

This range of select on test/code and range setting switches overcome some of the problems of using standard dual in-line 8 way switches and features:

-  An exclusive guaranteed one out of eight selection.
-  Linked changeovers (up to 4) are operated by one actuator.
-  Wide range of switching configurations including user PCB custom capability.
-  Large numerals and coloured actuators.
-  Base and tape sealed for flow soldering and solvent/aqueous washing.
-  Hinged transparent dust cover and recessed actuators prevent accidental setting changes.
-  1µm hard gold plated wiping contact for low level circuits.
-  If you have a volume requirement for a product variant not shown on this sheet please contact us.

Principal Electrical and Performance Data

at 20°C 70% R.H. for DS16

Contact Ratings: Switching: 30V, 250mA 7.5VA max.
Non switching: 240Vac 2A.

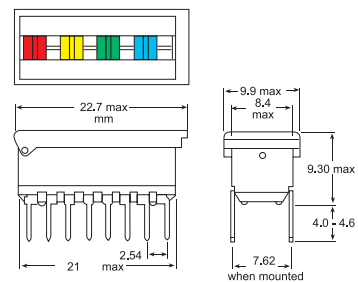
Initial Contact Resistance: (at 10mV, 10mA max.)
Typical: 18mΩ. Max. 30mΩ.

Life: Typical (within rated load), test reports available 1000 cycles.

Temperature Range: Storage, electrical use and manual operation -55°C to +85°C

Humidity: BS 2011 Test Ca: 56 days.

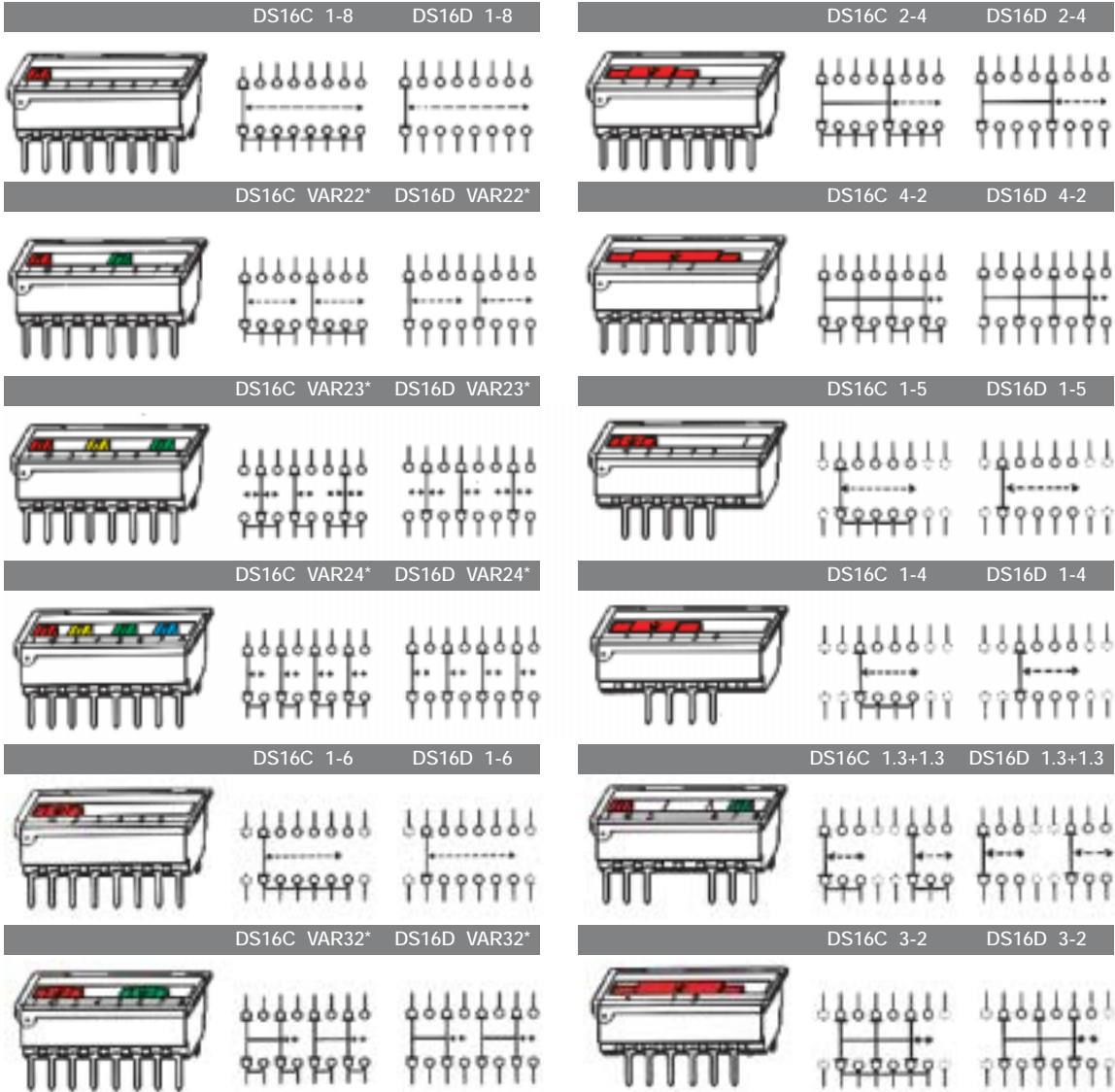
Please note: BS 2011 is now superseded by BS EN 60068.



Electrical schematics viewed from below

Linked Styles Unlinked Styles

Linked Styles Unlinked Styles



*Design and use with care as the sliders of these styles have unrestricted travel.

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ITW Erg Components

Luton Road, Dunstable, Bedfordshire LU5 4LJ England
 Telephone: 01582 662241 Fax: 01582 600767

E-mail: info@erg.co.uk <http://www.erg.co.uk>

SpectraEDGE SCES ranges



SpectraEDGE

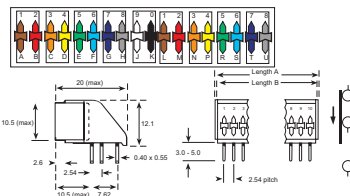


The space saving switch for 'through panel' mounting, where the user is expected to set the codes, or other live card access which might include two state resistor pull up/pull down applications.

