

SI Base Units

Measurement	Unit	Symbol
length	metre	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
temperature	kelvin	K
amount of substance	mole	mol
intensity of light	candela	cd

TABLE D-2 SI Prefixes

Prefix	Multiplication Factor	Prefix	Multiplication Factor
exa E	1 000 000 000 000 000 000 = 10^{18}	deci d	0.1 = 10^{-1}
peta P	1 000 000 000 000 000 = 10^{15}	centi c	0.01 = 10^{-2}
tera T	1 000 000 000 000 = 10^{12}	milli m	0.001 = 10^{-3}
giga G	1 000 000 000 = 10^9	micro μ	0.000 001 = 10^{-6}
mega M	1 000 000 = 10^6	nano n	0.000 000 001 = 10^{-9}
kilo k	1 000 = 10^3	pico p	0.000 000 000 001 = 10^{-12}
hecto h	100 = 10^2	femto f	0.000 000 000 000 001 = 10^{-15}
deka da	10 = 10^1	atto a	0.000 000 000 000 000 001 = 10^{-18}

TABLE D-3 Units with Special Names Derived from SI Base Units

Measurement	Unit	Symbol	Expressed in Base Units
energy, work	joule	J	$\text{kg} \cdot \text{m}^2/\text{s}^2$
force	newton	N	$\text{kg} \cdot \text{m}/\text{s}^2$
frequency	hertz	Hz	1/s
illuminance	lux	lx	$\text{m}^{-2} \cdot \text{cd}$
luminous flux	lumen	lm	cd
potential difference	volt	V	$\text{kg} \cdot \text{m}^2/\text{A} \cdot \text{s}^3$
power	watt	W	$\text{kg} \cdot \text{m}^2/\text{s}^3$
pressure	pascal	Pa	$\text{kg}/\text{m} \cdot \text{s}^2$
quantity of electric charge	coulomb	C	A · s
resistance	ohm	Ω	$\text{m}^2 \cdot \text{kg}/\text{s}^3 \cdot \text{A}^2$
magnetic field strength	tesla	T	$\text{kg} \cdot \text{s}^{-2} \cdot \text{A}^{-1}$
capacitance	farad	F	$\text{A}^2 \cdot \text{s}^4/\text{kg} \cdot \text{m}^2$