

MERCURY-WETTED CONTACT RELAYS

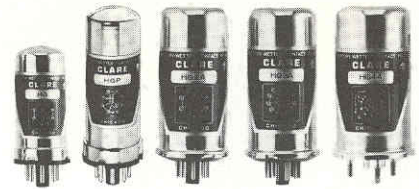
HG, HGP, HG2A, HG3A, HG4A PLUG-IN RELAYS

HG

Clare HG, HG2A, HG3A and HG4A heavy duty mercury-wetted contact relays offer 1, 2, 3 or 4 Form D packages in standard industrial plug-in styles. The entire series feature bounce free heavy duty 250VA, 500V or 5A per pole maximum ratings for rugged loads with operating rates up to 80 Hz. The HG relay series is not polarity sensitive. Plated steel covers provide excellent mechanical protection and electrical shielding.

HGP

HGP is similar to the HG Series except for the addition of bias magnets. They permit bistable, chopper and very sensitive single-side-stable performance.



HG HGP HG2A HG3A HG4A

SPECIFICATIONS

(at 25° C, 40% relative humidity)

CONTACT RATING: (With proper contact protection; see page 12.)

Power—250 VA, max.

Voltage—500 Vdc or peak ac, max.

Current—5A switched, max. (10A carry only, max.)

CONTACT CIRCUIT RESISTANCE: 50 milliohms, max. stable within ± 2 milliohms over life

LIFE EXPECTANCY: 20×10^9 operations (with proper contact protection)

TIMING: Depending on relay configuration and coil drive

Operate—2 to 10ms

Release—2 to 8ms

BREAKDOWN VOLTAGE: 1,000Vac, rms, min. 60Hz between all mutually insulated terminals.

INSULATION RESISTANCE: 5 megohms, min.

ENVIRONMENTAL:

Vibration (non-operating)—10-500Hz, 0.06" d.a. or 10g's peak acceleration, whichever is less.

Shock (non-operating)—30g's, 11 ± 1 ms $1/2$ sinewave

Ambient Temperature (operating)— -38.8° to $+85^\circ$ C

MOUNTING: Upright within 30° of vertical

Form D Part No.	Nom. Coil (Vdc)	Coil Resist. $\pm 10\%$	Must Operate (Vdc)	Must Release (Vdc)	Coil Max. (Vdc)	Base Figure
HG						
HG 1019	5	40	2.9	1.1	11	4
HG 1012	10	130	5.4	2.0	20	4
HG 1026	18	500	11	3.9	39	1
HG 1004	24	700	15	5.2	45	1
HG 1051	24	700	15	5.2	45	4
HG 1043	28	1000	17	5.9	55	1
HG 1001	48	2500	28	9.9	87	1
HG 1002	56	4000	33	11.9	110	1
HG 1017	56	4000	33	11.9	110	4
HG 1009	80	7000	45	16.3	145	1
HG 1011	100	11,000	61	22	180	1
HG 1024	160	25,000	94	34	275	1
HG 1003†	42/75	700/3300	25/47	8.6/10.5	46/99	2
HG2A 1008	9	50	6	2.1	14	2A2
HG2A 1042	15	140	10	3.5	24	2A1
HG2A 1003	22	315	15	5.2	36	2A2
HG2A 1017	26	500	19	6.5	45	2A2
HG2A 1009	32	700	24	8.0	53	2A1
HG2A 1002	32	700	24	8.0	53	2A2
HG2A 1015	42	1250	30	10.4	71	2A2
HG2A 1068	64	2500	46	15.7	100	2A1
HG2A 1001	84	5000	62	21.3	142	2A1
HG2A 1004	84	5000	62	21.3	142	2A2
HG2A 1013	120	10,000	94	34.1	200	2A2
HG3A 1004	22	315	15	5.2	36	3A1
HG3A 1006	26	500	19	6.5	45	3A1
HG3A 1002	32	700	24	8.0	53	3A1
HG3A 1008	42	1250	30	10.4	71	3A1
HG3A 1005	64	2500	46	15.7	100	3A1
HG3A 1003	84	5000	62	21.3	142	3A1
HG3A 1010	120	10,000	94	34.1	200	3A1
HG4A 1013	10	65	7.2	2.5	16	4A1
HG4A 1011	24	390	18	6.4	40	4A1
HG4A 1001	36	700	27	9.6	53	4A1
HG4A 1007	48	1400	35	12.5	75	4A1
HG4A 1003	95	4000	69	24.3	126	4A1
HG4A 1006	120	10,000	94	33.5	200	4A1

HGP

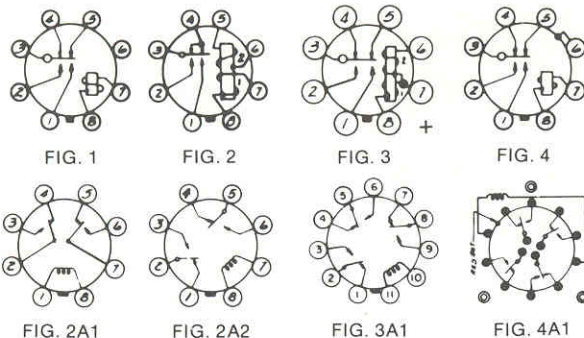
HGP 1001*	3	90	1.6	0.10	16	1
HGP 1005*	12	1000	6.2	0.36	55	1
HGP 1002*	28	4000	13	0.86	110	1
HGP 1008*	42	4000	21	6.1	110	1
HGP 1055*	36	10,000	17	1.2	145	1
HGP 1052*	48	11,000	23	2.1	180	1
HGP 1050*	75	25,000	36	3.4	275	1
HGP 1006*†	24/48	700/3300	11/21	1.8/2.7	46/99	3
HGP 1047*	4	600	± 2.2	—	43	1
HGP 1003*	12	4000	± 6.6	—	110	1
HGP 1012*	8/16	700/3300	$\pm 4.6/8.7$	$-4.6/8.7$	46/99	3
HGP 1031*	28/28	7500/7500	$\pm 14/14$	$-14/14$	150/150	3
HGP 1028§	—	500	6.3 Vac*	—	—	4
HGP 1009§	—	4000	18.5 Vac*	—	—	4

†Double Wound. *Single-Side-Stable. †Bistable. §Chopper. †*Double Wound Bistable.

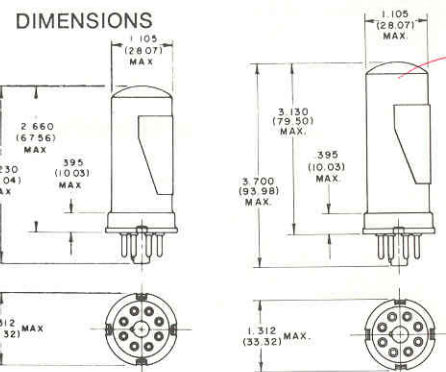
††Single-Side-Stable Double Wound.

★ ± 0.5 volts.

SCHEMATICS

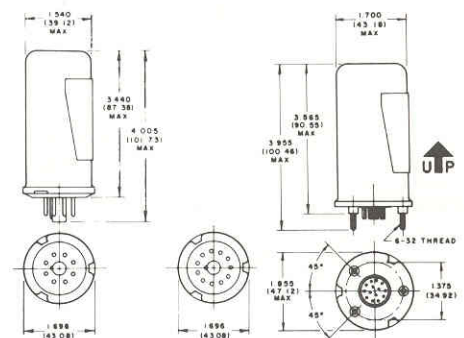


Coil polarity applies to HGP only



HG

HGP



HG2A, HG3A

HG4A