





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Please note: BS 2011 is now superseded by BS EN 60068.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

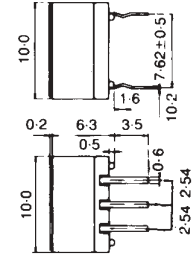
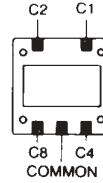
**10 position BCD**  
 ERG 10-112 Real code  
 ERG 10-122 Complement code



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

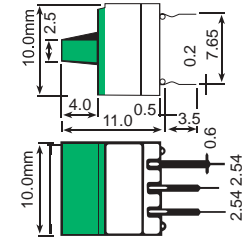
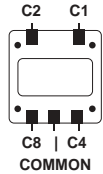
**10 position BCD**  
 ERG 10-412/2 (red knob) Real code  
 ERG 10-412/5 (green knob) Real code  
 ERG 10-412/6 (blue knob) Real code  
 ERG 10-422/2 (red knob) Complement code  
 ERG 10-422/5 (green knob) Complement code  
 ERG 10-422/6 (blue knob) Complement code



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

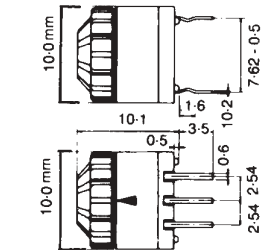
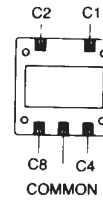
**10 position BCD**  
 ERG 10-312 Real code  
 ERG 10-322 Complement code



10 step  
TOP VIEW



16 step  
TOP VIEW

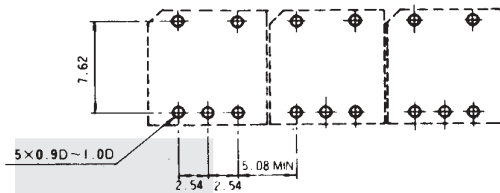


**16 position HEX**  
 ERG 16-312 Real code  
 ERG 16-322 Complement code

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 ○ = complement 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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

This leaflet is believed to contain the best information available at the time of printing, but is subject to change without notice. Performance figures, where quoted, are actually estimates based on our experience or that of our customers or statutory authorities. In common with all components reliability varies with many factors, and users are invited to contact us in appropriate cases so that where relevant information is available it may be considered by the user. All supplies are subject to the Company's standard conditions of sale which are available on request.



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