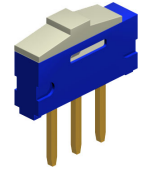
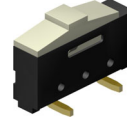
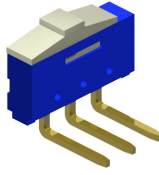


DIP & ROTARY SWITCH

| Type | | Page |
|--|-----------------------------|---|
| Changeover Slide Switch "DSS" Series | 2.54mm Pin to Pin THT & SMT | 2 |
| Rotary Switch "DRD" Series | <i>Vertical Operation</i> | 3:3 & 1:4 Pin-out SMT 2.54mm Pin to Pin |
| | <i>Vertical Operation</i> | 3:3 Pin-out THT 2.54 x 7.62mm footprint |
| | <i>Vertical Operation</i> | 1:4 Pin-out THT 2.54 x 7.62mm footprint |
| | <i>Horizontal Operation</i> | 3:3 Pin-out THT 2.54 x 2.54mm footprint |
| | <i>Horizontal Operation</i> | 1:4 Pin-out THT 2.54 x 2.54mm footprint |
| | <i>Horizontal Operation</i> | 3:3 Pin-out THT 2.54 x 5.08mm footprint |
| | <i>Horizontal Operation</i> | 1:4 Pin-out THT 2.54 x 5.08mm footprint |
| Slide Switch "DDG" & "DDS" Series | Standard Profile | 2.54mm DIP Type THT |
| Slide Switch "DDG" Series | Standard Profile | 2.54mm DIP Type THT |
| Slide Switch "DAH" Series | Auto Inserting | 2.54mm DIP Type THT |
| Slide Switch "DAM" Series | End Stackable | 2.54mm DIP Type THT |
| Slide Switch "DSD" & "DSL" Series | End Stackable | 2.54mm DIP Type SMT |
| Slide Switch "DHS" Series | Half Pitch (1.27mm) SMT | |
| Slide TRI-STATE Switch "DTD" / "DTA" & "DTS" Series | Standard Profile | 2.54mm DIP Type THT & SMT |
| Selector Slide Switch "DSP" Series | Standard | 2.54mm DIP Type THT & SMT |
| Piano Switch "DPG" & "DPS" Series | Standard Profile | 2.54mm DIP Type THT |
| Piano Switch "DPH" Series | Low Profile | 2.54mm DIP Type THT |
| Piano Switch "DPI" Series | Low Profile, End Stackable | 2.54mm DIP Type THT |
| Piano Switch "DPA" Series | Low Profile | 2.54mm DIP Type SMT |
| Piano Switch "DPM" Series | Low Profile, End Stackable | 2.54mm DIP Type SMT |

| Part-Number | Page | Part-Number | Page | Part-Number | Page | Part-Number | Page |
|---------------|------|---------------|------|-------------|------|--------------|------|
| DAH-1xx-E01Z | 12 | DPA-1xx-LA00Z | 22 | DPS-1xx-AZ | 18 | DRD-5xx-RFZ | 9 |
| DAH-1xx-EZ | 12 | DPA-1xx-LA10Z | 22 | DPS-1xx-BTZ | 18 | DRD-5xx-RRZ | 7 |
| DAH-1xx-L01Z | 12 | DPA-1xx-LAT0Z | 22 | DPS-1xx-BZ | 18 | DRD-5xx-RSZ | 5 |
| DAH-1xx-LT01Z | 12 | DPA-1xx-LAT1Z | 22 | DPS-2xx-ATZ | 18 | DSD-1xx-EZ | 14 |
| DAH-1xx-LTZ | 12 | DPG-1xx-ATZ | 18 | DPS-2xx-AZ | 18 | DSD-1xx-LCZ | 14 |
| DAH-1xx-LZ | 12 | DPG-1xx-AZ | 18 | DPS-2xx-BTZ | 18 | DSD-1xx-LDZ | 14 |
| DAM-1xx-E01Z | 13 | DPG-1xx-BTZ | 18 | DPS-2xx-BZ | 18 | DSD-1xx-LTZ | 14 |
| DAM-1xx-EZ | 13 | DPG-1xx-BZ | 18 | DPS-3xx-ATZ | 18 | DSD-1xx-LZ | 14 |
| DAM-1xx-L01Z | 13 | DPG-2xx-ATZ | 18 | DPS-3xx-AZ | 18 | DSL-1xx-EZ | 14 |
| DAM-1xx-LT01Z | 13 | DPG-2xx-AZ | 18 | DPS-3xx-BTZ | 18 | DSL-1xx-LCZ | 14 |
| DAM-1xx-LTZ | 13 | DPG-2xx-BTZ | 18 | DPS-3xx-BZ | 18 | DSL-1xx-LDZ | 14 |
| DAM-1xx-LZ | 13 | DPG-2xx-BZ | 18 | DPS-4xx-ATZ | 19 | DSL-1xx-LTZ | 14 |
| DDG-1xx-LTZ | 11 | DPG-3xx-ATZ | 18 | DPS-4xx-AZ | 19 | DSL-1xx-LZ | 14 |
| DDG-1xx-LZ | 11 | DPG-3xx-AZ | 18 | DPS-4xx-BTZ | 19 | DSP-42-E01Z | 17 |
| DDG-1xx-SRAZ | 11 | DPG-3xx-BTZ | 18 | DPS-4xx-BZ | 19 | DSP-42-E02Z | 17 |
| DDG-1xx-STZ | 11 | DPG-3xx-BZ | 18 | DPS-5xx-ATZ | 19 | DSP-42-EC02Z | 17 |
| DDG-1xx-SZ | 11 | DPG-4xx-ATZ | 19 | DPS-5xx-AZ | 19 | DSP-42-L01Z | 17 |
| DDG-2xx-STZ | 10 | DPG-4xx-AZ | 19 | DPS-5xx-BTZ | 19 | DSP-42-L02Z | 17 |
| DDG-2xx-SZ | 10 | DPG-4xx-BTZ | 19 | DPS-5xx-BZ | 19 | DSP-42-LC02Z | 17 |
| DDG-3xx-STZ | 10 | DPG-4xx-BZ | 19 | DPS-6xx-ATZ | 19 | DSP-42-LD02Z | 17 |
| DDG-3xx-SZ | 10 | DPG-5xx-ATZ | 19 | DPS-6xx-AZ | 19 | DSP-42-LT01Z | 17 |
| DDG-4xx-LTZ | 11 | DPG-5xx-AZ | 19 | DPS-6xx-BTZ | 19 | DSP-42-LT02Z | 17 |
| DDG-4xx-LZ | 11 | DPG-5xx-BTZ | 19 | DPS-6xx-BZ | 19 | DSS-1010Z | 2 |
| DDG-4xx-SRAZ | 11 | DPG-5xx-BZ | 19 | DRD-1xx-CFZ | 8 | DSS-2010Z | 2 |
| DDG-4xx-STZ | 11 | DPG-6xx-ATZ | 19 | DRD-1xx-CMZ | 3 | DSS-3020Z | 2 |
| DDG-4xx-SZ | 11 | DPG-6xx-AZ | 19 | DRD-1xx-CRZ | 6 | DSS-4020KDZ | 2 |
| DDG-5xx-LTZ | 11 | DPG-6xx-BTZ | 19 | DRD-1xx-CSZ | 4 | DSS-4020Z | 2 |
| DDG-5xx-LZ | 11 | DPG-6xx-BZ | 19 | DRD-1xx-RFZ | 8 | DTA-1xx-ETZ | 16 |
| DDG-5xx-SRAZ | 11 | DPH-1xx-EAZ | 20 | DRD-1xx-RMZ | 3 | DTA-1xx-EZ | 16 |
| DDG-5xx-STZ | 11 | DPH-1xx-LATZ | 20 | DRD-1xx-RRZ | 6 | DTA-1xx-LTZ | 16 |
| DDG-5xx-SZ | 11 | DPH-1xx-LAZ | 20 | DRD-1xx-RSZ | 4 | DTA-1xx-LZ | 16 |
| DDG-6xx-STZ | 10 | DPI-1xx-EA10Z | 21 | DRD-2xx-CFZ | 8 | DTD-1xx-ETZ | 16 |
| DDG-6xx-SZ | 10 | DPI-1xx-EB10Z | 21 | DRD-2xx-CRZ | 6 | DTD-1xx-EZ | 16 |
| DDG-Nxx-SRAZ | 11 | DPI-1xx-LA10Z | 21 | DRD-2xx-CSZ | 4 | DTS-1xx-ETZ | 16 |
| DDG-Nxx-STZ | 11 | DPI-1xx-LB10Z | 21 | DRD-2xx-RFZ | 8 | DTS-1xx-EZ | 16 |
| DDG-Nxx-SZ | 11 | DPM-1xx-EA10Z | 23 | DRD-2xx-RRZ | 6 | DTS-1xx-LTZ | 16 |
| DDS-2xx-STZ | 10 | DPM-1xx-EA11Z | 23 | DRD-2xx-RSZ | 4 | DTS-1xx-LZ | 16 |
| DDS-2xx-SZ | 10 | DPM-1xx-EB10Z | 23 | DRD-4xx-CFZ | 9 | | |
| DDS-3xx-STZ | 10 | DPM-1xx-EB11Z | 23 | DRD-4xx-CMZ | 3 | | |
| DDS-3xx-SZ | 10 | DPM-1xx-LA10Z | 23 | DRD-4xx-CRZ | 7 | | |
| DDS-6xx-STZ | 10 | DPM-1xx-LA11Z | 23 | DRD-4xx-CSZ | 5 | | |
| DDS-6xx-SZ | 10 | DPM-1xx-LAT0Z | 23 | DRD-4xx-RFZ | 9 | | |
| DHS-1xx-LCZ | 15 | DPM-1xx-LAT1Z | 23 | DRD-4xx-RMZ | 3 | | |
| DHS-1xx-LDZ | 15 | DPM-1xx-LB10Z | 23 | DRD-4xx-RRZ | 7 | | |
| DHS-1xx-LTZ | 15 | DPM-1xx-LB11Z | 23 | DRD-4xx-RSZ | 5 | | |
| DHS-1xx-LZ | 15 | DPM-1xx-LBT0Z | 23 | DRD-5xx-CFZ | 9 | | |
| DPA-1xx-EA00Z | 22 | DPM-1xx-LBT1Z | 23 | DRD-5xx-CRZ | 7 | | |
| DPA-1xx-EA10Z | 22 | DPS-1xx-ATZ | 18 | DRD-5xx-CSZ | 5 | | |

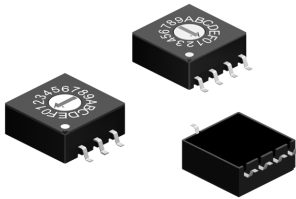
Changeover Slide Switch



SMT & THT Page 2

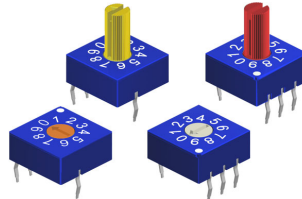
Rotary Switch

SMT vertical operation



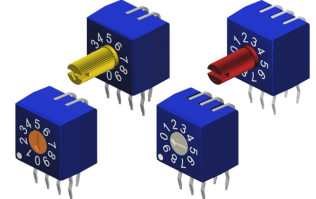
Page 3

THT vertical operation



Page 4 & 5

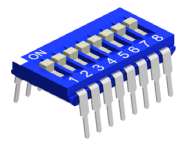
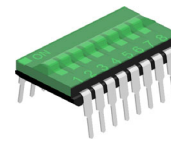
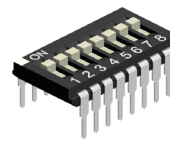
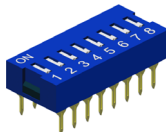
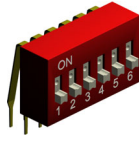
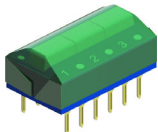
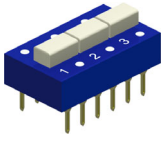
THT horizontal operation



