ULTI SENSE.

INFO SHEET

LRF 3019

When every second counts, precision is critical. In challenging environments with dust, darkness or fog, knowing the exact distance can be decisive.

The LRF 3019 is designed for these moments: a compact diode laser rangefinder delivering precise measurements up to 10 km with 0.75 m accuracy.

PRODUCT HIGHLIGHTS

- Ultra-compact: 50 × 22 × 34 mm
- Lightweight: only 40 g
- Long-range: up to 10 km (max. range)
- High measurement accuracy of 0.75 m
- Maintenance-free
- Range Booster improves performance on difficult targets

APPLICATIONS

- Handheld targeting and observation
- Surveillance systems
- UAV/UGV sensor integration
- Search & Rescue operations
- Compact fire control systems

COMPACT AND POWERFUL

Modern operations demand tools that are both powerful and portable. The LRF 3019 sets a new benchmark in its class, combining long-range capability with a form factor no larger than a matchbox and a weight of just 40 grams. Ideal for handheld devices, UAVs and mobile platforms where space and power are limited, but performance is critical.

RELIABLE MEASURING IN CHALLENGING CONDITIONS

Accuracy matters, especially when lives depend on it. In complex environments, false reflections and ambient interference can compromise results. That's why the LRF 3019 uses advanced diode laser technology to ensure consistent, high-precision measurements.

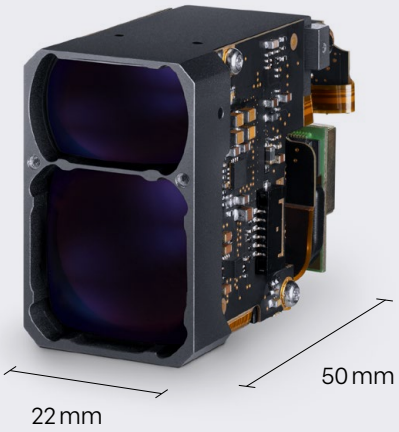
RANGE BOOSTER

Sometimes, standard isn't enough. For low-reflectivity targets, the Range Booster increases the measurement range by extending the measurement duration, thereby improving the probability of a successful range measurement.

ULTI SENSE.

INFO SHEET

LRF 3019



LRF PERFORMANCE

Maximum range	10 000 m
Range performance on beamfilling target reflectivity: 60 %, observer visibility 25 km	≥8 000 m
Range performance on 2.3 m × 2.3 m target size reflectivity: 30 %, observer visibility 25 km	≥4 500 m
Range performance on 1 m × 1 m target size reflectivity: 10 %, observer visibility 25 km	≥2 400 m
Range performance on 0.22 m ×0.22 m target size reflectivity: 40 %, observer visibility 25 km (phantom drone)	≥1 600 m
Minimum range Customizable via software	10 m
Range accuracy (1σ)	±0.75 m
Multiple target detection	up to 5 targets
Wavelength	1550 nm
Laser class per IEC 60825-1:2014	Class 1
Beam divergence	~0.9 mrad

ENVIRONMENTAL CHARACTERISTICS

Operating temperature	–35 to +71 ° C
Storage temperature	–40 to +85 ° C
High power shock (half sine) at 0.5 ms, xyz-direction	500 g

PHYSICAL CHARACTERIS

Dimensions (length / width / height)	50 × 22 × 34 mm
Weight	40 g

INTERFACES

Communication interface	UART
Voltage supply	2.0 V – 5.5 V
Mechanical interface	3 mounting threads, 2 positioning holes

Safran Vectronix AG
Heerbrugg, Switzerland
vectronix@safrangroup.com
ultisense.safran-vectronix.com