

# Converting Colors

$Y_{xy}(12.0648, 0.7013, 0.2834)$

Have a look what the booklet for  
Yxy(12.0648, 0.7013, 0.2834)  
contains.

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**Color**

**Yxy(16.4940, 0.6401, 0.3300)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	E40000
RGB	228, 0, 0
RGB Percent	89%, 0%, 0%
CMY	0.1059, 0.9996, 1.0000
CMYK	0.00, 1.00, 1.00, 0.11
HSL	0°, 100%, 45%
HSV	0°, 100%, 89%
XYZ	31.9934, 16.4940, 1.4945
YIQ	68.1720, 135.8880, 48.3360

# Conversions

## Conversions Part 2

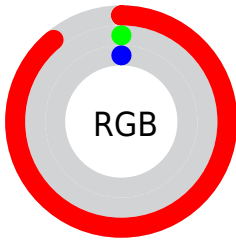
<b>Format</b>	<b>Color</b>
<b>RYB</b>	228, 0, 0
Decimal	14942208
CIELab	47.62, 73.60, 61.80
CIElCh	48, 96.107, 40.016
Yxy	16.4940, 0.6401, 0.3300
Android (android.graphics.Color)	4293132288 (0xFFE40000)
YUV	68.1720, -33.6088, 140.1692
Hunter-Lab	40.6128, 69.5437, 26.2472

# Details

The Yxy color **16.4940, 0.6401, 0.3300** is a dark color, and the websafe version is hex **CC0000**. The color can be described as dark washed red. A complement of this color would be **61.0288, 0.2246, 0.3286**, and the grayscale version is **5.8584, 0.3127, 0.3290**.

A 20% lighter version of the original color is **28.8482, 0.5613, 0.3552**, and **7.6814, 0.6401, 0.3300** is the 20% darker color. If you saturate the color by 10%, you get **16.4953, 0.6400, 0.3300**, and if you desaturate by 10%, it is **17.1626, 0.6239, 0.3300**.

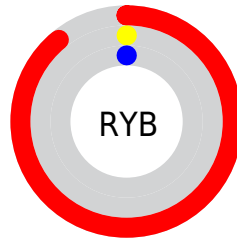
# Distribution



Red (89%)

Green (0%)

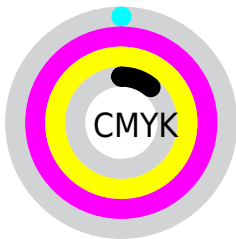
Blue (0%)



Red (89%)

Yellow (0%)

Blue (0%)

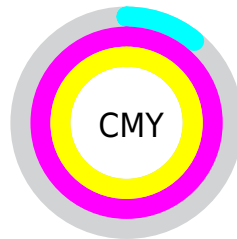


Cyan (0%)

Magenta (100%)

Yellow (100%)

Black (11%)



Cyan (11%)

Magenta (100%)


Yellow (100%)

# Brightness & Saturation Gradients


These gradients show how the Yxy color 16.4940, 0.6401, 0.3300 changes by changing the brightness by 10 percent. The first figure shows a shift by +10% for each color and the second figure -10%.


Similar to the brightness gradients but the following saturation gradients show a change of the Yxy color 16.4940, 0.6401, 0.3300 by changing the saturation by 10% instead.





 16.4940, 0.6401,  
0.3300


 16.4940, 0.6401,  
0.3300


 232.2393, 0.4666,  
0.3578


 9.8744, 0.6808,  
0.3125


 37.4537, 0.5798,  
0.3493

 5.3158, 0.7192,  
0.2808

 52.5626, 0.5558,  
0.3537


 2.4337, 0.7652,  
0.2348

 71.2700, 0.5352,  
0.3563

 0.8431, 0.8295,  
0.1705

 93.9604, 0.5174,  
0.3577

 0.0000, 1.0000,  
0.0000


 121.0182, 0.5021,  
0.3583


 0.0000, 0.0000,  
0.0000

 152.8276, 0.4887,


0.3584


 189.7732, 0.4769,  
0.3582


 16.4940, 0.6401,  
0.3300

 16.4940, 0.6401,  
0.3300

 16.4953, 0.6400,  
0.3300

 17.1626, 0.6239,  
0.3300

 18.6163, 0.5926,  
0.3299

 21.1066, 0.5491,  
0.3298

 24.7784, 0.5009,  
0.3296

 29.7534, 0.4546,  
0.3295

■ 36.1385, 0.4139,  
0.3293

■ 44.0294, 0.3799,  
0.3292

■ 53.5134, 0.3524,  
0.3291

■ 64.6712, 0.3303,  
0.3291

# Harmonies

## Analogous

The Analogous color harmony consists of three colors that are next to each other on the color wheel.



16.4940, 0.5818, 0.2515



16.4940, 0.6401, 0.3300



16.4940, 0.5717, 0.4283

# Triad

The Triadic color harmony groups three colors that are evenly spaced from another and form a triangle on the color wheel.



16.4940, 0.6401, 0.3300



16.4940, 0.1726, 0.6020



16.4940, 0.1237, 0.1090

# Complementary

The Complementary color scheme is a pair of colors which are on the opposite of each other on the color wheel.



16.4940, 0.6401, 0.3300



61.0288, 0.2246, 0.3286

# Split Complementary

Split-complementary colors differ from the complementary color scheme. The scheme consists of three colors, the original color and two neighbors of the complement color.



