

! <https://zhuanlan.zhihu.com/p/646366089>

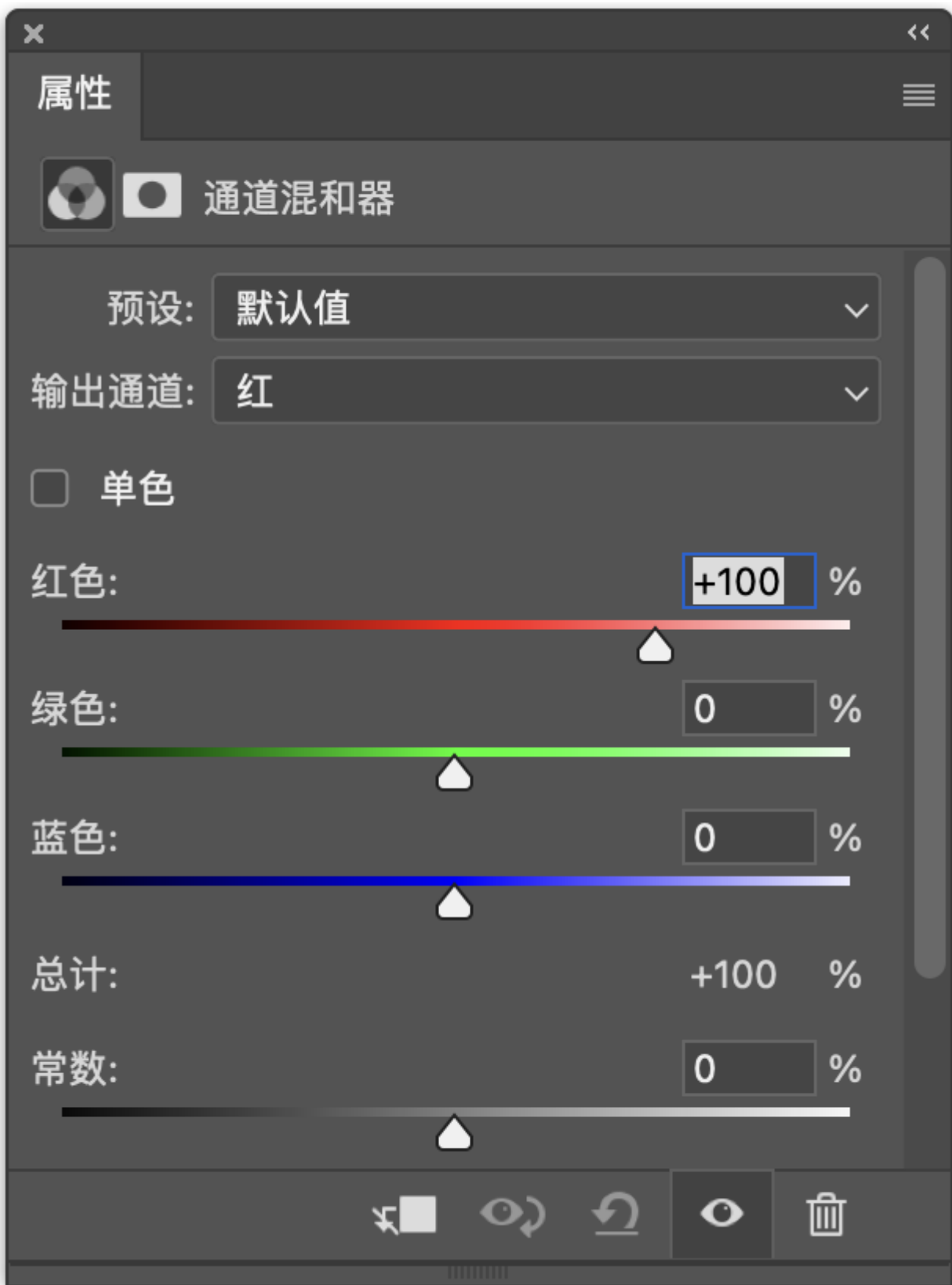
