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Properties

This page lists all of the custom system properties, how are they linked with the theme, and which CSS properties they compute. All other regular CSS properties and selectors are supported too.

Properties reference table

Note that this table only lists custom properties, all other regular CSS properties and selectors are supported. You can check out the legend below.

System key(s)	CSS property/properties	System style function	Theme mapping
border	border	border	${value}px solid
borderBottom	border-bottom	borderBottom	${value}px solid

System key(s)	CSS property/properties	System style function	Theme mapping
borderColor	border-color	borderColor	theme.palette[value]
borderLeft	border-left	borderLeft	${value}px solid
borderRadius	border-radius	borderRadius	theme.shape.borderRadius * value
borderRight	border-right	borderRight	${value}px solid
borderTop	border-top	borderTop	${value}px solid
boxShadow	box-shadow	boxShadow	theme.shadows[value]
displayPrint	display	displayPrint	none
display	display	displayRaw	none
alignContent	align-content	alignContent	none
alignItems	align-items	alignItems	none
alignSelf	align-self	alignSelf	none
flex	flex	flex	none
flexDirection	flex-direction	flexDirection	none

System key(s)	CSS property/properties	System style function	Theme mapping
`flexGrow`	`flex-grow`	`flexGrow`	none
`flexShrink`	`flex-shrink`	`flexShrink`	none
`flexWrap`	`flex-wrap`	`flexWrap`	none
`justifyContent`	`justify-content`	`justifyContent`	none
`order`	`order`	`order`	none
`gap`	`gap`	`gap`	`theme.spacing(value)`
`columnGap`	`column-gap`	`columnGap`	`theme.spacing(value)`
`rowGap`	`row-gap`	`rowGap`	`theme.spacing(value)`
`gridColumn`	`grid-column`	`gridColumn`	none
`gridRow`	`grid-row`	`gridRow`	none
`gridAutoFlow`	`grid-auto-flow`	`gridAutoFlow`	none
`gridAutoColumns`	`grid-auto-columns`	`gridAutoColumns`	none
`gridAutoRows`	`grid-auto-rows`	`gridAutoRows`	none
`gridTemplateColumns`	`grid-template-columns`	`gridTemplateColumns`	none

System key(s)	CSS property/properties	System style function	Theme mapping
gridTemplateRows	grid-template-rows	gridTemplateRows	none
gridTemplateAreas	grid-template-areas	gridTemplateAreas	none
gridArea	grid-area	gridArea	none
bgcolor	background-color	bgcolor	theme.palette[value]
color	color	color	theme.palette[value]
bottom	bottom	bottom	none
left	left	left	none
position	position	position	none
right	right	right	none
top	top	top	none
zIndex	z-index	zIndex	theme.zIndex[value]
height	height	height	none
maxHeight	max-height	maxHeight	none
maxWidth	max-width	maxWidth	none

System key(s)	CSS property/properties	System style function	Theme mapping
`minHeight`	`min-height`	[minHeight](#)	none
`minWidth`	`min-width`	[minWidth](#)	none
`width`	`width`	[width](#)	none
`boxSizing`	`box-sizing`	[boxSizing](#)	none
`m` , `margin`	`margin`	[spacing](#)	[theme.spacing(value)](#)
`mb` , `marginBottom`	`margin-bottom`	[spacing](#)	[theme.spacing(value)](#)
`ml` , `marginLeft`	`margin-left`	[spacing](#)	[theme.spacing(value)](#)
`mr` , `marginRight`	`margin-right`	[spacing](#)	[theme.spacing(value)](#)
`mt` , `marginTop`	`margin-top`	[spacing](#)	[theme.spacing(value)](#)
`mx` , `marginX`	`margin-left` , `margin-right`	[spacing](#)	[theme.spacing(value)](#)
`my` , `marginY`	`margin-top` , `margin-bottom`	[spacing](#)	[theme.spacing(value)](#)
`marginInline`	`margin-inline`	[spacing](#)	[theme.spacing(value)](#)
`marginInlineStart`	`margin-inline-start`	[spacing](#)	[theme.spacing(value)](#)
`marginInlineEnd`	`margin-inline-end`	[spacing](#)	[theme.spacing(value)](#)

