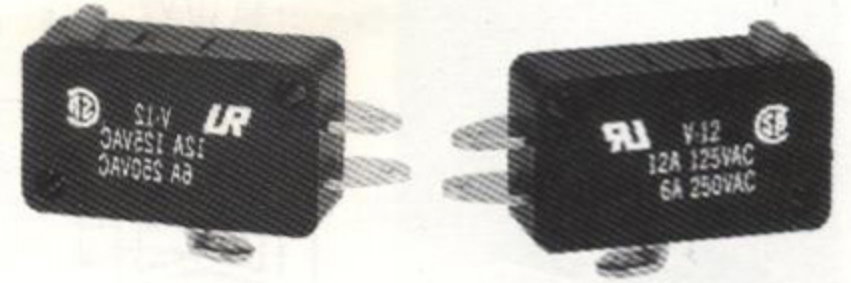


MINIATURE BASIC SWITCH (V Type)

FEATURES 特徵

- Type V in size (15.9H×27.8W×10.34D mm) and weight (approx.7g)
V type的尺寸 (15.9高×27.8寬×10.34深公厘) 和重量 (大約7克)
- Compact and precision operation 靈敏度高
- 15, 10, 12 and 15 AMP versions 備有1.5.10.12和15安培規格
- Variety of actuators 引動器機種多



RATINGS 規格

APPROVED BY STANDARDS 認可標準

| Item Type | Rated voltage 電壓規格 | Non-inductive load (A) 非電感性負載 | | | | Inductive load (A) 電感性負載 | | | | Inrush current (A) 衝擊電流 |
|--------------|--------------------------|----------------------------------|------|-------------------|-----|-----------------------------|------|--------------------|----|---|
| | | Resistance load 電阻負載 | | Lamp load 燈泡負載 | | Inductive load 電感性負載 | | Motor load 馬達負載 | | |
| | | NC | NO | NC | NO | NC | NO | NC | NO | |
| 15A | 125 VAC | 15 | | 3 | | 10 | | 4 | | 36 max. |
| | 250 VAC | 15 | | 2 | | 10 | | 3 | | |
| | 8 VDC | 15 | | 4 | | 10 | | 6 | | |
| | 14 VDC | 15 | | 4 | | 10 | | 6 | | |
| | 30 VDC | 10 | | 4 | | 10 | | 4 | | |
| | 125 VDC | 0.6 | | 0.1 | | 0.6 | | 0.1 | | |
| 250 VDC | 0.3 | | 0.05 | | 0.3 | | 0.05 | | | |
| 12A | 125 VAC | 12 | | 3 | | 12 | | 4 | | 36 max. |
| | 250 VAC | 12 | | 2 | | 12 | | 3 | | |
| | 8 VDC | 12 | | 6 | | 12 | | 6 | | |
| | 14 VDC | 12 | | 6 | | 12 | | 6 | | |
| | 30 VDC | 6 | | 4 | | 6 | | 4 | | |
| | 125 VDC | 0.6 | | 0.1 | | 0.6 | | 0.1 | | |
| 250 VDC | 0.3 | | 0.05 | | 0.3 | | 0.05 | | | |
| 10A | 125 VAC | 10 | | 2 | | 6 | | 3 | | 24 max. |
| | 250 VAC | 10 | | 1.5 | | 6 | | 2 | | |
| | 8 VDC | 10 | | 3 | | 6 | | 3 | | |
| | 14 VDC | 10 | | 3 | | 6 | | 3 | | |
| | 30 VDC | 6 | | 3 | | 6 | | 3 | | |
| | 125 VDC | 0.6 | | 0.1 | | 0.6 | | 0.1 | | |
| 250 VDC | 0.3 | | 0.05 | | 0.3 | | 0.05 | | | |
| 5 A | 125 VAC | 5 | | 1.5 | | 4 | | 2.5 | | NC: 15 max. NO: 7.5 max. |
| | 250 VAC | 5 | | 1 | | 4 | | 1.5 | | |
| | 8 VDC | 5 | | 3 | | 4 | | 3 | | |
| | 14 VDC | 5 | | 3 | | 4 | | 3 | | |
| | 30 VDC | 5 | | 3 | | 4 | | 3 | | |
| | 125 VDC | 0.4 | | 0.1 | | 0.4 | | 0.1 | | |
| 250 VDC | 0.3 | | 0.05 | | 0.2 | | 0.05 | | | |