Page 6 to 9

Slide Switch

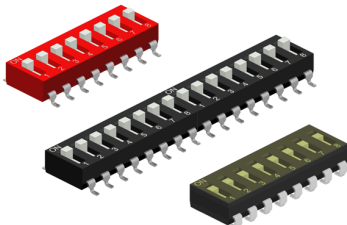
DIP Package "THT"



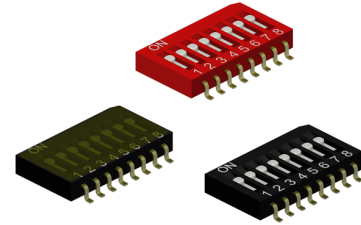
DDG / DDS Series Page 10 & 11

DAH / DAM Series Page 12 & 13

DIP Package "SMT"

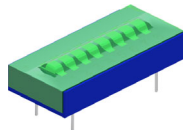
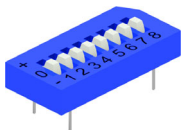


DSD / DSL Series Page 14



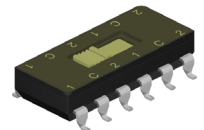
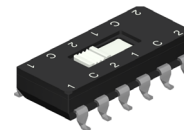
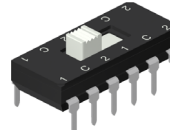
DHS Series Page 15

TRI-State "THT" & "SMT"



DTD / DTA / DTS Series Page 16

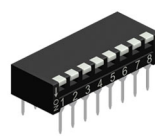
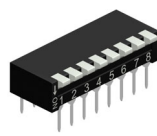
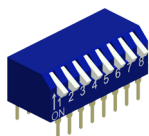
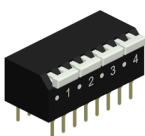
Selector "THT" & "SMT"



DSP Series Page 17

Piano Switch

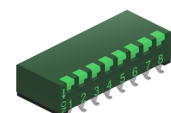
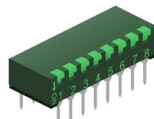
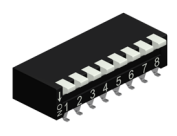
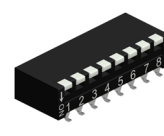
DIP Package "THT"



DPG / DPS Series Page 18 & 19

DPH / DPI Series Page 20 & 21

DIP Package "SMT"



DPA / DPM Series Page 22 & 23

| | | | | | |
|------------------------|--|--|------------------------|---|------------------------|
| <p>DSS-10xx</p> | | | <p>Circuit diagram</p> | <p>Switch position</p> <p>(B) (A) PT PT C-1 C-2</p> | <p>PCB Hole Layout</p> |
| <p>DSS-20xx</p> | | | <p>Circuit diagram</p> | <p>Switch position</p> <p>(B) (A) PT PT C-1 C-2</p> | <p>PCB Hole Layout</p> |
| <p>DSS-30xx</p> | | | <p>Circuit diagram</p> | <p>Switch position</p> <p>(B) (A) PT PT C-1 C-2</p> | <p>PCB SMT Layout</p> |
| <p>DSS-40xx</p> | | | <p>Circuit diagram</p> | <p>Switch position</p> <p>(B) (A) PT PT C-1 C-2</p> | <p>PCB SMT Layout</p> |

SPECIFICATIONS

Electrical data

| | | |
|---------------------------------------|------------------|-----------------------------|
| Contact Rating | -switching | 0.2A, 24V DC / 0.5A, 12V DC |
| | -minimum | 1 mA at 10mV |
| Contact Resistance | -after life test | 50 mΩ max. 100 mΩ max. |
| Insulation Resistance | | 10000 MΩ min. at 500V DC |
| Withstanding Voltage | | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | | 1.5 pF max. |

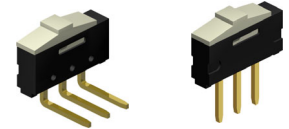
Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Soldering Temperature | |
| -SMT reflow soldering | 250°C +0/-5°C for 10 sec. max. |
| -THT wave soldering | 250°C +0/-5°C for 10 sec. max. |
| Operating force | 800 gf max. |
| Mechanical Life | 5000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Suitable for signal switching and communication equipments
- All plastics used are UL 94V-0 grade fire retardant
- Gold plated contacts to ensure low contact resistance

- Tropical Version (black color) also for THT straight and right angle type available



How to order

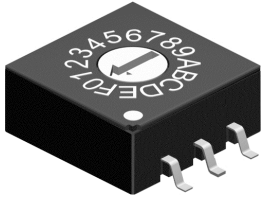
DSS – xx xx xx Z

| Type | |
|-------------------------------|-------------------|
| 10 | = Straight THT |
| 20 | = Right angle THT |
| <i>Tropical version only:</i> | |
| 30 | = Vertical SMT |
| 40 | = Horizontal SMT |

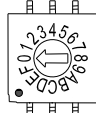
| Execution | |
|-----------|--|
| 10 | = Standard version (blue) <i>Material: PA 66</i> |
| 20 | = Tropical version (black) <i>Material: PA 6T</i> |

| Packing option | |
|----------------|---|
| blank | = Tube packing |
| KD | = Reel packing <i>for DSP-40xx series only</i> |

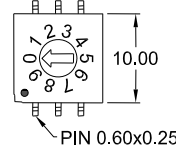
DRD-1 xx-XM Z (3:3 pin-out)



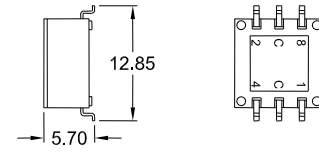
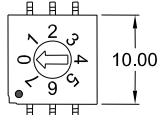
16 POSITIONS



10 POSITIONS



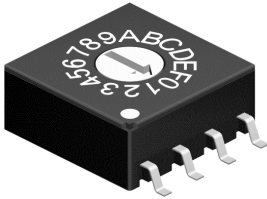
8 POSITIONS



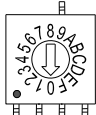
| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: White
○ Complementary Code Rotor color: Red

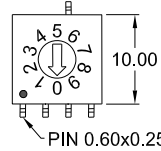
DRD-4 xx-XM Z (1:4 pin-out)



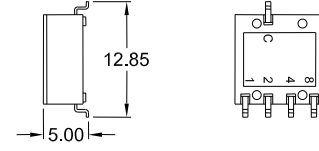
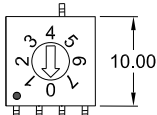
16 POSITIONS



10 POSITIONS



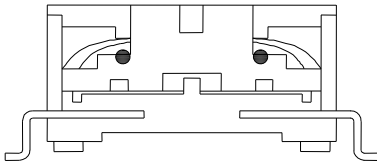
8 POSITIONS



| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

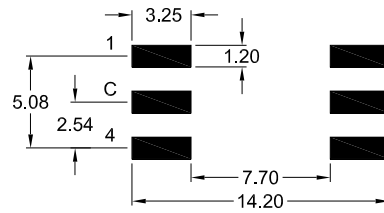
● Real Code Rotor color: Yellow
○ Complementary Code Rotor color: Orange

Construction

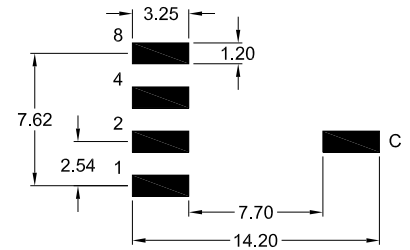


PCB SMT Layout

3:3 PIN-OUT



1:4 PIN-OUT



SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Soldering Temperature | |
| -SMT reflow soldering | 250°C +0/-5°C for 10 sec. |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm pin to pin
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

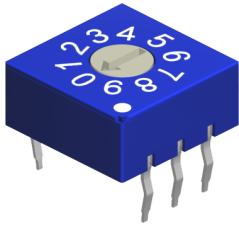
DRD – x xx – XX Z

| Rotor | |
|----------|---------------------------|
| 1 | = Flat Type (3:3 pin-out) |
| 4 | = Flat Type (1:4 pin-out) |

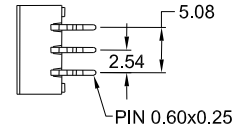
| Nbr of positions | |
|-------------------|--|
| 08; 10; 16 | |

| Code | |
|-----------|-----------------|
| RM | = Real |
| CM | = Complementary |

DRD-1 xx-XS Z (Flat Type)



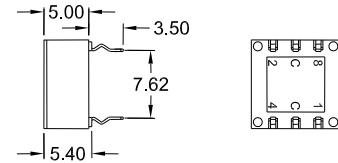
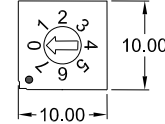
16 POSITIONS



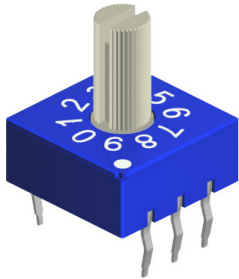
10 POSITIONS



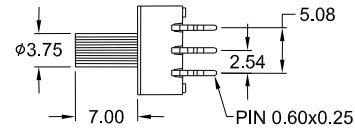
8 POSITIONS



DRD-2 xx-XS Z (Shaft Type)



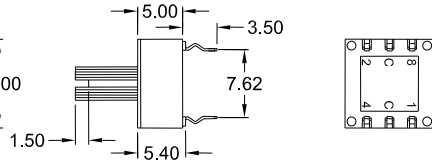
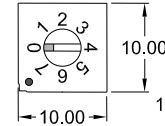
16 POSITIONS



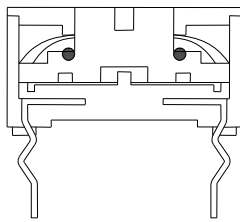
10 POSITIONS



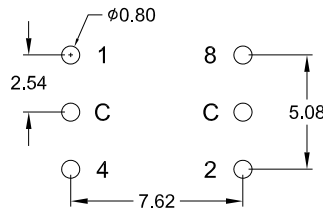
8 POSITIONS



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● |
| 2 | ○ | ○ | ● | ○ | ○ | ● | ○ | ○ | ● | ○ | ○ | ● | ○ | ○ | ● | ○ |
| 4 | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: White
○ Complementary Code Rotor color: Red

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm pin to pin, and 7.62mm DIP space
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

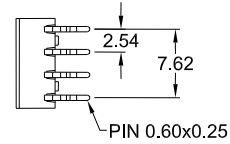
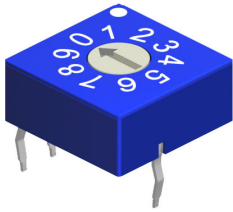
DRD - X XX - XX Z

| Rotor | |
|----------|--------------|
| 1 | = Flat Type |
| 2 | = Shaft Type |

| Nbr of positions | |
|-------------------|--|
| 08; 10; 16 | |

| Code | |
|-----------|----------------------------------|
| RS | = Real 7.62mm row space |
| CS | = Complementary 7.62mm row space |

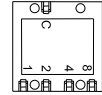
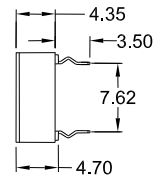
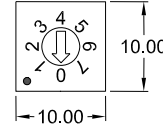
DRD-4 xx-XS Z (Flat Type)



