The physunits package*

Brian W. Mulligan
bwmulligan@astronaos.com

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1 Introduction

This package consists of several macros that are shorthand for a variety of physical units that are commonly used in introductory level physics and astronomy classes.

At present, this package provides some similar units to those in siunitx, but is uses slightly different macro names for each. This package also provides a number of non-SI units (e.g. erg, cm, BTU).

2 Prerequisites / Dependencies

2.1 General

This package requires the `physunits` package.

2.2 Generating Documentation

The `hyperref` package are required to generate the documentation (this file) for this package.

*This document corresponds to physunits v1.2.0, dated 2021/03/26.

3 Acknowledgements

The author would like to thank Brian Dunn for catching bugs in the temperature units and kcal, leading to changes in v1.0.4.

4 Bug Reporting

Please report bugs or issues in this package using github, at `https://github.com/astrobit/physunits/issues`.

5 Naming Convention

most macros consist of just the commonly used letter or unit, e.g. \m for meters. In cases where the simple form of the unit conflicts with an existing LaTeX macro, then the full word is used, starting with a upper-case letter, e.g. \Coulomb.

One notable exception to the above naming convention is the use of \gm for grams, instead of \g or \Gram.

6 Base and Prefixes

Most units are in the base unit only, but some very commonly used prefixes are available as part of the macro, e.g. \kg for kilogram, \cm for centimeter. For base units, each macro accepts one option that can be used to specify the prefix, for example \m[n] will result in nm. The macros enforce math mode, so \m[\micro] will result in μm.

7 Macro Usage

7.1 Special Macros

`\units@separator` `\units@separator` is a special macro used to set the spacing between a quantity and the associated units.

`\micro` `\micro` is a special macro that can be used for the prefix μ (micro-). Internally it just uses \mu.

7.2 Electricity & Magnetism

`\V` `\V` is a macro for Volts (V). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Volt` `\Volt` is a macro for Volts (V). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Coulomb` `\Coulomb` is a macro for Coulombs (C). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\esu` `\esu` is a macro for electrostatic units (esu), the units of charge in Gaussian cgs.

`\Ohm` `\Ohm` is a macro for Ohms (Ω). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Amp` `\Amp` is a macro for Amperes (A). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Farad` `\Farad` is a macro for Farads (F). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Tesla` `\Tesla` is a macro for Teslas (T). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Gauss` `\Gauss` is a macro for Gauss (G), the units for magnetic field strength in Gaussian cgs. This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Henry` `\Henry` is a macro for Henrys (H). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

7.3 Energy

`\eV` `\eV` is a macro for electron Volts (eV). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\keV` `\keV` is a macro for kilo-electron Volts (keV).

`\MeV` `\MeV` is a macro for mega-electron Volts (MeV).

`\J` `\J` is a macro for Joules (J). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Joule` `\Joule` is a macro for Joules (J). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\erg` `\erg` is a macro for ergs (erg), the unit of energy in cgs.

`\kcal` `\kcal` is a macro for kilo-calories (kcal).

`\Cal` `\Cal` is a macro for kilo=calories (Cal).

`\calorie` `\calorie` is a macro for calories (cal). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\BTU` `\BTU` is a macro for British Thermal Units (BTU).

`\tnt` `\tnt` is a macro for tons of TNT.

7.4 Power

`\Watt` `\Watt` is a macro for Watts (W). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\hpi` `\hpi` is a macro for Imperial Horsepower (hp(I)).

`\hpi` `\hpi` is a macro for Metric Horsepower (hp(M)).

`\hp` `\hp` is a macro for Horsepower (hp).

7.5 Distance

`\meter` `\meter` is a macro for meters (m). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\m` `\m` is a macro for meters (m). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\km` `\km` is a macro for kilometers (km).

`\au` `\au` is a macro for astronmical units (au).

`\pc` `\pc` is a macro for parsecs (pc). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\ly` `\ly` is a macro for light-years (ly). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\cm` `\cm` is a macro for centimeters (cm).

`\nm` `\nm` is a macro for nanometers (nm).

`\ft` `\ft` is a macro for feet (ft).

`\inch` `\inch` is a macro for inches (in).

`\mi` `\mi` is a macro for miles (mi).

