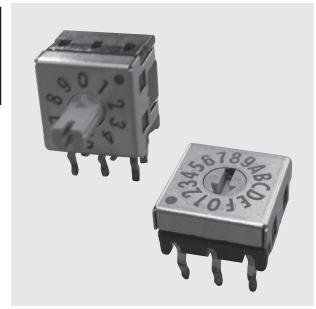


DRS・DRR 7000C 8000C

洗浄可能
Washable

極超小形ディップロータリースイッチ (角7.5)
Hyper-Miniature Dip Rotary Switches (7.5mm sq.)
[PC端子形/PC Mount]



RoHS 指令対応 RoHS Compliant

■ 特長

1. 極超小形 (7.5ミリ角)
弊社比1/2の実装面積・高密度実装用を実現。
2. 丸洗い洗浄が可能
3. 接触部に金メッキ
微小電流領域で高信頼性を実現。
4. 視認性の向上

■ Features

1. Hyper-miniature Size(7.5mm sq.)
Designed for high density mounting.
2. Process Sealed
3. Gold Plated Contacts
4. Clearly Visible Legends and Position Indicator

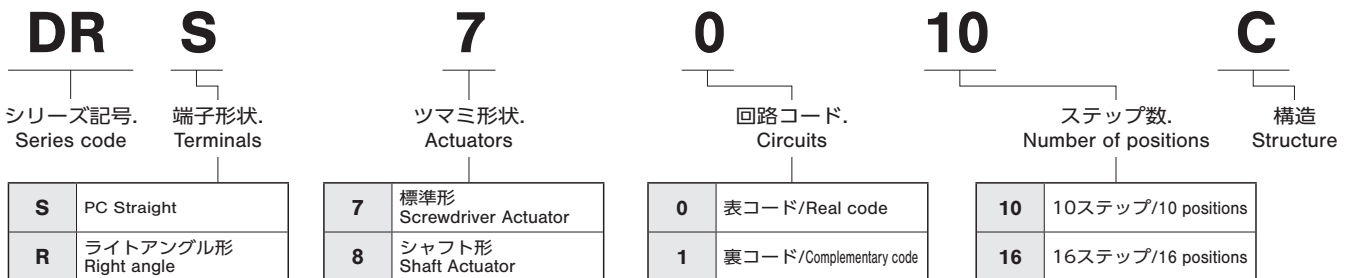
■ 仕様

| | | | |
|-----------|------------------------|-------------|------------|
| 定格 | 開閉定格 | 最大 | DC15V 30mA |
| | | 最小 | DC20mV 1μA |
| | 通電定格 | DC50V 100mA | |
| 接 触 抵 抗 | 100mΩ以下 | | |
| 耐 電 圧 | AC250V 1分間 | | |
| 絶 縁 抵 抗 | 1,000MΩ以上 (DC100V) | | |
| 耐 久 性 | 20,000 ステップ DC15V 30mA | | |
| 回 転 ト ル ク | 49mN·m [500gf·cm] 以下 | | |
| 使用温度範囲 | -25~+85℃ | | |
| 保存温度範囲 | -40~+85℃ | | |

■ Specifications

| | | | |
|-----------------------------|---------------|---------------------------|------------|
| Rating | Switching | Max. | 30mA 15VDC |
| | | Min. | 1μA 20mVDC |
| | Non-switching | 100mA 50VDC | |
| Contact resistance | | 100mΩ maximum | |
| Dielectric strength | | 250VAC, 60s | |
| Insulation resistance | | 1,000MΩ minimum (100VDC) | |
| Load life | | 20,000 steps 30mA 15VDC | |
| Operating torque | | 49mN·m [500gf·cm] maximum | |
| Operating temperature range | | -25~+85℃ | |
| Storage temperature range | | -40~+85℃ | |

■ 形名の説明 / Part Numbering



■ 品種一覧表 / Table of Part Numbers

| 回路特性 Circuit function | ステップ数 positions | ツマミ形状 Actuators | 標準形/Screwdriver Actuator | | シャフト形/Shaft Actuator | |
|----------------------------|--------------------|------------------------|--------------------------|------------------------|----------------------|------------------------|
| | | 端子形状 Terminal style | PC Straight | ライトアングル Right-Angle | PC Straight | ライトアングル Right Angle |
| 表コード Real code | 10 | | DRS7010C | DRR7010C | DRS8010C | ★ DRR8010C |
| | 16 | | DRS7016C | DRR7016C | DRS8016C | DRR8016C |
| 裏コード Complementary code | 10 | | DRS7110C | DRR7110C | ★ DRS8110C | ★ DRR8110C |
| | 16 | | DRS7116C | DRR7116C | DRS8116C | ★ DRR8116C |

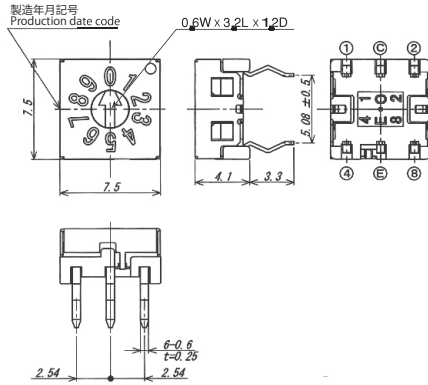
★ (黒星) は、受注生産品です。

★ : Made-to-order products.

