

NDS-DP-DA series

DIP switches

Distinctive features and specifications

UG1410A



- Standard, piano and right angle models
- 1 to 12 positions
- Top tape sealing option

ELECTRICAL SPECIFICATIONS

- Current/voltage rating : 25mA 24VDC
- Initial contact resistance : 50mΩ max.
- Insulation resistance (at 500VDC) : 100 MΩ min. between adjacent terminals
- Dielectric strength : 500VDC for one minute
- Circuit : single pole, single throw
- Electrical life : 2.000 cycles min. per switch

MATERIALS

- Case, UL94-V0, glass fiber filled PBT, black
- Cover : UL94-V0, glass fiber filled PBT, red
- Actuator : UL94-V0, glass fiber filled PBT, white
- Terminals/contacts : gold over nickel plated phosphor bronze
- Terminal seal : epoxy
- Tape seal : polyester film

GENERAL SPECIFICATIONS

- Operating force :
 - NDS/DA models : 10N
 - DP models : 4N
- Travel :
 - NDS/DA : 2 mm (.078)
 - DP models : 30°
- Operating temperature :
 - DP/DA models : -20°C to +70°C
 - NDS models : -40°C to +85°C

RECOMMENDED SOLDERING AND CLEANING PROCESSES

- Hand soldering : 320°C max. for 2 seconds max. (30 watt iron max.)
- Wave soldering : 260°C max. for 5 seconds max.
- Force rinse, high agitation or triple bath cleaning method (**with tape seal, option T**) : freon TF or TE. When vapor methods are used, do not subject switch to solvents above 51°C.

Note : keep switches in "OFF" position during soldering and cleaning for best results.

Dimensions : first dimensions are in mm while inches are shown as bracketed numbers.



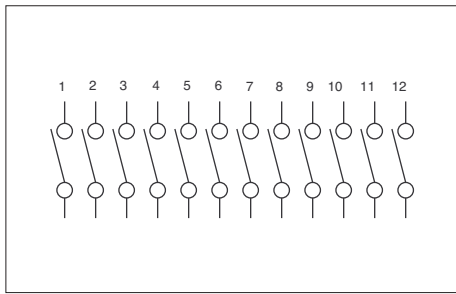
Packaging unit : standard IC tubes - Quantities depending on model. See table below.

| NDS(R) | Quantity | NDS(R)-T | Quantity | DA | Quantity | DA-T | Quantity | DP/DPL | Quantity | DP-T/DPL-T | Quantity |
|-----------|----------|------------|----------|-------|----------|--------|----------|----------|----------|------------|----------|
| NDS(R)-01 | 120 | NDS(R)-01T | 113 | DA-02 | 73 | DA-02T | 70 | DP(L)-02 | 70 | DP(L)-02T | 65 |
| NDS(R)-02 | 72 | NDS(R)-02T | 70 | DA-03 | 52 | DA-03T | 50 | DP(L)-03 | 50 | DP(L)-03T | 49 |
| NDS(R)-03 | 51 | NDS(R)-03T | 50 | DA-04 | 40 | DA-04T | 39 | DP(L)-04 | 39 | DP(L)-04T | 39 |
| NDS(R)-04 | 40 | NDS(R)-04T | 39 | DA-05 | 33 | DA-05T | 32 | DP(L)-05 | 32 | DP(L)-05T | 32 |
| NDS(R)-05 | 32 | NDS(R)-05T | 32 | DA-06 | 28 | DA-06T | 28 | DP(L)-06 | 27 | DP(L)-06T | 27 |
| NDS(R)-06 | 27 | NDS(R)-06T | 27 | DA-07 | 24 | DA-07T | 24 | DP(L)-08 | 21 | DP(L)-08T | 21 |
| NDS(R)-07 | 24 | NDS(R)-07T | 24 | DA-08 | 21 | DA-08T | 21 | DP(L)-10 | 17 | DP(L)-10T | 17 |
| NDS(R)-08 | 21 | NDS(R)-08T | 21 | DA-09 | 19 | DA-09T | 19 | DP(L)-12 | 14 | DP(L)-12T | 14 |
| NDS(R)-09 | 19 | NDS(R)-09T | 19 | DA-10 | 17 | DA-10T | 17 | | | | |
| NDS(R)-10 | 17 | NDS(R)-10T | 17 | DA-12 | 14 | DA-12T | 14 | | | | |
| NDS(R)-12 | 14 | NDS(R)-12T | 14 | | | | | | | | |

The company reserves the right to change specifications without notice.