7.6 Time

`\s` `\s` is a macro for seconds (s). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Sec` `\Sec` is a macro for seconds (s). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Min` `\Min` is a macro for minutes (m).

`\h` `\h` is a macro for hours (h).

`\y` `\y` is a macro for years (y). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Day` `\Day` is a macro for days (d).

7.7 Mass

`\gm` `\gm` is a macro for grams (g). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\kg` `\kg` is a macro for kilograms (kg).

`\lb` `\lb` is a macro for pounds (weight) (lb).

`\amu` `\amu` is a macro for atomic mass units (amu).

7.8 Force

`\N` `\N` is a macro for Newtons (N). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Newton` `\Newton` is a macro for Newtons (N). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\dyne` `\dyne` is a macro for dynes (dyn). This macro accepts an optional argument for

a prefix. If no option is supplied, no prefix will be prepended.

`\lbf` `\lbf` is a macro for pounds of force (lbf).

7.9 Velocity

`\kmps` `\kmps` is a macro for kilometers per second ($\mathrm{km\,s^{-1}}$).

`\kmph` `\kmph` is a macro for kilometers per hour ($\mathrm{km\,h^{-1}}$).

`\mps` `\mps` is a macro for meters per second ($\mathrm{m\,s^{-1}}$). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\miph` `\miph` is a macro for miles per hour ($\mathrm{mi\,h^{-1}}$).

`\kts` `\kts` is a macro for knots (kts)., i.e. nautical miles per hour

7.10 Acceleration

`\mpss` `\mpss` is a macro for acceleration in meters per second squared ($\mathrm{m\,s^{-2}}$). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\gacc` `\gacc` is a macro for acceleration due to gravity (g).

`\ftpss` `\ftpss` is a macro for acceleration in feet per second squared ($\mathrm{ft\,s^{-2}}$).

7.11 Temperature

`\K` `\K` is a macro for Kelvin (K). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Kelvin` `\Kelvin` is a macro for Kelvin (K). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Celsius` `\Celsius` is a macro for degrees Celsius (°C). `\Celcius` and `\centigrade` are identical macros (°C).

`\Rankine` `\Rankine` is a macro for degrees Rankine (°R).

`\Fahrenheit` `\Fahrenheit` is a macro for degrees Fahrenheit (°F).

7.12 Angular Velocity

`\rpm` `\rpm` is a macro for revolutions per minute (rev min^{-1}).

7.13 Frequency

`\Hz` `\Hz` is a macro for Hertz (Hz). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

7.14 Pressure

`\barP` `\barP` is a macro for bar (bar). (The use of barP instead of just bar is due the LaTeX command \bar.) This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\atm` `\atm` is a macro for atmosphere (atm).

`\Pa` `\Pa` is a macro for Pascals (Pa). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\mmHg` `\mmHg` is a macro for millimeters of mercury (mmHg).

`\inHg` `\inHg` is a macro for inches of mercury (inHg).

`\lbsi` `\lbsi` is a macro for pounds per square inch (psi). (Note that \psi is a latex command for the greek letter ψ).

`\lbsf` `\lbsf` is a macro for pounds per square foot (psf).

`\Ba` `\Ba` is a macro for Barre (Ba). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

`\Torr` `\Torr` is a macro for Torr (Torr). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

7.15 Other

`\mol` `\mol` is a macro for moles (mol).

8 Implementation

8.1 Special

\units@separator `\units@separator` is a special macro used to set the spacing between a quantity and the associated units.

```
\DeclareRobustCommand{\units@separator}{\,}
```

\micro `\micro` is a special macro used to typeset the symbol \mu. It is compatable with the \micro in siunitx.

```
\ifx\micro\undefined
\DeclareRobustCommand{\micro}{\ensuremath{%
\mu}}
\fi
```

8.2 Electricity & Magnetism

\V `\V` is a macro for Volts (V). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\V}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1V}}}
```

\Volt `\Volt` is a macro for Volts (V). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Volt}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1V}}}
```

\Coulomb `\Coulomb` is a macro for Coulombs (C). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Coulomb}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1C}}}
```

\esu `\esu` is a macro for electrostatic units (esu).