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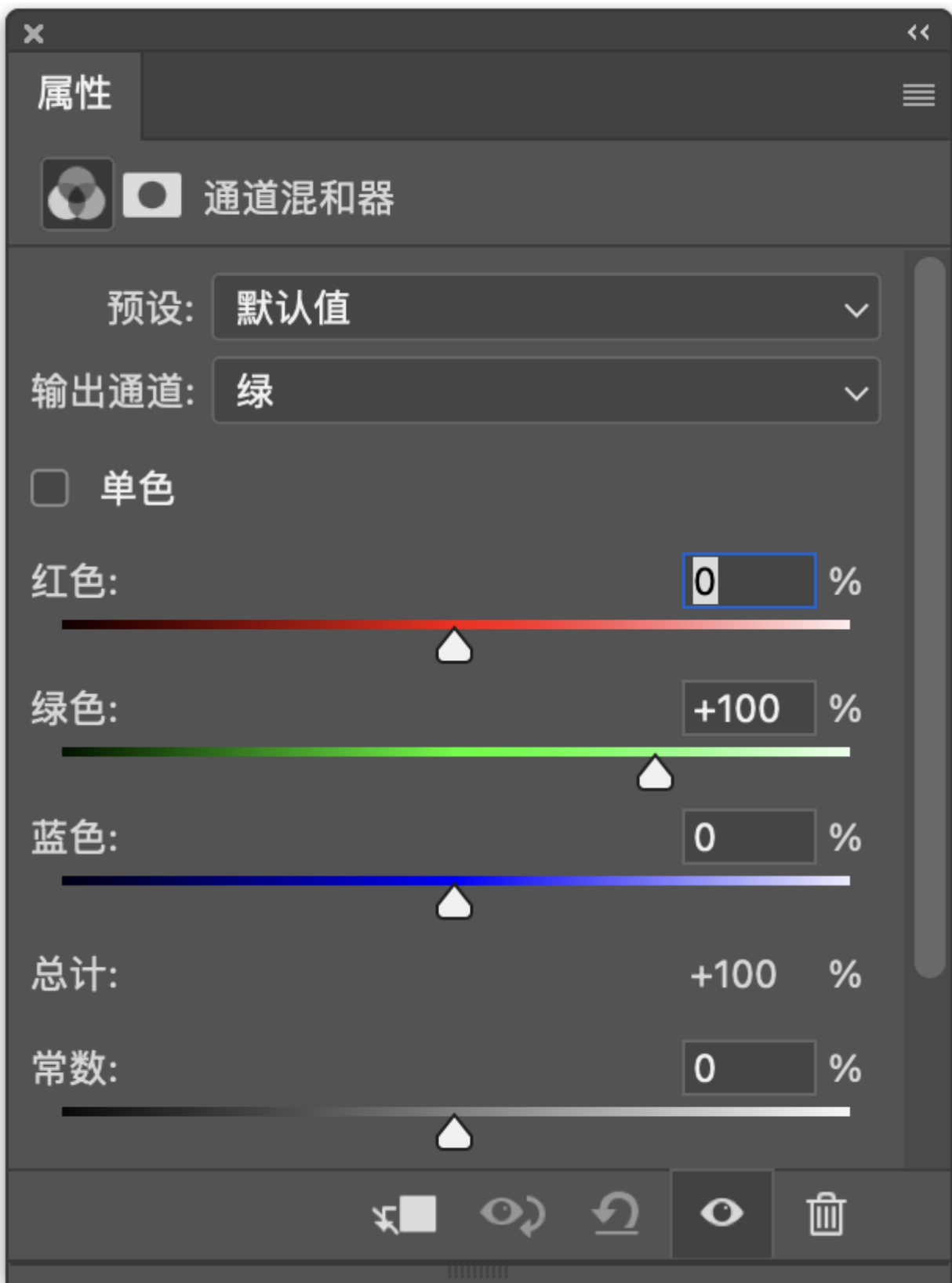
## 通道混合器