- Uses just half the length of competitive changeover switches.
- Allows for through panel mounting from the edge of the PCB.
- 1µm hard gold plated wiping contact gives high reliability in low level circuits.
- Base and tape sealed for flow soldering and solvent/aqueous washing.
- If you have a volume requirement for a product variant not shown on this sheet, please contact us.

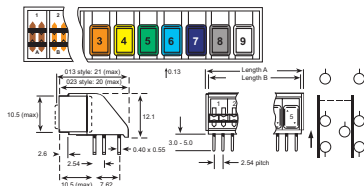
Spectra C EDGE, CHANGEOVER s.p.s.t. SDES 023 series

Number of d.p.d.t.	Part Nos SCES-plus suffix	Length 'A' mm max	Length 'B' mm max
2	2-023	7.5	6.7
4	4-023	12.6	11.8
8	8-023	22.7	21.9
12	12-023	32.9	32.1



Spectra C EDGE, CHANGEOVER d.p.d.t. SCES-G-023 series

Number of d.p.d.t.	Part Nos SCES-plus suffix	Length 'A' mm max	Length 'B' mm max
6.7	1	1G2-023	7.5
11.8	2	2G2-023	12.6
16.8	3	3G2-023	17.6



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 500Vdc min.) 10,000M Ω .

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: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1pf at 1KHz.

Temperature: Operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

Humidity: BS 2011 Test Ca: 56 days.

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 PCB.

Please note: BS 2011 is now superseded by BS EN 60068.

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Erg Components

Luton Road, Dunstable, Bedfordshire LU5 4LJ England
Telephone: 01582 662241 Fax: 01582 600767

E-Mail info@erg.co.uk <http://www.erg.co.uk>

SpectraEDGE SDES, SDEC ranges



SpectraEDGE

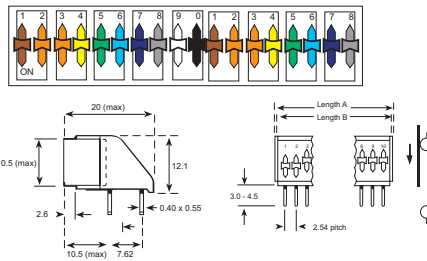


This is the switch for 'through panel' mounting, where the user is expected to set the codes, or in live card access applications.

- Fully enclosed SDES series is on 0.300" mounting centres.
- Allows for through panel mounting from the edge of the PCB
- 1µm hard gold plated wiping contact gives high reliability in low level circuits.
- Base and tape sealed for flow soldering and solvent/aqueous washing.
- If you have a volume requirement for a product variant not shown on this sheet, please contact us.

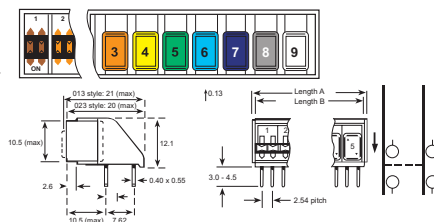
SpectraEDGE ON/OFF s.p.s.t. SDES 013 & 23 series

Number of s.p.d.t.	Part Nos SDES-plus suffix	Length 'A' mm max	Length 'B' mm max
2	2-023	7.5	6.7
4	4-023	12.6	11.8
6	6-023	17.6	16.8
8	8-023	22.7	21.9
10	10-023	27.8	27.0
12	12-023	32.9	32.1
14	14-023	38.0	37.2
16	16-023	43.0	42.2



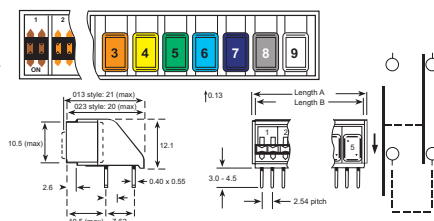
SpectraEDGE ON/OFF d.p.s.t. SDES-G 013 & 023 series

Number of d.p.d.t.	Part Nos SDES-plus suffix	Length 'A' mm max	Length 'B' mm max
1	1G2-023	7.5	6.7
2	2G2-023	12.6	11.8
4	4G2-023	22.7	21.9
6	6G2-023	32.9	32.1



SpectraEDGE GANGEOVER s.p.d.t. SDEC 013 & 023 series

Number of s.p.d.t.	Part Nos SDEC-plus suffix	Length 'A' mm max	Length 'B' mm max
1	1-023	7.5	6.7
2	2-023	12.6	11.8
4	4-023	22.7	21.9



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 500Vdc 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: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1pf at 1KHz.
Temperature: Operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

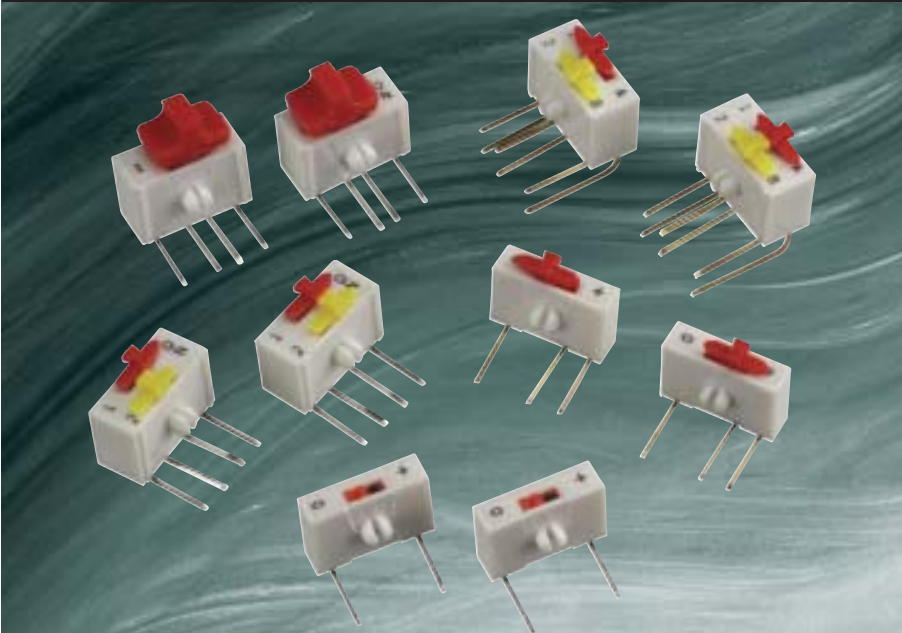
Humidity: BS 2011 Test Ca: 56 days.





