual prohibits military applications.

The model specification leaves the protection rating blank. Do not inherit IP67 from another E-series variant.

Reference: LR2000E4_User_Manual_EN.pdf, pages 1, 2, 3, 4.

View LR2000E4 product and documentation

LRF1200A1



LRF1200A1 product photograph from its controlled specification.

LRF1200A1 is a 905 nm laser rangefinder module with a 5-1200 m building-target range, 1-3 Hz measurement rate, and 3.3 V TTL-level UART in a Ø23 × 40 mm cylindrical format.

Parameter	Specification
Laser wavelength	905 nm
Measurement range	5-1200 m — Building target.
Ranging accuracy	±1 m (5 m ≤ L ≤ 100 m); ±(1 + 0.004L) m (L > 100 m) — L is distance in meters.
Measurement update rate	1-3 Hz
Communication interface	UART, 3.3 V TTL
Supply voltage	3.3 ± 0.1 V DC
Operating temperature	-20 °C to +60 °C
Storage temperature	-55 °C to +65 °C
Weight	18 g
Operating power consumption	≤1.5 W
Ingress protection	IP67 — Lens only.
Dimensions	Ø23 × 40 mm — Cylindrical housing; use the model drawing for tolerances.

The 5-1200 m range is specified for a building target; accuracy changes above 100 m.

Supply is 3.3 ±0.1 V DC. IP67 applies to the lens area only.

For civilian equipment only; observe the manual's safety restrictions.

Reference: LRF1200A1_User_Manual_EN.pdf, pages 1, 2, 3, 5.

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LRF3000A1



LRF3000A1 product photograph from its controlled specification.

LRF3000A1 is a 905 ± 10 nm laser rangefinder module rated for at least 3000 m on a 70%-reflectivity building target in clear weather with visibility ≥4 km, with normal and long-range measurement modes.

Parameter	Specification
Laser wavelength	905 ± 10 nm
Measurement range	Minimum 1 m on a 90%-reflectivity whiteboard; maximum range ≥3000 m on a 70%-reflectivity building target — Clear weather; visibility ≥4 km for the maximum-range condition.
Ranging accuracy	±0.7 m (D ≤ 100 m); ±(0.7 + 0.003D) m (D > 100 m) — Building target; D is distance in meters.
Measurement update rate	Normal: 3-10 Hz; long-range: 1-10 Hz — Adaptive in both modes.
Communication interface	UART, 3.3 V TTL
Supply voltage	3.3-5 V DC — Ripple <0.1 V.
Operating temperature	-20 °C to +60 °C
Storage temperature	-25 °C to +75 °C
Weight	12 ± 0.5 g
Operating power consumption	≤1.8 W at +25 °C; ≤1.6 W at -20 °C — +3.3 V input. These entries do not extend the operating-temperature range.
Ingress protection	IP67 — Module rating stated in the model manual; the host enclosure requires its own assessment.
Mechanical envelope	Refer to the model-specific dimensioned drawing (manual page 5) — No unqualified overall length × width × height is provided.

Minimum distance is 1 m on a 90%-reflectivity whiteboard; ≥3000 m applies to a 70%-reflectivity building in clear weather, visibility ≥4 km.

Normal and long-range output modes are adaptive. Use the model drawing for the mounting envelope.

For civilian equipment only; observe the manual's safety restrictions.

Reference: LRF3000A1_User_Manual_EN.pdf, pages 1, 2, 3, 5.

View LRF3000A1 product and documentation

SPD1200N0



SPD1200N0 controlled product rendering; not a physical-product photograph.

Compact 905 nm OEM rangefinder with UART-TTL communication and 0.2-1200 m source-stated range. Circular housing with sealing groove.

Parameter	Specification
Laser wavelength	905 nm ±5 nm
Beam divergence	<4.5 mrad
Ranging distance	0.2-1200 m; maximum 1500 m at night — strong sunlight or low visibility may reduce range
Ranging accuracy	±0.3 m (D ≤100 m); ±0.3 m + D × 0.7‰ (100 m < D <1200 m)
Measurement frequency	2-15 Hz or 4-15 Hz, adaptive — both alternatives appear in the same formal source row
Communication interface	UART-TTL (customizable)
Supply voltage	3.3-5 V
Operating power	Average ≈0.45 W; maximum ≤0.75 W
Operating temperature	-20°C to +60°C
Dimensions	Diameter 15.7 × 21.3 mm (round, with sealing groove)
Weight	≈5 g
Protection rating	IP67 inside lens chamber — Source-stated classification or rating; not independently certified by this page

The source lists 2-15 Hz or 4-15 Hz adaptive output; confirm the supplied firmware/configuration.

The maximum 1500 m value applies at night; strong sunlight or low visibility may reduce range.