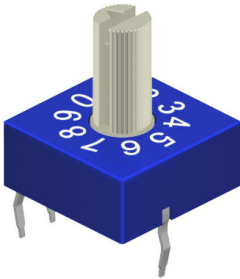
10 POSITIONS



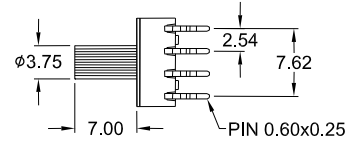
8 POSITIONS



DRD-5 xx-XS Z (Shaft Type)



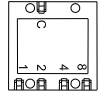
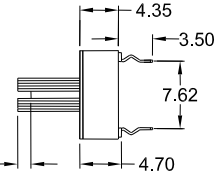
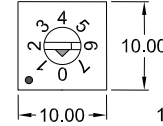
16 POSITIONS



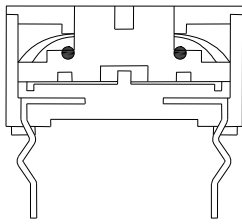
10 POSITIONS



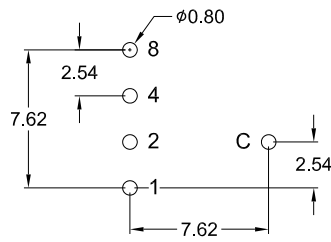
8 POSITIONS



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: Yellow
○ Complementary Code Rotor color: Orange

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm pin to pin, and 7.62mm DIP space
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

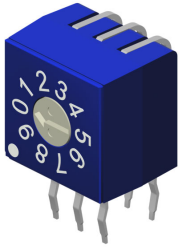
DRD - x xx - XX Z

| Rotor | |
|----------|--------------|
| 4 | = Flat Type |
| 5 | = Shaft Type |

| Nbr of positions | |
|-------------------|--|
| 08; 10; 16 | |

| Code | |
|-----------|----------------------------------|
| RS | = Real 7.62mm row space |
| CS | = Complementary 7.62mm row space |

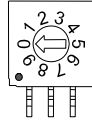
DRD-1 xx-XR Z (Flat Type)



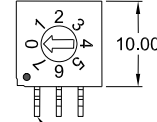
16 POSITIONS



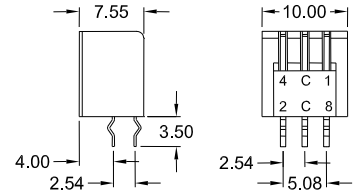
10 POSITIONS



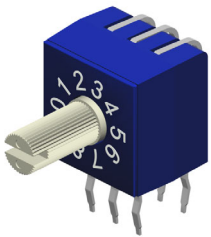
8 POSITIONS



PIN 0.60x0.25



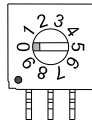
DRD-2 xx-XR Z (Shaft Type)



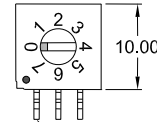
16 POSITIONS



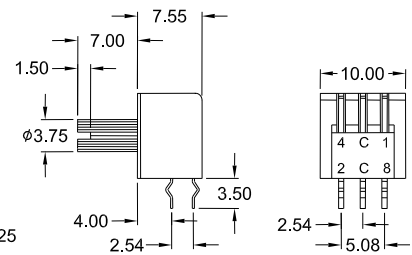
10 POSITIONS



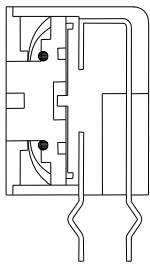
8 POSITIONS



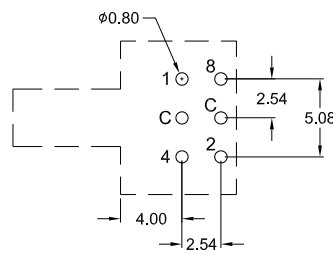
PIN 0.60x0.25



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● |
| 2 | ○ | ○ | ● | ● | ○ | ○ | ● | ● | ○ | ○ | ● | ● | ○ | ○ | ● | ● |
| 4 | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ● | ● |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: White
○ Complementary Code Rotor color: Red

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm grid dimension
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

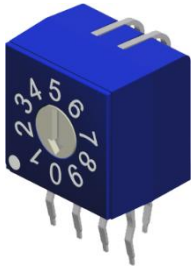
DRD – X XX – XX Z

| Rotor |
|-----------------------|
| 1 = Flat Type |
| 2 = Shaft Type |

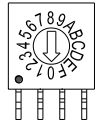
| Nbr of positions |
|-------------------|
| 08; 10; 16 |

| Code |
|---------------------------------------|
| RR = Real 2.54mm grid |
| CR = Complementary 2.54mm grid |

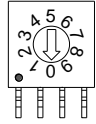
DRD-4 xx-XR Z (Flat Type)



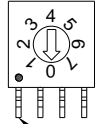
16 POSITIONS



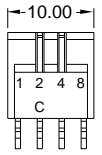
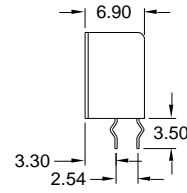
10 POSITIONS



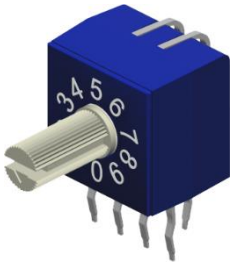
8 POSITIONS



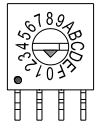
PIN 0.60x0.25



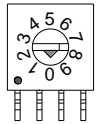
DRD-5 xx-XR Z (Shaft Type)



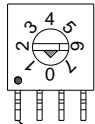
16 POSITIONS



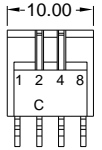
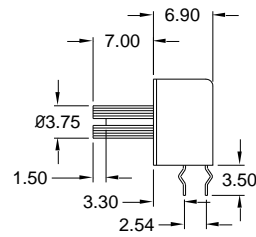
10 POSITIONS



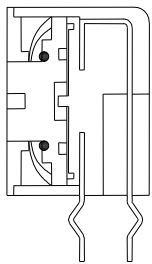
8 POSITIONS



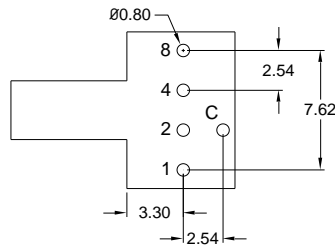
PIN 0.60x0.25



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code

○ Complementary Code

Rotor color: Yellow

Rotor color: Orange

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm grid dimension
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability

- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

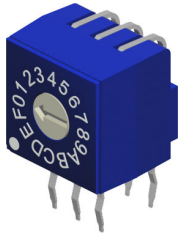
DRD – x xx – XX Z

| Rotor |
|-----------------------|
| 4 = Flat Type |
| 5 = Shaft Type |

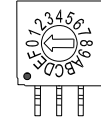
| Nbr of positions |
|-------------------|
| 08; 10; 16 |

| Code |
|---------------------------------------|
| RR = Real 2.54mm grid |
| CR = Complementary 2.54mm grid |

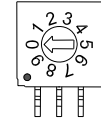
DRD-1 xx-XF Z (Flat Type)



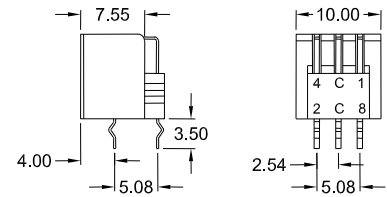
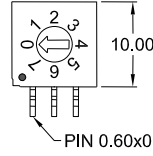
16 POSITIONS



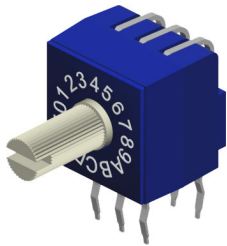
10 POSITIONS



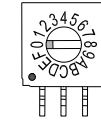
8 POSITIONS



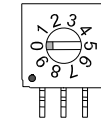
DRD-2 xx-XF Z (Shaft Type)



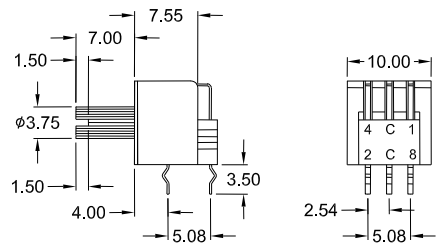
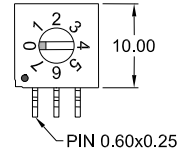
16 POSITIONS



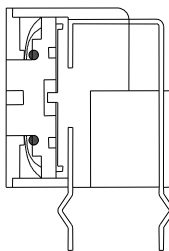
10 POSITIONS



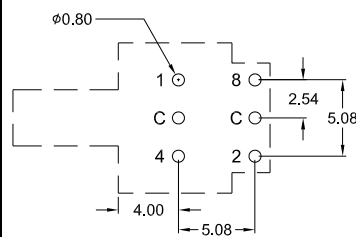
8 POSITIONS



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: White
○ Complementary Code Rotor color: Red

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

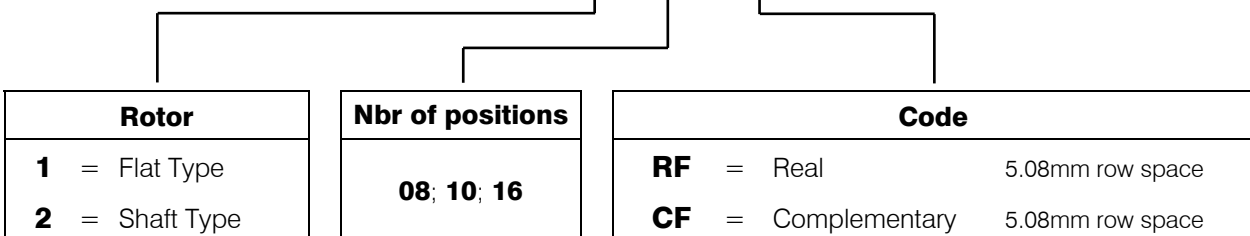
| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

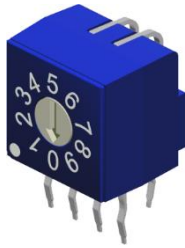
- Molded-in terminals and fully sealed construction
- Standard 2.54mm pin to pin, and 5.08mm DIP space
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

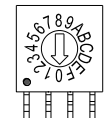
DRD – X XX – XX Z



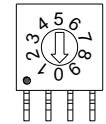
DRD-4 xx-XF Z (Flat Type)



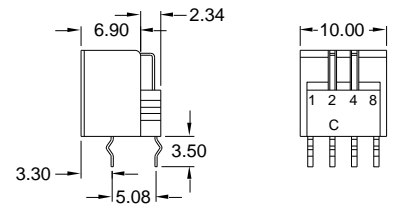
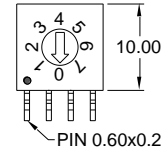
16 POSITIONS



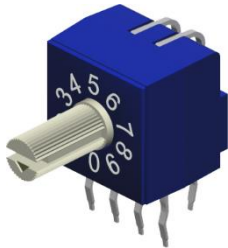
10 POSITIONS



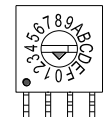
8 POSITIONS



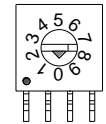
DRD-5 xx-XF Z (Shaft Type)



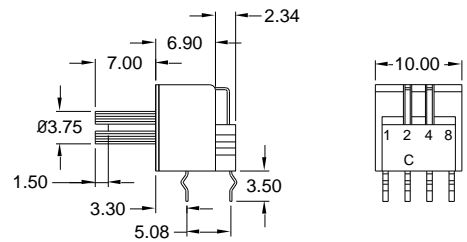
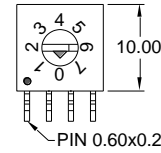
16 POSITIONS



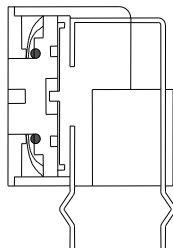
10 POSITIONS



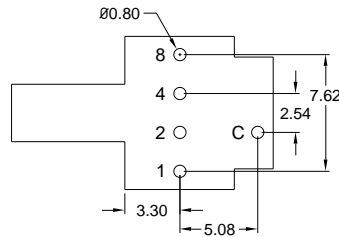
8 POSITIONS



Construction



PCB Hole Layout



Code

| Pin No. | POSITION | | | | | | | | | | | | | | | |
|---------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 1 | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

● Real Code Rotor color: Yellow
○ Complementary Code Rotor color: Orange

SPECIFICATIONS

Electrical data

| | |
|-----------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 250 V AC for 1 Minute |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | - 25°C to +70°C |
| Storage Temperature | - 40°C to +85°C |
| Operating Force | 500 gf-cm max. (torque) |
| Mechanical Life | 2000 steps per position |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Molded-in terminals and fully sealed construction
- Standard 2.54mm pin to pin, and 5.08mm DIP space
- All plastics are UL 94V-0 grade fire retardant
- Reliable contact and long-term stability

- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real and complementary codes available
- Gold plated contacts to ensure low contact resistance. Terminals Tin plated.