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

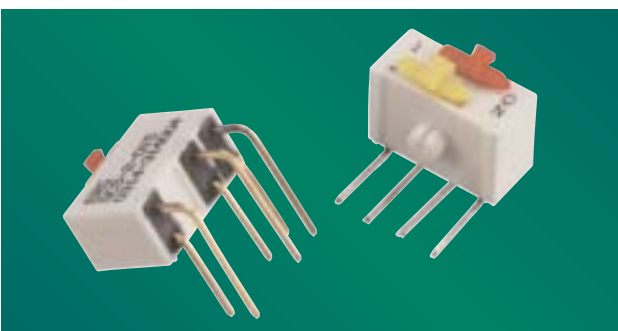
Resistance to soldering heat as per IEC 68 and BS 2011 10 seconds satisfactory at 260°C when mounted on 1.5mm PCB.

Please note: BS 2011 is now superseded by BS EN 60068.

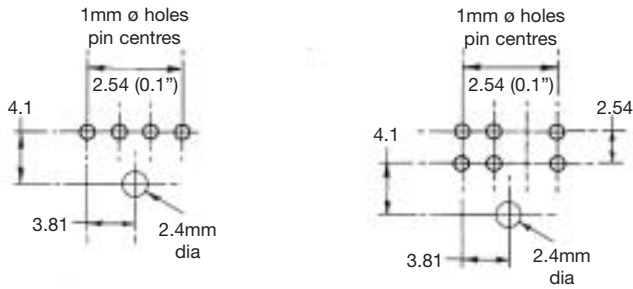
Spectra Low Profile Edge Mount 015 & 017



-  From only 3mm high.
-  Up to 2 changeover or ON/OFF contacts.
-  Front marking and easy to operate sliders.
-  Patented 1 micron hard gold plated contacts.

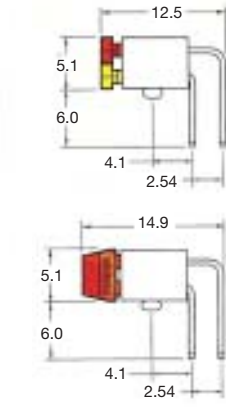
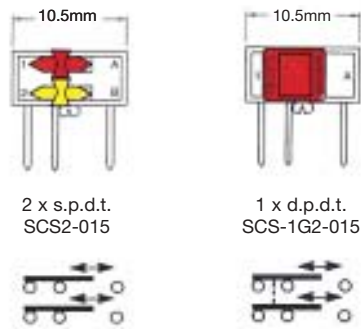


PCB drilling matrix

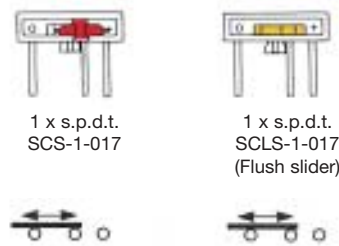


Changeover Contacts

**Dual in line
(centre common pin)**

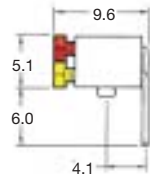
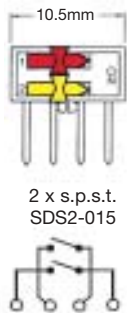


**Single in line
(centre common pin)**

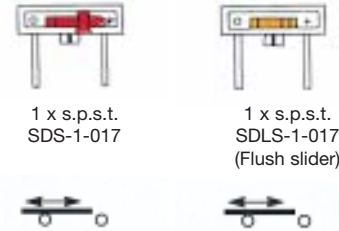


On/Off Contacts

Single in line



Single in line



Principal Electrical and Performance Data

at 20°C 70% R.H.

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

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

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

Life: Mechanical wear out of the sliding actuator is usually observed after 10,000 operations.

Dielectric Strength: 1 minute: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1pF at 1KHz.

Temperature: Operating range for continuous electrical use and manual operation is restricted to 55°C to +85°C for standard products.

Operating Force per pole: Typical: 4N.

Humidity: BS 2011 Test Ca: 56 days.

Solderability: < 2 seconds to wet at 235°C as per IEC 68 and BS 2011 Test T, solder bath method. We recommend that these switches are post fitted after PCB cleaning has been carried out.

Resistance to soldering heat as per IEC 68 and BS 2011 10 seconds satisfactory at 260°C when mounted on 1.5mm PCB.

