

1064 nm

RANGING AND DESIGNATION SYSTEMS



PRODUCT CATALOG | SEPTEMBER 2026 | ERDI TECH LTD



9

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: LDR20K1. Illustration reproduced from the LDR20K1 source document.

About this catalog

This catalog identifies ERDI 1064 nm ranging and designation systems and summarizes the supplied model specifications. It does not contain operating sequences, laser codes or system integration instructions. Technical and supply suitability require separate review.

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.

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.

erdicn.com

sales@erdicn.com

Model directory

Ranging and designation systems

Model	Product group	Page
LDR20K1	Ranging and designation systems	4
LDR25K1	Ranging and designation systems	5
LDR40K1	Ranging and designation systems	6
LDR40K3	Ranging and designation systems	7
LDR60K1	Ranging and designation systems	8
LDR80K1	Ranging and designation systems	9
LDR80K2	Ranging and designation systems	10
LR120K1	Ranging and designation systems	11
LR160	Ranging and designation systems	12

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

LDR20K1



Illustration reproduced from the LDR20K1 source document.

LDR20K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 nm
Pulse energy	≥20 mJ
Pulse width	10 ±5 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥3000 m; target conditions not stated in the specification excerpt
Ranging accuracy	±1 m
Dimensions	≤92 × 67 × 53 mm
Mass	≤290 g
Input voltage	20-28 V DC
Operating temperature	-40 to +55 °C

Reference: LDR20K1.pdf, pages 1, 2, 3.

[View LDR20K1 product and documentation](#)

LDR25K1

LDR25K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 ±3 nm
Average pulse energy	≥25 mJ
Minimum measuring distance	≤120 m
Maximum measuring distance	≥5000 m; target conditions not stated in the specification excerpt
Ranging accuracy	±2 m
Dimensions	≤68 × 52 × 90 mm
Mass	≤380 g
Input voltage	20-28 V DC
Operating temperature	-40 to +55 °C

The product illustration is withheld pending model-image verification.

Reference: LDR25K1.pdf, pages 1, 2, 3.

[View LDR25K1 product and documentation](#)

LDR40K1



Illustration reproduced from the LDR40K1 source document.

LDR40K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 $\pm$ 3 nm
Average pulse energy	$\geq$ 40 mJ
Pulse width	15 $\pm$ 5 ns
Minimum measuring distance	$\leq$ 100 m
Maximum measuring distance	$\geq$ 6000 m; 2.3 $\times$ 4.6 m target, reflectivity 0.2, visibility 10 km
Ranging accuracy	$\pm$ 2 m (1 σ)
Dimensions	$\leq$ 115 $\times$ 65 $\times$ 60 mm
Mass	$\leq$ 460 g
Input voltage	20-28 V DC
Operating temperature	-40 to +60 °C

Reference: LDR40K1.pdf, pages 1, 2, 3.

[View LDR40K1 product and documentation](#)

LDR40K3



Illustration reproduced from the LDR40K3 source document.

LDR40K3 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 nm
Pulse energy	≥40 mJ
Pulse width	6-15 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥5000 m; target conditions not stated in the ranging specification
Ranging accuracy	±2 m
Mass	≤420 g
Input voltage	26 ±4 V DC
Operating temperature	-40 to +60 °C in environmental section; see note
Storage temperature	-40 to +70 °C

The source also describes an active-mode upper limit of +80 °C elsewhere. Confirm the supplied configuration; this catalog does not adopt that higher limit.

Dimensions require confirmation against the controlled mechanical drawing.

Reference: LDR40K3.pdf, pages 1, 2, 3, 5.

[View LDR40K3 product and documentation](#)

LDR60K1

LDR60K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 ±3 nm
Average pulse energy	≥60 mJ
Pulse width	15 ±5 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥10 km, large target; source operating conditions: 2.3 × 2.3 m target, reflectivity ≥0.2, visibility ≥20 km
Ranging accuracy	±2 m
Dimensions	≤116 × 52 × 96 mm
Mass	≤680 g
Input voltage	18-32 V DC
Operating temperature	-40 to +55 °C

The product illustration is withheld pending model-image verification.

Reference: LDR60K1.pdf, pages 1, 2, 3.

[View LDR60K1 product and documentation](#)

LDR80K1



Illustration reproduced from the LDR80K1 source document.

LDR80K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 nm
Average pulse energy	≥80 mJ over the source-defined cycle
Pulse width	15 ±5 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥10 km; 2.3 × 2.3 m target, reflectivity ≥0.2, visibility ≥23 km, humidity ≤70%
Ranging accuracy	≤5 m
Dimensions	≤116 × 52 × 96 mm
Mass	≤680 g
Input voltage	18-32 V DC

Reference: LDR80K1.pdf, pages 1, 2, 3.

[View LDR80K1 product and documentation](#)

LDR80K2

LDR80K2 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 ±1 nm
Pulse energy	TBC; the source table has an incomplete unit
Pulse width	15 ±5 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥15 km; 2.3 × 2.3 m target, reflectivity ≥0.2, visibility ≥20 km, humidity ≤70%
Ranging accuracy	≤5 m
Dimensions	≤150 × 102 × 55 mm
Mass	≤850 g
Input voltage	20-28 V DC
Operating temperature	-40 to +60 °C

The pulse-energy table reads “≥80m” without a complete unit. The catalog does not turn that incomplete value into a guaranteed energy specification.

Reference: LDR80K2.pdf, pages 1, 2, 3.

[View LDR80K2 product and documentation](#)

LR120K1



Illustration reproduced from the LR120K1 source document.

LR120K1 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 ±3 nm
Pulse energy	≥120 mJ at the highest source-listed level
Pulse width	15 ±5 ns
Minimum measuring distance	≤300 m
Maximum measuring distance	≥30 km: large target, visibility ≥45 km, reflectivity 0.2, humidity ≤80%; ≥20 km at visibility ≥30 km
Ranging accuracy	±1 m
Dimensions	≤75 × 90 × 220 mm
Mass	≤2 kg
Input voltage	18-32 V DC
Operating temperature	-40 to +60 °C

Reference: LR120K1.pdf, pages 1, 2, 3.

[View LR120K1 product and documentation](#)

LR160



Illustration reproduced from the LR160 source document.

LR160 combines laser ranging and designation in the supplied product record. The table below is a summary of its stated specifications.

Parameter	Specification
Wavelength	1064 $\pm$ 1 nm
Source-listed energy levels	85 mJ and 160 mJ
Pulse width	10-15 ns
Minimum measuring distance	TBC; 0.2 m in summary table conflicts with $\leq$ 300 m in detailed performance
Maximum measuring distance	$\geq$ 30 km; 10 $\times$ 10 $\times$ 8 m target, reflectivity $\geq$ 0.2, visibility $\geq$ 30 km, humidity $\leq$ 70%
Ranging error	$\leq$ 5 m
Dimensions	$\leq$ 306 $\times$ 145 $\times$ 94 mm
Mass	$\leq$ 3.3 kg
Input voltage	TBC; source lists both 24 $\pm$ 4 V DC and 24 V DC $\pm$ 10%
Operating temperature	-40 to +60 $^{\circ}$ C

The minimum-range and power-supply conflicts require written confirmation before specification release.

Reference: LR160.pdf, pages 1, 2, 3.

[View LR160 product and documentation](#)