```
\DeclareRobustCommand{\esu}{\ensuremath{%
\expandafter\units@separator\mathrm{esu}}}
```

\Ohm `\Ohm` is a macro for Ohms (Ω). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Ohm}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1\Omega}}}
```

\Amp `\Amp` is a macro for Amperes (A). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Amp}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1A}}}
```

\Farad `\Farad` is a macro for Farads (F). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Farad}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1F}}}
```

\Tesla `\Tesla` is a macro for Teslas (T). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Tesla}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1T}}}
```

\Gauss `\Gauss` is a macro for Gauss (G). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Gauss}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1G}}}
```

\Henry `\Henry` is a macro for Henrys (H). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Henry}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1H}}}
```

8.3 Energy

\eV `\eV` is a macro for electron Volts (eV). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\eV}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1eV}}}
```

`\keV` `\keV` is a macro for kilo-electron Volts (keV).

```
\DeclareRobustCommand{\keV}{\ensuremath{%
\expandafter\units@separator\mathrm{keV}}}
```

`\MeV` `\MeV` is a macro for mega-electron Volts (MeV).

```
\DeclareRobustCommand{\MeV}{\ensuremath{%
\expandafter\units@separator\mathrm{MeV}}}
```

`\J` `\J` is a macro for Joules (J). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\J}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1J}}}
```

`\Joule` `\Joule` is a macro for Joules (J). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Joule}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1J}}}
```

`\erg` `\erg` is a macro for ergs (erg).

```
\DeclareRobustCommand{\erg}{\ensuremath{%
\expandafter\units@separator\mathrm{erg}}}
```

`\kcal` `\kcal` is a macro for kilo-calories (kcal).

```
\DeclareRobustCommand{\kcal}{\ensuremath{%
\expandafter\units@separator\mathrm{kcal}}}
```

`\Cal` `\Cal` is a macro for kilo=calories (Cal).

```
\DeclareRobustCommand{\Cal}{\ensuremath{%
\expandafter\units@separator\mathrm{Cal}}}
```

\calorie `\calorie` is a macro for calories (cal). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\calorie}[1][ ]{%
\ensuremath{%
\expandafter\units@separator\mathrm{#1cal}}}
```

\BTU `\BTU` is a macro for British Thermal Units (BTU).

```
\DeclareRobustCommand{\BTU}{\ensuremath{%
\expandafter\units@separator\mathrm{BTU}}}
```

\tnt `\tnt` is a macro for tons of TNT).

```
\DeclareRobustCommand{\tnt}{\ensuremath{%
\expandafter\units@separator\mathrm{ton%
\expandafter\units@separator of%
\expandafter\units@separator TNT}}}
```

8.4 Power

\Watt `\Watt` is a macro for Watts (W). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Watt}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1W}}}
```

\hpi `\hpi` is a macro for Imperial Horsepower (hp(I)).

```
\DeclareRobustCommand{\hpi}{\ensuremath{%
\expandafter\units@separator\mathrm{hp(I)}}}
```

\hpi `\hpi` is a macro for Metric Horsepower (hp(M)).

```
\DeclareRobustCommand{\hpm}{\ensuremath{%
\expandafter\units@separator\mathrm{hp(M)}}}
```

\hp `\hp` is a macro for Horsepower (hp).

```
\DeclareRobustCommand{\hp}{\ensuremath{%
\expandafter\units@separator\mathrm{hp}}}
```

8.5 Distance

\meter `\meter` is a macro for meters (m). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\meter}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1m}}}
```

\m `\m` is a macro for meters (m). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\m}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1m}}}
```

\km `\km` is a macro for kilometers (km).

```
\DeclareRobustCommand{\km}{\ensuremath{%
\expandafter\units@separator\mathrm{km}}}
```

\au `\au` is a macro for astronmical units (au).

```
\DeclareRobustCommand{\au}{\ensuremath{%
\expandafter\units@separator\mathrm{au}}}
```

\pc `\pc` is a macro for parsecs (pc). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\pc}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1pc}}}
```

\ly `\ly` is a macro for light-years (ly). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\ly}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1ly}}}
```

\cm `\cm` is a macro for centimeters (cm).

```
\DeclareRobustCommand{\cm}{\ensuremath{%
\expandafter\units@separator\mathrm{cm}}}
```

`\nm` `\nm` is a macro for nanometers (nm).

```
\DeclareRobustCommand{\nm}{\ensuremath{%
\expandafter\units@separator\mathrm{nm}}}
```