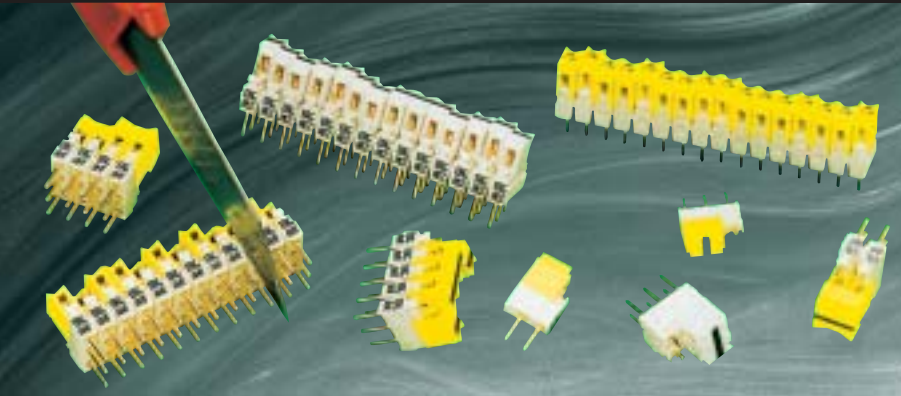









Luton Road, Dunstable, Bedfordshire LU5 4LJ England
Telephone: 01582 662241 Fax: 01582 600767

E-mail: info@erg.co.uk <http://www.erg.co.uk>

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Jumper-Switch™



-  Drop in replacement for jumpers.
-  Secured in the ON or OFF setting.
-  0.1" mounting pitch.
-  1 thru 16 ON/OFF, CHANGEOVER and CENTRE-OFF contacts.
-  Ganged pairs of contacts option.
-  Hard gold plated wiping contacts.
-  If you have a volume requirement for a product variant not shown on this sheet please contact us.

A switchable jumper on 0.1" pitch that securely switches PCB track signals with a positive contact action.

Supplied in units of 1 thru 16 poles they provide an alternative to jumpers without the need for 'parking pins' on the PCB or exposed bare pins and are available with ON/OFF (JSA4), CHANGEOVER (JSC4), and CENTRE-OFF (JSK9) switch actions. All contacts can be supplied in ganged pairs. (See ordering code).

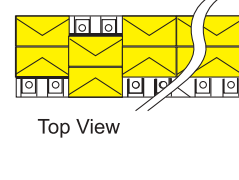
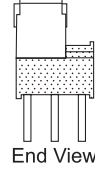
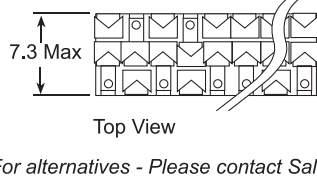
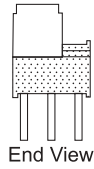
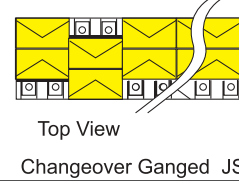
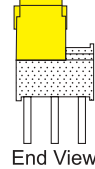
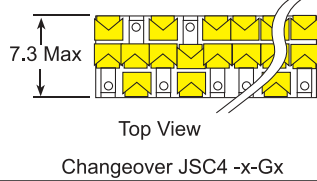
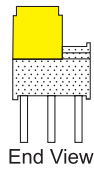
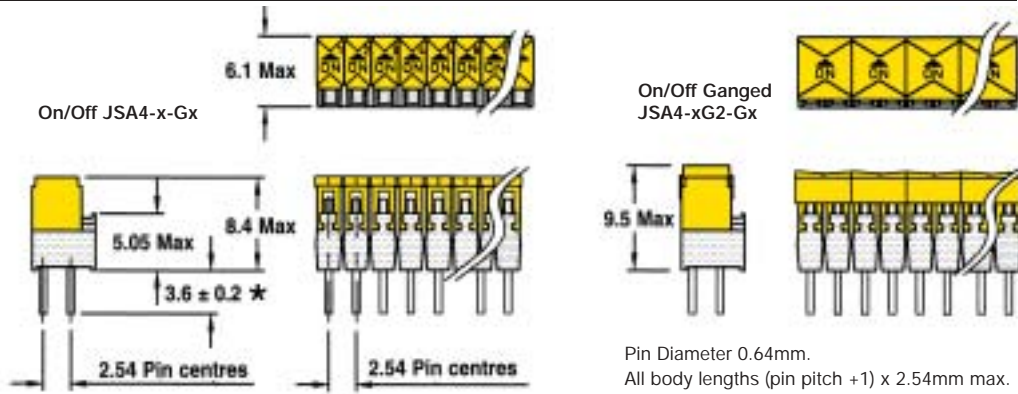
Longer units (up to 16 poles) save loading time on production. On development they can be cut with a modelling knife to achieve any combination required to provide flexible switching with the least routing on a PCB.

Options available include 2 pole ganged style, sliders of different colours in the EIA range and a mixture of colours for sliders in multiple way versions and slider numbering.

Reliable switching of the gold over nickel plated phosphor bronze contacts is assured with the 4 point wiping contact design. The contacts never rub over any plastic part and every one is tested before despatch. The positive detent action ensures good shock resistance and the deep 'V' slots securely locate any operating probe.

Jumper-Switch has been designed for use on hand or flow soldered and washed PCBs. The tight pin fit prevents any wicking. Users should evaluate that their particular processes are compatible with the unsealed contact design concept.

Mechanical Details



Principal Electrical and Performance Data

at 20°C 70% R.H.

Contact Ratings: Non Switching: 100Vac, 5A
Switching: 1µV to 100V, 1µA to 1A 10VA. Contacts are shipped in 'ON' position.

Initial Contact Resistance: (at 10mV, 10mA max.)
Typical: 10mΩ. Max. 15mΩ.

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

Life: Minimum 1,000 operations.

Dielectric Strength: 1 minute: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 5pF at 1KHz.

Temperature: Operating range for continuous electrical use and manual operation is restricted to -55°C to +85°C for standard products.

Operating Force per pole: Max. 5N.

Humidity: Damp heat steady state: 56 days.

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 PCB.

Materials: Slider GF PBT UL94-VO
Switch Body PA/PTFE lubricated - UL94-VO
Contact (moving) CuSnP plated AuCo over 2.5µNi
Contact (fixed) CuZn plated AuCo over 2.5µNi

Please note: BS 2011 is now superseded by BS EN 60068.