How to order

DRD – x xx – XX Z

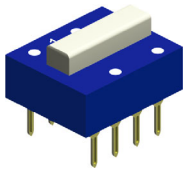
| Rotor |
|-----------------------|
| 4 = Flat Type |
| 5 = Shaft Type |

| Nbr of positions |
|-------------------|
| 08; 10; 16 |

| Code |
|--|
| RF = Real 5.08mm row space |
| CF = Complementary 5.08mm row space |

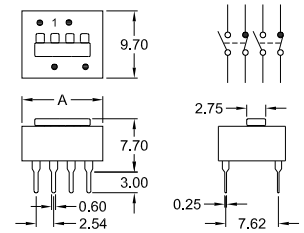
DPDT Contact Type

Standard Actuator only!



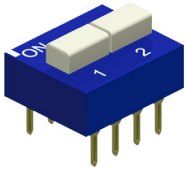
| Position | 1 | 2 | 3 |
|----------|-------|-------|-------|
| Dim. "A" | 11.70 | 21.70 | 31.80 |

Unit: mm



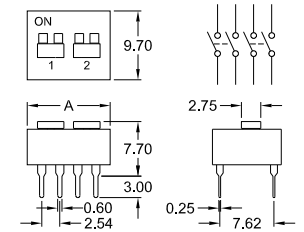
DPST Contact Type

Standard Actuator only!



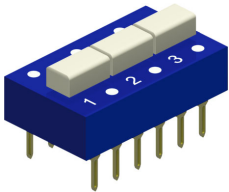
| Position | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|------|-------|-------|-------|-------|-------|
| Dim. "A" | 6.70 | 11.70 | 16.70 | 21.70 | 26.70 | 31.80 |

Unit: mm



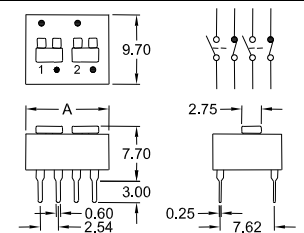
SPDT Contact Type

Standard Actuator only!

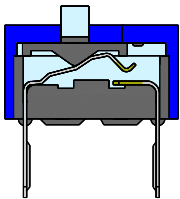


| Position | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|------|-------|-------|-------|-------|-------|
| Dim. "A" | 6.70 | 11.70 | 16.70 | 21.70 | 26.70 | 31.80 |

Unit: mm



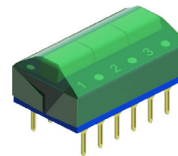
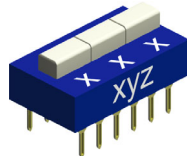
Construction



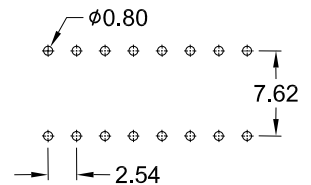
Options

1. Special top and/or side marking available

2. Tape sealed



PCB Hole Layout



SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|--------------------------|
| Contact Rating | 25 mA, 24 V DC |
| -switching | 100 mA, 50 V DC |
| -non-switching | |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating temperature | -25°C to +70°C |
| Storage temperature | -40°C to +85°C |
| Operating force | 800 gf max. |
| Mechanical life | 2000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Tactile response is performed directly by larger contact pressure to ensure very stable contact
- All plastics used are UL 94V-0 grade fire retardant
- Epoxy sealed bottom to prevent the penetration of flux during wave soldering
- Gold plated (*tin on legs*) or Silver plated (*tin on legs*) contacts to ensure low contact resistance and long mechanical life
- Ideal for Data Processing, Telecommunication, Remote Control and Burglar Alarm System use, where manual programming is required
- Standard packing method Tube

How to order

DDX – x xx – XX Z

Series

DDG = Gold
(Type 2 Tin/Gold)
plated Contacts

DDS = Silver plated
Contacts

Contact Type

2 = DPST

3 = SPDT

6 = DPDT

Nbr of positions

see under
position/dimension
box
above

Example:
1 Position = **01**
2 Position = **02**
etc.

Actuator and Sealing

S = Standard Actuator

ST = Standard Actuator & Tape sealed

3PST Contact Type Standard Actuator only!

| Position | 1 | 2 | 3 | 4 |
|----------------------|-------|-------|-------|-------|
| 3PST Dim. "A" | 9.20 | 16.70 | 24.20 | 31.80 |
| 4PST Dim. "A" | 11.70 | 21.70 | 31.80 | |

Unit: mm

SPST Contact Type (rocker) Standard & Low Actuator possible.

| Position | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|-------|-------|-------|-------|-------|-------|
| Dim. "A" | 3.91 | 6.70 | 9.20 | 11.70 | 14.20 | 16.70 |
| Position | 7 | 8 | 9 | 10 | 12 | 15 |
| Dim. "A" | 19.20 | 21.70 | 24.20 | 26.70 | 31.80 | 39.50 |

Unit: mm

SPST Contact Type (slide) Standard Actuator only!

| Position | 2 | 3 | 4 | 5 | 6 |
|----------|-------|-------|-------|-------|-------|
| Dim. "A" | 6.44 | 8.98 | 11.52 | 14.06 | 16.60 |
| Position | 7 | 8 | 9 | 10 | 12 |
| Dim. "A" | 19.14 | 21.68 | 24.22 | 26.76 | 31.84 |

Unit: mm

Construction

SPST "1"-Type (rocker)

SPST "N"-Type (slide)

Options

- Right Angle for SPST "1" Type; 1 to 15 positions
Right Angle for SPST "N" Type; 2 to 12 positions
- Low profile actuator
- Tape sealed

PCB Hole Layout

PCB Hole Layout

SPECIFICATIONS

| Electrical data | Mechanical and Environmental data |
|---------------------------------------|--------------------------------------|
| Contact Rating | Operating temperature |
| -switching | -25°C to +70°C |
| -non-switching | Storage temperature |
| | -40°C to +85°C |
| Contact Resistance | Operating force |
| -initial | 800 gf max. |
| -after life test | Mechanical life |
| | 2000 operations |
| Insulation Resistance | Vibration |
| | 10 Hz – 50 Hz – 10 Hz for 6 hours |
| Withstanding Voltage | Color (Standard) |
| Capacitance between adjacent switches | SPST (rocker) "1" Type : blue |
| | SPST (slide) "N" Type : red |
| | others : blue |

FEATURES

| | |
|--|--|
| <ul style="list-style-type: none"> Tactile response is performed directly by larger contact pressure to ensure very stable contact All plastics used are UL 94V-0 grade fire retardant Epoxy sealed bottom to prevent the penetration of flux during wave soldering | <ul style="list-style-type: none"> Gold plated contacts (<i>tin on legs</i>) to ensure low contact resistance and long mechanical life Ideal for Data Processing, Telecommunication, Remote Control and Burglar Alarm System use, where manual programming is required Standard packing method Tube |
|--|--|

How to order

DDX – x xx – XXX Z

| Series | Contact Type | Nbr of positions | Actuator and Sealing |
|-----------------------------------|---|--|---|
| DDG = Gold plated Contacts | 1 = SPST (rocker) N = SPST (slide) 4 = 3PST (rocker) 5 = 4PST (rocker) | see under position/dimension box above Example: 1 Position = 01 2 Position = 02 etc. | S = Standard Actuator L = Low Profile Actuator LT = Low Profile Actuator & Tape sealed ST = Standard Actuator & Tape sealed SRA = Right Angle Type |

all in "ON" position

Dimension A

Extended Actuator

DIP Space

Circuit diagram

PIN 0.50x0.25

Low Profile Actuator

DIP Space

PCB Hole Layout

| Position | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
|----------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Dim. "A" | 6.88 | 9.42 | 11.96 | 14.50 | 17.04 | 19.58 | 22.12 | 27.20 | 32.28 |

Unit: mm

Construction

Options

- Two kinds of pitch available as attached table
- Special marking and body color available
- Tape sealed

| Actuator Type | Pitch (mm) | |
|---------------|------------|--------|
| | Standard | Option |
| E | 7.62 | 8.50 |
| L | 8.50 | 7.62 |

SPECIFICATIONS

| Electrical data | Mechanical and Environmental data |
|--|--|
| Contact Rating -switching: 25 mA, 24 V DC -non-switching: 100 mA, 50 V DC Contact Resistance -initial: 50 mΩ max. -after life test: 100 mΩ max. Insulation Resistance: 1000 MΩ min. at 100 V DC Withstanding Voltage: 500 V AC for 1 Minute Capacitance between adjacent switches: 5 pF max. | Operating temperature: -25°C to +70°C Storage temperature: -40°C to +85°C Operating force: 800 gf max. Mechanical life: 2000 operations Vibration: 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

| | |
|---|---|
| <ul style="list-style-type: none"> Same size as an IC, 7.62mm (.300"), can be assembled by any automatic IC Inserter Smaller size makes better heat convection during PC board wave soldering Tape sealed to withstand solder vapors and board washing | <ul style="list-style-type: none"> All plastics used are UL 94V-0 grade fire retardant Twin contact design to ensure stable contact Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (<i>gold/tin</i>) Standard packing method Tube |
|---|---|

How to order

DAH – 1 xx – XXxx Z

| Contact Type | Nbr of positions | Actuator, Sealing and DIP Space | | | | | | | | | | | | |
|-----------------|--|--|----------|---|-----------|---|------------|---|-------------|---|----------|--|------------|--|
| 1 = SPST | see under position/dimension box above Example: 2 Position = 02 3 Position = 03 etc. | <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding-right: 10px;">L</td> <td>= Low profile Actuator and DIP space 8.50mm</td> </tr> <tr> <td>LT</td> <td>= Low profile Actuator & Tape sealed & DIP space 8.50mm</td> </tr> <tr> <td>L01</td> <td>= Low profile Actuator and DIP space 7.62mm</td> </tr> <tr> <td>LT01</td> <td>= Low profile Actuator & Tape sealed & DIP space 7.62mm</td> </tr> <tr> <td>E</td> <td>= Extended Actuator and DIP space 7.62mm</td> </tr> <tr> <td>E01</td> <td>= Extended Actuator and DIP space 8.50mm</td> </tr> </tbody> </table> | L | = Low profile Actuator and DIP space 8.50mm | LT | = Low profile Actuator & Tape sealed & DIP space 8.50mm | L01 | = Low profile Actuator and DIP space 7.62mm | LT01 | = Low profile Actuator & Tape sealed & DIP space 7.62mm | E | = Extended Actuator and DIP space 7.62mm | E01 | = Extended Actuator and DIP space 8.50mm |
| L | = Low profile Actuator and DIP space 8.50mm | | | | | | | | | | | | | |
| LT | = Low profile Actuator & Tape sealed & DIP space 8.50mm | | | | | | | | | | | | | |
| L01 | = Low profile Actuator and DIP space 7.62mm | | | | | | | | | | | | | |
| LT01 | = Low profile Actuator & Tape sealed & DIP space 7.62mm | | | | | | | | | | | | | |
| E | = Extended Actuator and DIP space 7.62mm | | | | | | | | | | | | | |
| E01 | = Extended Actuator and DIP space 8.50mm | | | | | | | | | | | | | |

| Position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 |
|----------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dim. "A" | 2.50 | 5.04 | 7.58 | 10.12 | 12.66 | 15.20 | 17.74 | 20.28 | 22.82 | 25.36 | 30.43 |

