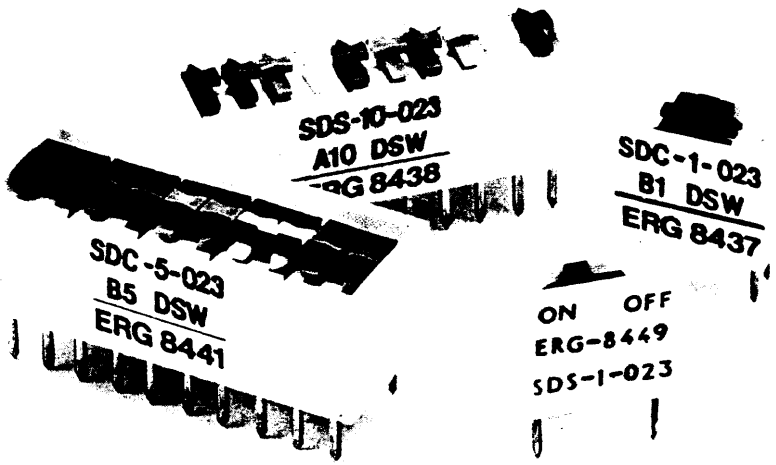
SpectraDIL – SDS, SDC and SDD – 023 series

This is U.K. industry's standard range of dual in line programme switches which feature:

- 1 to 18 selectable s.p.s.t. For 1-18 s.p.d.t. (3 pins/pole) see SCS overleaf.
- 1 to 9 selectable d.p.s.t. or s.p.d.t. (p.c.b. linked).
- Large numerals and EIA colour coded sliders which are recessed to prevent unintentional changes to the settings.
- Base and tape sealed for flow soldering and solvent/aqueous washing.
- In depth, production volume stocks held in Dunstable and at most distributors.
- 1μ hard gold plated wiping contact gives high reliability in low level circuits.
- BS 9566 F0001 approved, and B.T. D5002 listed.
- Approved to B.T. D8173.

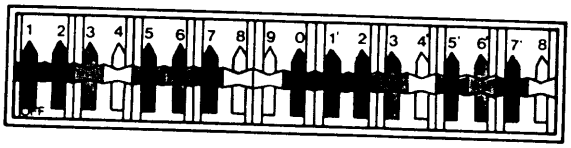


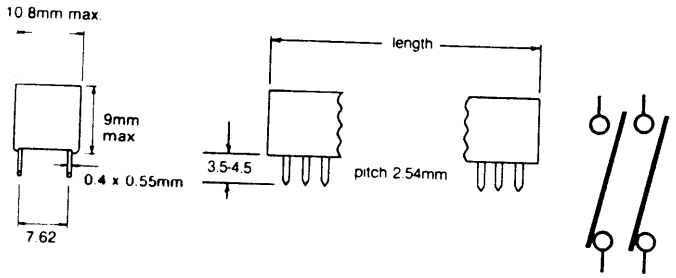
422-873

SpectraDIL ON/OFF s.p.s.t.

SDS 023 series

Number of s.p.s.t.	Part No's SDS-plus suffix	BS 9566 F001	Length mm max
1	1-023 ◎	—	4.0
2	2-023 ◎	A2	6.7
3	3-023 ◎	—	9.0
4	4-023 ◎	A4	11.8
5	5-023 ◎	—	14.1
6	6-023 ◎	A6	16.8
7	7-023 ◎	—	19.2
8	8-023 ◎	A8	21.9
9	9-023 ◎	—	24.3
10	10-023 ◎	A10	27.0
12	12-023	A12	32.1
14	14-023	A14	37.2
16	16-023	A16	42.2
18	18-023	A18	47.3

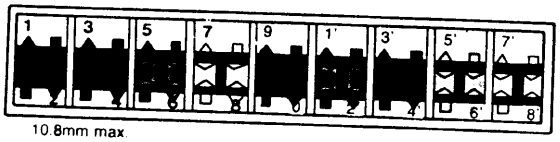


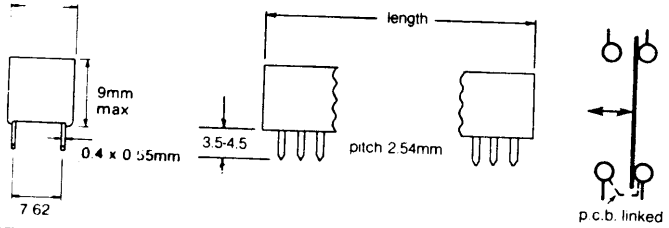


SpectraDIL CHANGEOVER s.p.d.t.

