High voltage reed relay - HVK1

- One Form A, one Form B.
- 8KVdc switching.
- 17KVdc coil to contact isolation.
- Printed circuit pins and polyamide bolt mounting.
- '250' series push on connector tabs or flying leads.
- Fully vacuum (5 torr) encapsulated.
- If you have a volume requirement for a product variant not shown on this sheet please contact us.

Coil Details at 25˚C, 75% RH	
Typical operate time	1.0 - 1.5mS (without coil lag)
Typical release time	0.5 - 1.0mS (without coil lag)
Typical bounce time	0.5 - 1.0mS

Contact Details	Main Contact
Initial contact resistance	100mΩ max 40mΩ typical
Maximum switching voltage	8KVdc
Maximum switching current	3A (resistive)
Maximum switching power	50W (dc or ac peak)
Electrical life	No deterioration in contact resistance <40mΩ after 10,000,000 cycles at: (a) 3A, 16.6Vdc or (b) 1mA, 8KVdc

Other electrical details at 20˚C 75% RH	
Insulation resistance across main contact:	10^3MΩ at 1KVdc
Withstand across main contact (Form A):	9KVdc 1 min
Withstand across main contact (Form B):	8KVdc 1min

Temperature range

Operating: 0˚C to +30˚C at nominal voltage. Between +30˚C and +50˚C the nominal voltage must be increased by 0.4% per ˚C above +30˚C.

Storage: -25˚C to +85˚C

Whilst incorporating an internal magnetic screen to maximise coil efficiency, the relays must be mounted clear from stray magnetic fields.

Specifications at 20˚C and 75% RH

	Nominal Volts	Resistance Ohms	Must Operate	Must Release	Order Codes Push on tabs	Order Codes Flying leads
Form A	5Vdc	50	4.0Vdc	0.25Vdc	ED14134	ED14234
Contact	12Vdc	200	9.6Vdc	0.60Vdc	ED14133	ED14233
	24Vdc	820	19.2Vdc	1.20Vdc	ED14132	ED14232
Form B*	5Vdc	55	4.0Vdc	0.50Vdc	ED14147	ED14247
Contact	12Vdc	320	9.6Vdc	1.20Vdc	ED14146	ED14246
	24Vdc	1000	19.2Vdc	2.40Vdc	ED14145	ED14245

*Form B relay coils require a step function operate voltage waveform.

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ITW Erg Components

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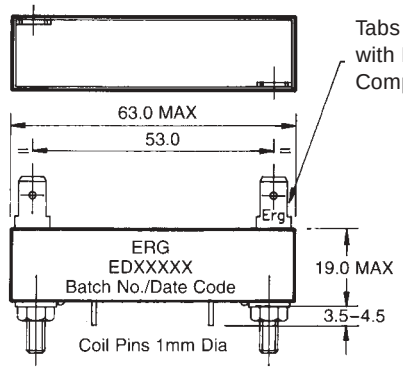
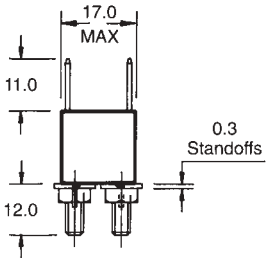
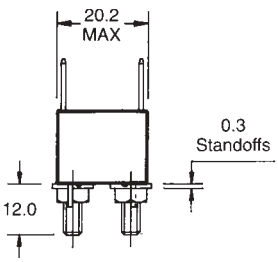
Tab Connection - Mechanical Details



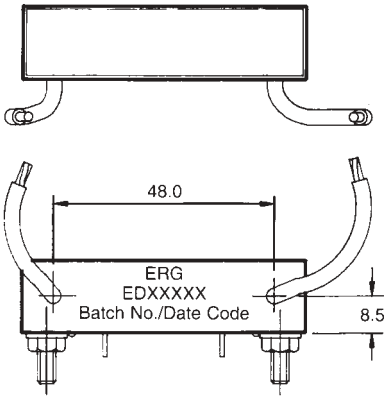
Tabs in accordance with BS5057 1988
Component size 6.3

All dimensions in millimetres.
Tolerances: Two decimal places ±0.1mm
One decimal place ±0.4mm

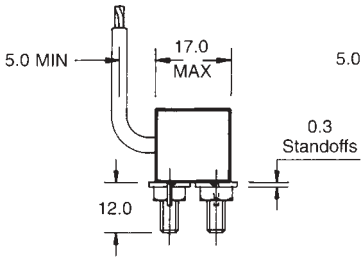


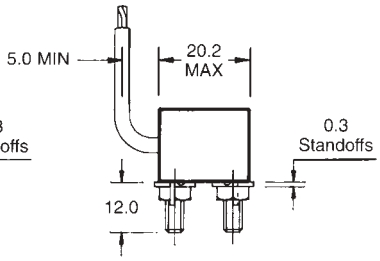


Flying Lead Connection - Mechanical Details

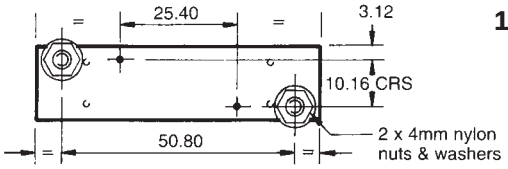


Silicone rubber insulated lead. Red. Length 150mm min.
Overall diameter - 2.6mm nominal, conductor 16/0.02mm.
Voltage category A(BS6195)
Current rating: 3A
Continuous operating temperature -60˚C to +150˚C
(Other lead wires, lengths, terminals and finishes can be supplied)

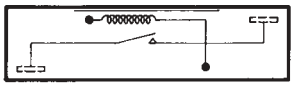




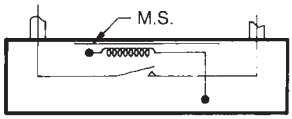
Schematic Layout	Contact Form	Tab Connection	Flying Lead Connection



1A

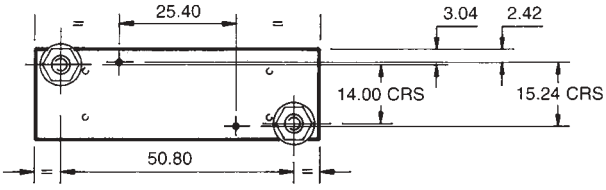


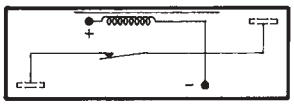
1 form A contact with tabs



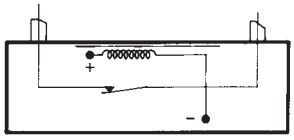
1 form A contact with flying leads

1B





1 form B contact with tabs



1 form B contact with flying leads

Schematic arrangements (viewed from underside)

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