Unit: mm

Construction

Options

- Two kinds of pitch available as attached table
- Special marking and body color available
- Tape sealed

| Actuator Type | Pitch (mm) | |
|---------------|------------|--------|
| | Standard | Option |
| E | 7.62 | 8.50 |
| L | 8.50 | 7.62 |

SPECIFICATIONS

| Electrical data | | Mechanical and Environmental data | |
|---------------------------------------|--------------------------|-----------------------------------|-----------------------------------|
| Contact Rating | | Operating temperature | -25°C to +70°C |
| -switching | 25 mA, 24 V DC | Storage temperature | -40°C to +85°C |
| -non-switching | 100 mA, 50 V DC | Operating force | 800 gf max. |
| Contact Resistance | | Mechanical life | 2000 operations |
| -initial | 50 mΩ max. | Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |
| -after life test | 100 mΩ max. | | |
| Insulation Resistance | 1000 MΩ min. at 100 V DC | | |
| Withstanding Voltage | 500 V AC for 1 Minute | | |
| Capacitance between adjacent switches | 5 pF max. | | |

FEATURES

- End stackable for standard 2.54mm (.100") integrated circuit pitch
- Same size as an IC, 7.62mm (.300"), can be assembled by any automatic IC Inserter
- Tape sealed to withstand solder vapors and board washing
- All plastics used are UL 94V-0 grade fire retardant
- Twin contact design to ensure stable contact
- Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (*gold/tin*)
- Standard packing method Tube

How to order

DAM – 1 xx – XXxx Z

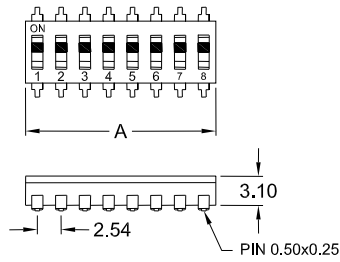
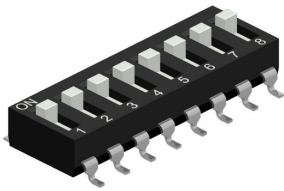
| Contact Type | Nbr of positions | Actuator, Sealing and DIP Space |
|--------------|--|---|
| 1 = SPST | <p style="text-align: center;">see under position/dimension box above</p> <p>Example: 1 Position = 01 2 Position = 02 etc.</p> | <p>L = Low profile Actuator and DIP space 8.50mm</p> <p>LT = Low profile Actuator & Tape sealed & DIP space 8.50mm</p> <p>L01 = Low profile Actuator and DIP space 7.62mm</p> <p>LT01 = Low profile Actuator & Tape sealed & DIP space 7.62mm</p> <p>E = Extended Actuator and DIP space 7.62mm</p> <p>E01 = Extended Actuator and DIP space 8.50mm</p> |

DSD / DSL Series

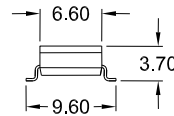
SLIDE END STACKABLE "SMT" TYPE



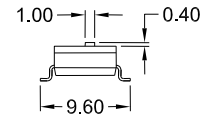
DSD Gull Wing Type



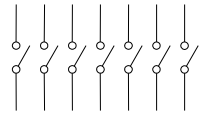
Low Profile Actuator



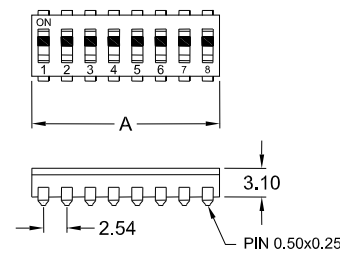
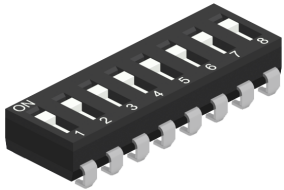
Extended Actuator



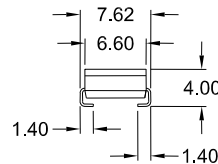
Circuit diagram



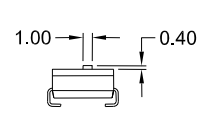
DSL J-Leg Type



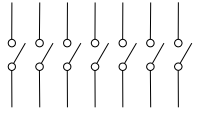
Low Profile Actuator



Extended Actuator



Circuit diagram



| Position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 |
|----------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dim. "A" | 2.50 | 5.04 | 7.58 | 10.12 | 12.66 | 15.20 | 17.74 | 20.28 | 22.82 | 25.36 | 30.43 |

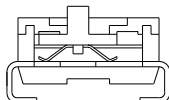
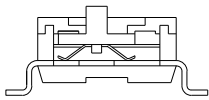
DSL Series: 1 position switch is not available

Unit: mm

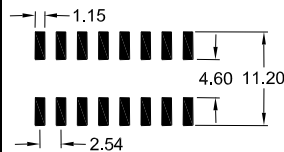
Construction

DSD

DSL



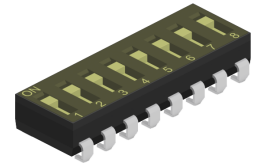
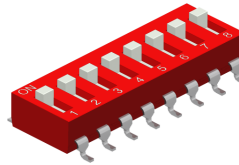
PCB SMT Layout



Options

1. Special marking and body color available

2. Tape sealed



SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|--------------------------|
| Contact Rating | 25 mA, 24 V DC |
| -switching | 100 mA, 50 V DC |
| -non-switching | |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Soldering Temperature | |
| -SMT reflow soldering | 250°C +0/-5°C for 10 sec. |
| Operating Force | 800 gf max. |
| Mechanical Life | 2000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- End stackable for standard 2.54mm (.100") integrated circuit pitch
- Tape sealed to withstand solder vapors and board washing
- All plastics used are UL 94V-0 grade fire retardant

- Twin contact design to ensure stable contact
- Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (*gold/tin*)

How to order

DSX – 1 xx – XX Z

Series

DSD = Gull Wing Type

DSL = J-Leg Type

Nbr of positions

see under position/dimension box above

Example:
1 Position = 01
2 Position = 02
etc.

Actuator, Sealing and Packing

- L** = Low Profile Actuator; Tube packing
- LT** = Low Profile Actuator & Tape sealed; Tube packing
- LC** = Low Profile Actuator; Reel packing
- LD** = Low Profile Actuator & Tape sealed; Reel packing
- E** = Extended Actuator; Tube packing

| Position | 2 | 4 | 6 | 8 | 10 |
|----------|------|------|------|-------|-------|
| Dim. "A" | 3.70 | 6.20 | 8.75 | 11.30 | 13.80 |

Unit: mm

Construction

PCB SMT Layout

Options

- Special marking and body color available
- Tape sealed

SPECIFICATIONS

| Electrical data | | Mechanical and Environmental data | |
|---------------------------------------|-------------------------|-----------------------------------|-----------------------------------|
| Contact Rating | 25 mA, 24 V DC | Operating Temperature | - 25°C to +70°C |
| -switching | 100 mA, 50 V DC | Storage Temperature | - 40°C to +85°C |
| -non-switching | | Soldering Temperature | |
| Contact Resistance | | -SMT reflow soldering | 250°C +0/-5°C for 10 sec. |
| -initial | 50 mΩ max. | Operating Force | 800 gf max. |
| -after life test | 100 mΩ max. | Mechanical Life | 1000 operations |
| Insulation Resistance | 500 MΩ min. at 100 V DC | Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |
| Withstanding Voltage | 300 V AC for 1 Minute | | |
| Capacitance between adjacent switches | 5 pF max. | | |

FEATURES

- End stackable for standard 1.27mm (.050") integrated circuit pitch
- Lowest profile DIP Switch, only 1.80mm above PCB
- Tape sealed to withstand solder vapors and board washing
- All plastics used are UL 94V-0 grade fire retardant
- Gold plated contacts, contact & solder area (*gold/gold*), to ensure low contact resistance

How to order

DHS – x xx – XX Z

| Contact Type |
|-----------------|
| 1 = SPST |

| Nbr of positions |
|--|
| see under position/dimension box above |
| Example: 1 Position = 02 2 Position = 04 etc. |

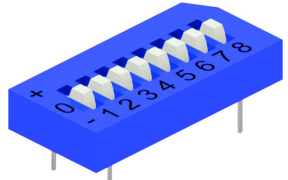
| Actuator, Sealing and Packing | |
|-------------------------------|--|
| L | = Low Profile Actuator; Tube packing |
| LT | = Low Profile Actuator & Tape sealed; Tube packing |
| LC | = Low Profile Actuator; Reel packing |
| LD | = Low Profile Actuator & Tape sealed; Reel packing |

DTD / DTA / DTS Series

SLIDE TRI-STATE "THT" & "SMT" TYPE

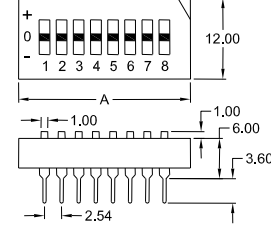
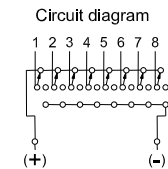


DTD

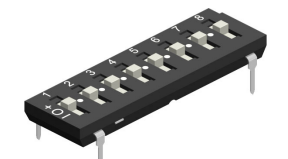


| | | | | |
|-----------------|----------|----------|-----------|----------|
| Position | 4 | 5 | 6 | 7 |
| Dim. "A" | 15.30 | 17.84 | 20.38 | 22.92 |
| Position | 8 | 9 | 10 | |
| Dim. "A" | 25.46 | 28.00 | 30.54 | |

Unit: mm

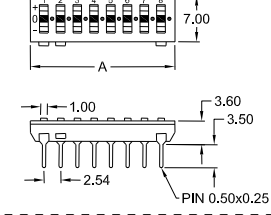
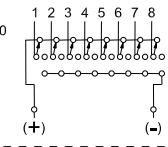



DTA




| | | | | |
|-----------------|----------|----------|----------|----------|
| Position | 2 | 3 | 4 | 5 |
| Dim. "A" | 6.88 | 9.42 | 11.96 | 14.50 |
| Position | 6 | 7 | 8 | 9 |
| Dim. "A" | 17.04 | 19.58 | 22.12 | 24.66 |

Unit: mm

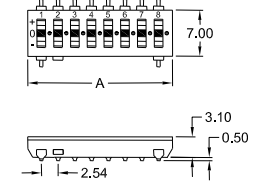
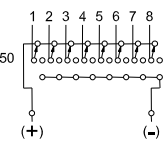



