

DLEM 20LE - Highest performance on small targets

The DLEM 20LE is an enhanced version of the DLEM 20 that can range 25% further on small targets than the DLEM 20 but at the same size and weight. This combination enables our customers to develop the most advanced compact and lightweight products for their applications.

Derived from the field proven DLEM 20 it offers a substantial performance increase and has the same robustness and capability to operate from -40°C to +80°C making it the ideal sensor for tactical use and in harsh environments. The highly optimized power management system makes the DLEM 20LE the ideal laser rangefinder module for battery-powered applications, where long mission times are crucial.

Utilizing the identical electrical pinout and communication interface as the rest of the DLEM family the new DLEM 20LE can be easily adopted and integrated into existing platforms. The DLEM 20LE also shares the same mechanical interface as the DLEM 20 so integrators can literally swap the DLEM 20LE into their existing designs with a simple connector change and obtain increased range performance.

Your advantages:

- Lightweight & Compact: The enhanced performance comes with no sacrifice in size and weight. The DLEM 20LE shares the same 30g weight and mechanical interface and envelope as the DLEM 20.
- Efficient: The fast startup time facilitates seemingly instantaneous ranging and the low power consumption guarantees long mission times.
- Safe & Tactical: Totally eye-safe while being invisible to I²-based night vision equipment
- Fast & Accurate: 25 Hertz ranging enables tracking applications while 1 meter accuracy supports high precision systems
- Robust & Reliable: Shock resistance and wide operational temperature range support the integration into systems in demanding operational environments
- Advanced optical design: Low divergence enables high range performance on small targets while having a uniform illumination of the target eliminating the need for a preferred orientation

The DLEM 20LE is compact yet incredibly powerful when ranging non-cooperative targets.

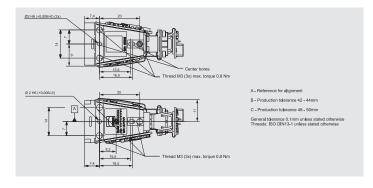
Small, lightweight, robust, efficient, accurate – ideal for use in demanding mobile and handheld applications.

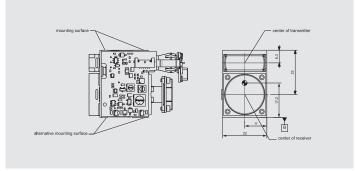
Technical data

Technical specifications	DLEM 20LE
Measurement principle	Pulse accumulation
Wavelength (nominal at 20 °C)	~ 1.55 μm
Laser classification	Laser class 1 (IEC 60825-1:2014)
Modes of operation	Single measurement, continuous ranging 1 Hz to 25 Hz
Divergence	~ 0.8 mrad
Measurement range	10 m to 8,000 m
Measurement resolution	0.1 m
Range gate resolution	1 m
Measurement time (selectable)	10 ms to 3,000 ms
Multiple target detection – number of targets	5
Multiple target discrimination	≤ 25 m
Measurement accuracy (1 σ)	≤ 1 m
Typical measurement range	
Small target (0.75 m \times 0.75 m, albedo 30 %, 10 km visibility)	≥ 2,500 m
NATO standard target (2.3 m \times 2.3 m, albedo 30 %, 10 km visibility)	≥ 3,500 m
Extended target (Beam filling, albedo 50 %, 23 km visibility)	≥ 5,250 m
Mechanical Mechanical	
Weight	≤ 30 g
Dimensions (L \times W \times H)	50 mm × 22 mm × 34 mm
Environmental	
Operating temperature	-40 °C to +80 °C
Storage temperature	-46 °C to +85 °C
Protection class	IP00
Mechanical shock	1,500 g, 0.7 ms
Electrical and communication	
Input voltage range	2 V DC to 5.5 V DC
Power consumption Operational During measurement	≤ 0.01 W ≤ 2 W
Startup-time (off ready to measure)	≤ 85 ms
Data interface	UART (LVTTL 3.3 V)
Interface connector	Molex # 503763 - 0691 (mates with # 503764 - 0601)

Fields of application:

- Micro-Gimbals for UAV and UGV
- Handheld surveillance and reconnaissance systems
- Handheld fire control systems
- Space and satellite technology





It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.