Ordering Code Details

Jumper-Switch™	JS	A	4	8	G0
2 rows of pins - ON/OFF	A				
3 rows of pins - CHANGEOVER	C				
3 rows of pins - CENTRE-OFF	K				
Slider colour Yellow (standard slider)	4				
Slider colour White (centre - off)	9				
Number(s) of sliders from 1 to 16 OR Number of pairs from 1G2 to 8G2	8				
Optional - numbered sliders	N				
Gold thickness - (Standard 0.1µm)	G0				
(Special 1.0µm)	G1				












Luton Road, Dunstable, Bedfordshire LU5 4LJ England
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-  Panel Mounting.
-  Colour coded actuators.
-  6 poles.
-  Z form contact arrangement.
-  Maximum 10 amp switching.
-  Ganged pairs of contacts option.
-  Body colours, white, grey or black.
-  Configurable.
-  If you have a requirement for a product variant not shown on this sheet please contact us.

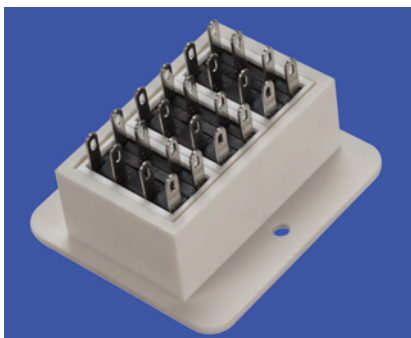
A panel mounted multi-pole slide switch with patent-pending switching mechanism.

A low cost and more efficient way of switching higher currents by avoiding the need of using low voltage switches with relays or contactors.

Supplied as standard with either 6 single or 3 double poles with Z form contacts. Can be configured to customer requirement using single and double pole actuators used in any combination. Reliable switching using tried and tested standard type 16 micro-switch technology to give switching of up to 10 amps per pole at 250VAC.

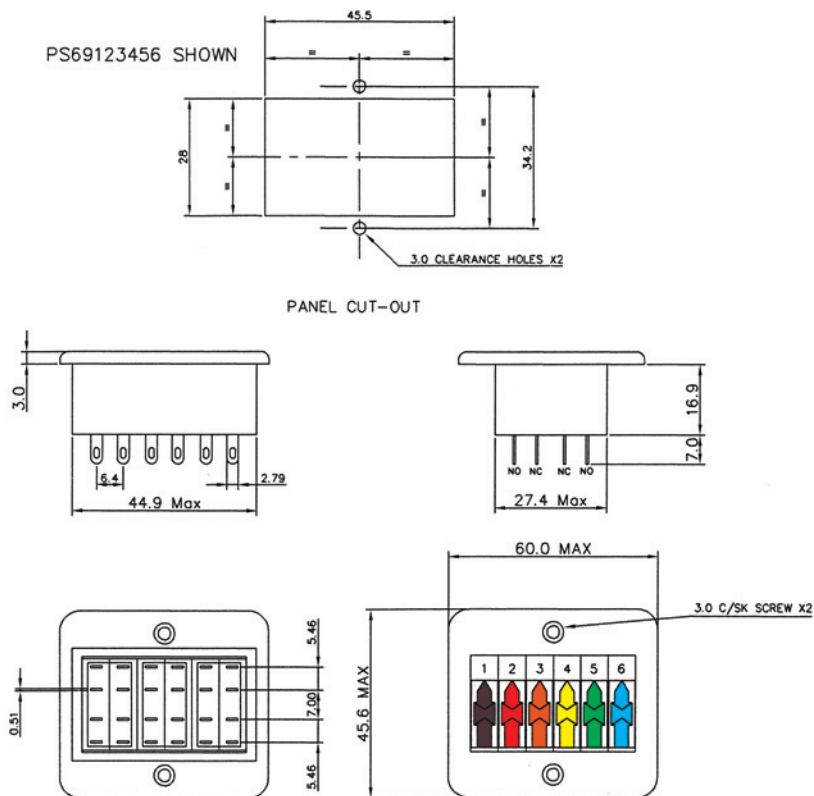
Fitted with multi colour sliders and numbered poles allow quick set up and adjustment. Each slider having deep "V" slots to securely locate any operating probes.

Easy installation using solder tag connections or 2.8mm x 0.5mm fast-on connectors and panel mounting holes.



Switch connections.

Mechanical Details



Principal Electrical and Performance Data

Contact Ratings: 250VAC 10A resistive or 28VDC 5A maximum.
10mA resistive at 5VDC minimum.

Initial Contact Resistance: 25mΩ max.

Contact Bounce: 5ms.

Initial Resistance: 1GΩ @ 500VDC.

Dielectric Strength: 1 minute @ 1KVAC.

Physical:

Life: 50,000 operations at rated load up to 70°C ambient.

Temp. range: -40°C to +70°C.

Operating Force Single actuator 3N max.
Double actuator 6N max.

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

Materials: Slider PA6, UL94-V2
Skeleton PBT, UL94-V0
Case PBT fr, UL94-V0
Contact plating Silver
Terminal finish Solder

Colours: EIA colour coded sliders.

Ordering Code Details

		PS6XXXXXX	
Power-Slide			
Number of poles			
Cover colour -	Black	0	
	Grey	8	
	White	9	
Slider -	Brown	1	Single Pole
	Red	2	Single Pole
	Orange	3	Single Pole
	Yellow	4	Single Pole
	Green	5	Single Pole
	Blue	6	Single Pole
Double Slider -	Brown	G1	Double Pole
	Red	G2	Double Pole
	Orange	G3	Double Pole
Skeleton -	Blank	B	Single Pole

Examples:

1. Single Pole: PS60123456

Power Slide, 6 pole, black cover, 6 single poles – brown to blue sliders

2. Ganged Poles: PS68G1G2G3

Power Slide, 6 poles, grey cover, 3 ganged poles – brown to orange double sliders.

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Rotary coded switches



BCD (10 position) and Hexadecimal (16 position), real and complementary codes.

-  Fully sealed and suitable for flow soldering and solvent cleaning, these switches have a black polyamide casing (UL94 rated) and bold white characters.
-  choice of low profile screwdriver-operated, knurled knob or large easy-to-operate colour coded knobs.
-  Gold plated wiping contacts for reliable low level switching.
-  If you have a volume requirement for a product variant not shown on this sheet please contact us.

