

UNMANNED AUTONOMOUS SYSTEM SENSORS

- + Long Range
- + Rapid Pulse Rates
- + Pinpoint Laser Precision
- + High Ground-Level Accuracy



Laser Sensors

Designed with high accuracy, pinpoint precision and long-range capabilities to natural targets, LTI's laser sensors are a must for many unmanned autonomous systems. They can discriminate between unwanted interference and the actual range data you need.

Adjust the pulse rate, power level and advanced target modes to dial-in the sensor's optimum performance within your specific environmental conditions. Measure and collect reliable range data every split second and have it in an output format that is compatible with your existing system.

TruSense® S-200 Series

- LTI's smallest and most lightweight sensor fits into most payloads
- OEM version makes system integration quick and easy
- Ranges over a mile to natural targets

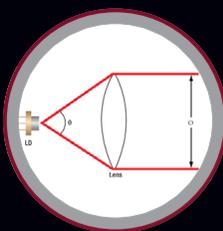


Universal Laser Sensor

- Senses the presence of extremely fast-moving targets in real time
- Penetrates light fog and dust for outdoor applications
- Produces highly accurate and reliable distance data



LONG RANGE
Detect any natural target at ranges that will always give you enough forewarning to safely maneuver around it.



NARROW BEAM WIDTH
Distinguish between two objects within close proximity of each other with pinpoint accuracy.



HIGH ACCURACY
Be confident in your measurements and avoid costly mistakes that can make or break a UAS.

Air-to-Ground Distance Data

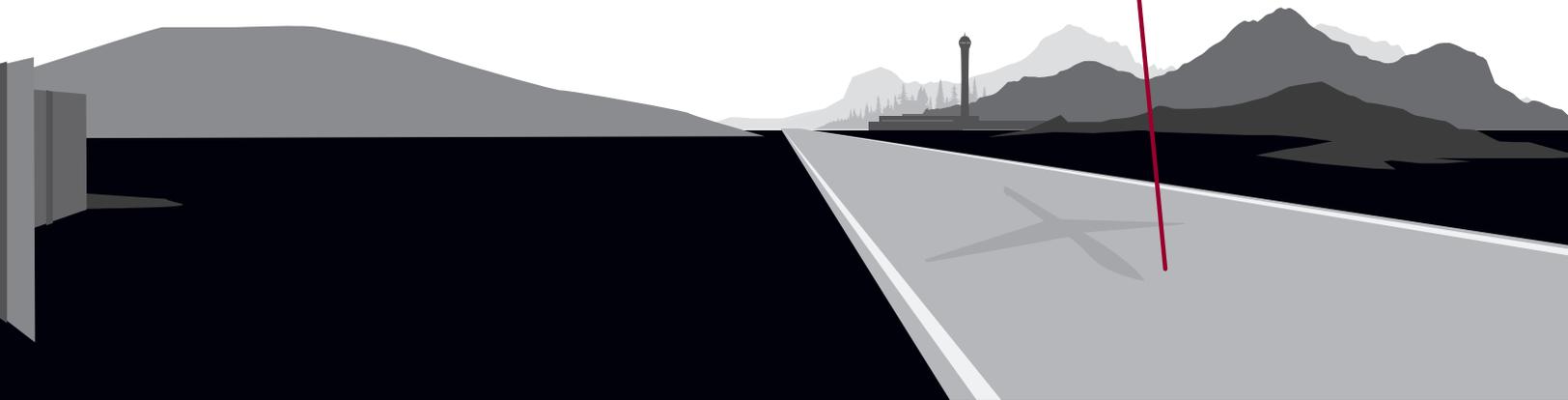
LTI's reflectorless, long-range measurement sensors are ideal for air-to-ground measurements for accurate takeoff and landing maneuvers.

For low altitude air-to-ground measurements (AGM), LTI sensors can complement onboard radar, GPS and compass sensors. Obtain highly accurate (2 cm) and rapid data rates (up to 2,000 pulses per second) so you can safely land your UAS with precision.

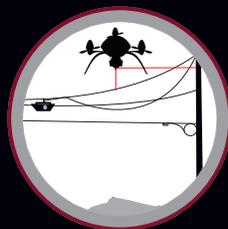
They are small enough to fit perfectly with other components and will meet your size, weight and low-power (SWaP) requirements.



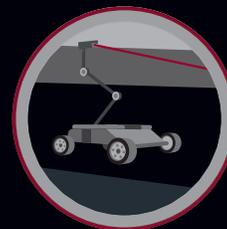
SWaP Compatible
TruSense OEM



HEIGHT
Verify air-to-ground measurement to ensure accurate vertical range readings.



DETECTION
Instantly know what may be in the way before it becomes problematic.



PROXIMITY
Avoid damage and costly incidents by constantly monitoring positions of nearby obstacles.



Specifications

		TruSense S-200 Series	Universal Laser Sensor
Performance	Min. Range	1.5 ft (46 cm)	1.5 ft (46 cm)
	Max. Range	9,514 / 5,249 ft (2,900 / 1,600 m) low-accuracy mode 4,921 / 2,953 ft (1,500 / 900 m) medium-accuracy mode 2,461 / 2,461 ft (750 / 750 m) high-accuracy mode	5,249 / 1,640 ft (1,600 / 500 m)
	Accuracy	0.1 ft (4 cm) in short-range mode 0.3 ft (8 cm) in medium-range mode 0.5 ft (15 cm) in long-range mode	0.70 in (2 cm)
	Data Output Rate	<1 Hz to 14 Hz; 200 Hz mode (only with RS232)	<1 Hz to 2 kHz: depending upon RS232 or RS485
	Target Modes	First, Last, Strongest	Averaging, Binning, Detection, Last
Optical & Electrical	Wavelength	905 nm (near IR)	905 nm (near IR)
	Divergence	3 mrad (equal to 1 ft beam diameter @ 328 ft or 30 cm @ 100 m)	3 mrad (equal to 1 ft beam diameter @ 328 ft or 30 cm @ 100 m)
	I/O	S-200 = TRIG, SDI12, RS232 without alignment laser S-210 = TRIG, SDI12, RS232 with alignment laser S-230 = 4-20, 4-20 HART, RS232 with alignment laser	RS232, RS485, 4-20
	Input Power	12 VDC	12-24 VDC nominal, 10-30 VDC absolute (12 VDC recommended)
	Current Draw	Measuring = 150 mA, Standby = 40 mA	Measuring = 150 mA
Physical	Dimensions (L x W x H)	4.11 x 3.22 x 1.64 in (104.4 x 81.7 x 41.6 mm)	5.3 x 4.75 x 2.5 in (134.6 x 120.7 x 50.8 mm)
	Weight	Standard = 4.8 oz (138.6 g) OEM = 2.7 oz (76 g)	Standard = 32.8 oz (929.9 g) OEM = 15.5 oz (439.3 g)
	Housing & Frame Material	Glass-filled polycarbonate	Aluminum
Environmental	Eye Safety	Class 1, 7 mm (FDA, CFR21) Class 1m (IEC 60825 - 1 : 2001)	Class 1, 7 mm (FDA, CFR21) Class 1m (IEC 60825 - 1 : 2001)
	Shock / Vibration	MIL-STD-810	MIL-STD-810
	Moisture	IP54	IP54
	Operating Temperature	-20° to 140° F (-28° to 60° C)	-20° to 140° F (-28° to 60° C)

All specifications subject to change without notice.