

Digital Laser Distance Meters

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Measuring & Inspection



Photo: Department of Defense. American Forces Information Service. Defense Visual Information Center. 1994 — Public domain — via Wikimedia Commons (A_US_Air_Force_civil_engineering_non-commissioned_officer_uses_a_laser_measuring_system_to_determine_the_distanc

A digital laser distance meter measures distances up to 40-100 m with a laser beam and built-in calculations for area, volume and indirect (Pythagoras) measurements. It replaces long tape measures for room, material and machine layout in seconds.

Key Features

- Ranges 40-100 m typical
- Accuracy of plus/minus 1.5-3 mm
- Area, volume and continuous measuring modes
- Backlit displays and sealed keypads
- Bluetooth models log to phone apps

Typical Uses in the Workshop

- Measure workshop bays and machine footprints
- Calc areas for materials and paint
- Set out storage and bench layouts
- Measure heights using indirect mode

Safe Operation

1. Set the measuring reference (edge or end)
2. Aim at a flat, light target surface
3. Press once for the measurement, twice for continuous
4. Record area and volume readings directly
5. Switch reference mode for inside or outside measures

SAFETY NOTES

- Never point the laser at eyes or reflective surfaces
- Laser class 2 is safe by accident but never deliberate
- Do not use in rain or on wet reflective surfaces
- Keep the meter out of direct sun in use
- Store with the battery removed if unused

Maintenance & Consumables

- Wipe the lens clean with a soft cloth
- Check the battery and replace as needed
- Calibrate against a known length yearly
- Protect the meter from drops in a pouch
- Keep the manual for measurement modes

Specification & Buying Notes

A 50-70 m meter with area and indirect modes covers workshop layout work. Buy an IP54 rated model with a pouch and spare battery; accuracy to 2 mm is plenty for planning and marking.