NDS/NDSR series

Standard DIP switches



- Raised or recessed actuator
- 1 to 12 positions

MODEL
STRUCTURE



Raised actuator : NDS



| Model No | No. pos. | Dim. "A" | Dim. "B" |
|----------|----------|---------------|---------------|
| NDS-01 | 1 | 4,22 (.166) | - |
| NDS-02 | 2 | 6,44 (.253) | 2,54 (.100) |
| NDS-03 | 3 | 8,98 (.353) | 5,08 (.200) |
| NDS-04 | 4 | 11,52 (.453) | 7,62 (.300) |
| NDS-05 | 5 | 14,06 (.553) | 10,16 (.400) |
| NDS-06 | 6 | 16,60 (.653) | 12,70 (.500) |
| NDS-07 | 7 | 19,14 (.753) | 15,24 (.600) |
| NDS-08 | 8 | 21,68 (.853) | 17,78 (.700) |
| NDS-09 | 9 | 24,22 (.953) | 20,32 (.800) |
| NDS-10 | 10 | 26,76 (1.053) | 22,86 (.900) |
| NDS-12 | 12 | 31,84 (1.253) | 27,94 (1.100) |

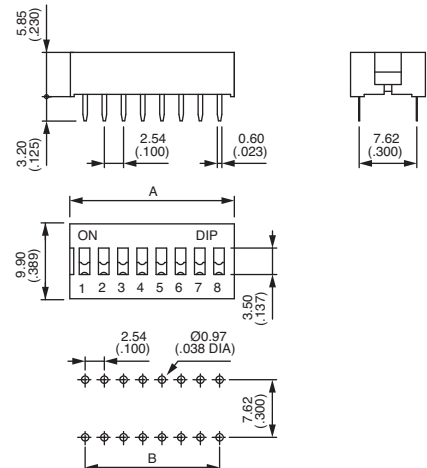


Top tape sealed : add "T" after model number.

Recessed actuator : NDSR



| Model No | No. pos. | Dim. "A" | Dim. "B" |
|----------|----------|---------------|---------------|
| NDSR-01 | 1 | 4,22 (.166) | - |
| NDSR-02 | 2 | 6,44 (.253) | 2,54 (.100) |
| NDSR-03 | 3 | 8,98 (.353) | 5,08 (.200) |
| NDSR-04 | 4 | 11,52 (.453) | 7,62 (.300) |
| NDSR-05 | 5 | 14,06 (.553) | 10,16 (.400) |
| NDSR-06 | 6 | 16,60 (.653) | 12,70 (.500) |
| NDSR-07 | 7 | 19,14 (.753) | 15,24 (.600) |
| NDSR-08 | 8 | 21,68 (.853) | 17,78 (.700) |
| NDSR-09 | 9 | 24,22 (.953) | 20,32 (.800) |
| NDSR-10 | 10 | 26,76 (1.053) | 22,86 (.900) |
| NDSR-12 | 12 | 31,84 (1.253) | 27,94 (1.100) |

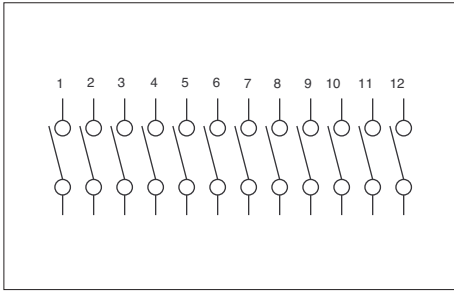


Top tape sealed : add "T" after model number.

F

DP/DPL series

Piano DIP switches



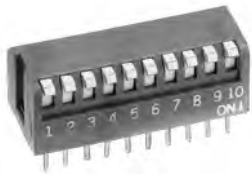
- Short or long actuator
- 2 to 12 positions

Note : Push down for "ON" is our standard type.
Push down for "OFF" is also available on special order,
consult factory.