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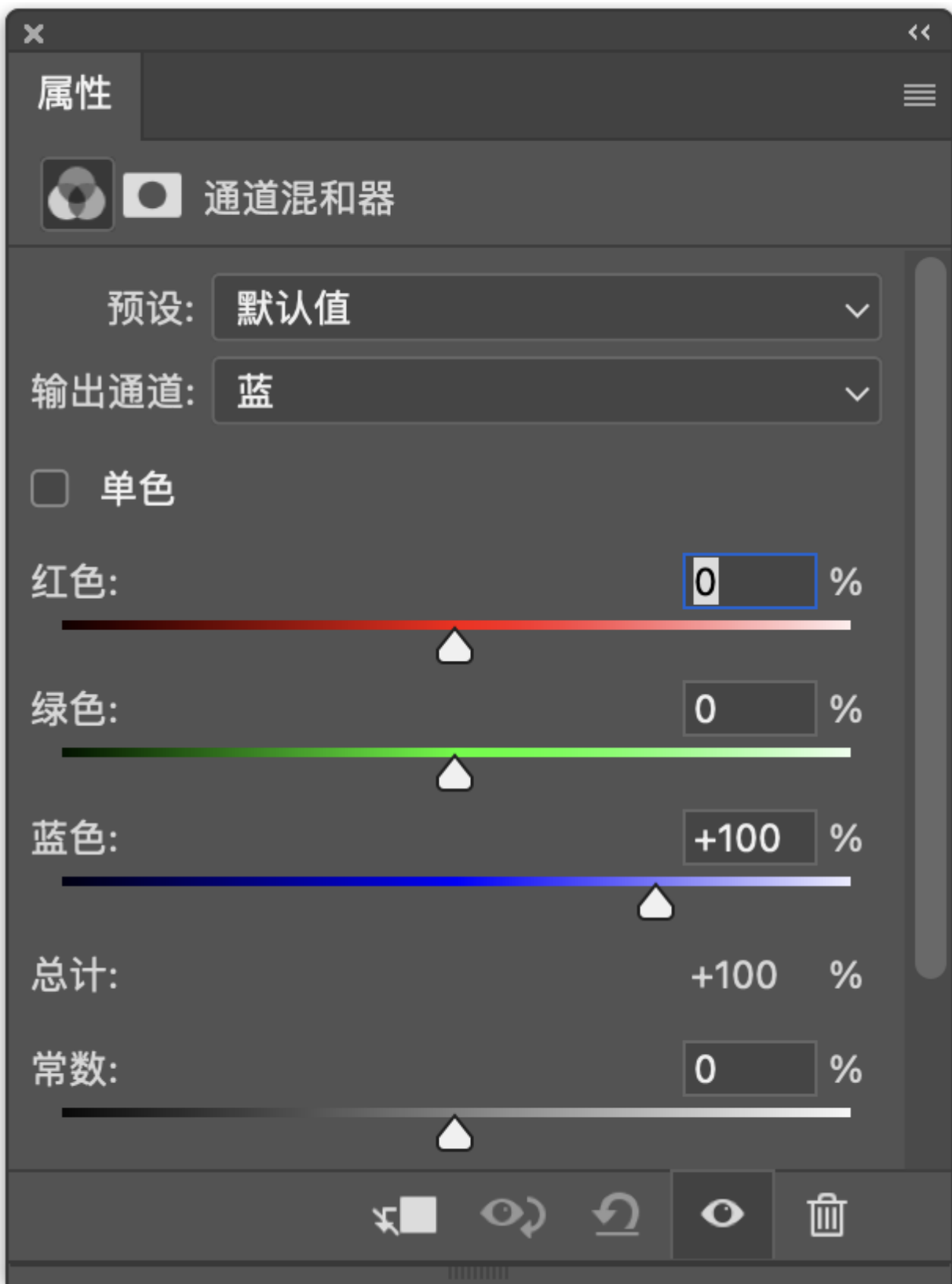
通道混合器一共有三个选项，一个checkbox  
四个滑块