DRS7010C
DRS7110C



PC Straight



端子番号はボックスに表示してあります。
Terminal numbers are shown on the bottom of the switch.

●表コード 軸色 : 黄色
Real code Actuator color : Yellow

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS7010C DRR7010C | 0 | | | | |
| | 1 | ● | | | |
| | 2 | | ● | | |
| | 3 | ● | ● | | |
| | 4 | | | ● | |
| | 5 | ● | | ● | |
| | 6 | | ● | ● | |
| | 7 | ● | ● | ● | |
| | 8 | | | | ● |
| 9 | ● | | | ● | |

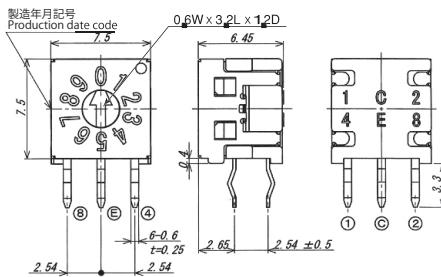
●裏コード 軸色 : 赤色
Complementary code Actuator color : Red

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS7110C DRR7110C | 0 | ● | ● | ● | ● |
| | 1 | | ● | ● | ● |
| | 2 | ● | | ● | ● |
| | 3 | | | ● | ● |
| | 4 | ● | ● | | ● |
| | 5 | | ● | | ● |
| | 6 | ● | | | ● |
| | 7 | | | | ● |
| | 8 | ● | ● | ● | |
| 9 | | ● | ● | | |

DRR7010C
DRR7110C



Right Angle



端子番号はボックスに表示してあります。
Terminal numbers are shown on the bottom of the switch.

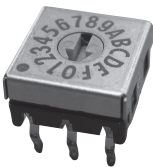
●表コード 軸色 : 黄色
Real code Actuator color : Yellow

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS7016C DRR7016C | 0 | | | | |
| | 1 | ● | | | |
| | 2 | | ● | | |
| | 3 | ● | ● | | |
| | 4 | | | ● | |
| | 5 | ● | | ● | |
| | 6 | | ● | ● | |
| | 7 | ● | ● | ● | |
| | 8 | | | | ● |
| | 9 | ● | | | ● |
| | A | | ● | ● | ● |
| | B | ● | ● | | ● |
| | C | | | ● | ● |
| D | ● | | ● | ● | |
| E | | ● | ● | ● | |
| F | ● | ● | ● | ● | |

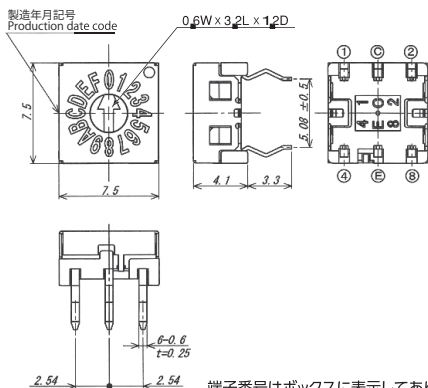
●裏コード 軸色 : 赤色
Complementary code Actuator color : Red

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS7116C DRR7116C | 0 | ● | ● | ● | ● |
| | 1 | | ● | ● | ● |
| | 2 | ● | | ● | ● |
| | 3 | | | ● | ● |
| | 4 | ● | ● | | ● |
| | 5 | | ● | | ● |
| | 6 | ● | | | ● |
| | 7 | | | | ● |
| | 8 | ● | ● | ● | |
| | 9 | | ● | ● | |
| | A | ● | | ● | |
| | B | | | ● | |
| | C | ● | ● | | |
| D | | ● | | | |
| E | ● | | | | |
| F | | | | | |

DRS7016C
DRS7116C



PC Straight

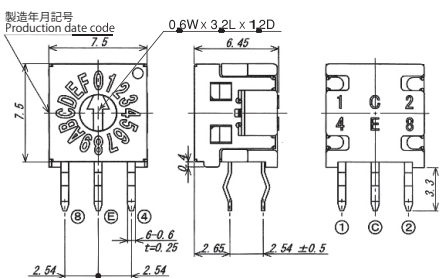


端子番号はボックスに表示してあります。
Terminal numbers are shown on the bottom of the switch.