IP67 covers the lens chamber only. Observe the manual's civilian-use restrictions.

Reference: SPD1200N0.pdf, pages 1, 3.

View SPD1200N0 product and documentation

SPD1200N2



SPD1200N2 product photograph from its controlled specification.

Compact 905 nm OEM rangefinder with UART-TTL communication and 0.2-1200 m source-stated range. 7.2 × 14.7 × 21.3 mm square housing.

Parameter	Specification
Laser wavelength	905 nm ±5 nm
Beam divergence	<4.5 mrad
Ranging distance	0.2-1200 m; maximum 1500 m at night — strong sunlight or low visibility may reduce range
Ranging accuracy	±0.3 m (D ≤100 m); ±0.3 m + D × 0.7‰ (100 m < D <1200 m)
Measurement frequency	2-15 Hz or 4-15 Hz, adaptive — both alternatives appear in the same formal source row
Communication interface	UART-TTL (customizable)
Supply voltage	3.3-5 V
Operating power	Average ≈0.45 W; maximum ≤0.75 W
Operating temperature	-20°C to +60°C
Dimensions	7.2 × 14.7 × 21.3 mm (square)
Weight	≤5 g
Protection rating	IP67 inside lens chamber — Source-stated classification or rating; not independently certified by this page

The source lists 2-15 Hz or 4-15 Hz adaptive output; confirm the supplied firmware/configuration.

The maximum 1500 m value applies at night; strong sunlight or low visibility may reduce range.

IP67 covers the lens chamber only. Observe the manual's civilian-use restrictions.

Reference: SPD1200N2.pdf, pages 1, 3.

View SPD1200N2 product and documentation

SPD1200N4



SPD1200N4 controlled product rendering; not a physical-product photograph.

Compact 905 nm OEM rangefinder with UART-TTL communication and 0.2-1200 m source-stated range. Confirm the complete mechanical envelope before integration.

Parameter	Specification
Laser wavelength	905 nm ±5 nm
Beam divergence	<4.5 mrad
Ranging distance	0.2-1200 m; maximum 1500 m at night — strong sunlight or low visibility may reduce range
Ranging accuracy	±0.3 m (D ≤100 m); ±0.3 m + D × 0.7‰ (100 m < D <1200 m)
Measurement frequency	2-15 Hz or 4-15 Hz, adaptive — both alternatives appear in the same formal source row
Communication interface	UART-TTL (customizable)
Supply voltage	3.3-5 V
Operating power	Average ≈0.45 W; maximum ≤0.75 W
Operating temperature	-20°C to +60°C
Dimensions	7.7 × 16.7 mm (only two source-stated dimensions)
Weight	≈5 g
Protection rating	IP67 inside lens chamber — Source-stated classification or rating; not independently certified by this page

The source lists 2-15 Hz or 4-15 Hz adaptive output; confirm the supplied firmware/configuration.

The maximum 1500 m value applies at night; strong sunlight or low visibility may reduce range.

Only 7.7 × 16.7 mm is specified; the third dimension requires confirmation. IP67 covers the lens chamber only.

Reference: SPD1200N4.pdf, pages 1, 3.

View SPD1200N4 product and documentation

SPD1200N3



SPD1200N3 product photograph from its controlled specification.

Compact 3-1000 m ranging module with single-photon reception, laser indication and a 3.3 V TTL serial interface for OEM integration.

Parameter	Specification
Laser wavelength	905 ± 5 nm — Ranging emitter; not the indication-laser wavelength
Measurement range	3-1000 m — Building target; visibility ≥10 km; humidity ≤60%
Ranging accuracy	±0.5 m at d ≤100 m; ±(0.5 m + 0.00075d) for 100 m < d <1000 m — d is distance in meters; no additional endpoint accuracy inferred
Measurement update rate	2.5-15 Hz — Varies with distance; not the laser pulse repetition rate
Communication interface	UART, 3.3 V TTL; customizable
Supply voltage	DC 3.3-5 V — Does not imply 5 V tolerance on serial inputs
Average power consumption	≤0.5 W
Operating temperature	-20 to +60 °C
Nominal body dimensions / material	14 × 18 × 22.3 mm; rectangular; 6061 aluminum alloy — Use the controlled mechanical drawing and tolerances
Weight	≤6 g
Ingress protection	IP67 within the lens cavity only — Not a whole-module or finished-equipment rating
Beam divergence	<6 mrad

Rated 3-1000 m on a building target at visibility ≥10 km and humidity ≤60%; do not infer 1200 m from the model number.

CAD depth is 21.3 mm versus 22.3 mm nominal in the specification; obtain engineering confirmation before enclosure release.

Indicator wavelength, power, safety class and commands remain unspecified. Confirm configuration; IP67 applies to the lens cavity only.

