

## Metric SI Prefixes

International standard units, known as **SI units** (*The International System of Units*), include a complete **metric system**. Its major advantage is the *ease of conversion* due to the compatibility with our decadic number system. Multiplication numbers, exponents, prefixes, case sensitive abbreviations and some examples are listed below

(see also *Metric Prefixes*: Appendix A, Tab. A.3;

[http://en.wikipedia.org/wiki/Metric\\_prefix](http://en.wikipedia.org/wiki/Metric_prefix) ):

exp	Multiplication number	=	$10^{\text{exponent}}$	prefix	abbr.	example	abbr.
24	1,000,000,000,000,000,000,000,000	=	$10^{24}$	yotta-	Y-		
21	1,000,000,000,000,000,000,000,000	=	$10^{21}$	zetta-	Z-		
18	1,000,000,000,000,000,000,000,000	=	$10^{18}$	exa-	E-	exahertz	EHz
15	1,000,000,000,000,000,000,000,000	=	$10^{15}$	peta-	P-	petameter	Pm
12	1,000,000,000,000,000,000,000,000	=	$10^{12}$	tera-	T-	terawatt	TW
9	1,000,000,000,000,000,000,000,000	=	$10^9$	giga-	G-	gigagram	Gg
6	1,000,000,000,000,000,000,000,000	=	$10^6$	mega-	M-	megawatt	MW
3	1,000,000,000,000,000,000,000,000	=	$10^3$	kilo-	k-	kilogram	kg
2	100,000,000,000,000,000,000,000,000	=	$10^2$	hecto-	h-	hectopascal	hPa
1	10,000,000,000,000,000,000,000,000	=	$10^1$	deka-	da-	dekalumen	dalm
0	1,000,000,000,000,000,000,000,000	=	$10^0$	one		gram	g
-1	0.1,000,000,000,000,000,000,000,000	=	$10^{-1}$	deci-	d-	decibel	dB
-2	0.01,000,000,000,000,000,000,000,000	=	$10^{-2}$	centi-	c-	centimeter	cm
-3	0.001,000,000,000,000,000,000,000,000	=	$10^{-3}$	milli-	m-	millimeter	mm
-6	0.000 001,000,000,000,000,000,000,000,000	=	$10^{-6}$	micro-	μ	micrometer	μm
-9	0.000 000 001,000,000,000,000,000,000,000,000	=	$10^{-9}$	nano-	n-	nanometer	nm
-12	0.000 000 000 001,000,000,000,000,000,000,000,000	=	$10^{-12}$	pico-	p-	picofarad	pF
-15	0.000 000 000 000 001,000,000,000,000,000,000,000,000	=	$10^{-15}$	femto-	f-	femtoampere	fA
-18	0.000 000 000 000 000 001,000,000,000,000,000,000,000,000	=	$10^{-18}$	atto-	a-	attocoulomb	aC
-21	0.000 000 000 000 000 000 001,000,000,000,000,000,000,000,000	=	$10^{-21}$	zepto-	z-		
-24	0.000 000 000 000 000 000 000 001,000,000,000,000,000,000,000,000	=	$10^{-24}$	yocto-	y-		