16.4940, 0.0786, 0.1212



16.4940, 0.6401, 0.3300



16.4940, 0.0910, 0.3409

# Square

The Square scheme is like the rectangle color scheme, but the four colors are evenly spaced on the color wheel.



16.4940, 0.6401, 0.3300



16.4940, 0.2990, 0.6767



16.4940, 0.0673, 0.1807



16.4940, 0.2234, 0.1277



# Rectangle

The Rectangle color scheme consists of four colors that form a rectangle on the color wheel.



16.4940, 0.6401, 0.3300



16.4940, 0.4872, 0.5128



16.4940, 0.0673, 0.1807



16.4940, 0.1040, 0.1094

# Sweetspot

The Sweet Spot groups the original color and five complimentary colors.



16.4953, 0.6400, 0.3300



56.5483, 0.3805, 0.3292



22.0942, 0.3209, 0.1542



11.1312, 0.3941, 0.3293



0.0000, 0.0000, 0.0000



21.4041, 0.3127, 0.3290



# Same Dimension

The Same Dimension uses a secret algorithm to generate beautiful new colors.



16.4953, 0.6400, 0.3300



21.2625, 0.6401, 0.3300



28.5271, 0.5427, 0.4073



14.3690, 0.3293, 0.3291



9.5260, 0.6400, 0.3300



0.7043, 0.6399, 0.3301



# Inverse Universe

The Inverse Universe completely reimagines the original color for something new.



61.0288, 0.2246, 0.3286



78.6672, 0.2246, 0.3286



17.6351, 0.1765, 0.1555



16.3353, 0.2982, 0.3289



35.2427, 0.2246, 0.3286



2.6047, 0.2246, 0.3286



# Previews

## White Background



This preview shows how the Yxy color 16.4940, 0.6401, 0.3300 looks on a white background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

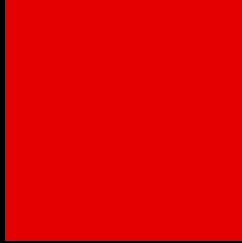
Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA × Fail



# Black Background



This preview shows how the Yxy color 16.4940, 0.6401, 0.3300 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA × Fail

Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

If you want to check with other color combinations, try the [Color Contrast Checker](#).

**Yxy 16.4940, 0.6401, 0.3300**

## **Background**



This preview shows how black text looks on a background with the Yxy color 16.4940, 0.6401, 0.3300.



This preview shows how white text looks on a background with the Yxy color 16.4940, 0.6401, 0.3300.

# Color Blindness Simulation

Color vision deficiency is a very complex topic, and I could not describe the different causes any better than Wikipedia does, so if you want to learn more, you should check out their [article about color blindness](#).

## Dichromacy



### Original Color

16.4940, 0.6401, 0.3300

### Protanopia

17.0223, 0.4266, 0.4710

### Deuteranopia

16.9570, 0.4701, 0.4649



## Tritanopia

16.7051, 0.6340, 0.3348

# Trichromacy



## Original Color

16.4940, 0.6401, 0.3300

## Protanomaly

12.8114, 0.5465, 0.3886

## Deuteranomaly

13.3702, 0.5706, 0.3852

## Tritanomaly

16.6187, 0.6368, 0.3326

# Monochromacy



## Original Color

16.4940, 0.6401, 0.3300

## Achromatopsia

5.7805, 0.3127, 0.3290

## Achromatomaly

6.3378, 0.5151, 0.3296

# CSS Examples

## Text

The CSS property to change the color of the text to Yxy 16.4940, 0.6401, 0.3300 is called "color". The color property can be set on classes, ids or directly on the HTML element.

This example shows how text in the color `rgb(228, 0, 0)` looks like.

```
.text, #text, p{  
    color:rgb(228, 0, 0)  
}
```

If you want to add a text shadow in that color use the text-shadow property, you can generate a text shadow directly with our [CSS Text Shadow Generator](#).

Here you see how black text with a 4 pixel rgb(228, 0, 0) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(228, 0, 0) }
```

## Border

The CSS property to change the border of an element to Yxy 16.4940, 0.6401, 0.3300 is called "border". The border property can be set on classes, ids or directly on the HTML element.

This example shows the color as border, it can be applied via the CSS property "border" or "border-color".

```
.border, #border, table{ border:4px solid rgb(228, 0, 0) }
```

If only the border color should be changed use the property `border-color`.

```
.border{ border-color:rgb(228, 0, 0) }
```

If you want to add a box shadow in that color use:

Here you see how a box with a 4 pixel `rgb(228, 0, 0)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(228, 0, 0); -webkit-box-shadow:4px  
4px 4px 4px rgb(228, 0, 0); box-shadow:4px  
4px 4px 4px rgb(228, 0, 0) }
```



# Background

The CSS property to change the background color of an element to Yxy 16.4940, 0.6401, 0.3300 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(228, 0, 0) }
```

If only the background color should be changed can be used:

```
.background{ background-color: rgb(228, 0,  
0) }
```

This example shows the color as background, it is applied via the CSS property "background".

To optimize and compress your CSS code, you can use our [online CSS compressor and optimizer](#) based on csstidy. If you want to create a linear or radial gradient as background or border, check our [CSS Gradient Generator](#).

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