



### Shatter-Proof Inclinometers for Measuring Slope Angle & Grade



#### Overview

Rieker Inc. manufactures Military Grade inclinometers using precision tube and ball construction. The housing is made of shatter-proof 100% Polycarbonate, making these inclinometers extremely rugged for all types of environments and weather conditions.

All our tubes are filled with a special damping fluid that controls the movement of the ball and will operate in wide MIL SPEC temperatures.

Our industry leading quality and control standards provides for the smoothest and most consistent roll among any other inclinometer of this type worldwide.

The large, clear number and degree markings make it easy to get quick, accurate readings - clearly visible from several feet away.

Rieker Inclinometers are the industry standard for providing real-time tilt of any object in most any environment.

#### Definition

A Clinometer is any of various surveying instruments for measuring angles of elevation, slope, or incline, with respect to gravity. Also known as an inclinometer, slope meter, or gradiometer, Rieker precision instruments provide accurate real-time measurement of slope angle in Degrees or Percent Grade.

#### Features

- *Military Grade 100% Polycarbonate - Shatter-Proof!*
- *ALL-Weather - Will Not Rust, Freeze or Hang Up*
- *Easy Installation - bolt on or VHB Tape*
- *Extreme Shock / Vibration Resistant*
- *UV Resistant*
- *MIL SPEC Operating Temperature Range*
- *Custom Warning Zones (Red/Green)*
- *±5, ±10, ±26, ±45°, ±60°*
- *Backlit available on certain models*

#### Applications

Quick Visual of...

- *Boom Angle*
- *Slope Meter*
- *Pitch - Roll*
- *Heel - Trim*
- *Tip-over Warning*
- *Platform Leveling*
- *Load Balancing*

#### Equipment Types

- *Aerial lift trucks*
- *Aircraft*
- *Bucket/Utility trucks*
- *Cranes*
- *Construction Equipment*
- *Conveyor and Material Handling Equipment*
- *Emergency Vehicles*
- *Fire Aerial Ladder trucks*
- *Government and Military (wheeled or tracked) Vehicles*
- *Marine Vessels (including sailboats)*
- *Recreational Vehicles (RV)*
- *Trailers*

**Rieker Rugged. Rieker Reliable.™**

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### 2105 GENERAL TECHNICAL DATA

<b>Dimensions</b>	6"w X 1.85"h X 0.375"d (152,4mm X 47mm X 9,6mm)
<b>Case Material</b>	100% Polycarbonate, IP68
<b>Operating Temperature</b>	-50° F to +180° F (-45°C to +82°C)
<b>Measuring Scale</b>	Lower in Degrees (default); Optional Upper in Percent Grade

### 2105 STANDARD PART NUMBERS\*

#### 2105-B

<b>Degree Range</b>	±5°
<b>Degree Markings</b>	0.5°
<b>Background Color</b>	Black
<b>Markings Color</b>	White



#### 2105-C

<b>Percent Range</b>	±5°
<b>Degree Range</b>	0.5°
<b>Background Color</b>	White
<b>Markings Color</b>	Black



### Customer Specified Warning Zones\*

<b>Zone Example</b>	Zone 1	0..±3°	Green
<b>Zone Example</b>	Zone 2	±3..5°	Red
<b>Background Color</b>	Black		
<b>Markings Color</b>	White		



\*Custom configurations available including adding an upper scale, color warning zones, and backlit housing. Please note that color zones are specified by the customer - your sales representative will be happy to assist.

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### 2110 GENERAL TECHNICAL DATA

<b>Dimensions</b>	6"w X 1.94"h X 0.375"d (152,4mm X 49,28mm X 9,6mm)
<b>Case Material</b>	100% Polycarbonate, IP68
<b>Operating Temperature</b>	-50° F to +180° F (-45°C to +82°C)
<b>Measuring Scale</b>	Lower in Degrees (default); Optional Upper in Percent Grade

### 2110 STANDARD PART NUMBERS\*

<b style="color: red;">2110-A</b>	
<b>Degree Range</b>	±10°
<b>Degree Markings</b>	1°
<b>Background Color</b>	Black
<b>Markings Color</b>	White



<b style="color: red;">2110-F</b>	
<b>Percent Range</b>	±10°
<b>Degree Range</b>	1°
<b>Background Color</b>	White
<b>Markings Color</b>	Black



### Customer Specified Warning Zones\*

<b>Zone Example</b>	Zone 1	0..±5°	Green
<b>Zone Example</b>	Zone 2	±5..10°	Red
<b>Background Color</b>	Black		
<b>Markings Color</b>	White		



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### 2126 GENERAL TECHNICAL DATA

<b>Dimensions</b>	6"W X 2.375"H X 0.375"D (152,4mm X 60,4mm X 9,6mm)
<b>Case Material</b>	100% Polycarbonate, IP68
<b>Operating Temperature</b>	-50° F To +180° F (-45°c To +82°c)
<b>Measuring Scale</b>	Lower In Degrees (Default); Optional Upper In Percent Grade

### 2126 STANDARD PART NUMBERS\*

<b style="color: red;">2126-C</b>	
<b>Degree Range</b>	±26°
<b>Degree Markings</b>	2°
<b>Background Color</b>	Black
<b>Markings Color</b>	White



