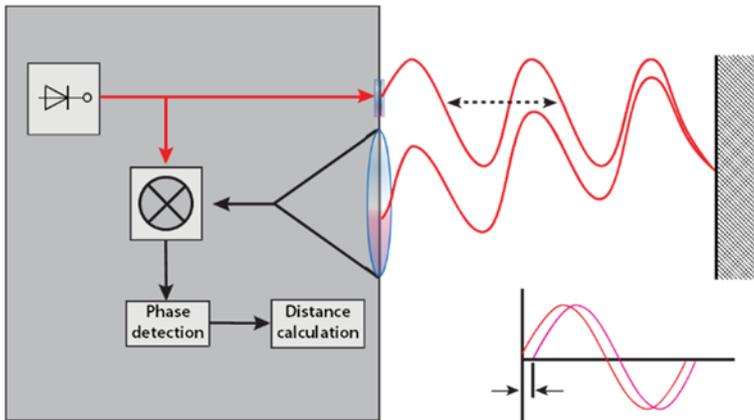




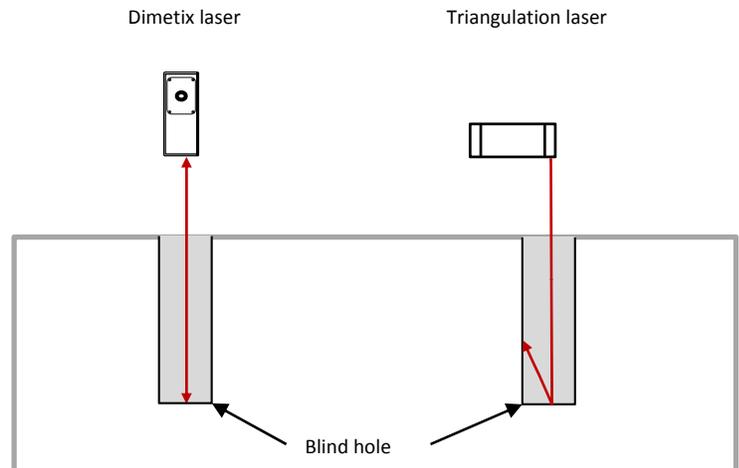
## DIMETIX EDS-C series laser distance sensor technical supplement



### Measurement Principle

The measurement principle of the EDS-C series operates on the basis of non-contact comparative phase measurements with amplitude modulation. It uses a laser diode with a class 2 rating for plant safety. The sensor sends out a laser beam and the amount of phase shift is reflected back to determine the distance. This technique is superior to laser triangulation for measuring long distances. It provides better accuracy at a substantially lower cost and a small package size.

A laser triangulation sensor cannot make a depth measurement in a deep blind hole. The laser beam from the Dimetix sensor can make the measurement whereas the laser triangulation sensor cannot.



### Measuring Modes

The measurement update of the EDS-C with factory settings can be up to 6Hz in best environmental conditions. (e.g. good reflective target and dark environment). For far distances, improved measurement rate can be achieved with the use of our reflective target plate.

## Applications:

<p><b>Overhead Crane</b> For determination of positions of moving objects, such as cranes and in high rack storage areas.</p>		<p><b>Hopper Car</b> Monitor relative positions of hopper cars handling bulk materials. The Dimetix laser can measure targets of varying shape, texture, and color.</p>	
<p><b>Silo Contents</b> The networking capability of the EDS-C series enables multiple sensors to be mounted in a number of silos. Control of contents is easily maintained for filling</p>		<p><b>Paper Mills</b> To measure diameter and width of paper rolls one DLS-C sensor is mounted above and two DLS-C sensors are mounted at the ends to simultaneously measure roll diameter and width.</p>	
<p><b>Logging</b> Even in outdoors the DLS-C series can be used to measure log length and location at a saw for cutting.</p>		<p><b>Saw Mills</b> In saw mills one can easily measure width, thickness and cant. Due to the long range, the sensors can be located far enough away and yet provide adequate accuracy in this harsh environment.</p>	
<p><b>Mining / Quarry</b> Measure raw material levels and depth of excavated areas. Dimetix lasers are rugged for a variety of environments and can measure natural targets with ease.</p>		<p><b>Structural / Civil Engineering</b> Measure height, length, and location; Monitor structural deflection of bridges.</p>	
<p><b>Steel Mills</b> Even hot slabs of steel can be measured with a EDS-C sensor. Both width and thickness can be measured. The elevated surface temperature of hot steel is not as much of an issue with the phase shift technology.</p>		<p><b>Enclosures / Environmental Protection</b> For environmental conditions we can provide a variety of enclosures for outdoor conditions. Our enclosures are NEMA type and we can also measure through a glass window in the enclosure.</p>	