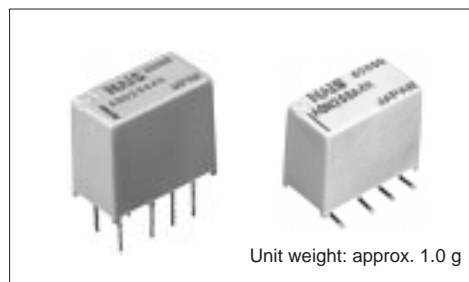


- PCB board type and surface mount type
- Coil assembly molding technology
- Micro-balanced armature mechanism
- Twin crossbar contacts

### Tentative data sheet

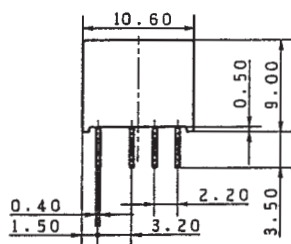


Code No.				Nominal voltage (DC, V)	Nominal operating current (DC, mA)		Coil resistance (Ω) (± 10% at 20°C)		Nominal operating power (mW) (± 10% at 20°C)	
PCB type		Surface mount type			monostable	bistable	monostable	bistable	monostable	bistable
monostable	bistable	monostable	bistable							
AGN2001H	AGN2101H	AGN200A1H	AGN210A1H	1.5	93.3	66.7	16	22.5	140	100
AGN20003	AGN21003	AGN200A03	AGN210A03	3	46.7	33.3	64.3	90	140	100
AGN2004H	AGN2104H	AGN200A4H	AGN210A4H	4.5	31	22.2	145	202.5	140	100
AGN20006	AGN21006	AGN200A06	AGN210A06	6	23.3	16.7	257	360	140	100
AGN20009	AGN21009	AGN200A09	AGN210A09	9	15.5	11.1	579	810	140	100
AGN20012	AGN21012	AGN200A12	AGN210A12	12	11.7	8.3	1028	1440	140	100
AGN20024	AGN21024	AGN200A24	AGN210A24	24	9.6	5.0	2504	4800	230	120

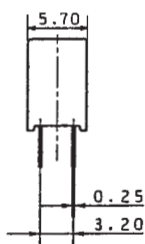
## SPECIFICATIONS (CONTACT AND CHARACTERISTICS)

Coil data	Pick-up voltage (initial)	less than 75% of nominal voltage (at 20%) (square, pulse drive)
	Drop-out voltage (initial)	more than 10% of nominal voltage (at 20%) (square, pulse drive)
	Max. allowable voltage	150% of nominal voltage (at 20%), (120% for 24V monostable type)
Contact data	Arrangement	2c
	Contact material	Au-clad, AgPd (stationary contact) AgPd (movable contact)
	Contact resistance (initial)	Max. 100 mΩ (by voltage drop 6V DC 1A)
	Max. switching power (resistive)	30W
	Max. switching voltage	110V DC/ 125 V AC
	Max. switching current	1A DC
	Min. switching load	10μA, 10 m V DC
Expected life	Electric life (resistive)	1 x 10 <sup>5</sup> ope. at 1A 30V DC (at 20 cpm)
	Mechanical life	5 x 10 <sup>7</sup> ope. (at 180 cpm)
Breakdown voltage (initial, Detection current: 10mA)	Between open contacts	AC 750 Vrms for 1 min.
	Between contact sets	AC 1,000 Vrms for 1 min.
	Between contacts and coil	AC 1,500 Vrms for 1 min.
Surge withstand voltage (initial)	Between contacts and coil	1500 V (10 x 160 μs) [FCC P68], 2,500V (2 x 10μs) [Bellcore]
Insulation resistance (initial)		Min. 1000 MΩ at 500 V DC
Coil temperature rise value		Max. 50 K (resistance method) (Contact carry current: 1A, Coil: nominal voltage)
Vibration resistance	Functional	10 to 55 Hz at double amplitude of 3 mm
	Destructive	10 to 55 Hz at double amplitude of 5 mm
Shock resistance	Functional	Min. 750 m/s <sup>2</sup>
	Destructive	Min. 1,000 m/s <sup>2</sup>
Operate time		Max. 4 ms (at nominal voltage, without bounce)
Release time		Max. 4 ms (at nominal voltage, without bounce) (without diode) (If a diode is connected across the coil, the release time will be longer.)