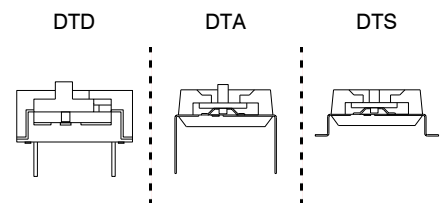
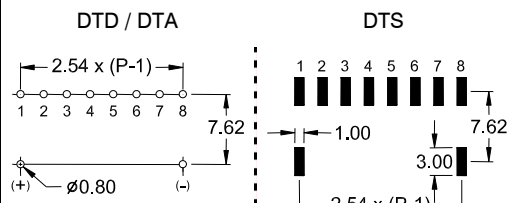
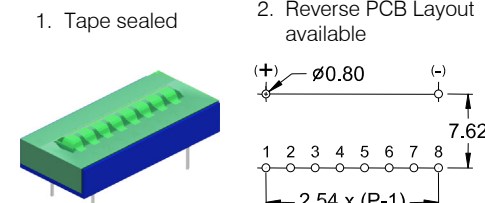
DTS



| | | | | |
|-----------------|-----------|-----------|--|--|
| Position | 10 | 12 | | |
| Dim. "A" | 27.20 | 32.28 | | |

Unit: mm

| | | |
|---|---|---|
| Construction | PCB Hole/SMT Layout | Options |
|  |  | <p>1. Tape sealed</p> <p>2. Reverse PCB Layout available</p>  |

SPECIFICATIONS

| | |
|--|--|
| <p>Electrical data</p> <p>Contact Rating</p> <ul style="list-style-type: none"> -switching 25 mA, 24 V DC -non-switching 100 mA, 50 V DC <p>Contact Resistance</p> <ul style="list-style-type: none"> -initial 50 mΩ max. -after life test 100 mΩ max. <p>Insulation Resistance 1000 MΩ min. at 100 V DC</p> <p>Withstanding Voltage 500 V AC for 1 Minute</p> <p>Capacitance between adjacent switches 5 pF max.</p> | <p>Mechanical and Environmental data</p> <p>Operating temperature -25°C to +70°C</p> <p>Storage temperature -40°C to +85°C</p> <p>Operating force 800 gf max.</p> <p>Mechanical life 2000 operations</p> <p>Vibration 10 Hz – 50 Hz – 10 Hz for 6 hours</p> |
|--|--|

FEATURES

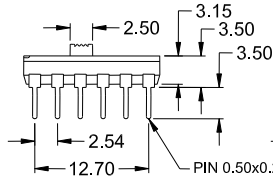
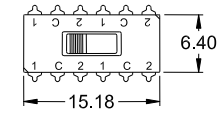
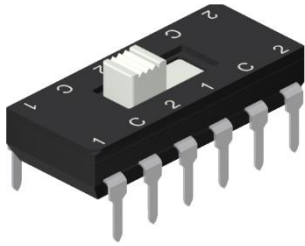
| | |
|---|---|
| <ul style="list-style-type: none"> • With three state (1-open-0) setting function, especially suitable for encoding/decoding of tri-state encoder/decoder integrated circuit to obtain more security codes than traditional two-state (1-0) operation. For instance, 9 bits with tri-state gets 19,683 (3⁹) codes, while two-state has 512 (2⁹) codes, gains 38 times in former • All plastics used are UL 94V-0 grade fire retardant | <ul style="list-style-type: none"> • Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (<i>gold/tin</i>) • Twin contacts designed to ensure stable contact • Ideal for Telecommunication, Transmitter, Remote Control and Burglar Alarm Systems which use integrated circuits with tri-state coding systems • Standard packing method Tube |
|---|---|

How to order

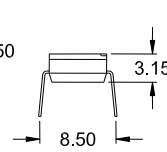
DTX – 1 xx – XX Z

| | | |
|--|--|---|
| Series | Nbr of positions | Actuator and Sealing |
| <p>DTD = Bottom Epoxy Sealed THT Type</p> <p>DTA = Low Profile THT Type</p> <p>DTS = Low Profile SMT Type</p> | <p style="text-align: center;">see under position/dimension box above</p> <p>Example: 2 Position = 02 3 Position = 03 etc.</p> | <p>E = Extended Actuator</p> <p>ET = Extended Actuator & Tape sealed</p> <p><i>Low Profile Actuator for DTA & DTS Series only!</i></p> <p>L = Low Profile Actuator</p> <p>LT = Low Profile Actuator & Tape sealed</p> |

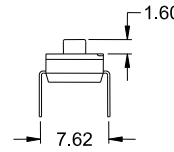
DSP-42-XX 01 Z (THT Type)



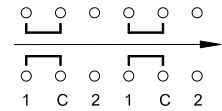
Low Profile Actuator



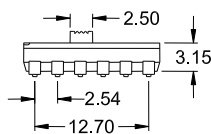
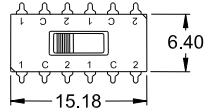
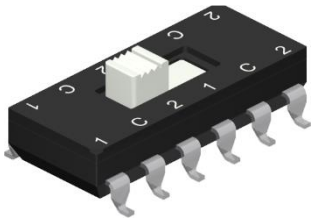
Extended Actuator



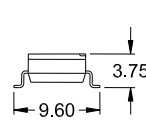
Circuit diagram



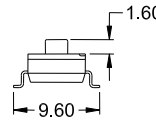
DSP-42-XX 02 Z (SMT Type)



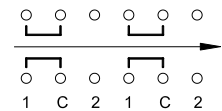
Low Profile Actuator



Extended Actuator

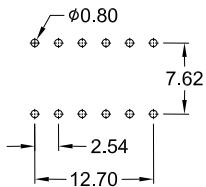


Circuit diagram

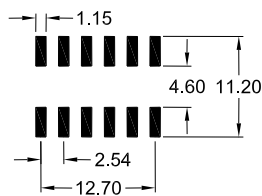


PCB Layout

DSP-42-XX 01 Z (THT Type)

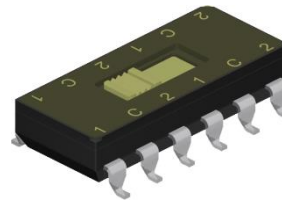


DSP-42-XX 02 Z (SMT Type)



Option

Tape sealed



Application

Ideal as Function and Band Selector Switch in Radio-Cassette, Recorder, Office Equipment, TV sets, VCR etc.

SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|--------------------------|
| Contact Rating | 25 mA, 24 V DC |
| -switching | 100 mA, 50 V DC |
| -non-Switching | |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | -25°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Soldering Temperature | |
| -SMT reflow soldering | 250°C +0/-5°C for 10 sec. max. |
| -THT wave soldering | 250°C +0/-5°C for 10 sec. max. |
| Operating Force | 100 gf min / 1000 gf max. |
| Mechanical Life | 1000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Same size as an IC, 7.62mm (.300"), can be assembled by any automatic IC inserter
- Top tape sealed to withstand solder vapors and board washing
- All plastics used are UL 94V-0 grade fire retardant
- Gold plated contacts to ensure low contact resistance and tin plated terminal to prevent contamination during soldering

How to order

DSP – 42 – XX xx Z

Contact Type

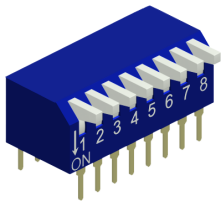
42 = 4PDT

Device Type, Actuator, DIP Space & Packing

| | |
|-------------|---|
| L01 | = THT Type; Low Profile Actuator DIP space 8.50mm; Tube packing |
| LT01 | = THT Type; Low Profile Actuator DIP space 8.50mm; Top sealed; Tube packing |
| E01 | = THT Type; Extended Actuator DIP space 7.62mm; Tube packing |
| L02 | = SMT Type; Low Profile Actuator; Tube packing |
| LT02 | = SMT Type; Low Profile Actuator; Top sealed; Tube packing |
| LC02 | = SMT Type; Low Profile Actuator; Reel packing |
| LD02 | = SMT Type; Low Profile Actuator; Top sealed; Reel packing |
| E02 | = SMT Type; Extended Actuator; Tube packing |
| EC02 | = SMT Type; Extended Actuator; Reel packing |

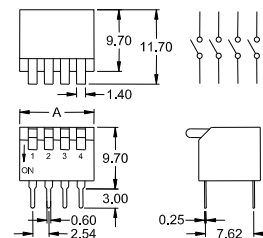


SPST Contact Type

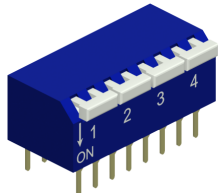


| | | | | | |
|-----------------|----------|----------|----------|-----------|-----------|
| Position | 2 | 3 | 4 | 5 | 6 |
| Dim. "A" | 6.70 | 9.20 | 11.70 | 14.20 | 16.70 |
| Position | 7 | 8 | 9 | 10 | 12 |
| Dim. "A" | 19.20 | 21.70 | 24.20 | 26.70 | 31.80 |

Unit: mm

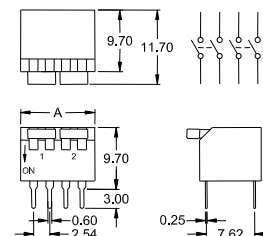


DPST Contact Type

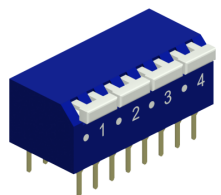


| | | | | | | |
|-----------------|----------|----------|----------|----------|----------|----------|
| Position | 1 | 2 | 3 | 4 | 5 | 6 |
| Dim. "A" | 6.70 | 11.70 | 16.70 | 21.70 | 26.70 | 31.80 |

Unit: mm

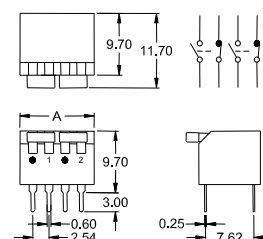


SPDT Contact Type

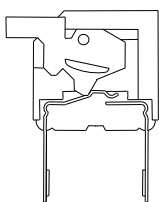


| | | | | | | |
|-----------------|----------|----------|----------|----------|----------|----------|
| Position | 1 | 2 | 3 | 4 | 5 | 6 |
| Dim. "A" | 6.70 | 11.70 | 16.70 | 21.70 | 26.70 | 31.80 |

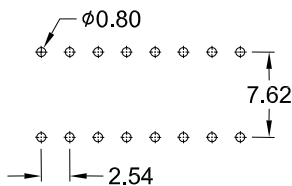
Unit: mm



Construction

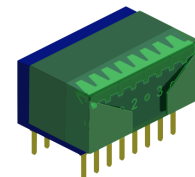
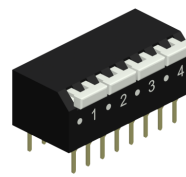
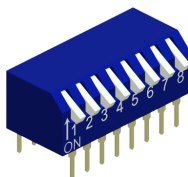


PCB Hole Layout



Options

- 1. Top side "OFF" and "ON" available
- 2. Black body color available
- 3. Tape sealed



SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating temperature | - 25°C to +70°C |
| Storage temperature | - 40°C to +85°C |
| Operating force | 800 gf max. |
| Mechanical life | 1000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

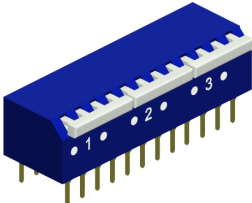
- Edge actuated (piano type) easy setting on closely racked PCB
- Tactile response is performed directly by larger contact pressure to ensure very stable contact
- All plastic are UL 94V-0 grade fire retardant
- Bottom epoxy sealed standard to ensure free of flux immersion during wave soldering
- Contact wiping on make and break
- Gold plated (*gold/gold*) or Tin plated contact to ensure low contact resistance and long operation life
- Ideal for Data Processing, Telecommunication, Remote Control and Burglar Alarm System use, where manual programming is required