`\ft` `\ft` is a macro for feet (ft).

```
\DeclareRobustCommand{\ft}{\ensuremath{%
\expandafter\units@separator\mathrm{ft}}}
```

`\inch` `\inch` is a macro for inches (in).

```
\DeclareRobustCommand{\inch}{\ensuremath{%
\expandafter\units@separator\mathrm{in}}}
```

`\mi` `\mi` is a macro for miles (mi).

```
\DeclareRobustCommand{\mi}{\ensuremath{%
\expandafter\units@separator\mathrm{mi}}}
```

8.6 Time

`\s` `\s` is a macro for seconds (s). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\s}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1s}}}
```

`\Sec` `\Sec` is a macro for seconds (s). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Sec}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1s}}}
```

`\Min` `\Min` is a macro for minutes (m).

```
\DeclareRobustCommand{\Min}{\ensuremath{%
\expandafter\units@separator\mathrm{min}}}
```

`\h` `\h` is a macro for hours (h).

```
\DeclareRobustCommand{\h}{\ensuremath{%
\expandafter\units@separator\mathrm{h}}}
```

\y `\y` is a macro for years (y). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\y}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1y}}}
```

\Day `\Day` is a macro for days (d).

```
\DeclareRobustCommand{\Day}{\ensuremath{%
\expandafter\units@separator\mathrm{d}}}
```

8.7 Mass

\gm `\gm` is a macro for grams (g). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```

\DeclareRobustCommand{\gm}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1g}}}
```

\kg `\kg` is a macro for kilograms (kg).

```
\DeclareRobustCommand{\kg}{\ensuremath{%
\expandafter\units@separator\mathrm{kg}}}
```

\lb `\lb` is a macro for pounds (weight) (lb).

```
\DeclareRobustCommand{\lb}{\ensuremath{%
\expandafter\units@separator\mathrm{lb}}}
```

\amu `\amu` is a macro for atomic mass units (amu).

```
\DeclareRobustCommand{\amu}{\ensuremath{%
\expandafter\units@separator\mathrm{amu}}}
```

8.8 Force

`\N` `\N` is a macro for Newtons (N). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\N}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1N}}}
```

`\Newton` `\Newton` is a macro for Newtons (N). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Newton}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1N}}}
```

`\dyne` `\dyne` is a macro for dynes (dyn). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\dyne}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1dyn}}}
```

`\lbf` `\lbf` is a macro for pounds of force (lbf).

```
\DeclareRobustCommand{\lbf}{\ensuremath{%
\expandafter\units@separator\mathrm{lbf}}}
```

8.9 Velocity

`\kmps` `\kmps` is a macro for kilometers per second ($\mathrm{km\,s^{-1}}$).

```
\DeclareRobustCommand{\kmps}{\ensuremath{%
\expandafter\units@separator\mathrm{km}%
\expandafter\units@separator\mathrm{s}^{-1}}}
```

`\kmph` `\kmph` is a macro for kilometers per hour ($\mathrm{km\,h^{-1}}$).

```
\DeclareRobustCommand{\kmph}{\ensuremath{%
\expandafter\units@separator\mathrm{km}%
\expandafter\units@separator\mathrm{h}^{-1}}}
```

`\mps` `\mps` is a macro for meters per second ($\mathrm{m\,s^{-1}}$). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\mps}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1m}%
\expandafter\units@separator\mathrm{s}^{-1}}}
```

`\miph` `\miph` is a macro for miles per hour ($\mathrm{mi\,h^{-1}}$).

```
\DeclareRobustCommand{\miph}{\ensuremath{%
\expandafter\units@separator\mathrm{mi}%
\expandafter\units@separator\mathrm{h}^{-1}}}
```

`\kts` `\kts` is a macro for knots (kts).

```
\DeclareRobustCommand{\kts}{\ensuremath{%
\expandafter\units@separator\mathrm{kts}}}
```

8.10 Acceleration

`\mpss` `\mpss` is a macro for acceleration in meters per second squared ($\mathrm{m\,s^{-2}}$). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```

\DeclareRobustCommand{\mpss}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1m}%
\expandafter\units@separator\mathrm{s}^{-2}}}
```

`\gacc` `\gacc` is a macro for acceleration due to gravity (g).

