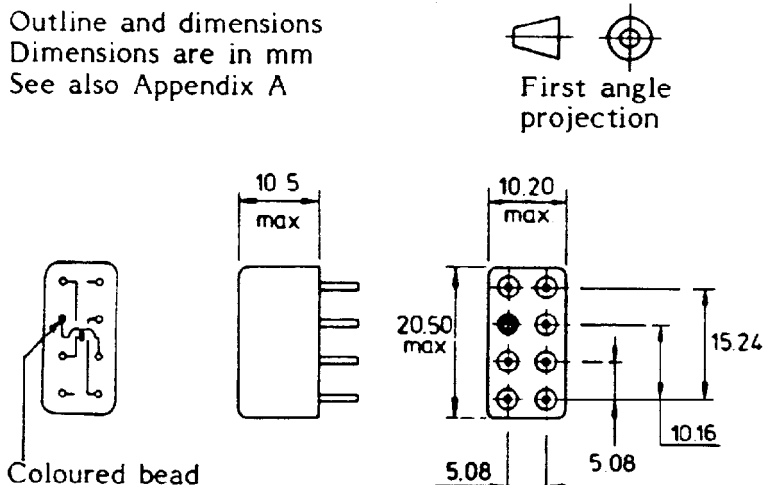


BRITISH STANDARDS INSTITUTION 2 Park Street London W1A 2BS	BS CECC 16101 - 021 Issue 1 April 1986 Page 1 of 17 pages 														
Specification available from: as shown in PD 9002, CECC 00 200, and Miltech Ltd, Unit 3, Ogmere Crescent, Bridgend Industrial Estate, Bridgend, Mid Glamorgan. Telephone 0656 68887	Manufacturers Type Number 2CN For ordering information see Page 4 Clause 4														
Electronic components of assessed quality. Detail specification in accordance with: BS CECC 16000 1980 BS CECC 16100	See PD 9002 and/or CECC 00200														
Outline and dimensions Dimensions are in mm See also Appendix A  First angle projection Coloured bead Marking information see Clause 3	Electromechanical all or nothing relays. Half crystal can relay hermetically sealed, 2 pole changeover contacts light duty with low level capability. Solderable straight or hooked terminations. Assessment level Test schedule 3														
<table> <tbody> <tr> <td>Max coil dissipation</td><td>0.8W 125°C</td></tr> <tr> <td>Contact rating</td><td>2 amp 28V dc 10⁵ ops</td></tr> <tr> <td>Nominal coil voltage</td><td>5V dc to 48V dc</td></tr> <tr> <td>Temperature range</td><td>-65°C to +125°C</td></tr> <tr> <td>Shock</td><td>490m/s² 11ms (1/2 sine wave)</td></tr> <tr> <td>Vibration</td><td>10 - 60Hz 1.5mm displacement 60 - 2000Hz 196m/s² acceleration</td></tr> <tr> <td>Dielectric strength</td><td>550V rms at 50Hz</td></tr> </tbody> </table>		Max coil dissipation	0.8W 125°C	Contact rating	2 amp 28V dc 10 ⁵ ops	Nominal coil voltage	5V dc to 48V dc	Temperature range	-65°C to +125°C	Shock	490m/s ² 11ms (1/2 sine wave)	Vibration	10 - 60Hz 1.5mm displacement 60 - 2000Hz 196m/s ² acceleration	Dielectric strength	550V rms at 50Hz
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Refer to qualified products list PD 9002 and/or CECC 00200 for manufacturers approved to this specification															

1.2 Contacts

Resistive load light duty contacts (contact category I, II & III) Code 01
light duty contacts with low level capability (contact category 0)
Code 02

Two changeover contact:	(break before make)
Maximum contact voltage:	32V dc
Minimum contact voltage:	For code 01 is 5V
Maximum current:	2A dc
Minimum contact current:	For code 01 is 10mA
Maximum rated load:	60W dc
Insulation resistance:	500M Ω minimum at 500V dc (standard conditions)
Dielectric strength:	550V rms open contacts
Contact circuit resistance:	01 contacts 50m Ω open circuit voltage (measured at 3mm from glass seal) 5V and current of 10mA maximum 02 contacts 50m Ω open circuit voltage 10mV and current of 10mA maximum
Contact circuit resistance:	200m Ω maximum after life
Contact bounce time:	3ms maximum
Operate time:	4ms maximum
Release time:	4ms maximum
Minimum operations at 28V dc 2A resistive:	10 ⁵
Maximum speed of operation:	3600 ops/h at maximum rated contact load 50% duty

1.3 Environmental limitations

Climatic category:	65/125/56
Maximum temperature range:	-65°C to 125°C
* Shock (functional):	490m/s ² 11ms (1/2 sine wave)
* Acceleration, steady state (functional):	490m/s ²
Proof voltage at 20 mbar air pressure	350V rms
* Vibration 10 - 60Hz	1.5mm displacement
60 - 2000Hz	196m/s ² acceleration
* Bump (functional):	390m/s ² 6ms 4000 bumps
* Performance for (01) style solidly clamped derating may occur with other styles	