How to order

DPX – x xx – XX Z

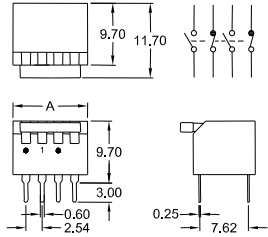
| | | | |
|--|--|--|---|
| Series | Contact Type | Nbr of positions | "ON/OFF" Position and Sealing |
| <p>DPG = Gold plated Contacts</p> <p>DPS = Tin plated Contacts</p> | <p>1 = SPST</p> <p>2 = DPST</p> <p>3 = SPDT</p> | <p>see under position/dimension box above</p> <p>Example: 1 Position = 01 2 Position = 02 etc.</p> | <p>A = Top side OFF</p> <p>AT = Top side OFF & Tape sealed</p> <p>B = Top side ON</p> <p>BT = Top side ON & Tape sealed</p> |

DPDT Contact Type

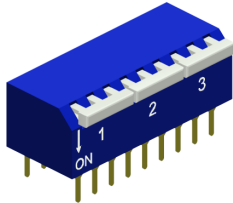


| Position | 1 | 2 | 3 |
|----------|-------|-------|-------|
| Dim. "A" | 11.70 | 21.70 | 31.80 |

Unit: mm

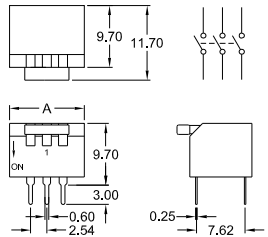


3PST Contact Type

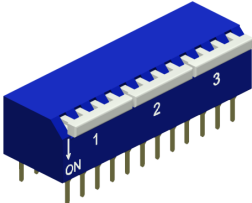


| Position | 1 | 2 | 3 | 4 |
|----------|------|-------|-------|-------|
| Dim. "A" | 9.20 | 16.70 | 24.20 | 31.80 |

Unit: mm

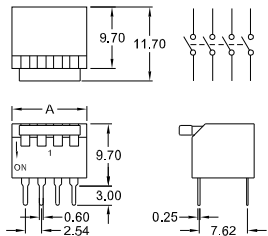


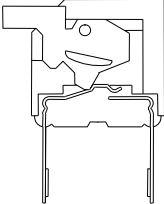
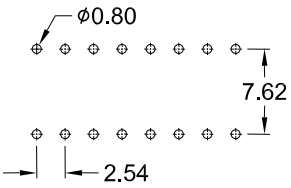
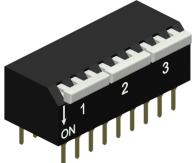
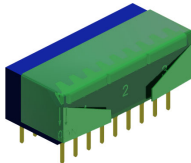
4PST Contact Type



| Position | 1 | 2 | 3 |
|----------|-------|-------|-------|
| Dim. "A" | 11.70 | 21.70 | 31.80 |

Unit: mm



| | | | |
|--|---|---|---|
| Construction | PCB Hole Layout | Options | Application |
|  |  | 1. Black body color available 2. Tape sealed   | Ideal for Data Processing, Telecommunication, Remote Control and Burglar Alarm System use, where manual programming is required. |

SPECIFICATIONS

| | |
|---|---|
| Electrical data | Mechanical and Environmental data |
| Contact Rating -switching 25 mA, 24 V DC -non-Switching 100 mA, 50 V DC Contact Resistance -initial 50 mΩ max. -after life test 100 mΩ max. Insulation Resistance 1000 MΩ min. at 100 V DC Withstanding Voltage 500 V AC for 1 Minute Capacitance between adjacent switches 5 pF max. | Operating temperature -25°C to +70°C Storage temperature -40°C to +85°C Operating force 800 gf max. Mechanical life 1000 operations Vibration 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- | | |
|---|--|
| <ul style="list-style-type: none"> ● Edge actuated (piano type) easy setting on closely racked PCB ● Tactile response is performed directly by larger contact pressure to ensure very stable contact ● Bottom epoxy sealed standard to ensure free of flux immersion during wave soldering | <ul style="list-style-type: none"> ● Contact wiping on make and break ● All plastics used are UL 94V-0 grade fire retardant ● Gold plated (<i>gold/gold</i>) or Tin plated contact to ensure low contact resistance and long operation life |
|---|--|

How to order

DPX – x xx – XX Z

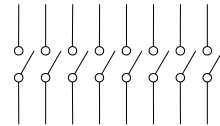
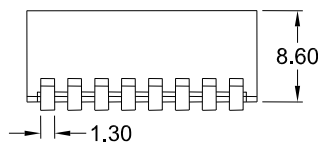
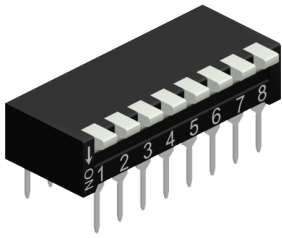
| | | | |
|---|---|---|--|
| Series | Contact Type | Nbr of positions | Actuator and Sealing |
| DPG = Gold plated Contacts DPS = Tin plated Contacts | 4 = 3PST 5 = 4PST 6 = DPDT | see under position/dimension box above Example: 1 Position = 01 2 Position = 02 etc. | A = Top side OFF AT = Top side OFF & Tape sealed B = Top side ON BT = Top side ON & Tape sealed |

DPH Series

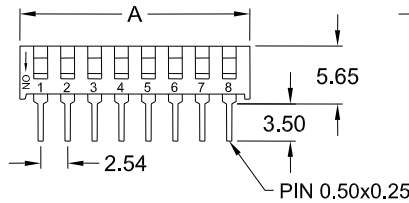
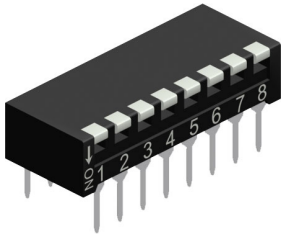
PIANO LOW PROFILE "THT" TYPE



Extended Actuator

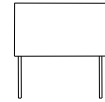
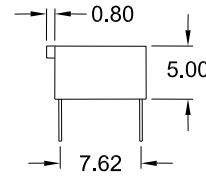


Low profile Actuator



Extended Actuator

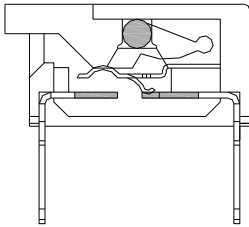
Low Profile Actuator



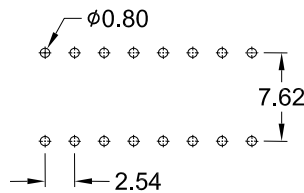
| Position | 2 | 4 | 6 | 8 | 10 |
|----------|------|-------|-------|-------|-------|
| Dim. "A" | 6.50 | 11.60 | 16.70 | 21.70 | 26.70 |

Unit: mm

Construction

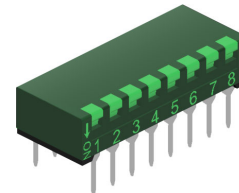


PCB Hole Layout



Option

Tape sealed



SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|-------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 100 mΩ max. |
| -after life test | 200 mΩ max. |
| Insulation Resistance | 100 MΩ min. at 500 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | - 25°C to +70°C |
| Storage Temperature | - 40°C to +85°C |
| Operating Force | 800 gf max. |
| Mechanical Life | 1000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Edge actuated (piano type) easy setting on closely racked PCB
- Tactile response is performed directly by larger contact pressure to ensure very stable contact
- All plastic are UL 94V-0 grade fire retardant

- Twin contact design to ensure stable contact
- Contact wiping on make and break
- Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (*gold/tin*)

How to order

DPH – 1 xx – XX Z

Nbr of positions

see under
position/dimension box
above

Example:
2 Position = 02
4 Position = 04
etc.

Actuator and "ON/OFF" Position

LA = Low Profile Actuator
EA = Extended Actuator
LAT = Low Profile Actuator & Tape sealed
the DPH Series is basically "Top Side OFF"

Extended Actuator

Low profile Actuator

| Position | 2 | 4 | 6 | 8 | 10 |
|----------|------|-------|-------|-------|-------|
| Dim. "A" | 4.98 | 10.06 | 15.15 | 20.22 | 25.30 |

Unit: mm

Construction

PCB Hole Layout

Precautions in Handling

Do not wash the switch!
Washable Type not available.

SPECIFICATIONS

| Electrical data | | Mechanical and Environmental data | |
|---------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Contact Rating | 25 mA, 24 V DC 100 mA, 50 V DC | Operating Temperature | -20°C to +85°C |
| -switching | | Storage Temperature | -40°C to +85°C |
| -non-switching | | Operating Force | 800 gf max. |
| Contact Resistance | 100 mΩ max. 200 mΩ max. | Mechanical Life | 2000 operations |
| -initial | | Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |
| -after life test | | | |
| Insulation Resistance | 100 MΩ min. at 500 V DC | | |
| Withstanding Voltage | 500 V AC for 1 Minute | | |
| Capacitance between adjacent switches | 5 pF max. | | |

FEATURES

- End stackable for standard 2.54mm (.100") integrated circuit pitch
- All plastics used are UL 94V-0 grade fire retardant
- Twin contact design to ensure stable contact
- Gold plated contacts, contact & solder area (*gold/gold*), to ensure low contact resistance

How to order

DPI – 1 xx – XX 1 0 Z

Nbr of positions

see under position/dimension box above

Example:
2 Position = **02**
4 Position = **04**
etc.

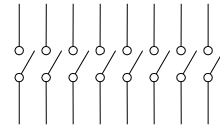
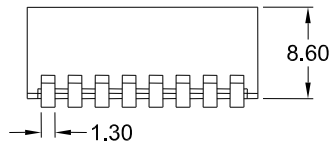
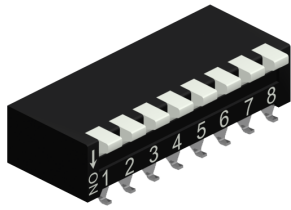
Actuator and "ON/OFF" Position

EA = Extended Actuator; Top side OFF
EB = Extended Actuator; Top side ON
LA = Low profile Actuator; Top side OFF
LB = Low profile Actuator; Top side ON

Packing

0 = Tube packing

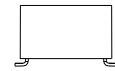
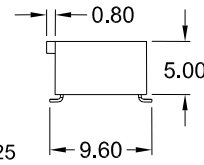
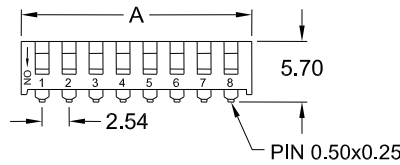
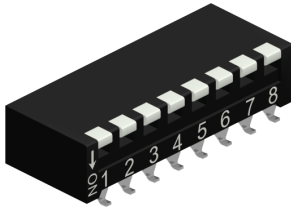
Extended Actuator



Extended Actuator

Low Profile Actuator

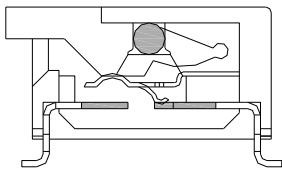
Low Profile Actuator



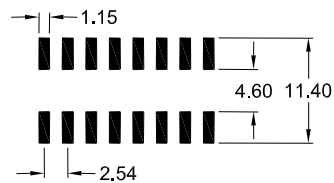
| Position | 2 | 4 | 6 | 8 | 10 |
|----------|------|-------|-------|-------|-------|
| Dim. "A" | 6.50 | 11.60 | 16.70 | 21.70 | 26.70 |

Unit: mm

Construction

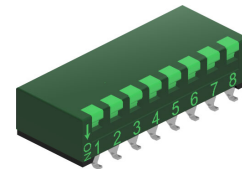


PCB SMT Layout



Option

Tape sealed



SPECIFICATIONS

Electrical data

| | |
|---------------------------------------|--------------------------|
| Contact Rating | |
| -switching | 25 mA, 24 V DC |
| -non-Switching | 100 mA, 50 V DC |
| Contact Resistance | |
| -initial | 50 mΩ max. |
| -after life test | 100 mΩ max. |
| Insulation Resistance | 1000 MΩ min. at 100 V DC |
| Withstanding Voltage | 500 V AC for 1 Minute |
| Capacitance between adjacent switches | 5 pF max. |

Mechanical and Environmental data

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | - 25°C to +70°C |
| Storage Temperature | - 40°C to +85°C |
| Soldering Temperature | |
| -SMT reflow soldering | 250°C +0/-5°C for 10 sec. |
| Operating Force | 800 gf max. |
| Mechanical Life | 1000 operations |
| Vibration | 10 Hz – 50 Hz – 10 Hz for 6 hours |

FEATURES

- Edge actuated (piano type) easy setting on closely racked PCB
- Tactile response is performed directly by larger contact pressure to ensure very stable contact
- All plastic are UL 94V-0 grade fire retardant
- Twin contact design to ensure stable contact
- Contact wiping on make and break
- Gold plated contacts to ensure low contact resistance, and tin plated terminal to prevent contamination during soldering (*gold/tin*)

How to order

DPA – 1 xx – XX Xx Z

Nbr of positions

see under position/dimension box above

Example:
2 Position = 02
4 Position = 04
etc.

