



Digital Inclinometers

Englo's product portfolio includes a number of different surface slope measuring devices or digital inclinometers to measure the slope or angle of roads, floors, pipes and other objects or surfaces with inclination.

The inclinometers are compact and easy to use. Handheld products, and products mounted to graders and bulldozers are available.

Englo's digital inclinometers are rated IP65 under the international IEC 60529 standard and are splash and dust proof.

Handheld Digital Inclinometers

The handheld digital inclinometers are lightweight, portable and can be used by a single operator. The inclinometers include an aluminum bar with a ruler and an electronic unit with an LCD display that is fastened to the ruler bar, and a separate optional wedge to help with the measurement. The slope is measured in degrees, percentages or mm per meter. A sound signal is available to help determine the 0-slope of the surface.

KM-1: Handheld Digital Inclinometer

- Wide slope measuring range
- LCD with measurement results
- 1.2m ruler bar included, 3m bar available
- 20mm or 50mm wedge available

KM-3: Handheld Digital Inclinometer

- Wide slope measuring range
- LCD with measurement results
- 3m foldable bar for easy transportation
- 20mm or 50mm wedge available

| Product | Total Weight (kg) | Operating Angle (°) | Accuracy (°) | Bar Length (m) | Size when folded (cm) |
|---------|-------------------|---------------------|--------------|----------------|-----------------------|
| KM-1 | 3.15 | 0 to 90 | 0.1 | 1.2 | 1200 x 70 x 210 |
| KM-3 | 5.9 | | | 3 | 1500 x 70 x 220 |

Grader and Bulldozer Blade Slope Meters

Englo offers products for a wide range of graders and bulldozers to regulate and control surface slope.

The devices come with two separate units – slope sensor with signal precision amplifier and slope measuring and control unit – that are connected by a flexible cable or wirelessly for Grader Watchman-3. The slope sensor unit is connected to the grader blade or bulldozer plow and the slope measuring and control unit is attached to the window of the cabin, allowing the operator to view the measurement results and alarms directly from the cabin.

The products allow the operator to keep the blade or plow slope at a desired angle with the aid of sound and light signals. Additionally, the devices allow the operator to measure slope of an existing surface by lowering the blade of the grader or the plow of the bulldozer to the desired surface location and then taking the measurement.

Englo's grader and bulldozer slope meters are rated IP65 under the international IEC 60529 standard and are splash and dust proof. The sensor units are rated IP68.

GRADER WATCHMAN-2: Grader Blade Slope Meter

- Wide slope measuring range
- Alarms and signals to help keep the blade slope at desired angle
- Measurement with display
- Measurement results and alarms can be viewed directly from the cabin during operation
- Can be used during construction or to measure slope of existing surfaces

DOZER WATCHMAN: Bulldozer Plow Slope Meter

- Wide slope measuring range
- Alarms and signals to help keep the bucket slope at desired angle
- Measurement with display
- Measurement results and alarms can be viewed directly from the cabin during operation
- Can be used during construction or to measure slope of existing surfaces

GRADER WATCHMAN-3: Grader Blade Slope Meter with wireless sensor

- Wide slope measuring range
- Adjustable blade turnout angle compensation
- Alarms and signals to help keep the blade slope at desired angle
- Measurement with display
- Wireless sensor is easy to install and requires less cabling
- Can be used during construction or to measure slope of existing surfaces

| Product | Operating Angle (°) | Desired angle range (°) | Accuracy (°) | Sensitivity to longitudinal slope | Impact Resistance (g) |
|--------------------------|----------------------------|--------------------------------|---------------------|--|------------------------------|
| GRADER WATCHMAN-2 | +/- 30 | +/- 10 | +/-0.1 | 0.1% slope to 45° | 10,000 |
| DOZER WATCHMAN | +/- 30 | +/- 10 | +/-0.1 | 0.1% slope to 45° | 10,000 |
| GRADER WATCHMAN-3 | +/- 44 | +/- 20 | +/-0.1 | 0.1% slope to 45° | 10,000 |



Akadeemia tee 21/1, Tallinn 12618, Estonia * phone + 372 670 2444

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