Reference: SPD1200N3_User_Manual_EN_v1.1_20260907.pdf, pages 1, 2, 3, 4.

View SPD1200N3 product and documentation

SPD1200ZG



SPD1200ZG controlled product rendering; not a physical-product photograph.

Compact 0.1-1200 m pulsed time-of-flight ranging with SPAD-based single-photon reception, configurable inertial angle reporting, and relative 3D point-to-point measurement.

Parameter	Specification
Laser wavelength	905 ± 5 nm
Measurement range	0.1-1200 m — Visibility ≥10 km; humidity ≤60%; building target
Ranging accuracy	±0.5 m at d ≤100 m; ±(0.5 m + 0.0007d) for 100 m < d <1200 m
Measurement update rate	2-10 Hz
Communication interface	UART-TTL; customizable
Supply voltage	3.3-5 V
Average power consumption	≤0.7 W
Operating temperature	-20 to +60 °C
Nominal module body	7.2 × 14.7 × 22.3 mm; rectangular — The complete installation envelope includes protruding features; use the current mechanical drawing.
Weight	≤5 g
Ingress protection	IP67 within the lens cavity
X/Y tilt accuracy	0.3°

Heading accuracy ≤0.75° applies only within a 10 s dynamic interval; integration error accumulates. Relative heading is not absolute north.

Nominal 7.2 × 14.7 × 22.3 mm body dimensions exclude protrusions; the drawing shows 9.8 ±0.2 mm across mounting features.

IP67 covers the lens cavity only. Confirm the supplied angle-reporting configuration and UART voltage requirements.

Reference: SPD1200ZG_User_Manual_EN_20260906.pdf, pages 1, 3, 4, 5.

View SPD1200ZG product and documentation

LRF22VB



LRF22VB product photograph from its controlled specification.

905 nm single-point DToF sensor with 0.05-20 m (90% reflectivity) and 0.05-10 m (10% reflectivity). 200 Hz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-20 m (90% reflectivity); 0.05-10 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	200 Hz (alternatives: 100/50/20/10/1 Hz)
Accuracy	±5 cm (<5 m); 1% (≥5 m)
Repeatability	±30 mm
Ambient-light immunity	8 m at 60 klx
Supply voltage	3-3.6 V DC
Average power consumption	<0.2 W
Communication interface	UART/IIC
Dimensions	21 × 15 × 7.43 mm
Weight	1.5 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

Source notes mention 25°C indoor tests and a 90% reflector outdoors at 25°C; unmarked row-to-footnote links require confirmation.

No enclosure protection rating is specified.

Reference: LRF22VB.pdf, pages 1, 2.

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LRF50VB



LRF50VB product photograph from its controlled specification.

905 nm single-point DToF sensor with 0.05-50 m (90% reflectivity) and 0.05-20 m (10% reflectivity). 100 Hz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-50 m (90% reflectivity); 0.05-20 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	100 Hz
Accuracy	±5 cm (<5 m); 1% (≥5 m)
Repeatability	±30 mm
Ambient-light immunity	10 m at 60 klx
Supply voltage	3.3-5 V DC
Average power consumption	0.2 W
Communication interface	UART/IIC
Dimensions	18.7 × 11.8 × 13.3 mm
Weight	1.3 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

Source notes mention 25°C indoor tests and a 90% reflector outdoors at 25°C; unmarked row-to-footnote links require confirmation.

No enclosure protection rating is specified.

Reference: LRF50VB.pdf, pages 1, 2.

View LRF50VB product and documentation

LRF50H



LRF50H product photograph from its controlled specification.

905 nm single-point DToF sensor with 0.05-50 m (90% reflectivity) and 0.05-15 m (10% reflectivity). 20 Hz-10 kHz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-50 m (90% reflectivity); 0.05-15 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity. The source marks this parameter as measured at 25°C in an indoor environment.
Measurement frequency	20 Hz-10 kHz (default: 1 kHz)
Accuracy	±5 cm (<10 m); 1% (≥10 m), 2σ
Repeatability	±5 cm
Ambient-light immunity	45 m at 100 klx — 90% reflector in an outdoor environment at 25°C, per source footnote.
Supply voltage	9-36 V DC
Average power consumption	0.8 W
Communication interface	UART
Dimensions	38 × 20 × 30 mm
Weight	15 ± 2 g
Operating temperature	-20°C to +60°C (no condensation; indication red light automatically turns off below -20°C)

The formal selectable output interval is 20 Hz-10 kHz; 1 kHz is the default.

Range tests are specified indoors at 25°C; 45 m at 100 klx uses a 90% reflector outdoors at 25°C.

The 650 nm indicator is Class 2, distinct from the Class 1 ranging emitter. No enclosure protection rating is specified.