1.4 Physical

Hermetically sealed
Weight 10g maximum

Variant Code and Characteristics

Table 1

Coil Variant Code	Rated Voltage DC	Coil Resistance Tol $\pm 10\%$ at 25°C	Saturate Voltage DC	Maximum Pull-in Voltage (operate)	Minimum Drop-out Voltage (release)
01	6.0	40	7.2	3.6	0.3
02	6.0	42	7.2	3.6	0.3
03	6.0	60	7.2	3.6	0.3
04	12.0	150	14.4	7.2	0.6
05	12.0	210	14.4	7.2	0.6
06	12.0	320	14.4	7.2	0.6
07	24.0	675	32.0	14.4	1.2
08	24.0	830	32.0	14.4	1.2
09	24.0	1250	32.0	14.4	1.2
10	48.0	2500	57.6	28.8	2.4
11	48.0	2800	57.6	28.8	2.4
12	48.0	3500	57.6	28.8	2.4
13	5.0	40	6.0	3.0	0.25
14	24.0	700	32.0	14.4	1.2
15	20.0	700	24.0	10.6	1.0

Insulation resistance of coil: 1000 M Ω at 500V dc

Dielectric strength 500V rms

3. Marking

Marking of relay

The minimum data to be:

Manufacturers name or trade mark

Relay type and variant code

Coded date of manufacture (two digits for the year two digits for the week)

Marking of package

Detail specification reference

Manufacturers name or trade mark

Relay type and variant code

Manufacturers batch identification code

Quantity

4. Ordering information

When ordering relays to this specification the following information shall be given:

The BS CECC and issue number of this detail specification
Code number in the order as follows:

Two digits for contact variant

Two digits for coil variant – see table 1

Two digits for mounting variant – see Appendix B

Two digits for termination variant – see Appendix A

5. Related documents

This specification to be read in conjunction with:

BS CECC-16000	Generic specification for electromechanical all or nothing relays
BS CECC-16100	Sectional specification for electromechanical all or nothing relays
BS CECC-16101	Blank detail specification for electromechanical all or nothing relays
BS CECC-00007	Sampling procedure and tables for inspection by attributes
BS CECC-00107	Quality assessment procedure
IEC-68	Basic environmental testing procedure
CECC-00200	Qualified product list

6. Qualification approval

- 6.1 In accordance with the following procedure taken from Clause 7.3 of CECC 00107/1 compliance with the requirements of the detail specification, on a specified number of inspection lots (minimum of 3) taken in a short as possible period of time, as well as the performance of the periodic tests on a sample taken from at least one of these lots.
- 6.2 On completion of the inspection prescribed for Qualification approval on a fixed sample (see table 3). In this case the sample shall be drawn from current production.

7. Quality Conformance Inspection

General information

Samples subject to destructive tests (D) shall not be released on delivery. With exception of subgroup AO, where a subgroup contains more than one test, the order of test is mandatory.

8. Intervals between tests

Subgroup C3, C4 and C5 tests shall be carried out annually.

9. Formation of inspection lots

See 3.4 of BS CECC 16100.

Inspection lots shall be formed by the aggregation of several lots which are produced over a period not exceeding one week.

10. Inspection requirements Table 2

Standard conditions of testing shall be in accordance with 5.5 of CECC 16000. Unless otherwise stated relays shall be mounted by their normal means (see Appendix A).

Performance characteristics, contact bounce and contact timing shall be measured with contacts loaded 5V dc maximum 10mA maximum.

Rated coil voltage as specified in table 1 shall be used for all tests unless otherwise stated.

Ambient temperature to be 15°C to 30°C unless otherwise stated.

Vibration, shock, bump test method:

Contact loading for these tests shall not exceed 5V open circuit 10mA maximum.

A discontinuity shall be regarded as a circuit resistance in excess of 500Ω occurring for a period greater than 10µs.

Note 1: Reference numbers and tests and performance requirements refer to BS CECC 16000 or to BS CECC 16101 if applicable.

Note 2: IL = Inspection level
AQL = Acceptable Quality level

Table 2

Test No	Examination or Test	Condition of Test See Note 1 Page 5	IL	AQL	Performance Requirements
GROUP A INSPECTION SUBGROUP A0					
1	Visual Inspection, Marking	5.6.4. (1), (2) Correctness of marking and terminal identification	100 %		Markings present and legible
2	Contact circuit resistance	5.12 Steady state measurement at all closed contacts Energisation at rated voltages. See table 1. Contact type 01 Contact voltage & current 5V 10mA max Contact type 02 Contact voltage & current 10mV 10mA max Pt of measurement 3mm from the glass seal	100 %		50mΩ maximum
3	DC coil resistance	5.8 Reference temp 25°C	100 %		Requirements as shown in table 1
4	Function tests	5.13 Preconditioning with saturate voltage. Energisation as Table 1 1. Preconditioning 2. Release value 3. Operate value	100 %		Presence of the functions
5	Dielectric test	5.9 Test voltage 500Vrms 1 sec energisation at rated voltage Between case frame & contacts Between case frame & coil Between contacts of a set Between contacts & coil Between contacts of separate contact circuits NB For test duration of 1 sec the test voltage shall be increased by 10%	100 %		No breakdown No flashover