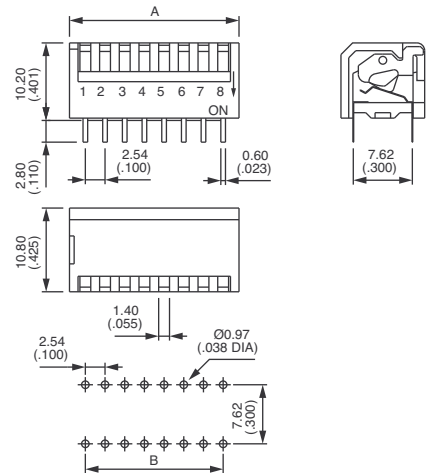
MODEL STRUCTURE



Short actuator : DP



| Model No | No. pos. | Dim "A" | Dim. "B" |
|----------|----------|---------------|---------------|
| DP-02 | 2 | 6,44 (.253) | 2,54 (.100) |
| DP-03 | 3 | 9,18 (.361) | 5,08 (.200) |
| DP-04 | 4 | 11,72 (.461) | 7,62 (.300) |
| DP-05 | 5 | 14,26 (.561) | 10,16 (.400) |
| DP-06 | 6 | 16,80 (.661) | 12,70 (.500) |
| DP-08 | 8 | 21,88 (.861) | 17,78 (.700) |
| DP-10 | 10 | 26,96 (1.061) | 22,86 (.900) |
| DP-12 | 12 | 32,04 (1.261) | 27,94 (1.100) |

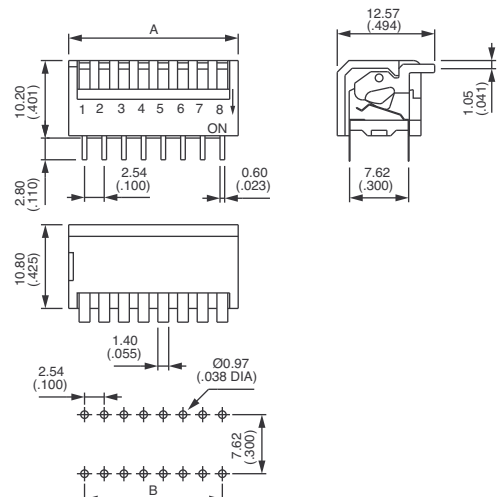


Top tape sealed : add "T" after model number.

Long actuator : DPL



| Model No | No. pos. | Dim "A" | Dim. "B" |
|----------|----------|---------------|---------------|
| DPL-02 | 2 | 6,44 (.253) | 2,54 (.100) |
| DPL-03 | 3 | 9,18 (.361) | 5,08 (.200) |
| DPL-04 | 4 | 11,72 (.461) | 7,62 (.300) |
| DPL-05 | 5 | 14,26 (.561) | 10,16 (.400) |
| DPL-06 | 6 | 16,80 (.661) | 12,70 (.500) |
| DPL-08 | 8 | 21,88 (.861) | 17,78 (.700) |
| DPL-10 | 10 | 26,96 (1.061) | 22,86 (.900) |
| DPL-12 | 12 | 32,04 (1.261) | 27,94 (1.100) |



Top tape sealed : add "T" after model number.

DA series

Right angle DIP switches

- 2 to 12 positions



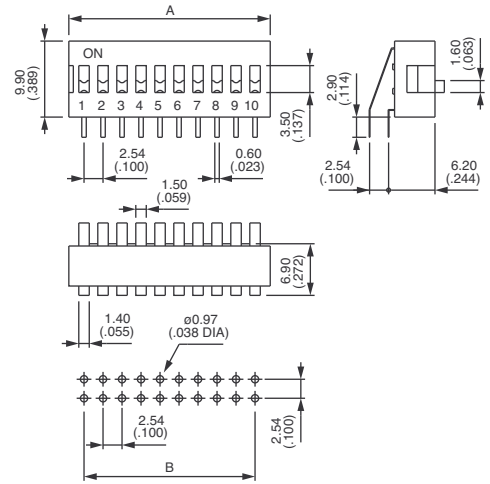
MODEL
STRUCTURE



Raised actuator : DA



| Model No | No. pos. | Dim "A" | Dim. "B" |
|----------|----------|---------------|---------------|
| DA-02 | 2 | 6,44 (.253) | 2,54 (.100) |
| DA-03 | 3 | 8,89 (.350) | 5,08 (.200) |
| DA-04 | 4 | 11,52 (.453) | 7,62 (.300) |
| DA-05 | 5 | 14,06 (.553) | 10,16 (.400) |
| DA-06 | 6 | 16,60 (.653) | 12,70 (.500) |
| DA-07 | 7 | 19,14 (.753) | 15,24 (.600) |
| DA-08 | 8 | 21,68 (.853) | 17,78 (.700) |
| DA-09 | 9 | 24,22 (.953) | 20,32 (.800) |
| DA-10 | 10 | 26,76 (1.053) | 22,86 (.900) |
| DA-12 | 12 | 31,84 (1.253) | 27,94 (1.100) |



Top tape sealed : add "T" after model number.