

# HIGH PERFORMANCE LASER RANGEFINDER

(LP20 P/N 10226678)



## 1. DESCRIPTION

- The LP20 is a High Performance Laser Rangefinder designed to be used in High Repetition Rate applications.
- The laser is contained in a sealed housing that allows it to be used under external environmental conditions.
- The LP20 offers laser ranging operation at an eyesafe wavelength of 1572nm up to a repetition rate of 25Hz.
- The LP20 is a self contained unit consisting of an OPO shifted NdYAG transmitter (eyesafe wavelength of 1572nm), a laser receiver as well as the power and control electronics and heat exchanger needed to operate the LP20 continuously for long durations.
- Communication with the LP20 is established by means of a RS422 interface and forms the operational, status and maintenance interface with the LP20.

## 2. KEY SPECIFICATIONS<sup>1</sup>

### 2.1 Eye Safe Range find performance

- Wavelength 1572nm
- Firing rate 1 - 25 pulses per second
- Output energy  $\geq 8\text{mJ}$
- Divergence  $< 400\mu\text{rad}$
- Tx Aperture 53mm
- Rx Aperture 85mm
- Pulse Width 15ns nominal
- LRF Extinction (TPG disabled)  $> 50\text{dB}$  (to an extended target @ 500m with a reflection of 85%)
- Range Resolution: 2m
- Ranging Accuracy:  $\pm 5\text{m}$
- Measurement Range: 250 – 20 000m
- False alarm rate:  $\leq 1\%$
- Range logic: First, second and last target
- Multiple target resolution:  $\leq 50\text{meter}$
- IEC Classification 1M

### 2.2 General

- Communications Interface RS422
- Mass  $< 7\text{kg}$
- Outer Dimensions 320mm(L) x 200mm(W) x 145mm(H)
- Operational Voltage 22-33VDC
- Power Consumption Standby  $\leq 6\text{W}$  fan off,  $\leq 15\text{W}$  fan on  
Average  $\leq 50\text{W}$  @ 25pps

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<sup>1</sup> Subject to change without notice.

## 2.3 Environment

- Storage Temperature -40 to +70°C<sup>2</sup>
- Operating Temperature -40°C to +70°C<sup>3</sup>
- Vibration & Shock MIL-STD-810F<sup>4</sup>
- EMC MIL-STD-461C<sup>4</sup>

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<sup>2</sup> To be confirmed

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<sup>4</sup> Refer to Product Specification for details of tailoring