

Mimic Components: In-House Article

Subject: Industrial Laser Measurement Sensors

Date: 30th April 2025



Industrial Laser Measurement Sensors TL400-I and TL400-V

The TL400-I and TL400-V are advanced industrial level and volume sensors designed to provide non-intrusive measurement solutions for a wide range of applications. Both models are optimized for detecting transparent liquids such as water and diesel in both static and moving settings, as well as grains, fluids, and bulk solids. These sensors utilize a state-of-the-art infrared laser technology (~920 nm) that is inherently safe for the human eye, as they are classified under LASER CLASS-1 standards. With no moving parts, the sensors offer a robust and reliable measurement solution, which is key for industries where downtime and maintenance need to be minimized.

The TL400-I and TL400-V are built to perform high-precision measurements with low power consumption. The infrared laser beam employed in both sensors allows them to take multiple readings per second, which further enables rapid and continuous monitoring of fluid or solid levels. Their advanced algorithms then process these measurements to provide precise calculations for volume and distance in a variety of units. These calculations are particularly beneficial for use in irregularly shaped tanks or vessels, as the sensors can be easily calibrated and customized through a Bluetooth-enabled configurator app. This feature allows users to save custom data points and fine-tune the system for specific application requirements.

Both sensors are housed in robust polycarbonate enclosures that provide exceptional durability and resistance to harsh environments. Designed to withstand up to 8 bar of pressure, these devices are well-suited for use in industrial settings where the equipment may come into contact with flammable substances, including diesel, pesticides and gasoline. The housing also features a sealing system that ensures the devices meet the IP68 standard, providing full protection against dust and immersion in water, thus also making them highly reliable in challenging conditions.

The TL400-I, with a measurement range of up to 4 meters and an accuracy of ± 3 mm, is equipped with a 4-20 mA output signal, making it suitable for multiple types of integration and as far as laser sensors go, it is a reliable, cost-effective solution for accurate, long-lasting level measurement in challenging environments.

Call Mimic Group for more information.

JHB Branch

Mimic Components. Address: 5 Ramsay Street, Booysens, 2091, Johannesburg. Switchboard: +27(0)11-689-5700 | WhatsApp: 071-979-9999 Po Box 38493, Booysens, 2016, Johannesburg, South Africa. Email: info1@mimiccomponents.co.za | Website: www.mimiccomponents.co.za