Principal Electrical and Performance Data

at 20°C ± 5°C, 75% RH and initial values unless otherwise stated

Contact Ratings (Max):

- (a) 30V switched, 100Vrms non switching.
- (b) 125mA switched or carried at 85°C max.

Contact Resistance: (100% checked): 100mΩ max. measured

- at 10mVdc/10mA max., initial value and after:-
- (a) 20,000 detent steps at rated current.
- (b) Storage for 240 hours at 85°C carrying rated current.

Contact Life: Reliability (16 position switches): An analysis of nearly 4,000,000 dry circuit contact closures monitored (after closure) at 10mVdc/10mA max. disclosed:

- (a) > 99.998% of results < 100mΩ.
- (b) No contact resistance > 20Ω.

Insulation Resistance: (100% checked): 1,000 MΩ min. at 240Vdc (1 minute) initial and after:-

- (a) 10 days exposure to 90-95% RH at 40°C.
- (b) 1,000 complete rotations of 16 detents.

Dielectric Strength: 1 minute: 250Vrms

Inter Contact Capacitance: 5pf max. at 1MHz.

Environmental Temperature Category: -55°C to +85°C.

Climate Category: 55/85/10 storage and use.

Vibration: Shock 10-200Hz 1.52mm or 15g, 50g, 11ms.

Please note: BS 2011 is now superseded by BS EN 60068.

Flat Type

(Screwdriver operation)

10 position BCD

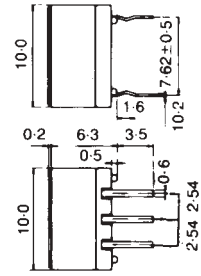
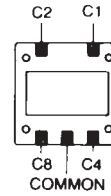
ERG 10-112 Real code
ERG 10-122 Complement code



10 step TOP VIEW



16 STEP TOP VIEW



16 position HEX

ERG 16-112 Real code
ERG 16-122 Complement code

Mass 0.8g max.
Operating force at rotor centre 300g cm max.

Large Knob Style

10 position BCD

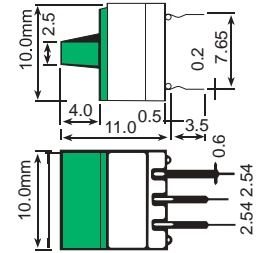
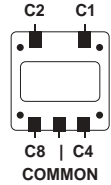
ERG 10-412/2 (red knob) Real code
ERG 10-412/5 (green knob) Real code
ERG 10-412/6 (blue knob) Real code
ERG 10-422/2 (red knob) Complement code
ERG 10-422/5 (green knob) Complement code
ERG 10-422/6 (blue knob) Complement code



10 step TOP VIEW



16 step TOP VIEW



16 position HEX

ERG 16-412/2 (red knob) Real code
ERG 16-412/5 (green knob) Real code
ERG 16-412/6 (blue knob) Real code
ERG 16-422/2 (red knob) Complement code
ERG 16-422/5 (green knob) Complement code
ERG 16-422/6 (blue knob) Complement code

Indicator Type

10 position BCD

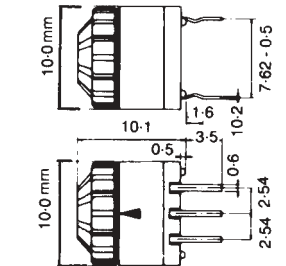
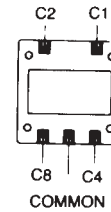
ERG 10-312 Real code
ERG 10-322 Complement code



10 step TOP VIEW



16 step TOP VIEW



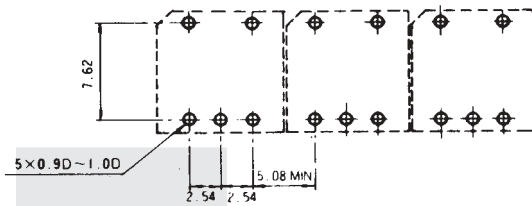
16 position HEX

ERG 16-312 Real code
ERG 16-322 Complement code

Suitable for vertical and horizontal
(edge of PCB operation).

Mass 1g max. Operating force of rotor centre 300g cm max.

Drilling Matrix (All Types)



This range is manufactured to our specification in Japan.

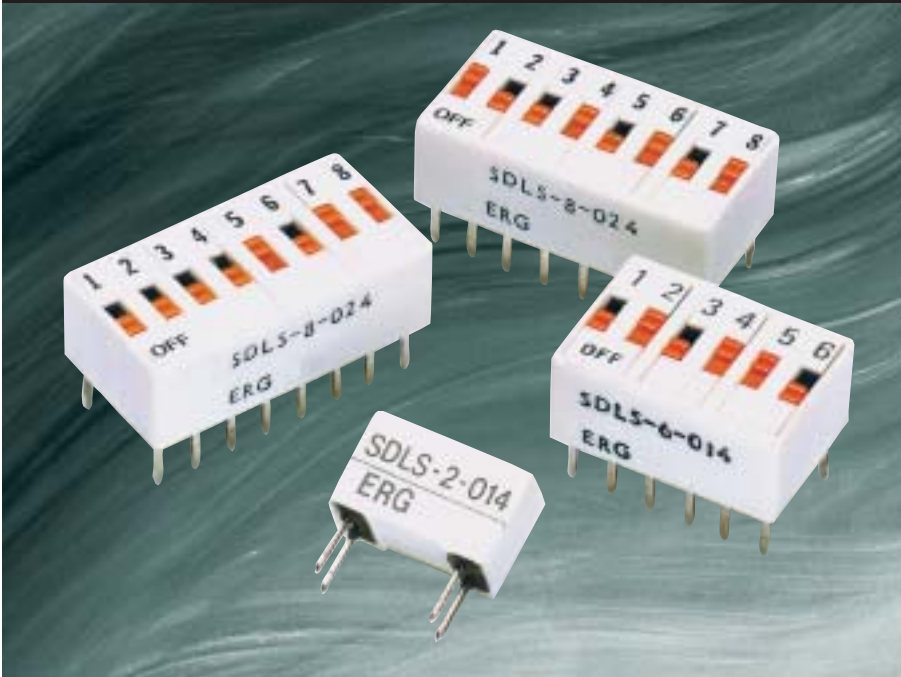
Code Table

● = real code ○ = compliment code






Pin No.	Position (BCD & HEX)															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C 1	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●
C 2	○	○	●	○	○	●	○	○	●	○	○	●	○	○	●	○
C 4	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○
C 8	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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SDLS - 014 style Low profile range