DRR7016C
DRR7116C



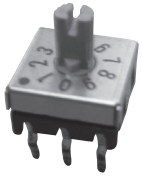
Right Angle



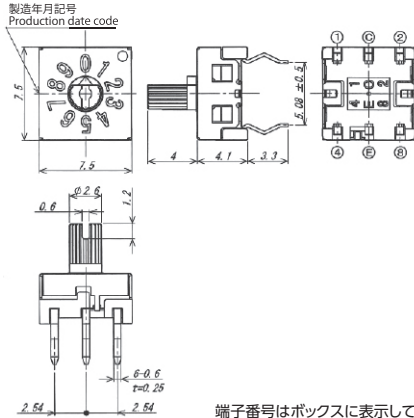
端子番号はボックスに表示してあります。
Terminal numbers are shown on the bottom of the switch.

ⓔ : アース端子 Terminal E is ground terminal ●印は、コモン(C)との接続を示します。 ●...Connection to common (C).

DRS8010C
DRS8110C



PC Straight



●表コード
Real code

軸色 : 黄色
Actuator color : Yellow

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS8010C DRR8010C | 0 | | | | |
| | 1 | ● | | | |
| | 2 | | ● | | |
| | 3 | ● | ● | | |
| | 4 | | | ● | |
| | 5 | ● | | ● | |
| | 6 | | ● | ● | |
| | 7 | ● | ● | ● | |
| | 8 | | | | ● |
| | 9 | ● | | | ● |

●裏コード
Complementary code

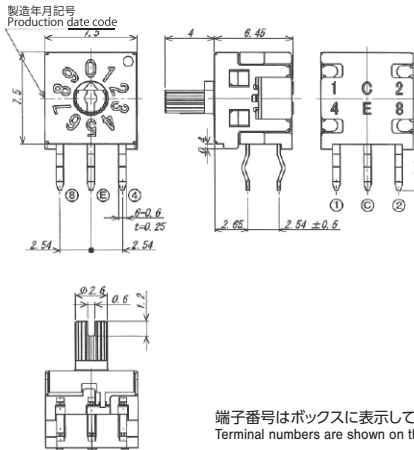
軸色 : 赤色
Actuator color : Red

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS8110C DRR8110C | 0 | ● | ● | ● | ● |
| | 1 | | ● | ● | ● |
| | 2 | ● | | ● | ● |
| | 3 | | | ● | ● |
| | 4 | ● | ● | | ● |
| | 5 | | ● | | ● |
| | 6 | ● | | | ● |
| | 7 | | | | ● |
| | 8 | ● | ● | ● | |
| | 9 | | ● | ● | |

DRR8010C
DRR8110C



Right Angle



●表コード
Real code

軸色 : 黄色
Actuator color : Yellow

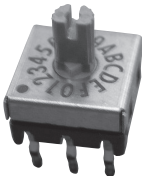
| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS8016C DRR8016C | 0 | | | | |
| | 1 | ● | | | |
| | 2 | | ● | | |
| | 3 | ● | ● | | |
| | 4 | | | ● | |
| | 5 | ● | | ● | |
| | 6 | | ● | ● | |
| | 7 | ● | ● | ● | |
| | 8 | | | | ● |
| | 9 | ● | | | ● |
| | A | | ● | | ● |
| | B | ● | ● | | ● |
| | C | | | ● | ● |
| | D | ● | | ● | ● |
| | E | | ● | ● | ● |
| | F | ● | ● | ● | ● |

●裏コード
Complementary code

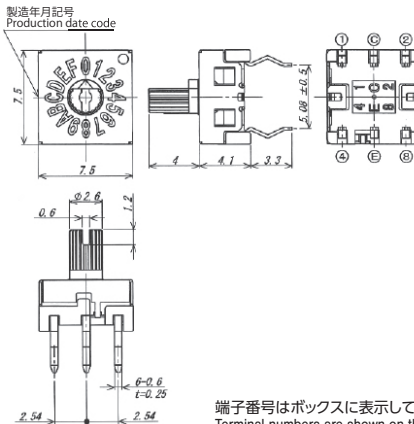
軸色 : 赤色
Actuator color : Red

| Part No. | Position | Terminal # | | | |
|----------------------|----------|------------|---|---|---|
| | | 1 | 2 | 4 | 8 |
| DRS8116C DRR8116C | 0 | ● | ● | ● | ● |
| | 1 | | ● | ● | ● |
| | 2 | ● | | ● | ● |
| | 3 | | | ● | ● |
| | 4 | ● | ● | | ● |
| | 5 | | ● | | ● |
| | 6 | ● | | | ● |
| | 7 | | | | ● |
| | 8 | ● | ● | ● | |
| | 9 | | ● | ● | |
| | A | ● | | ● | |
| | B | | | ● | |
| | C | ● | ● | | |
| | D | | ● | | |
| | E | ● | | | |
| | F | | | | |

