



**COIL DATA**

Latching (1 coil) standard(100mW) 20 °C

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC(Max.)	Coil resistance $\Omega(\pm 10\%)$	allowable Voltage VDC (Max.)
003-M-L1	3	2.25	90	8.4
005-M-L1	5	3.75	250	14
006-M-L1	6	4.5	360	17
009-M-L1	9	6.75	810	25
012-M-L1	12	9.0	1440	34
015-M-L1	15	11.25	2220	42
024-M-L1	24	18.0	4000	56

Latching (1 coil) sensitive(75mW) 20 °C

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC(Max.)	Coil resistance $\Omega(\pm 10\%)$	allowable Voltage VDC (Max.)
005-S-L1	5	4.0	330	16
006-S-L1	6	4.8	480	19
009-S-L1	9	7.2	1080	29
012-S-L1	12	9.6	1920	39
015-S-L1	15	12.0	3000	43
024-S-L1	24	19.2	7680	78

Latching (2 coil) standard(200mW) 20 °C

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC(Max.)	Coil resistance $\Omega(\pm 10\%)$	allowable Voltage VDC (Max.)
003-M-L2	3	2.25	45	6
005-M-L2	5	3.75	125	10
006-M-L2	6	4.5	180	12
009-M-L2	9	6.75	405	18
012-M-L2	12	9.0	720	24
015-M-L2	15	11.25	1125	30
024-M-L2	24	18.0	2040	48

Latching (2 coil) sensitive(150mW) 20 °C

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC(Max.)	Coil resistance $\Omega(\pm 10\%)$	allowable Voltage VDC (Max.)
005-S-L2	5	4.0	167	11.5
006-S-L2	6	4.8	240	13.8
009-S-L2	9	7.2	540	20.8
012-S-L2	12	9.6	960	27.7
015-S-L2	15	12.0	1500	34.6
024-S-L2	24	19.2	3840	55.4

Notes:When user's requirements can't be found in the above table,special order allowed.

**SAFETY APPROVAL RATINGS**

UL	0.5A 60VDC
	2A 25VDC/1A 100VAC, (industrial control, business equipment)
	1A 120VAC, (Telephone equipment)

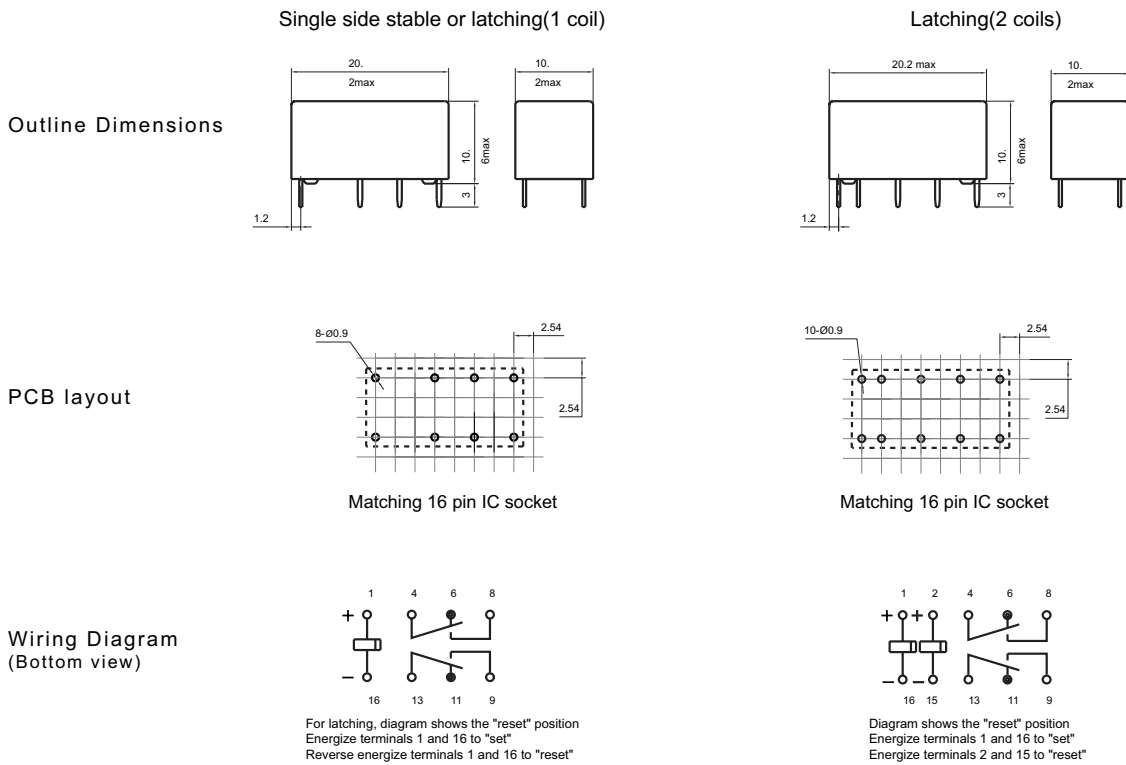
**TYPICAL CONTACT LIFE EXPECTANCY**

Voltage	Power	Number of operations	
		Resistive Load	Inductive Load( $\cos\phi=0.7$ )
50mV	50uW	$5 \times 10^7$	$5 \times 10^7$
30VDC	20W	$3 \times 10^6$	$1 \times 10^6$
30VDC	30W	$1 \times 10^6$	$3 \times 10^5$
30VDC	60W	$1 \times 10^5$	$1.5 \times 10^4$
60VDC	20W	$3 \times 10^6$	--
60VDC	30W	$5 \times 10^5$	--
60VDC	60W	$1 \times 10^5$	--
30VAC	40VA	$3 \times 10^6$	$1 \times 10^6$
30VAC	80VA	$1 \times 10^6$	$3 \times 10^5$
30VAC	120VA	$1 \times 10^5$	$1.5 \times 10^4$
60VAC	40VA	$3 \times 10^6$	$1 \times 10^6$
60VAC	80VA	$1 \times 10^6$	$3 \times 10^5$
60VAC	120VA	$1 \times 10^5$	$1.5 \times 10^4$
125VAC	40VA	$3 \times 10^6$	$1 \times 10^6$
125VAC	80VA	$1 \times 10^6$	$3 \times 10^5$
125VAC	125VA	$1 \times 10^5$	$1.5 \times 10^4$

## ORDERING INFORMATION

Type	HFD2 / 012	S	L2	D
Coil voltage	3, 5, 6, 9, 12, 15, 24, 48VDC(Standard Single only)			
Coil Power	S: sensitive M: standard			
Sort	Nil: Single side stable L1: Latching 1 coil L2: Latching 2 coils			
Contact Material	Nil: AgPd60 / Ag-AuAg8 D: Ag-AuAg8 / Ag-AuAg8			

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT



## CHARACTERISTICS CURVE