```
\DeclareRobustCommand{\gacc}{\ensuremath{%
\expandafter\units@separator\mathrm{g}}}
```

`\ftpss` `\ftpss` is a macro for acceleration in feet per second squared ($\mathrm{ft\,s^{-2}}$).

```
\DeclareRobustCommand{\ftpss}{\ensuremath{%
\expandafter\units@separator\mathrm{ft}%
\expandafter\units@separator\mathrm{s}^{-2}}}
```

8.11 Temperature

`\K` `\K` is a macro for Kelvin (K). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\K}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1K}}}
```

`\Kelvin` `\Kelvin` is a macro for Kelvin (K). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Kelvin}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1K}}}
```

`\Celsius`

```
\DeclareRobustCommand{\Celsius}{\ensuremath{\expandafter\units@separator{}%
^\circ\mathrm{C}}}
\DeclareRobustCommand{\Celcius}{\Celsius}
\DeclareRobustCommand{\centigrade}{\Celsius}
```

`\Rankine` `\Rankine` is a macro for degrees Rankine (°R).

```
\DeclareRobustCommand{\Rankine}{\ensuremath{%
\expandafter\units@separator{}^\circ\mathrm{R}}}
```

`\Fahrenheit` `\Fahrenheit` is a macro for degrees Fahrenheit (°F).

```
\DeclareRobustCommand{\Fahrenheit}{\ensuremath{%
\expandafter\units@separator{}^\circ\mathrm{F}}}
```

8.12 Angular Velocity

`\rpm` `\rpm` is a macro for revolutions per minute (rev min^{-1}).

```

\DeclareRobustCommand{\rpm}{\ensuremath{%
\expandafter\units@separator\mathrm{rev}%
\expandafter\units@separator\Min^{-1}}}
```

8.13 Frequency

`\Hz` `\Hz` is a macro for Hertz (Hz). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
149
150 \DeclareRobustCommand{\Hz}[1][ ]{\ensuremath{%
151 \expandafter\units@separator\mathrm{#1Hz}}}
```

8.14 Pressure

\barP `\barP` is a macro for bar (bar). (The use of barP instead of just bar is due the LaTeX command \bar.) This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
152 \DeclareRobustCommand{\barP}[1][ ]{\ensuremath{%
153 \expandafter\units@separator\mathrm{#1bar}}}
```

\atm `\atm` is a macro for atmosphere (atm).

```
154 \DeclareRobustCommand{\atm}{\ensuremath{%
155 \expandafter\units@separator\mathrm{atm}}}
```

\Pa `\Pa` is a macro for Pascals (Pa). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
156 \DeclareRobustCommand{\Pa}[1][ ]{\ensuremath{%
157 \expandafter\units@separator\mathrm{#1Pa}}}
```

\mmHg `\mmHg` is a macro for millimeters of mercury (mmHg).

```
158 \DeclareRobustCommand{\mmHg}{\ensuremath{%
159 \expandafter\units@separator\mathrm{mmHg}}}
```

\inHg `\inHg` is a macro for inches of mercury (inHg).

```
160 \DeclareRobustCommand{\inHg}{\ensuremath{%
161 \expandafter\units@separator\mathrm{inHg}}}
```

\lbsi `\lbsi` is a macro for pounds per square inch (psi). (Note that \psi is a latex command for the greek letter ψ).

```
162 \DeclareRobustCommand{\lbsi}{\ensuremath{%
163 \expandafter\units@separator\mathrm{psi}}}
```

\lbsf `\lbsf` is a macro for pounds per square foot (psf).

```
\DeclareRobustCommand{\lbsf}{\ensuremath{%
\expandafter\units@separator\mathrm{psf}}}
```

\Ba `\Ba` is a macro for Barre (Ba). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Ba}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1Ba}}}
```

\Torr `\Torr` is a macro for Torr (Torr). This macro accepts an optional argument for a prefix. If no option is supplied, no prefix will be prepended.

```
\DeclareRobustCommand{\Torr}[1][ ]{\ensuremath{%
\expandafter\units@separator\mathrm{#1Torr}}}
```

8.15 Other

\mol `\mol` is a macro for moles (mol).

```
\DeclareRobustCommand{\mol}{\ensuremath{%
\expandafter\units@separator\mathrm{mol}}}
```

Change History

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Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.