System key(s)	CSS property/properties	System style function	Theme mapping
`marginBlock`	`margin-block`	[spacing](#)	[theme.spacing(value)](#)
`marginBlockStart`	`margin-block-start`	[spacing](#)	[theme.spacing(value)](#)
`marginBlockEnd`	`margin-block-end`	[spacing](#)	[theme.spacing(value)](#)
`p` , `padding`	`padding`	[spacing](#)	[theme.spacing(value)](#)
`pb` , `paddingBottom`	`padding-bottom`	[spacing](#)	[theme.spacing(value)](#)
`pl` , `paddingLeft`	`padding-left`	[spacing](#)	[theme.spacing(value)](#)
`pr` , `paddingRight`	`padding-right`	[spacing](#)	[theme.spacing(value)](#)
`pt` , `paddingTop`	`padding-top`	[spacing](#)	[theme.spacing(value)](#)
`px` , `paddingX`	`padding-left` , `padding-right`	[spacing](#)	[theme.spacing(value)](#)
`py` , `paddingY`	`padding-top` , `padding-bottom`	[spacing](#)	[theme.spacing(value)](#)
`paddingInline`	`padding-inline`	[spacing](#)	[theme.spacing(value)](#)
`paddingInlineStart`	`padding-inline-start`	[spacing](#)	[theme.spacing(value)](#)
`paddingInlineEnd`	`padding-inline-end`	[spacing](#)	[theme.spacing(value)](#)
`paddingBlock`	`padding-block`	[spacing](#)	[theme.spacing(value)](#)

System key(s)	CSS property/properties	System style function	Theme mapping
paddingBlockStart	padding-block-start	spacing	theme.spacing(value)
paddingBlockEnd	padding-block-end	spacing	theme.spacing(value)
typography	font-family , font-weight , font-size , line-height , letter-spacing , text-transform	typography	theme.typography[value]
fontFamily	font-family	fontFamily	theme.typography[value]
fontSize	font-size	fontSize	theme.typography[value]
fontStyle	font-style	fontStyle	theme.typography[value]
fontWeight	font-weight	fontWeight	theme.typography[value]
letterSpacing	letter-spacing	letterSpacing	theme.typography[value]
lineHeight	line-height	lineHeight	theme.typography[value]
textAlign	text-align	textAlign	none

Legend

Let's take one row from the table above, for example:

System key(s)	CSS property/properties	System style function	Theme mapping
`mb` , `marginBottom`	`margin-bottom`	[spacing]	[theme.spacing(value)]

and detail each column:

- **System keys**. The column lists the key(s) by which you can use this property with the `sx` prop (or as a system function).

```
<Button sx={{ mb: 3 }}>
// or
<Box mb={3}>
// or
<Box marginBottom={3}>
```

- **CSS properties**. The column describes which CSS property will be generated when this system property is used.

```
.my-class {
  margin-bottom: Xpx;
}
```

- **System style function**. The column lists the function which generates the properties shown in the other columns, as a reference in case you want to add this functionality to your custom components. The functions can be imported from `@mui/system` . You can see an example of using the style functions on the [Custom components page](). The content links to the documentation page where this properties are described; in this example, the [spacing]() page.

- **Theme mapping**. Lastly, the column tells you how this property is wired with the theme – with this example, whatever value you provide will be used as input to the `theme.spacing` helper.

Let's take a look at an example:

```
<Button sx={{ mb: 3 }} />

// is equivalent to
<Button sx={{ marginBottom: theme => theme.spacing(3)}} />
```

As the default theme spacing is 8px, this will result in the following CSS class:

```css
.my-class {
  margin-bottom: 24px;
}
```