

TXL-YAN-009 / 27 October 2026 · One-year manufacturer warranty

Limiting Oxygen Index (LOI) Tester

Minimum oxygen concentration to support combustion. Fully complying with fire safety regulations, it analyzes the flammability and burning behavior of materials with the highest precision. Equipped with superior safety features.



Model technical data

1	Through the touch screen controller and PC communication you can add different test methods.
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Physical specifications and utilities

Electrical supply	Approx. 220–240 V AC, 50/60 Hz, single phase; build-dependent.
Power / connected load	Approx. 50–200 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 600 × 500 × 700 mm (W × D × H).
Instrument weight	Approx. 20–40 kg net.
Gross / shipping weight	Approx. 32–60 kg gross; estimated packing allowance.
Lab requirements	Oxygen and nitrogen cylinders of suitable purity, regulators and exhaust; pressure / flow depend on delivery configuration.

Dimension order and approximate values are stated in each row. Packaging data are separate from instrument dimensions and net mass. Approx. rows are preliminary engineering estimates based on comparable equipment and function/capacity; they are not verified manufacturing measurements or standard requirements. Installation and shipment are finalised against the approved drawing and nameplate. Estimate scope: base product / one unit; external computer, bench and auxiliary plant excluded.

Specifications, dimensions, and power requirements are approximate and subject to change without prior notice for continuous design improvements.

Product technical specifications and images may vary according to manufacturing conditions and applicable standards.

Test and configuration

Measured output / function	Minimum oxygen concentration sustaining combustion (vol %)
Parameters selected for the method	Oxygen/nitrogen flow, specimen geometry and ignition
Verification points	Burner/gas flow, geometry and timing

Control and recording specification

Method-specific software and recording requirements follow. Delivered software modules are defined by the order scope.

- Method code and edition, specimen ID, operator and selected test parameters are linked to the record.
- The calculation and endpoint are defined by the selected method edition; instrument signals and operator assessments are kept distinct.
- Raw measurements, units, valid/invalid test flags and the reported result remain traceable.
- Calculations are checked against known inputs and an independent calculation; sensor channels are checked against calibration values.

Related test methods

ISO 4589-2 · ASTM D2863

Listed methods are application references. Suitability is established by assessing hardware, method edition and calibration together.

Test parameters for the reviewed method

The values below were reviewed in selected clauses of the stated source edition. They are not a declaration of equivalence to a later edition or independent instrument verification.

TS 11162-2 EN ISO 4589-2:2001 / EN ISO 4589-2:1999 / 5.1, 5.4

1	preferred chimney height at least 450 mm and diameter at least 95 mm; gas velocity 40 ± 10 mm/s at 23 ± 2 °C. Oxygen concentration measurement accuracy $\pm 0.5\%$ (V/V), adjustment precision $\pm 0.1\%$ (V/V). Kept separate from the ASTM recipe.
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ASTM D2863-00 / 6.1, 6.4

1	Chimney bore 75-100 mm and height 450-500 mm; gas velocity 40 ± 2 mm/s at 23 ± 2 °C. Type A gas control uses $\pm 0.5\%$ concentration accuracy and $\pm 0.1\%$ adjustment precision; Type B is a separate accuracy class.
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