UL (File No. E97315)

V-12 Series:

12A 125VAC, 6A 250VAC

CSA (File No. LR85888)

V-12 Series:

12A 125VAC, 6A 250VAC

NOTES: 1. Inductive load has a power factor of 0.4min. (AC) and a time constant of 7msec (DC)

電感性負載的功率因數為0.4分(交流)一次常數為7毫秒(直流)

2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times than the steady-state current.

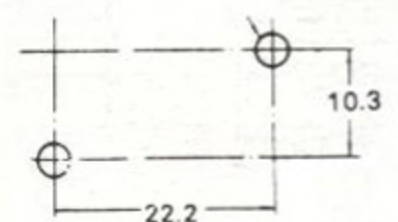
燈泡負載的衝擊電流是穩定電流的10倍
馬達負載的衝擊電流是穩定電流的6倍

CHARACTERISTICS 性能

| | |
|------------------------------|---|
| Operating speed 操作速度 | ----- 0.1mm to 1m / sec. |
| Operating frequency 操作頻率 | |
| Mechanically | ----- 600 operations / min. |
| Electrically | ----- 60 operations / min. |
| Contact resistance 接點電阻 | ----- 15 m Ω max (initial). |
| Insulation resistance 絕緣電阻 | ----- 100m Ω min (at 500 VDC). |
| Dielectric strength 耐電壓 | |
| Between contacts | ----- 1,000 VAC; 50 / 60Hz for 1 minute. |
| Between terminals and ground | ----- 1,500 VAC; 50 / 60Hz for 1 minute. |
| Vibration (Malfunction) | ----- 10 to 55Hz; 1.5mm double amplitude. |
| Shock 衝擊 | |
| Mechanical 機械耐久 | ----- 1,000m / s ² (Approx. 100G). |
| Malfunction 誤動作耐久 | ----- 300m / s ² (Approx. 30G). |
| Ambient temperature 週遭溫度 | ----- -25°C to +80°C |
| Humidity 濕度 | ----- under 80% RH max. |
| Service life 使用壽命 | |
| Mechanically | ----- 5,000,000 operations / min |
| Electrically | ----- 500,000 operations / min. (at rated load) |

