

# DR400

## Applications

- Excavations
- Foundations, concrete forms and footings
- General grading
- Utilities installation
- Surveying
- Cut / Fill, Direct and Indirect measurements

## Laser Distance Meter

- Distance measuring by one person to 50 m (160 ft)
- Estimating
- As-built Verification



## DigiRod - The Rod-less Grade Checker



The Spectra Precision® DR400 DigiRod™ eliminates the need for grade rods when checking grades with a rotating laser. The all-in-one combination of a laser receiver with digital readout, laser distance meter, and built-in tilt sensor provide the information required to take rod-less, accurate grade readings, even at tilt angles up to 30 degrees.

The DigiRod emulates all rod types including Direct Reading (Lenker), Cut/Fill and Indirect grade rods up to 6 m (20 ft) long. The user simply places the laser distance meter spot on the location a grade check is required, picks up the rotating laser beam anywhere on the reception window, and the distance from ground to the rotating beam is measured and displayed. Errors due to rod math and out of plumb grade rods are eliminated. The rod-less grade checking system increases safety as workers do not have to climb down in trenches or lean over unstable excavation edges to obtain elevations.

As a stand-alone laser distance meter, the DigiRod is designed to give contractors a one-person distance measuring and estimating tool to measure remote and difficult-to-reach places such as high overhangs, factory interiors, or over water.

The Laserometer provides a large LCD screen that gives a bright, clear digital readout of elevation and has 5 accuracy selections to match any jobsite tolerance requirement.



## Key Features

### DigiRod

- Check grades without grade rods
- Tilt compensation ensures accurate readings
- Large, easy to read, graphical display
- Multiple units of measure - m / ft / in
- Non-contact elevation measurement
- Anti-strobe sensor
- Extremely durable and portable
- 5 Year warranty

### Stand Alone Handheld Distance Meter

- Range up to 50 m (160 ft)
- Accuracy of  $\pm 2.0$  mm (1/16 in)
- Multiple units of measure

### Stand Alone Laserometer

- Digital readout of elevations
- 5 On-Grade Accuracies
- Large 12.7 cm (5 inch) reception height

## User Benefits

- Check elevations quickly without conventional grade rods
- Increase worker safety by reducing the need to enter trenches
- Eliminate calculation errors and out of plumb errors
- Eliminate tool marks on screeded concrete
- Increase productivity with quicker grade checks



# DigiRod - Laserometer, Distance Meter, Tilt Sensor - All-in-One

## DR400 Specifications

- Backlight: Yes, On for 30 seconds after keypress/reading
- Elevation LEDs: HI: Red, On-Grade: Green, Low: Blue
- Anti-strobe sensor: Yes
- Audible Sound Tones: Loud, Medium, Low, and Off
- Reception Height: 127 mm (5 inches)
- Reception Angle: 90 degrees
- Auto Shut-Off: 30 minutes, 24 hours, Off
- Dust and Waterproof: Yes (IP67)
- Laser Beam: 639 nm Class 3R
- Weight (no handle/clamp): 540 g (19 oz)
- Warranty: 5 years (3-No Excuses, 2-Manufacturer Defects)

## In DigiRod Mode:

- Three On-Grade Sensitivities: (Typical at a 1.5 m (5 ft) Height of Instrument)
  - AUTO with shot confidence reporting
  - 3 mm (1/8 inch) fixed
  - 10 mm (1/2 inch) fixed
- Tilt Angle Compensation:
  - AUTO: 30° tilt allowed, spotting beam blinks and slow chirp tone when exceeded, shot confidence reported
  - 3 mm: 5 degrees tilt allowed, spotting beam blinks and slow chirp tone when exceeded
  - 10 mm: 10 degrees tilt allowed, spotting beam blinks and slow chirp tone when exceeded
- Emulated rod types, 6 m (20 ft) long:
  - Direct Elevation
  - Indirect Elevation
  - Cut/Fill
- Emulated rod units: Meters, Feet-Tenths (decimal feet), Feet-Inches (1/8 or 1/16)
- Battery Life (AA-4): 1,500 shots typical

## In Laser Distance Meter Mode:

- Measurement Range: 50 m (160 ft)
- Measurement Accuracy:  $\pm 2.0$  mm ( $\pm 1/16$  in)
- Measurement Reference: Rear (top) face of the unit
- Units: Meters, Feet-Tenths (decimal feet), Feet-Inches (1/8 or 1/16)
- Continuous/Min-Max Mode: Yes
- Display Memory: Previous 2 shots constantly displayed
- Battery Life (AA-4): 1,500 shots typical

## In Laserometer Mode:

- Six On-Grade Sensitivities:
  - Ultra Fine: 0.5 mm (0.02 / 1/32 in)
  - Super Fine: 1.0 mm (0.05 / 1/16 in)
  - Fine: 2.0 mm (0.10 / 1/8 in)
  - Medium: 5.0 mm (0.20 / 1/4 in)
  - Coarse: 10 mm (0.50 / 1/2 in)
  - Calibration: 0.1 mm (0.01 1/64 in)
- Audio: High - Fast Tone, On - Continuous Tone, Low - Slow Tone
- Capture Mode: Yes
- Special Functions (via MENU): Sensitivity, Averaging, Lost Beam, Arrow Modes, Grade Alert, Information
- Battery Life (AA-4): >70 hours typical use

System includes DR400 DigiRod, removable handle, heavy duty rod clamp with reversible jaw and bubble vial, pouch with belt clip and removable laser glasses partition, laser glasses, 4-AA batteries, universal quick guide and user manual.



DR400 in DigiRod Mode with Handle



DR400 in Distance Meter Mode (Note: Beam is emitted from bottom, Screen is reversed for easy reading)



Eliminate dangerous over the trench and in trench grade checks



Convenient carry pouch with belt clip



DR400 in Laserometer Mode with traditional rod clamp

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