

TXL-IPL-017 / 28 October 2026 · One-year manufacturer warranty

Yarn Plying and Twisting Tester (I009-K)

Prepares S- or Z-twisted laboratory specimens from two or more yarns or from a continuous filament bundle. Vertical layout; adjustable upper holder and a lower jaw driven directly by a stepper motor, one motor revolution per turn of twist. Target 1–99,999 turns, 0.1-turn counter resolution, slow-down near the target and automatic stop at the target; PLC and 4.3-inch colour touchscreen.



Model technical data

1	Target twist: 1–99,999 turns; counter resolution 0.1 turn.
2	Twist direction: S or Z; selected on the touchscreen.
3	Operating speed: adjustable, up to 1,450 rpm; factory limits 10–1,000 rpm.
4	Manual rotation: spring-loaded S/Z switch; adjustable speed, factory setting 60 rpm.
5	Drive: stepper motor coupled directly to the jaw; one motor revolution equals one turn of twist.
6	Stopping: automatic slow-down near the target and stop at the target count; audible signal of adjustable duration at the end.
7	Pause and resume: the counter value is kept; speed can be changed during operation on screen or with the physical +/- switch.
8	Control: PLC and 4.3-inch colour touchscreen; display languages English, Italian, Turkish, French and Russian.
9	Specimen length setting: height-adjustable upper holder and cm scale; vertical specimen preparation layout with bobbin stand.
10	After a power loss, target, speed, direction and language settings are retained; the counter is reset and an interrupted run does not resume automatically.
11	Supply: 100–240 V AC, 50/60 Hz.

Physical specifications and utilities

Electrical supply	Supply: 100–240 V AC, 50/60 Hz.
Power / connected load	Approx. 30–100 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 450 × 300 × 1000 mm (W × D × H).
Instrument weight	Approx. 15–30 kg net.
Gross / shipping weight	Approx. 25–45 kg gross; estimated packing allowance.
Lab requirements	Level, stable working surface; specimen conditioning follows the selected method.

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	Plied yarn specimen prepared with a defined S/Z twist count
Parameters selected for the method	Twist direction, target turns, operating speed and specimen length
Verification points	Turn counter, motor speed and specimen length scale

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.
- Twist direction, target and achieved turn count, operating speed and specimen length are linked to the record.
- 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

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