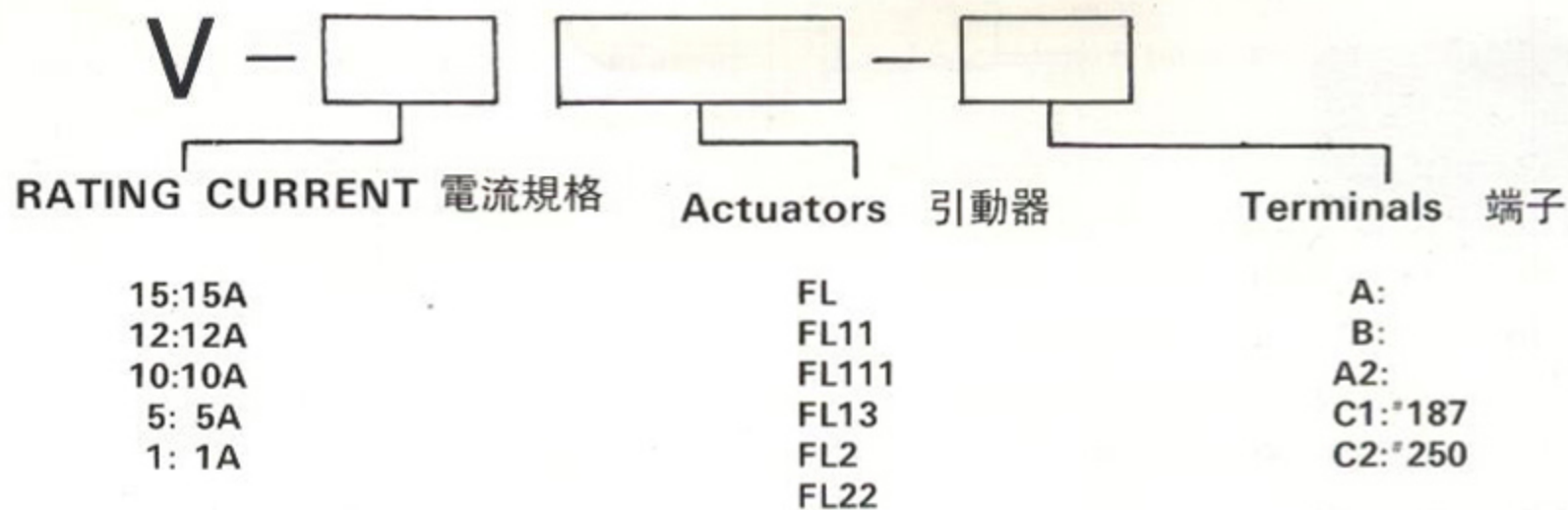
Mounting holes 安裝孔

2-3.1 dia. mounting holes or
M3 screw holes



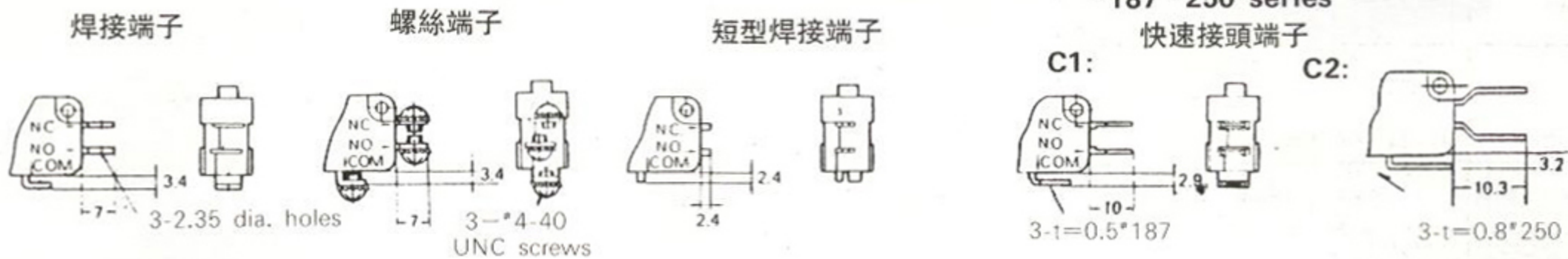
MINIATURE BASIC SWITCH (V Type)

ORDERING INFORMATION 具備型式



TERMINALS 端子系列

Solder terminal (-A) Screw terminal (-B) Short solder terminal (-A2) Quick connect terminal (C1,C2) #187 #250 series



CONTACT CONFIGURATION 接點構成

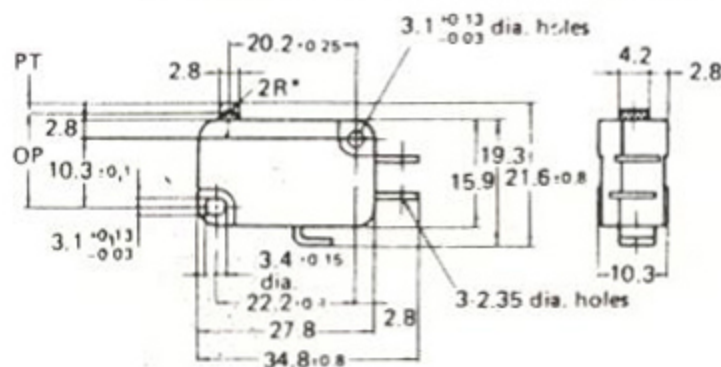


DIMENSIONS 外觀尺寸

(Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions)
(除特殊規定外, 所有外觀尺寸容許範圍 $\pm 0.4\text{mm}$)

