



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 |

