Length Unit Converter (mm, m, km, inch, foot, yard, mile)

Convert a length between millimetres, metres, kilometres, microns, inches, feet, yards, miles, nautical miles and mils (thou).

Method: Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Input parameters

Unit system: SI

Parameter	Value	Unit
Length (choose its unit)	1.0000	m

Calculated results

Parameter	Value	Unit
metre	1.0000	m
millimetre	1,000.0	mm
micrometre (micron)	1,000,000	µm
centimetre	100.00	cm
kilometre	0.001000	km
inch	39.370	in
foot	3.2808	ft
yard	1.0936	yd
mile	6.2137e-04	mi
nautical mile	5.3996e-04	nmi
mil (thou)	39,370	mil

Notes for this case

- The inch is exactly 25.4 mm by international agreement (1959).

Formula and method

$$x_{\text{unit}} = \frac{x_{SI}}{f_{\text{unit}}}$$

Variables

x	Length (choose its unit)	m

Method and standards

Each unit's factor to the SI unit is held once in the unit registry.

Assumptions and limits

- Exact factors where the definition is exact.

References

- Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Report details

Report reference	FCC-9CHQ-8C0Z (the same inputs always give the same reference)
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Calculator	Length Unit Converter (mm, m, km, inch, foot, yard, mile)
Method last reviewed	12 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	2 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/general/unit-conversions/length-unit-converter

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.