● V-□-□ Pin Plunger Type

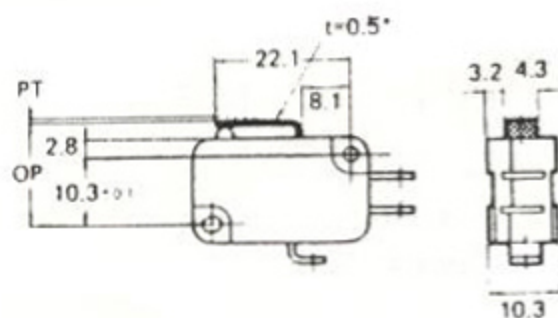
* (Phenolic resin push button)



| Type | V-□-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF min. | 400g | 300 | 160 | 80 |
| RF min. | 80g | 56 | 28 | 16 |
| PT max. | 1.2mm | | | |
| OT min. | 0.8mm | | | |
| MD max. | 0.15~0.4mm | | | |
| OP | 14.7±0.4mm | | | |

● V-□FL11-□ Short Lever Type

* (stainless steel lever)

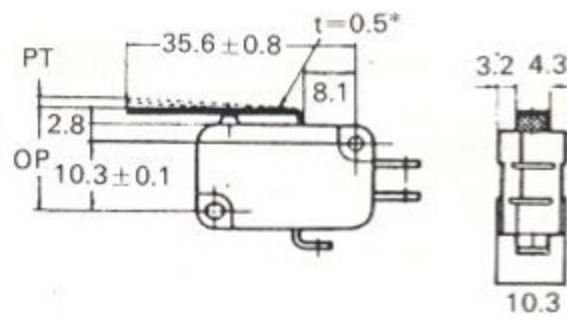


| Type | V-□FL11-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF min. | 400g | 300 | 160 | 80 |
| RF min. | 50g | 45 | 17 | 8 |
| PT max. | 1.5mm | | | |
| OT min. | 0.6mm | | | |
| MD max. | 0.5mm | | | |
| OP | 15.2±0.5mm | | | |

MINIATURE BASIC SWITCH (V Type)

●V-□FL-□ Middle Lever Type

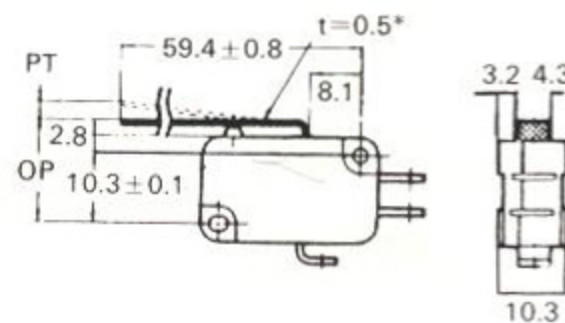
* (stainless steel lever)



| Type | V-□FL-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF min. | 200g | 150 | 100 | 40 |
| RF min. | 28g | 14 | 10 | 5 |
| PT max. | 3.3mm | | | |
| OT min. | 1.6mm | | | |
| MD max. | 1.2mm | | | |
| OP | 15.2±1.2mm | | | |

●V-□FL111-□ Long Lever Type

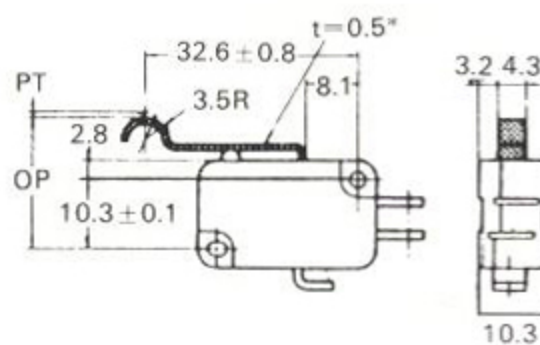
* (stainless steel lever)



| Type | V-□FL111-□ | | | |
|---------------------------|------------|-----|----|----|
| Operating characteristics | | | | |
| OF min. | 114g | 100 | 60 | 20 |
| RF min. | 14g | 7 | 7 | 3 |
| PT max. | 7.6mm | | | |
| OT min. | 3mm | | | |
| MD max. | 2.2mm | | | |
| OP | 15.2±2.6mm | | | |