SDC 023 series

Number of s.p.d.t.	Part No's SDC-plus suffix	BS 9566 F001	Length mm max
1	1-023 ◎	B1	6.7
2	2-023 ◎	B2	11.8
3	3-023 ◎	B3	16.8
4	4-023 ◎	B4	21.9
5	5-023 ◎	B5	27.0
6	6-023	B6	32.1
7	7-023	B7	37.2
8	8-023	B8	42.2
9	9-023	B9	47.3

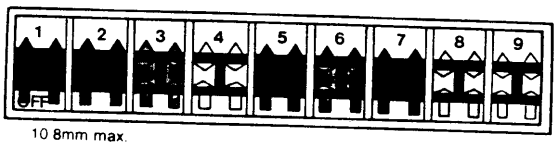


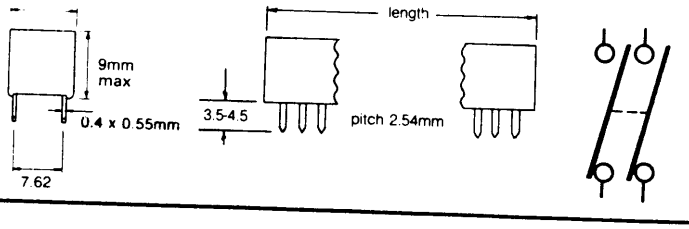


SpectraDIL GANGED ON/OFF d.p.s.t.

SDD 023 series

Number of d.p.s.t.	Part No's SDD-plus suffix	BS 9566 F001	Length mm max
1	1-023 ◎	C1	6.7
2	2-023 ◎	C2	11.8
3	3-023 ◎	C3	16.8
4	4-023 ◎	C4	21.9
5	5-023 ◎	C5	27.0
6	6-023	C6	32.1
7	7-023	C7	37.2
8	8-023	C8	42.2
9	9-023	C9	47.3





◎ = Also held by most distributors - see pages 26/27

Principal Electrical and Performance Data at 20°C, 70% R.H.

Contact Ratings
Non Switching: 100Vac. 5A Switching: 1μV to 100V, 1μA to 1A up to 10VA.

Initial Contact Resistance (at 10mV, 10mA max.)
Typical: 10mΩ. Max. 20mΩ.

Insulation resistance (at 500 Vdc min.) 10,000MΩ.

Life:
For the first 1000 closures the standard deviation of the change in resistance from the mean is usually less than 1mΩ. Mechanical wear out of the sliding actuator is usually observed after 10,000 operations.

Dielectric Strength
1 minute: 500V r.m.s. 50Hz.

Capacitance between open contacts: < 1pf. at 1 KHz.

Temperature
Operating range for continuous electrical use and manual operation is restricted to -55°C to +85°C for standard products. We also have available the 9DS-023 series for use up to 100°C and above.

Operating Force
Per Pole — Typical: 4N

Humidity
BS 2011 Test Ca: 56 days.

Bump
BS 2011 Test Eb: No contact interruptions > 1μs during 4000 bumps at 390m/s² (40g).

Acceleration
BS 2011 Test Ga: No contact interruptions > 1μs during test at 980 m/s² (100g).

Vibration
BS 2011 Test Fc: 10 to 2000Hz. No contact interruptions > 1μs during test at 147 m/s² (15g) or 1.0mm displacement amplitude.

Shock
BS 2011 Test Ea: 980 m/s² (100g). No contact interruptions > 1μs during test.

Soldering
Solderability: < 2 seconds to wet at 235°C as per IEC 68 and BS 2011 Test T, solder bath method.

Resistance to Soldering heat as per IEC 68 and BS 2011 10 seconds satisfactory at 260°C when mounted on 1.5mm p.c.b.

Application Notes — page 28.

