

# FLUKE®

## 404E/406E

Laser Distance Meters

### *Safety Information*

To register your product, visit [www.fluke.com](http://www.fluke.com).

To view, print, or download the latest manual or manual supplement, visit [www.fluke.com/user/support/manuals](http://www.fluke.com/user/support/manuals).

A **Warning** identifies hazardous conditions and procedures that are dangerous to the user.

#### **Warning**

**To prevent eye damage and personal injury:**

- **Read all safety information before you use the Product.**
- **Carefully read all instructions.**
- **Use the Product only as specified, or the protection supplied by the Product can be compromised.**
- **Do not use the Product around explosive gas, vapor, or in damp or wet environments. Do not use the Product if it operates incorrectly.**
- **Do not use the Product if it is altered or damaged.**

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Specifications are subject to change without notice.












All product names are trademarks of their respective companies.



- **Disable the Product if it is damaged.**
- **Use the Product only as specified or hazardous laser radiation exposure can occur.**
- **Do not look into the laser. Do not point laser directly at persons or animals or indirectly off reflective surfaces.**
- **Do not look directly into the laser with optical tools (for example, binoculars, telescopes, microscopes). Optical tools can focus the laser and be dangerous to the eye.**
- **Do not open the Product. The laser beam is dangerous to eyes. Have the Product repaired only through an approved technical site.**
- **Remove the batteries if the Product is not used for an extended period of time, or if stored in temperatures above 50 °C. If the batteries are not removed, battery leakage can damage the Product.**
- **Replace the batteries when the low battery indicator shows to prevent incorrect measurements.**

## **Symbols**

The table below lists the symbols that can be used on the Product or in this document.

| <b>Symbol</b>   | <b>Description</b>                               |
|---|--|
|  | Consult user documentation.                      |
|  | WARNING. RISK OF DANGER.                         |
|  | WARNING. LASER RADIATION.<br>Risk of eye damage. |
|  | Battery or battery compartment.                  |
|  | Battery status.                                  |

| Symbol  | Description  |
|---|--|
|    | Conforms to European Union directives.   |
|    | Measure and Min/Max <ul style="list-style-type: none"> <li>• Short press - single measurement.</li> <li>• Long press - continuous measurement</li> </ul> |
|    | Clear / Off  |
|    | Memory   |
|    | Add and Subtract   |
|    | Fractions  |
|    | Mute/Time Delay <ul style="list-style-type: none"> <li>• Short press - mute.</li> <li>• Long press - Time Delayed measurement</li> </ul>                 |
|    | Reference/Units  |
|    | Minimum/Maximum  |
|   | Measure from front   |
|  | Measure from back  |

| Symbol  | Description   |
|---|---|
|  | <p>This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.</p> |
|  | <p>Indicates a Class 2 laser. DO NOT STARE INTO BEAM The following text may appear with the symbol on the product label: "IEC/EN 60825-1. Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice 50, dated June 24, 2007." In addition, the following pattern on the label will indicate wavelength and optical power: <math>\lambda = \text{xxxnm}</math>, <math>x.\text{xxmW}</math>.</p>                |

## Specifications

|                        | 404E   | 406E          |
|------------------------|--|---------------|
| Range                  | 0.2 m to 50 m  | 0.2 m to 80 m |
| <b>Accuracy</b>        |  |               |
| Favorable conditions   | $\pm(2.0\text{mm}+5 \times 10^{-5} D)$ mm<br>D = measurement distance<br>white and diffuse reflecting target (white wall), low light background and moderate temperature.    |               |
| Unfavorable conditions | $\pm(3.0\text{mm}+5 \text{ to } 29 \times 10^{-5} D)$ mm<br>D = measurement distance<br>low or high reflectivity target, strong light background or out of work temperature. |               |

|  | 404E  | 406E |
|--|---|------|
| Angle accuracy                             | $\pm(0.3^{\circ}+0.1^{\circ}+0.01^{\circ} \cdot A)$<br>0.1° deviation is caused by temperature, A is the angle of $\pm 0.45^{\circ}$<br>For example, when temperature is $>18^{\circ}\text{C}$ and $<28^{\circ}\text{C}$ the $0^{\circ}$ angle accuracy is $\pm 0.3^{\circ}$<br>When the temperature is $<18^{\circ}\text{C}$ and $>28^{\circ}\text{C}$ , the $45^{\circ}$ angle accuracy is $\pm 0.85^{\circ}$ |      |
| Measurement Type                           | Single, continuous, Area, Volume, Auto Level, Auto Height, Pythagoras 2 points, Pythagoras 3 points, Add/Subtract   |      |
| Auto - off                                 | 3 minutes of no activity  |      |
| Memory                                     | 30 measurements   |      |
| <b>Battery</b>                             | 2 x AAA 1.5 V IEC LR03  |      |
| <b>Battery life</b>                        | $\leq 5000$ measurements  |      |
| <b>Temperature</b>                         |   |      |
| Operating                                  | 0 °C to 40 °C   |      |
| Storage                                    | -10 °C to 60 °C   |      |
| <b>Size (H x W x L)</b>                    | 52 mm x 116 mm x 28 mm  |      |
| <b>Weight (with batteries)</b>             | 100 g   |      |
| <b>Measurement Units</b>                   | m/ft/in/ft+in   |      |
| <b>Protection Class</b>                    | IP65  |      |
| <b>Safety</b>                              | IEC 61010-1: Pollution Degree 2   |      |
| <b>Laser</b>                               | IEC 60825-1: Class 2, 630 nm to 670 nm $<1$ mW  |      |
| <b>Electromagnetic Compatibility (EMC)</b> |   |      |

**Electromagnetic Compatibility (EMC)**

International IEC 61326-1: Industrial  
Electromagnetic Environment  
CISPR 11: Group 1, Class A

*Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.*

*Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.*

Korea (KCC) Class A Equipment (Industrial  
Broadcasting & Communication  
Equipment)

*Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.*

USA (FCC) 47 CFR 15 subpart B. This product is  
considered an exempt device per  
clause 15.103.

## LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

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