



MORE LIGHT

Erbium Laser Rangefinder (ELEM)

ELEM-DP 50E is Jenoptik's Laser rangefinder with the highest range performance.

It is derived from the proven ELEM-DP10k and offers out of the same small form factor substantially more performance in direct comparison. The continuous firing rate of 15Hz make it ideal for air-defense applications against fast moving objects and this while being air-cooled. The compact design allows for simple integration into various measuring systems and the easy co-alignment with other sensors, a visible LED collimator is integrated into the receiver channel.

Typical applications:

- Electro-optic tracking systems (EOTS)
- Naval, army and airborne fire control systems (FCS)
- Anti-aircraft defense systems
- Multi-sensor platforms

Your advantages:

- ✓ **Lightweight & Compact:** Enhanced performance comes without sacrificing size and weight with its mere 1.6 kg
- ✓ **Fast & Long range:** 15 Hz ranging rate enables tracking applications while 60 km maximum range provides early situational awareness
- ✓ **Efficient:** Diode pumped Erbium Glass laser design allows for air cooling
- ✓ **Safe & Tactical:** Laser class 1M provides eye-safety and its wavelength is invisible to I²-based night vision devices while still being a laser class 1M product
- ✓ **Robust & Reliable:** Shockproof with wide operating temperature range supports integration into the most demanding systems

Specification Sheet

Model	ELEM-DP 50E
Measurement Principle	Single Pulse
Extinction Ratio [dB] (100% albedo @ 500m)	≥ 51
Wavelength (nominal at 20°C) [μm]	~ 1.54
Laser Classification (IEC 60825-1:2014)	1M
Modes of Operation	Single Measurement, Continuous Ranging: 1/6/10/15Hz
Divergence [mrad]	~ 0.5
Measurement Range [m]	200 ... 60 000
Range Gate Resolution [m]	1
Measurement Resolution [m]	1
Multiple Target Detection - Number of Targets	5
Multiple Target Discrimination [m]	≤ 20
Measurement Accuracy (1σ) [m]	≤ 3
Typical measurement range [m]	
NATO Standard Target (2.3m x 2.3m, Albedo 30%, 25km Visibility)	19 500
Extended Target (Beamfilling, Albedo 50%, 50km Visibility)	51 500
Mechanical	
Weight [g]	≤ 1 600
Dimensions (L x W x H) [mm]	223 x 60 x 124
Environmental	
Operating Temperature [°C]	-40 ... +70
Storage Temperature [°C]	-40 ... +70
Protection Class	IP00
Mechanical Shock	130g, 3.5 ms / 20g, 17ms
Electrical and Communication	
Input Voltage Range [VDC]	18 ... 32
Data Interface	RS422
Interface Connector	Hypertac KBE 10 PD9 J