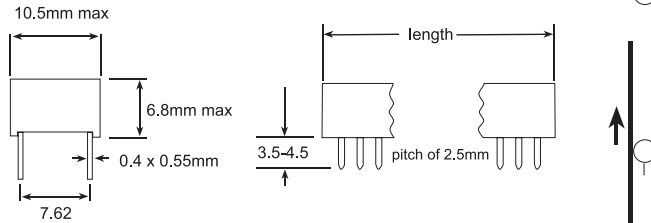
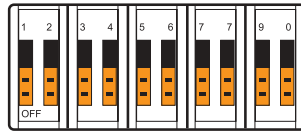
'End stackable' with flush actuators for those difficult applications where boards have to be stacked very closely together.

-  Flush actuators are easy to security tape over once set, to prevent subsequent tampering.
-  Maximum height just 6.8mm.
-  Base seal for flow soldering is standard (014). Tape seal for immersion wash is optional (024).
-  1µm hard gold plated wiping contact gives high reliability in low level circuits.
-  If you have a volume requirement for a product variant not shown on this sheet, please contact us.

Low profile ON/OFF s.p.s.t.

SDLS 014 series

Number of s.p.s.t	Part Nos SDLS-plus suffix	Length mm max
1	1-014	3.1
2	2-014	5.0
4	4-014	10.1
6	6-014	15.0



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 500Vdc 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: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1pF at 1KHz.

Temperature: Operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

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 PCB.

Please note: BS 2011 is now superseded by BS EN 60068.

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Luton Road, Dunstable, Bedfordshire LU5 4LJ England
Telephone: 01582 662241 Fax: 01582 600767

E-mail: info@erg.co.uk <http://www.erg.co.uk>



This series offers standard programme setting switches to suit applications where `end stacking` up to any number of switches without missing a pitch is required.

-  Large numerals and actuators plus EIA colour coded sliders with open access to them.
-  Base sealed for flow soldering.
-  1 µm hard gold plated wiping contact gives high reliability in low level circuits.
-  If you have a volume requirement for a product variant not shown on this sheet please contact us.

Principal Electrical and Performance Data

at 20°C 70% R.H.

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Dielectric Strength: 1 minute: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1 pf at 1 KHz.

Temperature: operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

Humidity: BS 2011 Test Ca: 56 days.

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

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

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

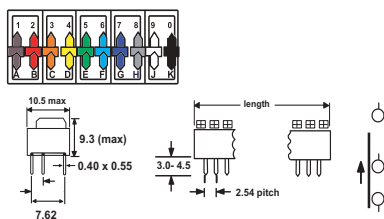
Soldering: solderability: < 2 seconds to wet at 235°C as per IEC 68 and BS 2011 Test T. solder bath method.

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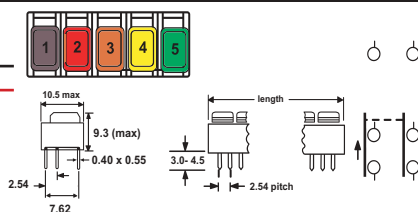
Spectra C CHANGEOVER s.p.d.t
SCS 014 series

Number of s.p.d.t	Part Nos SCS-plus suffix	Length mm max
1	1-014	3.1
2	2-014	5.0
6	4-014	15.0



Spectra C CHANGEOVER d.p.d.t
SCS G-014 series

Number of d.p.d.t	Part Nos SCS-plus suffix	Length mm max
1	1G2-014	5.0







Luton Road, Dunstable, Bedfordshire, LU5 4LJ, UK.
Tel: +44 (0)1582 662241 Fax: +44 (0)1582 600767

Email: enquires@erg.co.uk Web: http://www.erg.co.uk

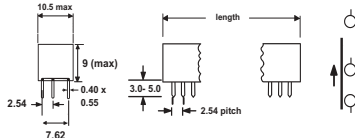
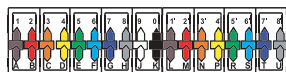


Using a third common contact pin halves the PCB area to maximise code setting on crowded PCB's. They are also used widely for two state, pull up / pull down resistor setting.

-  Large numerals and EIA colour coded sliders.
-  Base and tape seal for flow soldering and solvent / aqueous washing.
-  1µm hard gold plated wiping contact gives high reliability.
-  If you have a volume requirement for a product variant not shown, please contact us.

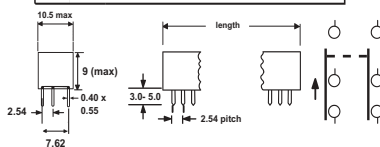
Spectra C CHANGEOVER TRIPLE IN LINE s.p.d.t
SCS 023 series

Number of s.p.d.t	Part Nos SCS-plus suffix	Length mm max
1	1-023	4.0
2	2-023	6.7
4	4-023	11.8
6	6-023	16.8
8	8-023	21.9
10	10-023	27.0



Spectra C GANGED CHANGEOVER TRIPLE IN LINE d.p.d.t
SCS G-023 series

Number of d.p.d.t	Part Nos SCS-plus suffix	Length mm max
1	1G2-023	4.0
2	2G2-023	6.7
3	3G2-023	11.8
4	4G2-023	16.8
5	5G2-023	21.9



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Principal Electrical and Performance Data

at 20°C 70% R.H.

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

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

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

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

Dielectric Strength: 1 minute: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1 pf at 1 KHz.