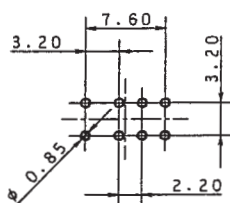
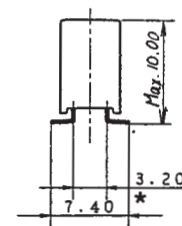
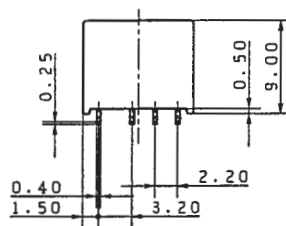
## DIMENSIONS



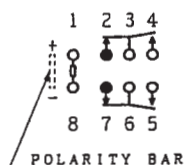
D I M E N S I O N (T O L E R A N C E :  $\pm 0.3$ )  
(through hole type)



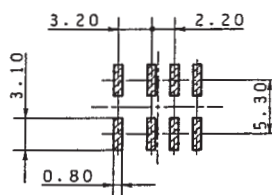
D I M E N S I O N (T O L E R A N C E :  $\pm 0.3$ )  
(surface mounted type)\*



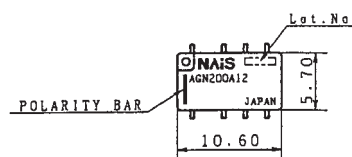
P/C BOARD PATTERN  
(T O L E R A N C E :  $\pm 0.1$ )



S C H E M A T I C  
(B O T T O M V I E W)  
Deenergized position

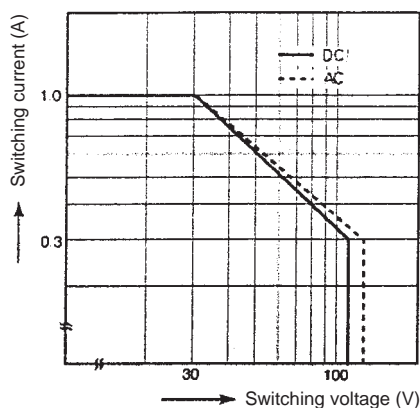


S U G G E S T E D M O U N T I N G P A D S  
(T O P V I E W)  
(T O L E R A N C E :  $\pm 0.1$ )

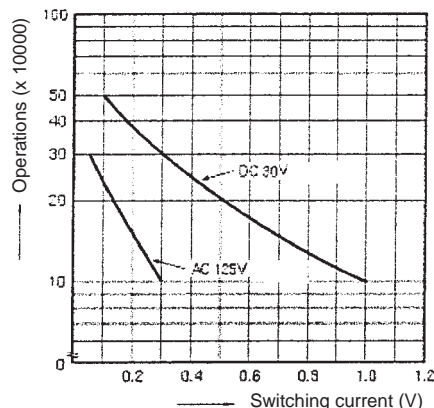


\* special version (-SS) with reduced pin length (5.70 mm top – top) on request

Load limit curve (resistive load)



Electrical life (resistive load)



Please contact our European Sales Companies in:

- Austria Matsushita Automation Controls Austria Ges.m.b.H., Stojanstraße 12, A-2344 Maria Enzersdorf, Tel. (0 22 36) 2 68 46, Fax (0 22 36) 4 61 33
- Benelux Matsushita Automation Controls Benelux B.V., Nijverheidsweg 29, (Postbus 211), 5683 CJ Best, (5680 AE Best), Netherlands, Tel. (0 4 99) 37 27 27, Fax (0 4 99) 37 21 85
- France Matsushita Automation Controls France SARL, B.P. 44, F-91371 Verrières le Buisson CEDEX, Tél. 01 60 13 57 57, Fax 01 69 20 38 97
- Germany Matsushita Automation Controls Deutschland GmbH, Rudolf-Diesel-Ring 2, D-83 607 Holzkirchen, Tel. (0 80 24) 6 48-0, Fax (0 80 24) 6 48-5 55, Postfach 1330, D-83 603 Holzkirchen
- Ireland Matsushita Automation Controls Ltd., Irish Branch Office, Waverley, Old Naas Road, Bluebell, Dublin 12, Republic of Ireland, Tel: (01) 4600969, Fax: (01) 4601131
- Italy Matsushita Automation Controls Italia s.r.l., Via del Commercio 3-5 (Z.I. Ferlina), I-37012 Bussolengo (VR), Tel. (045) 6 70 04 40, Fax (045) 6 70 04 44
- Spain Matsushita Automation Controls España S.A., Rufino Gonzalez 40, E-28037 Madrid, Tel. (91) 327 1638, Fax (91) 327 2964
- Switzerland Matsushita Automation Controls (Schweiz) AG, Grundstrasse 8, CH-6343 Rotkreuz, Tel. (041) 799 70 50, Fax (041) 799 70 55
- United Kingdom Matsushita Automation Controls Ltd., Sunrise Parkway, Linford Wood East, Milton Keynes, MK14 6LF, England, Tel. (01908) 231555, Fax (019 08) 231599

**NAIS** is the new global brand for automation products.

Printed in Germany

Copyright © 1998  
1087 eu en 3/98