

# Fluke 416D and 411D Laser Distance Meters

The Fluke professional laser distance meters can be used in multiple applications . . .

- **Electrical**
  - Conduit lengths
  - Wire lengths
  - Power drop spacing
  - Lighting spacing and locations
  - Equipment power box locations

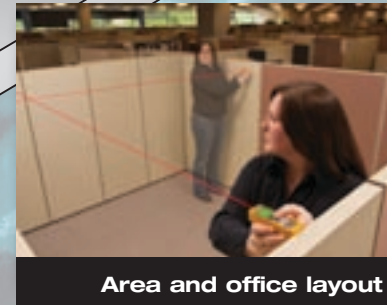
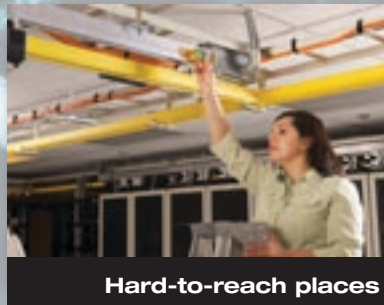


- ▲ **Plant Management (Industrial)**
  - Equipment layout
  - Piping/exhausts/ventilation
  - Equipment installation
  - Conduit layout and installation



- ✕ **HVAC**
  - Air ventilation and ducting
  - Equipment position
  - Air volume calculations
  - Hot/Cold water piping
  - Wire length
  - Duct sizing

- **Tenant Space**
  - Space layout
  - Lighting spacing
  - Floor plan layout
  - Network room layout



For more information visit:  
[www.fluke.com/distance](http://www.fluke.com/distance)





## Fluke 416D

The advanced, professional-grade distance measuring tool

**Confidently measure up to 60 m (200 ft) with 1.5 mm (1/16 in) accuracy**

### Features and benefits:

- Save time and money by reducing estimation errors
- Most advanced laser technology for distance measurement
- Instant measurement with one-button operation
- Easy targeting with bright laser
- Quickly calculate area (square feet) and volume
- Indirectly determine a distance via two or three other distances (Advanced Pythagoras)
- Easily add and subtract measurements
- Two-year warranty
- **Improved visibility with backlit display**
- **Min/Max function**
- **IP 54—spraywater and dust resistant**



Technical specifications	Fluke 416D
Range	0.05 m - 60 m (0.16 ft to 200 ft)
Measuring accuracy	± 1.5 mm ( ± 0.059 in)*
Displayed Units	00.000 m, 000 ft 00 in 1/16, 000.00 ft
Laser class	II
Automatic power off	after 180 seconds
Continuous measurement	Yes
Battery life	up to 5,000 readings
Temperature range—operation	+0 °C to 40 °C (32 °F to 104 °F)
Batteries	2 AAA

\*In favorable conditions (optimal target surface, room temperature) up to 10 m (33 ft) (For complete accuracy information please see the manual)

## Fluke 411D

The professional-grade distance measuring tool

**Confidently measure up to 30 m (100 ft) with 3 mm (1/8 in) accuracy**

### Features and benefits:

- Save time and money by reducing estimation errors
- Most advanced laser technology for distance measurement
- Instant measurement with one-button operation
- Easy targeting with bright laser
- Quickly calculate area (square feet) and volume
- Indirectly determine a distance via two other distances (Pythagoras)
- Easily add and subtract measurements
- Two-year warranty



Technical specifications	Fluke 411D
Range	0.1 m - 30 m (0.33 ft to 100 ft)
Measuring accuracy	± 3 mm ( ± 0.118 in)*
Displayed Units	00.000 m, 000 ft 00 in 1/8, 000.00 ft
Laser class	II
Automatic power off	after 180 seconds
Continuous measurement	Yes
Battery life	up to 3,000 readings
Temperature range—operation	+0 °C to 40 °C (32 °F to 104 °F)
Batteries	2 AAA

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### Advantages of laser distance meters

Many ultrasonic distance meters have a laser pointer that is not used for measurement, sometimes leading to confusion with a true laser distance meter. Ultrasonic meters emit a sound wave and measure the time for the sound wave to return to the unit. However, the returning sound wave is not always reflected from the target object; thus, an ultrasonic meter can often display false readings, especially in mechanical rooms with equipment or panels near walls. Ultrasonic distance meters are generally limited to 15 m (50 ft). They do not work well outdoors. There are ultrasonic meters that extend beyond 15 m (50 ft), however, accuracy can be degraded to a tolerance of 150 mm (6 in).

Instead of sound waves, laser distance meters emit light pulses with a defined wavelength and frequency. The light pulses reflect off the specific target and are received by the distance meter, at the speed of light. The returning wavelengths and light pulses change in relationship to those sent out by the meter. The difference between the two signals is proportional to the target distance. Unlike ultrasonic meters, the laser distance meters' narrow laser beam usually prevents reflection off objects that are near the wall or hanging on it, avoiding false readings.

**Fluke. Keeping your world up and running.®**

#### Fluke Corporation

PO Box 9090,  
Everett, WA 98206 U.S.A.

#### Fluke Europe B.V.

PO Box 1186, 5602 BD  
Eindhoven, The Netherlands

#### For more information call:

In the U.S.A. (800) 443-5853 or Fax (425) 446-5116  
In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222  
In Canada (800)-36-FLUKE or Fax (905) 890-6866  
From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116  
Web access: <http://www.fluke.com>

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Point, shoot, and measure distance



**It's that easy!**