



HENSOLDT 20 Hz LRF / D

High-repetition laser rangefinders and designators

Main Benefits

- All-solid-state laser transmitter using Nd:YAG rod and OPO technology
- Low power consumption due to high-efficiency diode laser pumping
- High range performance due to the use of highly sensitive TE cooled In GaAs APD
- LED collimator for adjustment; flexible in wavelength and pattern; brightness adjustable; modular design; sealed housing

Capabilities

- Designation acc. to STANAG 3733 LAS or externally codable
- LRF can be operated with 20 Hz continuously
- Conduction cooling only
- High range resolution of 1 m
- Range accuracy (1σ) app ± 2 m for target ranges up to 5 km



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Rangefinding			
Product variations	LRF 20 Hz	LRD 20 Hz	LRD 20 Hz re-shaped
Laser transmitter	Nd:YAG; OPO shifted	Nd:YAG; OPO shifted	Nd:YAG; OPO shifted
Pump type	Diode laser pumped	Diode laser pumped	Diode laser pumped
Wavelength	1570 nm	1570 nm	1570 nm
Cooling	Conduction cooling	Conduction cooling	Conduction cooling
Pulse rate	≤25 Hz	≤25 Hz	≤25 Hz
Divergence (63 % of energy)	<0.6 mrad	<0.6 mrad	<0.6 mrad
Receiver	InGaAs APD; TE cooled	InGaAs APD; TE cooled	InGaAs APD; TE cooled
Range resolution	1 m	1 m	1 m
Range accuracy	±2 m up to 5,000 m	±2 m up to 5,000 m	±2 m up to 5,000 m
Range gate	50 m to 40,000 m	50 m to 40,000 m	50 m to 40,000 m
Duty cycle	Continuous operation	Continuous operation	Continuous operation
Laser class	1M	1 or 1M (see remark)*	1 or 1M (see remark)*
Configuration	Coaxial for RX and TX	Coaxial for RX and TX	Coaxial for RX and TX
Integrated Bite	Available through RS 422	Available through RS 422	Available through RS 422
Designation			
Laser transmitter		Nd:YAG	Nd:YAG
Wavelength		1064 nm	1064 nm
Pulse rate		8 - 20 Hz	8 - 22 Hz
Pulse energy		>80 mJ	>80 mJ
Pulse duration		14 ± 6 ns	15 ± 5 ns
Divergence (90 % of energy)		<250 µrad	<250 µrad
Range resolution		1 m	1 m
Range accuracy		±2 m up to 5,000 m	±2 m up to 5,000 m
Range gate		50 m to 40,000 m	50 m to 40,000 m
Mechanical data			
Mass	< 1,8 kg	< 1,8 kg	< 2,05 kg
Dimensions (LxWxH)	app. 150x114x75 mm ³	app. 150x114x75 mm ³	app. 202x97x77 mm ³
Current	Typ 4 A (peak); max. 6.5 A (peak)	Typ 4 A (peak); max. 6.5 A (peak)	Typ 4 A (peak); max. 6.5 A (peak)
Voltage	24 ± 6 V	24 ± 6 V	24 ± 6 V
Optional			
Modular setup on customer's request available			

* To achieve Laser class 1 the pulse rate has to be limited; at a pulse rate of 20 Hz the unit is classified as a class 1M device