DRS8016C
DRS8116C



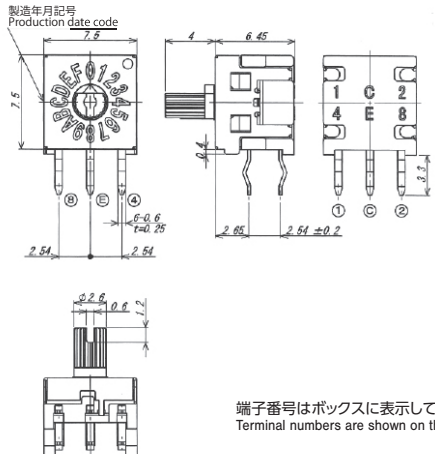
PC Straight



DRR8016C
DRR8116C



Right Angle

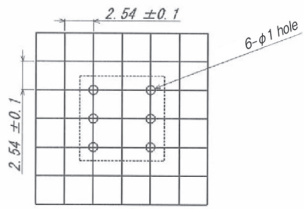
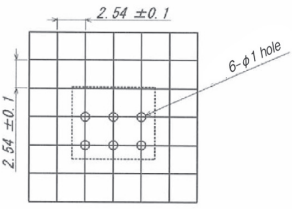


ⓔ : アース端子
Terminal E is ground terminal

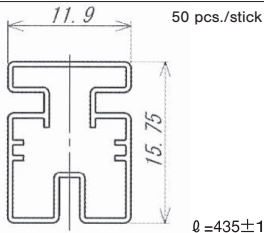
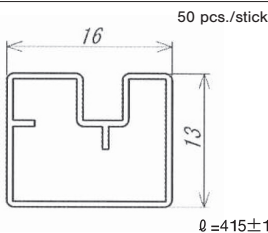
●印は、コモン(C)との接続を示します。
●...Contact closed

■ プリント基板孔あけ寸法/PCB Footprints

(Top view)

| 端子形状 Terminal style | PC Straight | Right Angle |
|--------------------------------|--|---|
| パターン寸法 Footprint dimensions |  <p>Diagram showing the footprint dimensions for the PC Straight terminal style. The footprint is a 6x6 grid with a central 2x2 hole. The grid pitch is 2.54 ± 0.1 mm. The central hole is 6-φ1 mm.</p> |  <p>Diagram showing the footprint dimensions for the Right Angle terminal style. The footprint is a 6x6 grid with a central 2x2 hole. The grid pitch is 2.54 ± 0.1 mm. The central hole is 6-φ1 mm.</p> |

■ 梱包仕様/Packaging Specifications

| シリーズ名 /Series | DRS7000C/8000C | DRR7000C/8000C |
|--------------------------------------|--|--|
| スティック仕様 Stick-Tube Specifications |  <p>Diagram showing the stick tube specifications for the DRS7000C/8000C series. The width is 11.9 mm, the height is 15.75 mm, and the diameter is $\phi = 435 \pm 1$ mm. The quantity is 50 pcs./stick.</p> |  <p>Diagram showing the stick tube specifications for the DRR7000C/8000C series. The width is 16 mm, the height is 13 mm, and the diameter is $\phi = 415 \pm 1$ mm. The quantity is 50 pcs./stick.</p> |

※最小梱包単位(スティック:50個)でのご注文を承ります。

Order in 50 piece increments.

■ はんだ付け仕様/Soldering Specifications

- 手はんだ/Manual Soldering
350°C, 3 sec. Max
- フロー/Flow
はんだ槽内温度は245~260°C,浸漬時間は1回につき3~5s程で,トータル浸漬時間は10s以内。
245~260°C, Max.; 3 to 5 seconds (One time)
Total dip time within 10 sec.

■ スイッチ操作について/Switch Operation

操作はミニドライバーで行ってください。
Use a screwdriver for setting position of the actuator.

■ 洗浄仕様/Flux Cleaning

はんだ付け後、部品が室温30°C以下まで十分に冷えてから洗浄してください。熱いまま洗浄液へ空け浸けると内部の空気が収縮し、吸い込み現象により洗浄液が内部へ侵入することがあります。

After soldering, wait until the switches cool down to room temperature (30°C or below) before washing. If the switches are cleaned while still above 30°C, a vacuum will occur which will cause the cleaning solution to be sucked into the switches.