●V-□FL13-□ Simulated Lever Type

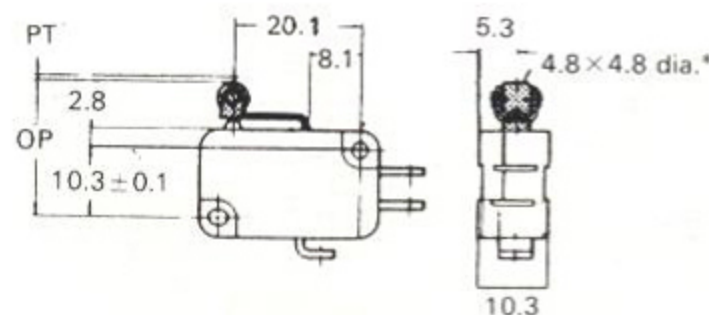
* (stainless steel lever)



| Type | V-□FL13-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF | 200g | 150 | 100 | 40 |
| RF min. | 28g | 14 | 10 | 5 |
| PT max. | 2.5mm | | | |
| OT min. | 1.6mm | | | |
| MD max. | 1.2mm | | | |
| OP | 18.2±1.2mm | | | |

●V-□FL22-□ Short Roller Lever Type

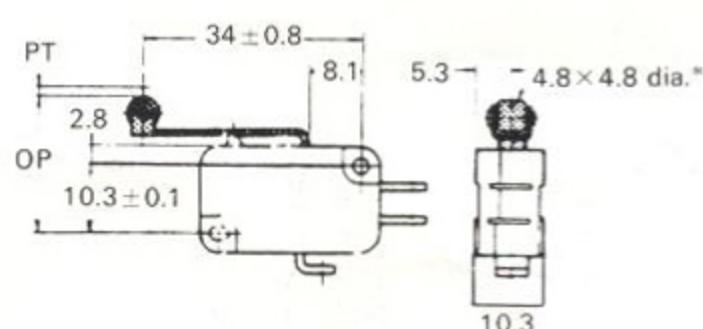
* (stainless steel roller)



| Type | V-□FL22-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF min. | 400g | 300 | 160 | 80 |
| RF min. | 85g | 45 | 17 | 8 |
| PT max. | 1.5mm | | | |
| OT min. | 0.6mm | | | |
| MD max. | 0.5mm | | | |
| OP | 20.7±0.6mm | | | |

●V-□FL2-□ Long Roller Lever Type

* (stainless steel roller)



| Type | V-□FL2-□ | | | |
|---------------------------|------------|-----|-----|----|
| Operating characteristics | | | | |
| OF min. | 200g | 150 | 100 | 40 |
| RF min. | 28g | 14 | 10 | 5 |
| PT max. | 3.3mm | | | |
| OT min. | 1.6mm | | | |
| MD max. | 1.2mm | | | |
| OP | 20.7±1.2mm | | | |

PUSH BUTTON SWITCH (VPS Type)

