

OPERATION BY MAGNET

For a new magnet, the spread of operating distances quoted corresponds to the spread of sensitivity of each reed type. It is based on configuration (1) below. In practice, reduce the minimum distance and increase the maximum distance by about 25% to ensure reliable make and break with all reeds at all times.

OPERATION BY COIL

Divide the maximum Operate Amp-Turns figure by the Amp-Turns per Volt figure for the coil used. This gives the minimum drive in volts which will operate all reeds of the chosen type. In practice this voltage should be increased by about 10%. Do not exceed twice the minimum drive—this avoids excessive contact bounce and wear.

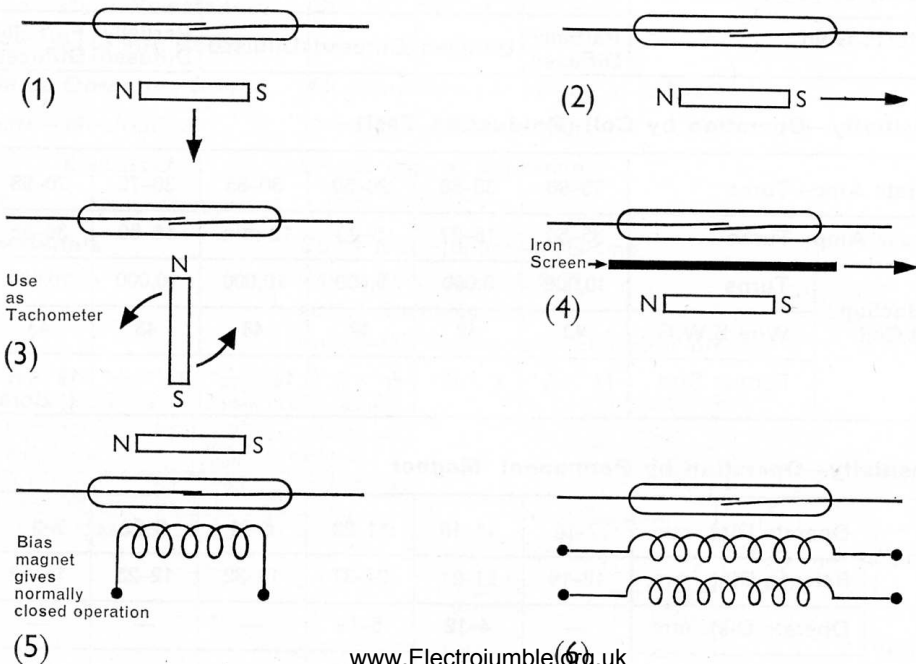
Our coils have two independent windings (6) below) for series or parallel operation, thus providing for a wide range of operating conditions. They may also be used independently in logic circuits, null-indicators, etc.

GENERAL OPERATING NOTES

Do not shorten the termination tags on reed switches. Do not bend tags near glass seal.

Do not drop magnets or hold them with like-poles together. This will result in de-magnetisation.

Iron or steel mounting brackets, connecting clips, etc. may upset the magnetic characteristics of a reed switch.



Reed Switches

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Reed Switch Type		2-RSR	4-RSR	6-RSR	7-RSR	10-RSR	13-RSR
Breakdown Volt. Min. V d.c.		900	500	400	750	600	300
Breakdown Volt. Min. V a.c.		625	350	275	525	425	200
Current Max. mA d.c.		250	150	100	250	250	200
Current Max. A a.c.		1.0	0.5	0.25	1.0	1.0	0.20
Load Watts Max. W		15	5	3	15	15	10
Contact Resist. Max. mΩ		50	300	200	70	50	80
Resonant Freq. Min.		900 Hz	1.2 k Hz	2 k Hz	900 Hz	750 Hz	900 Hz
Insulation Resistance	Min. Ω	5×10^{11}	5×10^{11}	10^{10}	5×10^{11}	1.5×10^8	10^8
	at V d.c.	500	500	300	500	500	—
Operate Time Max. (Incl. Bounce) ms.		2	1	1	2	1.8	4.5
Release Time Max. ms.		0.5	0.5	0.5	0.5	0.3	1.5
Capacity Open Contacts pF		0.85	0.25	0.15	0.40	0.50	—
Contacts-Gold		Partially Diffused	Diffused	Diffused	Diffused	Partially Diffused	Partially Diffused

Sensitivity—Operation by Coil (Production Test)

Operate Amp—Turns		75–90	30–58	20–50	30–85	30–70	70–95
Release Amp—Turns		35–50	15–27	5–20	12 min.	16–50	30–55
Production Test Coil	Turns	10,000	5,000	5,000	10,000	10,000	10,000
	Wire S.W.G.	43	42	42	43	43	43
	Former Size	$1\frac{7}{8}'' \times \frac{7}{16}''$	$1'' \times \frac{11}{32}''$	$\frac{7}{16}'' \times \frac{5}{16}''^*$	$1\frac{7}{8}'' \times \frac{7}{16}''$	$1\frac{7}{8}'' \times \frac{7}{16}''$	$1\frac{7}{8}'' \times \frac{7}{16}''$ $\frac{1}{4}''$ Bore

Sensitivity—Operation by Permanent Magnet

"Long"	Operate Dist. mm.	7–10	11–18	11–23	6–21	8–22	7–9
	Release Dist. mm.	12–16	21–27	24–37	16–32	12–23	11–12
"Short"	Operate Dist. mm.	—	4–12	5–13	—	—	—
	Release Dist. mm.	—	9–18	11–20	—	—	—