Actuator and "ON/OFF" Position

EA = Extended Actuator; Top side OFF

LA = Low Profile Actuator; Top side OFF

Packing and Sealing

00 = Tube packing

10 = Reel packing

00 = Tube packing

10 = Reel packing

T0 = Tube packing & Tape sealed

T1 = Reel packing & Tape sealed

Extended Actuator

Extended Actuator

Low profile Actuator

Low Profile Actuator

| Position | 2 | 4 | 6 | 8 | 10 |
|----------|------|-------|-------|-------|-------|
| Dim. "A" | 4.98 | 10.06 | 15.15 | 20.22 | 25.30 |

Unit: mm

| Construction | PCB SMT Layout | Precautions in Handling |
|--------------|----------------|---|
| | | <p>Do not wash the switch!</p> <p>Washable Type not available.</p> |

SPECIFICATIONS

| Electrical data | Mechanical and Environmental data |
|---|---|
| <p>Contact Rating</p> <ul style="list-style-type: none"> -switching 25 mA, 24 V DC -non-switching 100 mA, 50 V DC <p>Contact Resistance</p> <ul style="list-style-type: none"> -initial 100 mΩ max. -after life test 200 mΩ max. <p>Insulation Resistance 100 MΩ min. at 500 V DC</p> <p>Withstanding Voltage 500 V AC for 1 Minute</p> <p>Capacitance between adjacent switches 5 pF max.</p> | <p>Operating Temperature - 20°C to +85°C</p> <p>Storage Temperature - 40°C to +85°C</p> <p>Soldering Temperature</p> <ul style="list-style-type: none"> -SMT reflow soldering 250°C +0/-5°C for 10 sec. <p>Operating Force 800 gf max.</p> <p>Mechanical Life 2000 operations</p> <p>Vibration 10 Hz – 50 Hz – 10 Hz for 6 hours</p> |

FEATURES

| | |
|--|---|
| <ul style="list-style-type: none"> End stackable for standard 2.54mm (.100") integrated circuit pitch Twin contact design to ensure stable contact | <ul style="list-style-type: none"> All plastics used are UL 94V-0 grade fire retardant Gold plated contacts, contact & solder area (<i>gold/gold</i>), to ensure low contact resistance |
|--|---|

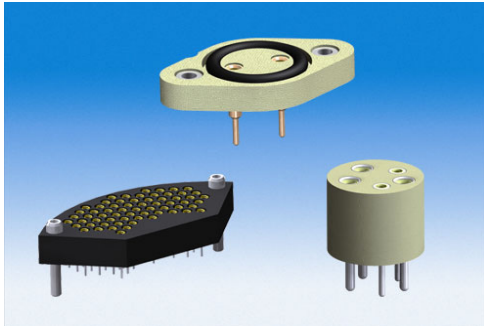
How to order

DPM – 1 xx – XX 1 xxZ

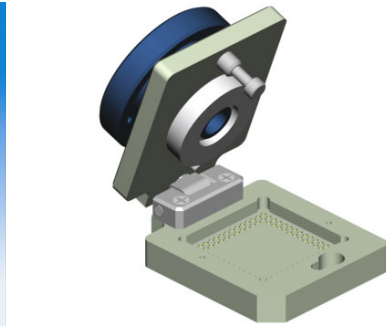
| | | |
|---|--|---|
| <p style="text-align: center;">Nbr of positions</p> <p style="text-align: center;">see under position/dimension box above</p> <p>Example: 2 Position = 02 4 Position = 04 etc.</p> | <p style="text-align: center;">Actuator and "ON/OFF" Position</p> <p>EA = Extended Actuator; Top side OFF</p> <p>EB = Extended Actuator; Top side ON</p> <hr/> <p>LA = Low profile Actuator; Top side OFF</p> <p>LB = Low profile Actuator; Top side ON</p> | <p style="text-align: center;">Packing</p> <p>10 = Tube packing</p> <p>11 = Reel packing</p> <hr/> <p>10 = Tube packing</p> <p>11 = Reel packing</p> <p>T0 = Tube packing & Tape sealed</p> <p>T1 = Reel packing & Tape sealed</p> |
|---|--|---|

Other products from E-tec

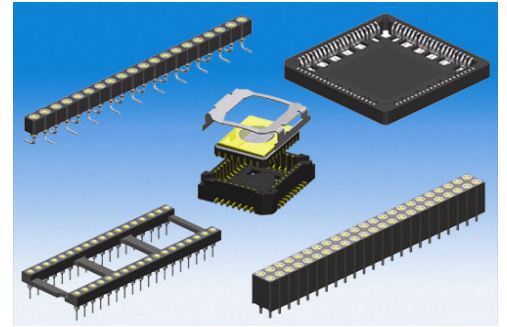
Please contact your closest sales office for further information.



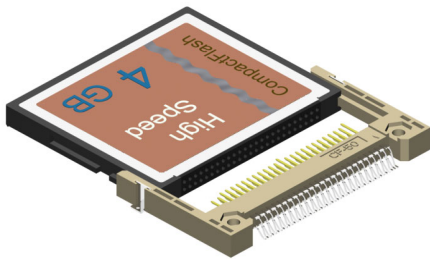
Customized Products



Test Sockets & Adapters



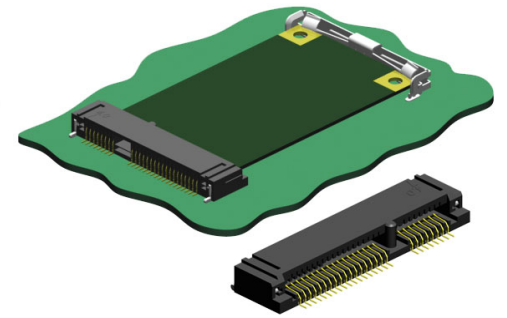
IC - Sockets



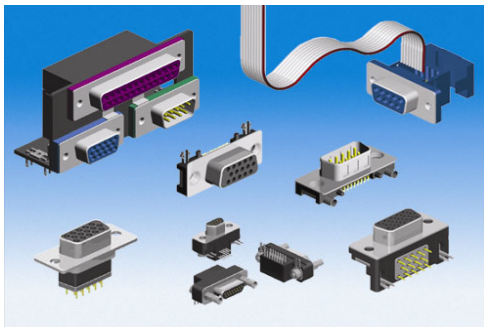
Compact Flash Connectors



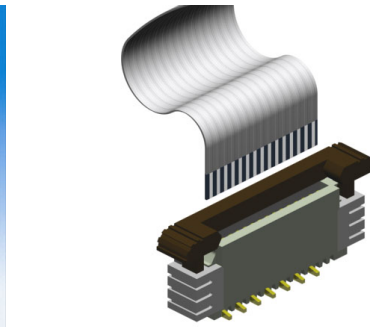
USB & IEEE 1394 Connectors



Mini PCI Express Connectors



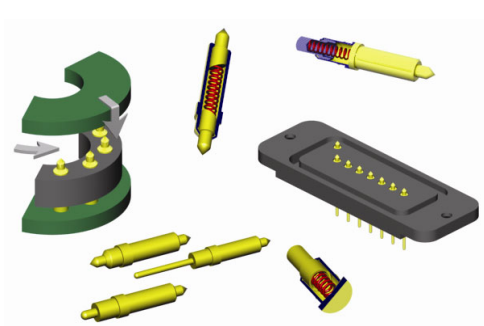
D-Sub Connectors



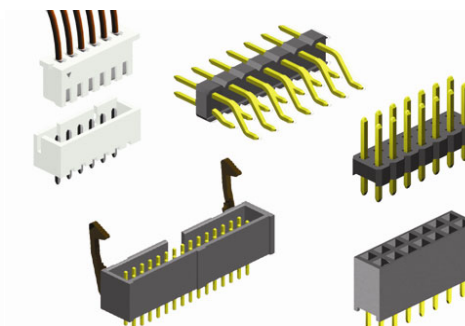
Flex Cable Connectors



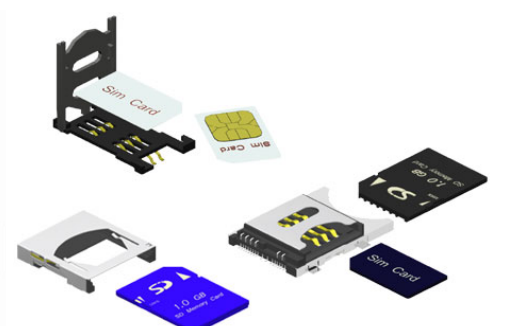
HDMI Connectors



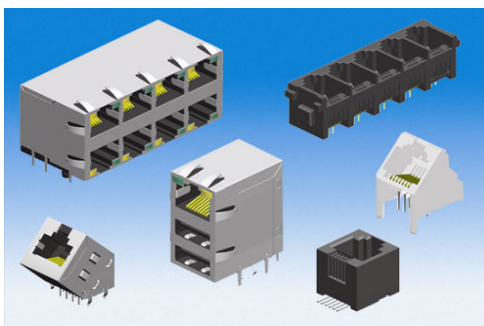
Probe Pin & Probe Pin Connectors



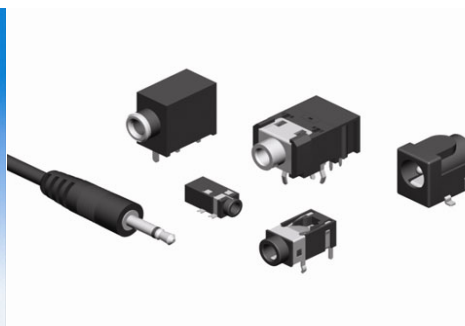
PCB Connectors



Multi Media Card Connectors



Modular Plugs & Jacks



Phono - & DC - Power Connectors



RF - Connectors

The E-tec Group

For over 40 years E-tec have manufactured and supplied a diverse range of electronic interconnect solutions across the global market. Our portfolio has grown with our customers, to include Test Sockets, IC sockets, PCB interconnect products, D-Subs, Switches, RF connectors and cable assemblies. We design, develop, produce and provide sales and support directly to our customers. With production facilities in Switzerland, Taiwan, UK and China, we offer flexible capacity with short delivery times from prototype to large volume production series. In this way, E-tec are ideally positioned to provide a genuinely global service, from product conception to production, wherever and whenever our customers require it.

E-tec connectors, cables, sockets and specials are found in the most demanding of application fields, including; aerospace, automotive, communications, defence, medical, pumping and vacuum, sensor and safety equipment, transportation and much more. At E-tec, our experienced team understand uncompromising quality and dedicated service are the foundations of successful project delivery. We are ISO9001 certified, and many products are UL listed and TS16949 accredited to meet exacting industry standards. We welcome your enquiries, please contact us or visit our website and we will respond promptly.



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