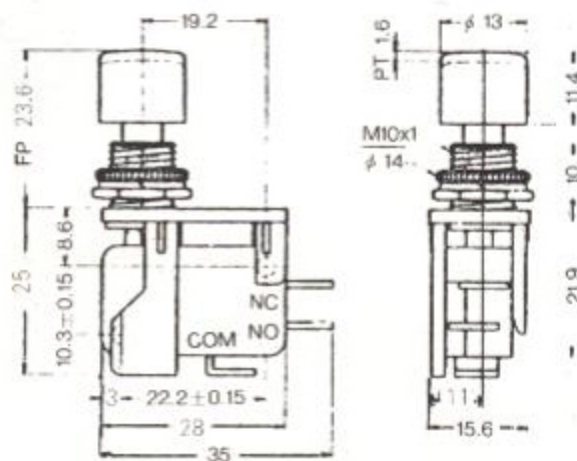
FEATURES 特徵

- Type VPS is a push button switch with momentary action using Type V-15 miniature basic switch inside and has high capacity and a long life.
VPS按扭開關可瞬間動作，使用V型15安培之微動開關，有高容量，且壽命長。
- Switching part uses miniature basic switch, so it shows a long life, clear touch and stable and sure movement irrespective of operating speed by hand.
開關部份使用微動開關，使用壽命長，動程穩定，速度由手控制。
- As we are preparing for many varieties (external appearance, operations and colour of buttons), you can select whichever you like according to your panel design.
我們準備許多種類，(外觀、動作及按鈕顏色)你可依照自己設計來選擇喜歡的種類。

DIMENSIONS 外觀尺寸

(Unless otherwise specified, a tolerance of 0.4mm applies to all dimensions)
(除特殊規定外，所有外觀尺寸容許範圍±0.4mm)

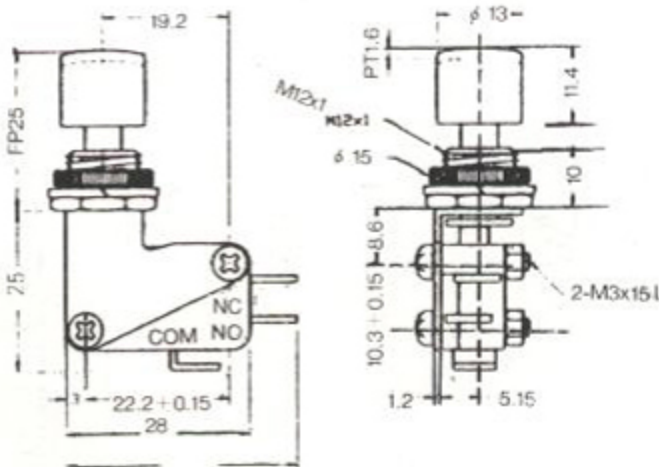
VPS-60-□



BUTTON COLOR:

- | | |
|---|--------|
| 1 | Yellow |
| 2 | Red |
| 3 | Green |

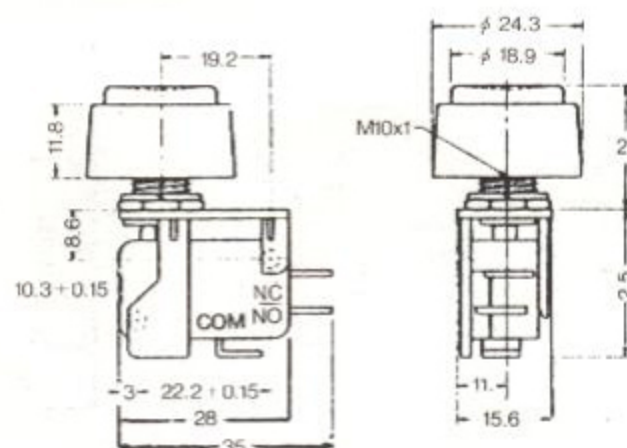
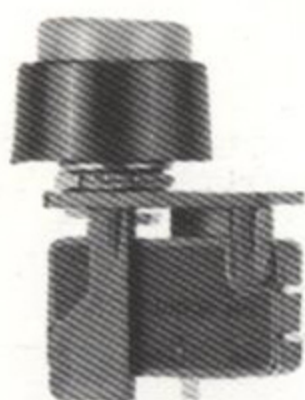
VPS-61-□



BUTTON COLOR:

- | | |
|---|--------|
| 1 | Yellow |
| 2 | Red |
| 3 | Green |

VPS-62R -□



BUTTON COLOR:

- | | |
|---|--------|
| 1 | Yellow |
| 2 | Red |
| 3 | Green |