Temperature: operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

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 > 1 µs during test at 147 m/s² (15g) or 1.0mm displacement amplitude.

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

Please note: BS 2011 is now superseded by BS EN 60068.







ITW Erg Components

Luton Road, Dunstable, Bedfordshire, LU5 4LJ, UK.
Tel: +44 (0)1582 662241 Fax: +44 (0)1582 600767

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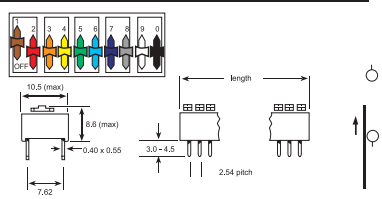


This series offers standard programme setting switches to suit applications where 'end stacking' up to any number of switches without missing a pitch is required.

-  Large numerals and actuators plus EIA colour coded sliders with open access to them.
-  Base sealed for flow soldering. If immersion washing, use 023 series.
-  1µm hard gold plated wiping contact gives high reliability in low level circuits.
-  If you have a volume requirement for a product variant not shown on this sheet please contact us.

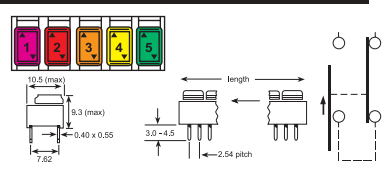
SpectraDIL ON/OFF s.p.s.t SDS 014 series

Number of s.p.s.t	Part Nos SDS-plus suffix	Length mm max
1	1-014	3.1
2	2-014	5.0
4	4-014	10.1
6	6-014	15.0
8	8-014	20.1
10	10-014	25.2



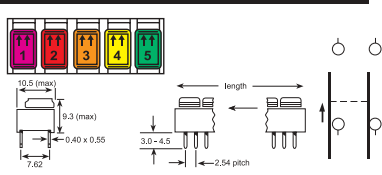
SpectraDIL CHANGEOVER s.p.d.t. SDC 014 series

Number of s.p.d.t	Part Nos SDC-plus suffix	Length mm max
1	1-014	5.0
2	2-014	10.1
3	3-014	15.0
4	4-014	20.1
5	5-014	25.2



SpectraDIL GANGED ON/OFF d.p.s.t SDD 014 series

Number of d.p.s.t	Part Nos SDD-plus suffix	Length mm max
1	1-014	5.0
2	2-014	10.1
3	3-014	15.0
4	4-014	20.1
5	5-014	25.2



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.

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Dielectric Strength: 1 minute: 500Vrms 50Hz.

Capacitance Between Open Contacts: < 1pf at 1KHz.

Temperature: Operating range for continuous electrical use and manual operation is restricted to -55°C to +100°C for standard products.

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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 147m/s² (15g) or 1.0mm displacement amplitude.

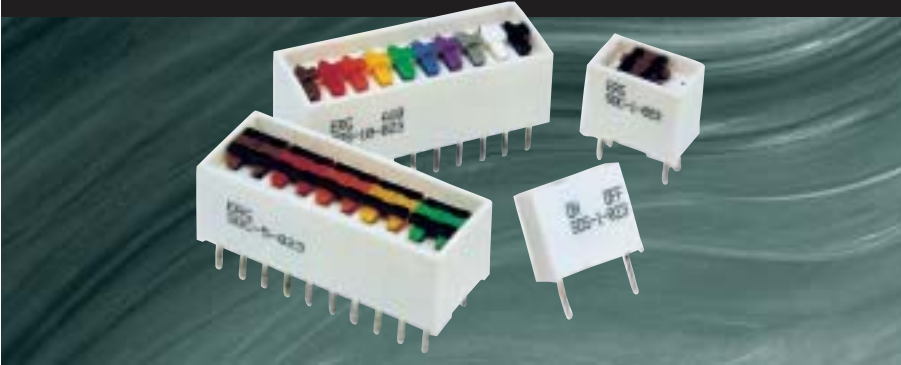
Shock: BS 2011 Test Ea: 980 m/s² (100g). No contact interruptions > 1µs during test.

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 PCB.

Please note: BS 2011 is now superseded by BS EN 60068.

SpectraDIL - 023 style SDS, SDC, SDD ranges



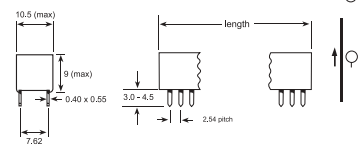
This is UK industry's standard range of dual in line programme switches which feature:

-  1 to 16 selectable s.p.s.t.
-  1 to 8 selectable d.p.s.t or s.p.d.t. (PCB 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.
-  1µm hard gold plated wiping contact gives high reliability in low level circuits.

SpectraDIL ON/OFF s.p.s.t

SDS 023 series

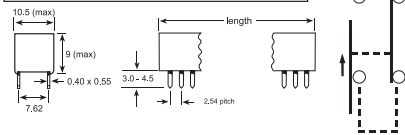
Number of s.p.s.t	Part Nos SDS-plus suffix	Length mm max
1	1-023	4.0
2	2-023	6.7
3	3-023	9.0
4	4-023	11.8
6	6-023	16.8
8	8-023	21.9
10	10-023	27.0
12	12-023	32.1
16	16-023	42.2



SpectraDIL CHANGEOVER s.p.d.t.

SDC 023 series

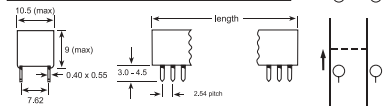
Number of s.p.d.t	Part Nos SDC-plus suffix	Length mm max
1	1-023	6.7
2	2-023	11.8
3	3-023	16.8
4	4-023	21.9
5	5-023	27.0
6	6-023	32.1
8	8-023	42.2



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

SDD 023 series

Number of d.p.s.t	Part Nos SDD-plus suffix	Length mm max
1	1-023	6.7
2	2-023	11.8
3	3-023	16.8
4	4-023	21.9
5	5-023	27.0
6	6-023	32.1
8	8-023	42.2



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