



**AS2100** Accurange sensor is Acuity's most accurate long-distance sensor. The device is rugged, flexible, and fast. The sensor has a measurement range up to 500 meters, accuracy of  $\pm 1$  mm, and sampling rate up to 250 Hz.

## AS2100 Accurate Distance Sensor

The AS2100 is a Class 2 laser that is designed to work well outdoors, in bright lights, and even on difficult targets such as hot or dark surfaces. With the ability to take accurate measurements ( $\pm 1$  mm) from distances up to 500 meters away, and a measurement frequency of up to 250 Hz, it is the perfect laser for a wide range of applications.

Due to its standard interfaces, the Acuity AS2100 is optimized for easy integration into industrial automation and process control applications. Contact Acuity Sales for specific application assistance.



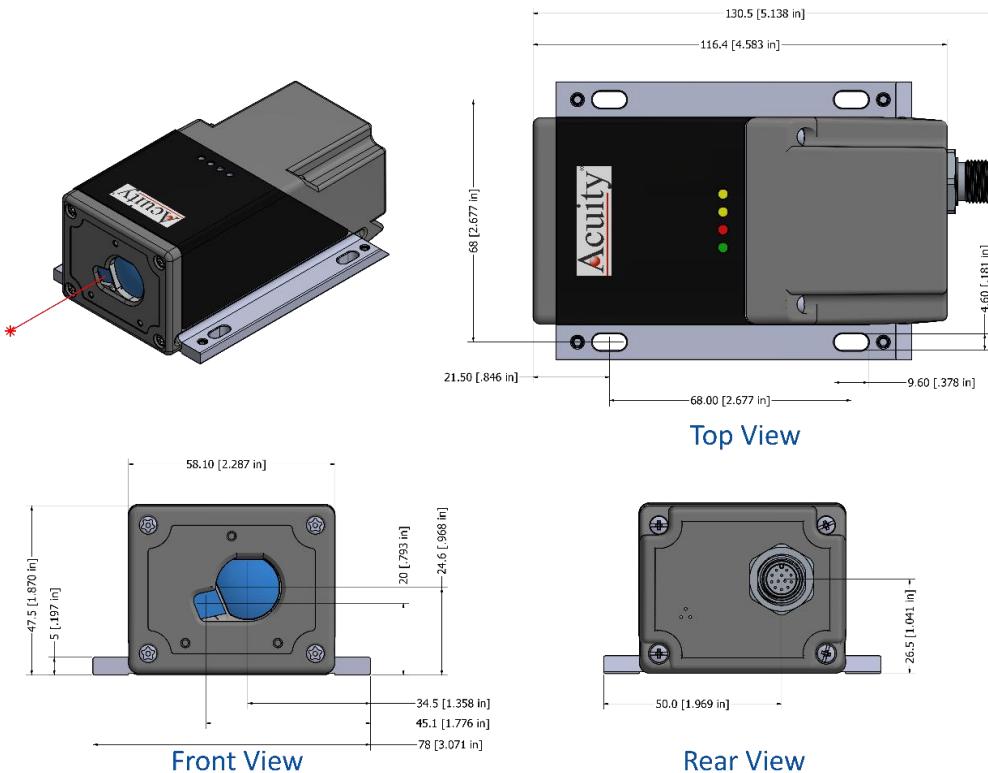
### AS2100 Standard Model Specifications

	English Units	Metric Units
Range	~2 in. min. to 328 ft. max (natural targets) ~20 in. min. to 1640 ft. max (reflective foil*)	0.05...~100 m (natural targets) ~0.5...500 m max (reflective foil*)
Accuracy @ 2 $\sigma$	$\pm 0.039$ in.	$\pm 1$ mm
Repeatability @ 2 $\sigma$	0.012 in.	0.3 mm
Resolution	0.004 in.	0.1 mm
Laser spot diameter @ 10, 50, 100 m	0.28 x 0.12 in.; 1.10 x 0.51 in.; 2.16 x 1.81 in.	7 x 3 mm; 28 x 13 mm; 55 x 30 mm
Dimensions (l x w x h)	5.51 x 3.07 x 1.89 in.	140 x 78 x 48 mm
Weight (less cable)	0.77 lbs.	350 grams
Laser class	Class 2, Complies with 21 CFR 1040.10 and with Laser Notice 50, IEC/EN60825-1:2014	
Laser type	Typical 650 nm (620 – 690 nm), <1 mW visible RED	
Power	12 - 30 Volts DC; Max. Current: 0.2A	
Sample rates	250 Hz	
Operating temp	14 to 122 °F (Extended Temp Version -40 to 140 °F)	-10 to 50 °C (Extended Temp Version -40 to 60 °C)
Environmental	IP65	
Material	Sensor body: Aluminum Alloy EN-AW 6060 (Anodized 20 $\mu$ m) Front and back cover: Mineral reinforced nylon resin	
Shock & Vibration	IEC 60068-2-27 (Shock); IEC 60068-2-6 (Vibration)	
Outputs: Serial	RS232, RS422, RS485, (USB connection only for configuration), ethernet option available	
Analog output, programmable	4-20 mA/0-20mA software configurable	
Measuring accuracy of analog output	$\pm 0.1$ % of the programmed AO range or $\pm 1.0$ mm (Whichever is greater)	

\*Contact Acuity for these targets. Other reflectivity targets can damage the sensor. Contact a sales rep for pricing.

## Mechanical Dimensions

Standard Version - Units in mm [inches].



## AS2100 Sensor Options

see ordering information for part number.

**Cables** - Cables sold separately from unit. Standard cable lengths include 2M, 5M, 10M, 15M, 30M. Contact Acuity for custom cable lengths. Ethernet version must include power cable and ethernet cable.

**Ethernet Option** – AS2100 comes with Ethernet IP communication option.

**Touch Panel Display** - Smart controller displays distance readings and differential measurements with two or more sensors.

**Connectivity Kit** - Includes terminal blocks, serial cable with DB9 connector (optional serial to USB cable), AC power supply with 110 VAC or 240 VAC.

**Reflective Plate** - Reflective plate 210 x 297 mm (orange). The reflective aluminum target improves the reflected signal strength to measure long distance ranges.

**Bracket alignment unit** - Makes it easy to adjust the laser beam to the requested measuring target. The alignment unit allows +/-4° adjustment in two axis and is ideal for distances up to about 300m. The bracket is made of steel, zinc-plated and weighs about 850g.

## Laser Safety Labels



Wavelength: 620-690nm, Max Power < 1mW  
Complies with 21 CFR 1040.10 and 1040.11 except  
for deviations pursuant to Laser Notice no. 50  
dated June 24, 2007, with IEC 60825-1:2014