他们分别是  
红色



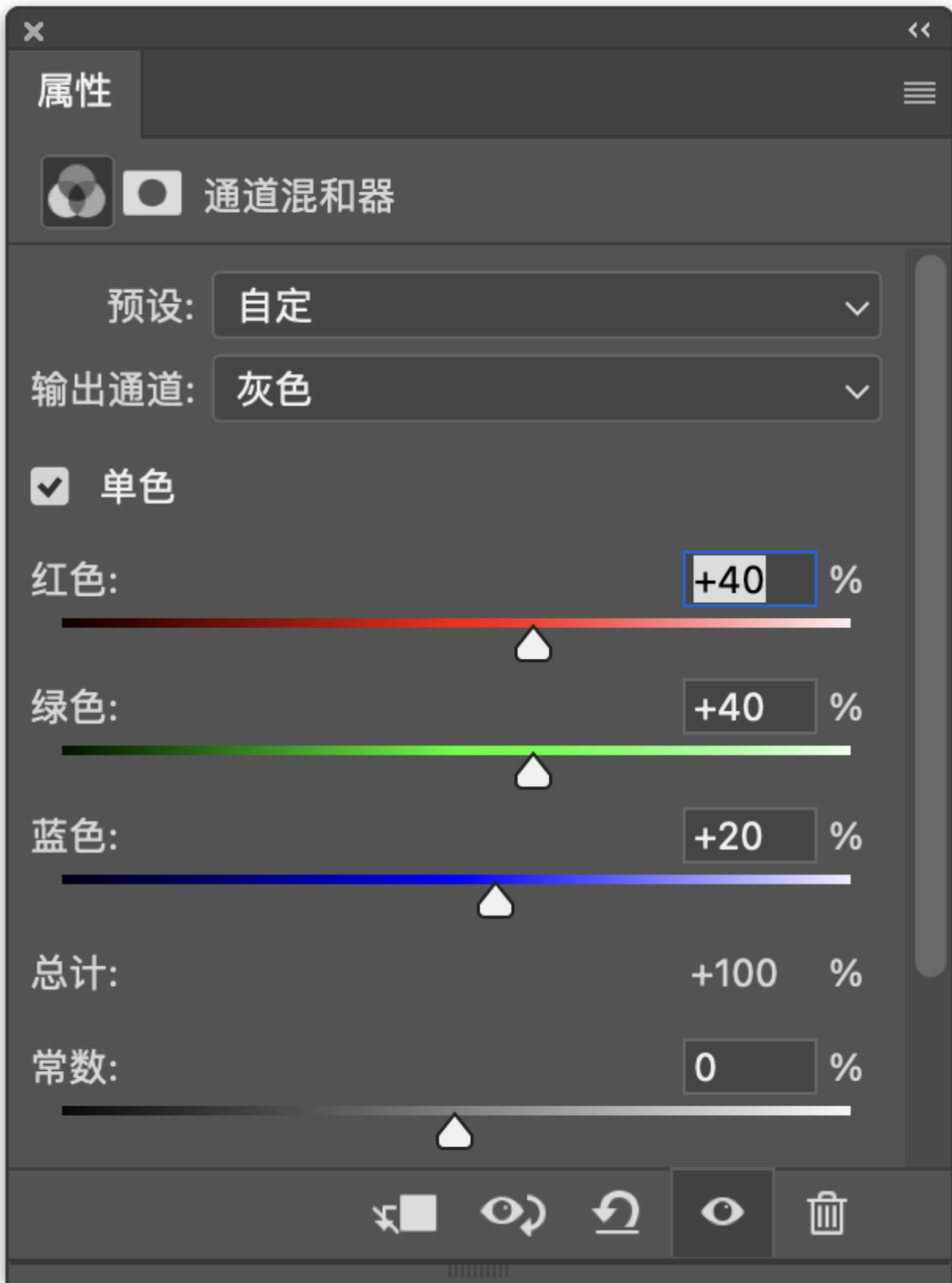


蓝色



红绿蓝的计算公式是

\$\$所选通道结果 = 红色 \times 红色百分比 + 绿色 \times 绿色百分比 + 蓝色 \times 蓝色百分比 + 255 \times 常数百分比\$\$



\$\$所有通道结果= 红色\times 红色百分比 + 绿色\times 绿色百分比 + 蓝色\times 蓝色百分比+255\times 常数百分比\$\$

好的，我们使用java来模拟一下

```

public static BlendColor blendColor(BlendColor inColor, String
selectiveColor, boolean isSingle, double ratioRed,
double ratioGreen, double ratioBlue, double ratioBlack) {
    if (isSingle) {
        double newChannel = inColor.red.get255Value() * ratioRed +
inColor.green.get255Value() * ratioGreen
        + inColor.blue.get255Value() * ratioBlue + 255 *
ratioBlack;
        return new BlendColor(newChannel, newChannel, newChannel);
    }
    if (selectiveColor == "red") {
        double newRedChannel = inColor.red.get255Value() * ratioRed
+ inColor.green.get255Value() * ratioGreen
        + inColor.blue.get255Value() * ratioBlue + 255 *
ratioBlack;
        return new BlendColor(newRedChannel,
inColor.green.get255Value(), inColor.blue.get255Value());
    }
    if (selectiveColor == "green") {
        double newgreenChannel = inColor.red.get255Value() *
ratioRed + inColor.green.get255Value() * ratioGreen
        + inColor.blue.get255Value() * ratioBlue + 255 *
ratioBlack;
        return new BlendColor(inColor.red.get255Value(),
newgreenChannel, inColor.blue.get255Value());
    }
    if (selectiveColor == "blue") {
        double newBlueChannel = inColor.red.get255Value() * ratioRed
+ inColor.green.get255Value() * ratioGreen
        + inColor.blue.get255Value() * ratioBlue + 255 *
ratioBlack;
        return new BlendColor(inColor.red.get255Value(),
inColor.green.get255Value(), newBlueChannel);
    }
    return inColor;
}

```

RGB[204.50, 224.00, 16.00]~ HSY[174.38, 208.00, 195.27]~ HSB[174.38, 92.86, 87.84]

再看看结果