Reference: LRF50H.pdf, pages 1, 2, 3.

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LRF100H



LRF100H product photograph from its controlled specification.

905 nm single-point DToF sensor with 0.05-100 m (90% reflectivity) and 0.05-30 m (10% reflectivity). 20 Hz-10 kHz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-100 m (90% reflectivity); 0.05-30 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	20 Hz-10 kHz (default: 1 kHz)
Accuracy	±10 cm (<10 m); 1% (≥10 m)
Repeatability	±5 cm (<10 m); ±10 cm at 100 m
Ambient-light immunity	100 klx
Supply voltage	9-36 V DC
Average power consumption	0.7 W
Communication interface	UART, IIC
Dimensions	33 × 34 × 18 mm
Weight	20 ± 2 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

No enclosure protection rating is specified.

Reference: LRF100H.pdf, pages 1, 2.

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LRF200H



LRF200H product photograph from its controlled specification.

905 nm single-point DToF sensor with 0.05-200 m (90% reflectivity) and 0.05-70 m (10% reflectivity). 20 Hz-10 kHz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-200 m (90% reflectivity); 0.05-70 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	20 Hz-10 kHz (default: 1 kHz)
Accuracy	±10 cm (<10 m); 1% (≥10 m)
Repeatability	±5 cm (<10 m); ±10 cm at 200 m
Ambient-light immunity	100 klx
Supply voltage	9-36 V DC
Average power consumption	0.7 W
Communication interface	UART, IIC
Dimensions	33 × 34 × 18 mm
Weight	20 ± 2 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

No enclosure protection rating is specified.

Reference: LRF200H.pdf, pages 1, 2.

View LRF200H product and documentation

LRF300H



Shared H-series housing photograph reproduced in the LRF300H specification; confirm model markings.

905 nm single-point DToF sensor with 0.05-300 m (90% reflectivity) and 0.05-100 m (10% reflectivity). 1 kHz or 50 Hz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-300 m (90% reflectivity); 0.05-100 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	1 kHz or 50 Hz (automatically switched to match reflected-signal intensity)
Accuracy	±10 cm (<10 m); 1% (≥10 m)
Repeatability	±5 cm (<10 m); ±10 cm at 300 m
Ambient-light immunity	100 klx
Supply voltage	9-36 V DC
Average power consumption	1.2 W
Communication interface	UART, IIC
Dimensions	33 × 34 × 18 mm
Weight	20 ± 2 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

Output switches automatically between 1 kHz and 50 Hz according to reflected-signal intensity.

No enclosure protection rating is specified.

Reference: LRF300H.pdf, pages 1, 2.

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LRF600H



Shared H-series housing photograph reproduced in the LRF600H specification; confirm model markings.

905 nm single-point DToF sensor with 0.05-600 m (90% reflectivity) and 0.05-200 m (10% reflectivity). 1 kHz or 50 Hz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-600 m (90% reflectivity); 0.05-200 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	1 kHz or 50 Hz (automatically switched to match reflected-signal intensity)
Accuracy	±10 cm (<10 m); 1% (≥10 m)
Repeatability	±5 cm (<10 m); ±50 cm at 600 m
Ambient-light immunity	100 klx
Supply voltage	9-36 V DC
Average power consumption	1.2 W
Communication interface	UART/IIC
Dimensions	33 × 34 × 18 mm
Weight	20 ± 2 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

Output switches automatically between 1 kHz and 50 Hz according to reflected-signal intensity.

No enclosure protection rating is specified.

Reference: LRF600H.pdf, pages 1, 2.

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LRF1500H



Shared H-series housing photograph reproduced in the LRF1500H specification; confirm model markings.

905 nm single-point DToF sensor with 0.05-1500 m (90% reflectivity) and 0.05-300 m (10% reflectivity). 1 kHz or 50 Hz distance output.

Parameter	Specification
Central wavelength	905 nm
Measurement range	0.05-1500 m (90% reflectivity); 0.05-300 m (10% reflectivity) — The two source values remain bound to their stated target reflectivity.
Measurement frequency	1 kHz or 50 Hz (automatically switched to match reflected-signal intensity)
Accuracy	±10 cm (<10 m); 1% (≥10 m)
Repeatability	±5 cm (<10 m); ±100 cm at 1500 m
Ambient-light immunity	100 klx
Supply voltage	9-36 V DC
Average power consumption	1.2 W
Communication interface	UART/IIC
Dimensions	33 × 34 × 18 mm
Weight	20 ± 2 g
Operating temperature	-20°C to +60°C

Keep the 90% and 10% target-reflectivity range ratings separate.

Output switches automatically between 1 kHz and 50 Hz according to reflected-signal intensity.

No enclosure protection rating is specified.

Reference: LRF1500H.pdf, pages 1, 2.

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