

# Fluke 421D, 416D and 411D Laser Distance Meters

<b>Technical specifications</b>	
<b>Range (for extended distances, use a target plate)</b>	<b>Fluke 411D</b> 0.1 m to 30 m (0.33 ft to 100 ft) <b>Fluke 416D</b> 0.05 m to 60 m (0.16 ft to 200 ft) <b>Fluke 421D</b> 0.05 m to 100 m (0.16 ft to 330 ft)
<b>Measuring accuracy</b>	<b>Fluke 411D*</b> ± 3 mm (0.118 in) <b>Fluke 416D**</b> ± 1.5 mm (± 0.059 in) <b>Fluke 421D</b> ± 1.5 mm (± 0.059 in)
<b>Laser class</b>	<b>Fluke 411D</b> Class II <b>Fluke 416D</b> Class II <b>Fluke 421D</b> Class II
<b>Laser type</b>	<b>Fluke 411D</b> 635 nm, < 1 mW <b>Fluke 416D</b> 635 nm, < 1 mW <b>Fluke 421D</b> 635 nm, < 1 mW
<b>Automatic power off</b>	<b>Fluke 411D</b> after 180 seconds <b>Fluke 416D</b> after 180 seconds <b>Fluke 421D</b> after 180 seconds
<b>Continuous measurement</b>	<b>Fluke 411D</b> Yes <b>Fluke 416D</b> Yes <b>Fluke 421D</b> Yes
<b>Addition/subtraction</b>	<b>Fluke 411D</b> Yes <b>Fluke 416D</b> Yes <b>Fluke 421D</b> Yes
<b>Battery life</b>	<b>Fluke 411D</b> up to 3,000 measurements <b>Fluke 416D</b> up to 5,000 measurements <b>Fluke 421D</b> up to 5,000 measurements
<b>LCD illumination</b>	<b>Fluke 411D</b> No <b>Fluke 416D</b> Yes <b>Fluke 421D</b> Yes
<b>Data locations</b>	<b>Fluke 411D</b> No <b>Fluke 416D</b> 10 <b>Fluke 421D</b> 20
<b>Min/Max</b>	<b>Fluke 411D</b> No <b>Fluke 416D</b> Yes <b>Fluke 421D</b> Yes
<b>Audible feedback</b>	<b>Fluke 411D</b> No <b>Fluke 416D</b> Yes <b>Fluke 421D</b> Yes
<b>Pythagoras (Indirect measurement)</b>	<b>Fluke 411D</b> Simple <b>Fluke 416D</b> Full <b>Fluke 421D</b> Full

<b>Ingress protection</b>	<b>Fluke 411D</b> IP40 <b>Fluke 416D</b> IP54 <b>Fluke 421D</b> IP54
<b>Dimensions</b>	<b>Fluke 411D</b> 123 mm x 50 mm x 26 mm (4.84 in x 1.97 in x 1.02 in) <b>Fluke 416D</b> 135 mm x 46 mm x 31 mm (5.31 in x 1.81 in x 1.22 in) <b>Fluke 421D</b> 127 mm x 52 mm x 29 mm (5.00 in x 2.06 in x 1.13 in)
<b>Weight</b>	<b>Fluke 411D</b> 150 g (5.29 oz) <b>Fluke 416D</b> 110 g (3.88 oz) <b>Fluke 421D</b> 125 g (4.40 oz)
<b>Temperature range</b>	<b>Fluke 411D</b> <b>Storage:</b> -25 °C to 70 °C (-13 °F to 158 °F) <b>Operation:</b> 0 °C to 40 °C (32 °F to 104 °F) <b>Fluke 416D</b> <b>Storage:</b> -25 °C to 70 °C (-13 °F to 158 °F) <b>Operation:</b> 0 °C to 40 °C (32 °F to 104 °F) <b>Fluke 421D</b> -25 °C to 70 °C (-13 °F to 158 °F) 0 °C to 40 °C (32 °F to 104 °F)
<b>Operating altitude (ISO 9022)</b>	<b>Fluke 411D</b> up to 3500 m <b>Fluke 416D</b> up to 3500 m <b>Fluke 421D</b> up to 3500 m
<b>Storage humidity (at 35 °C)</b>	<b>Fluke 411D</b> maximum 85 % for 24 h <b>Fluke 416D</b> maximum 85 % for 24 h <b>Fluke 421D</b> maximum 85 % for 24 h
<b>Batteries</b>	<b>Fluke 411D</b> AAA (2) <b>Fluke 416D</b> AAA (2) <b>Fluke 421D</b> AAA (2)

\* In favorable conditions (optimal target surface, room temperature) up to 10 m (33 ft). In unfavorable conditions, such as intensive sunshine, very weakly reflecting target surface, or large temperature fluctuations, measuring accuracy may deteriorate to approx.  $\pm 0.25$  mm/m ( $\pm 0.003$  in/ft) for distances above 10 m (33 ft).

\*\* In favorable conditions (optimal target surface, room temperature) up to 10 m (33 ft). In unfavorable conditions, such as intensive sunshine, very weakly reflecting target surface, or large temperature fluctuations, the deviation over distances 10 m (33 ft) can increase by approx.  $\pm 0.15$  mm/m ( $\pm 0.0018$  in/ft).