<b style="color: red;">2126-D (Gradiometer)</b>		
<b>Percent Range</b>	Upper Scale	±45%, 5%
<b>Degree Range</b>	Lower Scale	±26°, 2°
<b>Background Color</b>	Black	
<b>Markings Color</b>	White	



<b style="color: red;">2126-E</b>	
<b>Degree Range</b>	±26°
<b>Degree Markings</b>	2°
<b>Background Color</b>	White
<b>Markings Color</b>	Black



### Customer Specified Warning Zones\*

<b>Zone Example</b>	Upper Scale	±25% To 45%	Red
<b>Zone Example</b>	Lower Scale	±14 To 26°	Red
<b>Background Color</b>	Black		
<b>Markings Color</b>	White		



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### 2145-05 GENERAL TECHNICAL DATA

<b>Dimensions</b>	5.25"w X 2.29"h X 0.42"d (133,4mm X 58,2mm X 10,7mm)
<b>Case Material</b>	100% Polycarbonate, IP68
<b>Operating Temperature</b>	-50° F to +180° F (-45°C to +82°C)
<b>Measuring Scale</b>	±45° lower scale, ±5° upper scale

### 2145-05 STANDARD PART NUMBERS\*

#### 2145-05-A

<b>Degree Range</b>	Upper Scale	±5°
<b>Degree Markings</b>	Lower Scale	±45°
<b>Background Color</b>	Black	
<b>Markings Color</b>	White	



#### 2145-05-B

<b>Percent Range</b>	Upper Scale	±5°
<b>Degree Range</b>	Lower Scale	±45°
<b>Background Color</b>	White	
<b>Markings Color</b>	Black	



#### CUSTOM

Customer Specified Options\*:  
background color | warning zones | backlit housing

#### 2145-05-C

<b>Color Zone 1</b>	Green	0..30°
<b>Color Zone 2</b>	Yellow	n/a
<b>Color Zone 3</b>	Red	30..45°
<b>Background Color</b>	Black or White	
<b>Markings Color</b>	Black or White	



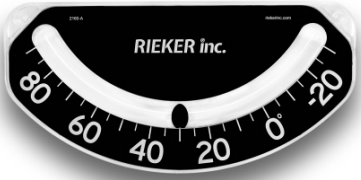



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### 2160 GENERAL TECHNICAL DATA

<b>Dimensions</b>	9.25"W X 4.5"H X 0.5"D (234,95mm X 114,3mm X 12,7mm)
<b>Case Material</b>	100% Polycarbonate, IP68
<b>Operating Temperature</b>	-50° F To +180° F (-45°c To +82°c)
<b>Measuring Scale</b>	Degrees (Default); Optional Percent Grade

### 2160 STANDARD PART NUMBERS\*

		<b>2160-A</b>
<b>Degree Range</b>	-30 to +90° (right-hand)	
<b>Degree Markings</b>	5°	
<b>Background Color</b>	Black	
<b>Markings Color</b>	White	
		<b>2160-B</b>
<b>Degree Range</b>	-30 to +90° (left-hand)	
<b>Degree Markings</b>	5°	
<b>Background Color</b>	Black	
<b>Markings Color</b>	White	
		<b>2160-C</b>
<b>Degree Range</b>	-30 to +90° (right-hand)	
<b>Degree Markings</b>	5°	
<b>Background Color</b>	White	
<b>Markings Color</b>	Black	
		<b>2160-D</b>
<b>Zone Example</b>	-30 to +90° (left-hand)	
<b>Zone Example</b>	5°	
<b>Background Color</b>	White	
<b>Markings Color</b>	Black	

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# 2100 Series

## Mechanical “Ball-in-Tube” Inclinometers

### 2160 STANDARD PART NUMBERS\*

<b>Degree Range</b>	±60°
<b>Degree Markings</b>	5°
<b>Background Color</b>	Black
<b>Markings Color</b>	White



### 2160-F

<b>Degree Range</b>	±60°
<b>Degree Markings</b>	5°
<b>Background Color</b>	White
<b>Markings Color</b>	Black



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# 2100 Series

## Mechanical “Ball-in-Tube” Inclinometers

<b>Available For Models</b>	2110, 2126, 2145-05, 2160
<b>LED (Default)</b>	White
<b>LED (Optional)</b>	Green, Red, (NVIS available)
<b>Input Voltage</b>	12VDC
<b>Electrical Connection</b>	20" wire w/(DTM04-2P) connector
<b>Outdoor Rating</b>	IP67



### Description

The newest addition to the 2100 Series of rugged and accurate inclinometers is the backlit housing option, adding a highly visible backlight case to the back of the available models for increased safety - especially at night! This back lit version complies with FEMA and National Fire Protection Association (NFPA) 1901 Standards for Automotive Fire Apparatus.

### Applications

The 2100 Series is recommended for use on equipment and vehicles where accurate inclination measurements must be taken under difficult conditions and harsh environments. Typical applications include aerial lifts, truck-mounted boom cranes, any fire truck with a mounted boom or ladder, telescoping off-road variable reach fork lifts, cranes and derricks, or any equipment that requires out-of-level or roll-over visual warning indication.

OEM quantity pricing available. Set-up fee or minimum quantities may apply.

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