Erg Components Ltd., Luton Road, Dunstable, Bedfordshire LU5 4LJ England Tel: 0582 62241 Telex: 82349. Fax. 0582 600767

Further information

QUALITY

We hold BS9000 approvals both as manufacturer and approved stockist and have numerous approvals from major o.e.m.s. particularly those in the telecommunications and computer peripheral equipment areas. A number of major customers, as a result of their good production experience with our switches accept them without carrying out regular Goods Inwards inspection.

Copies of all relevant detail specifications are available on request. We also have available BS/MIL comparative data that discloses the major benefits of the BS specifications. The BS have been developed in conjunction with representatives of the major users.

Where switches are approved to a BS detail specification (pages 6/7 to 10.11 show these), tests are carried out to the requirements of BS on a lot by lot and period basis with full Certified Test Records being maintained for your inspection. Details of our Q.C. and Production Test procedures can be disclosed to interested customers.

APPLICATION NOTES — SWITCHES

Solvents & Fluxes

All models have fully sealed bases that are proof against the ingress of flux and are suitable for most flow soldering systems. Where the fluxing process is not controlled and could enter the top of the switch, select the tape sealed option where in addition to the sealed base, the top is sealed with special heat resistant polyester tape that should only be removed after flow soldering and any subsequent operations such as solvent/aqueous washing and varnishing. Once removed the tape cannot be reapplied to provide a good seal.

We have carried out test using various manufacturers' solvents for 5 minutes total immersion which is more severe than can be generally expected in practice (some ultrasonically 40 KHz pulsed at 10Hz — see below) and found **no deterioration** of the integrity of the seal or of the plastic/metal subcomponents and seals.

System Type — 1, 1, 1 — trichloroethane (stabilised)
Examples tried: Chlorothene VG, Genklene LV — hot (71-81°C, cold + ultrasonics.
System Type — 1, 1, 2 — trichloro — 1, 2, 2 — trifluoroethane/ethanol azeotrope)
Examples tried: Flourisol E, Freon TE, Arklone A — cold.
System Type — 1, 1, 2 — trichloro — 1, 2, 2 — trifluoroethane / isopropanol azeotrope
Examples tried: Arklone L — hot (48°C), cold + ultrasonics.
System Type — Trichloroethylene
Examples tried: Triklone N — hot (87°C).

We have also carried out flux tests both water based (SG 0.945) and isopropyl alcohol based (SG 0.825) resin (colophony) fluxes, for five minutes **total immersion**, and easily met BS9565 test requirements of <5 mΩ change in contact resistance and <10% change in operating force.

Where special lead forming for self retaining joggles are required these are usually available on short notice. We can also offer extra long terminal leads on most styles — please enquire.

PACKAGING

This is included in the prices shown and for many of the ranges of dual in line switches we can supply either in cartons or "i.c." stick packs if preferred.

STOCK DELIVERY

We maintain a stock holding of several hundred thousand switches and have a large number of stocking distributors (see pages 26/7) who can offer you a very rapid service for the most popular ranges so that you do not have to hold large stocks to maintain smooth production.

PRICES

The prices shown are those current at the time of printing and are exclusive of VAT which will be added to the invoice together with a small charge for insured carriage to your address. Discounts for quantities of more than 500 per delivery drop are available and vary according to the particular range. Quantities of less than 100 per delivery drop are surcharged to cover the higher costs of handling and these are: 50-99 + 25%, 25-49 + 50%, 1-24 + 100%.

Users of very large quantities may be eligible for long term, deep discount prices — please let us know your estimated annual useage so that we can advise you of our best offer.

SAME DAY DISPATCH

Telephone your order before 3.00 p.m. for same day dispatch of items held in stock.

PATENTS AND TRADEMARKS

Most of the products described in this catalogue are protected by one or more national or international patents. ERG and DILSWITCH are registered trademarks.

GUARANTEE & CONDITIONS OF SALE

It is our policy to guarantee our products, subject to fair wear and tear, without any limitation in time.

All offers and supplies are subject to our conditions of sales which are available, by return, from our Sales Office.

NOTICE

This catalogue is believed to contain the best information available at the time of printing but is subject to change without notice. Where the intending user requires notice of changes we can offer to supply against "sealed design drawings". Performance figures, where quoted, are usually estimates based on our experience or that of our suppliers, customers or statutory authorities.

In common with all components, reliability varies with many factors and intending users are invited to contact us in appropriate cases so that where relevant information is available from us, it may be considered by the user.