

Double Pole, Electrically Held, 1 Amp and Less (Continued)

**Microwave Switching,
Hermetically Sealed, DPDT
MW4 & MW4HP Models
4 GHz. Switching**

Electrical Characteristics

Contact Arrangement —
2 Form C (DPDT)

Contact Resistance —
Before life — 100 milliohms, max.
(measured @ 10 mA @ 6 VDC)
After life — 200 milliohms, max.
(measured @ 1 A @ 28 VDC)

Mechanical Life Expectancy —
10 million operations

Coil Voltages —
5, 12, 18 & 26.5 VDC (MW4)
5, 6, 9, 12, 18 & 26.5 VDC (MW4HP)

Coil Power (mW max. @ 25°C) —
MW4 MW4S MW4HP MW4HPS
675 565 673 563

Duty Cycle — Continuous

Pick-up Voltage —
MW4 — Approx 70% of nominal.
MW4HP — Approx 50% of nominal.

Pick-up Sensitivity (mW max. @
25°C) —
MW4 MW4S MW4HP MW4HPS
180 90 123 68

Operating Characteristics

Operate Time (ms max.) —
MW4 MW4S MW4HP MW4HPS
4.0 6.0 2.0 4.0

Release Time (ms max.)
MW4 MW4S MW4HP MW4HPS
3.0 3.0 1.5 2.0

Bounce Time (ms max.)
MW4 MW4S MW4HP MW4HPS
— — 1.5 1.5

Dielectric Withstanding Voltage —
Between Open Contacts,
Between Adjacent Contacts and Between
Contacts and Coil —
MW4 types — 350 Vrms, 60 Hz.
MW4HP types — 500 Vrms, 60 Hz.

Insulation Resistance —
1,000 megohms @ 500 VDC

Environmental Characteristics

Temperature Range —
MW4 types — -55°C to +85°C.
MW4HP types — -65°C to +125°C.

Weight —
MW4, MW4HP: 0.09 oz. (2.55 g)
MW4S, MW4HPS: 0.12 oz. (3.40 g).

Vibration Resistance —
MW4 types — 10 G's, 10-500 Hz.
MW4HP types — 30 G's, 10-3,000 Hz

Shock Resistance —
MW4 types — 30 G's, 6 ± 1 ms.
MW4HP types — 100 G's, 6 ± 1 ms.

Contact Ratings

Contact Load	Type	Operations Min.
1.0A @ 28VDC	Resistive	100,000
200mA @ 28VDC (300mH)*	Inductive	100,000
30µA @ 50mVDC	Low Level	10,000,000

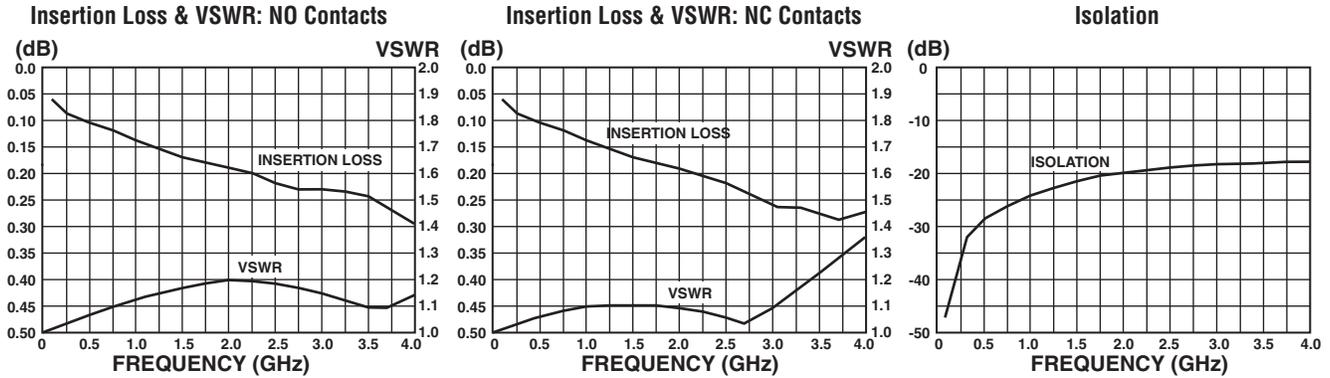
* The inductive rating is only applicable to high performance models (MW4HP and MW4HPS).

Coil Data

MW4 Models							
Nominal Coil Voltage (VDC)	Coil Resistance in Ohms ±20% @ 25°C	Pickup Voltage VDC (Max.) @ 25°C	Nominal Coil Power (mW) @ 25°C	Maximum Coil Voltage	Coil Desig.		
Standard Coil							
5.0	50	3.6	500	5.8	5		
12.0	390	8.4	369	16.0	12		
18.0	880	13.0	368	24.0	18		
26.5	1,560	17.0	450	32.0	26		
Sensitive Coil							
5.0	100	3.5	250	7.5	5		
12.0	850	9.0	169	20.0	12		
18.0	1,600	13.5	203	30.0	18		
26.5	3,300	18.0	213	40.0	26		
MW4HP (High Performance) Models							
Nominal Coil Voltage (VDC)	Coil Res. in Ohms ±10% @ 25°C	Pickup V VDC (Max.) @ 25°C	Release V VDC (Max.) @ 25°C	Release V VDC (Min.) @ 25°C	Nominal Coil Power (mW) @ 25°C	Maximum Coil Voltage	Coil Desig.
Standard Coil							
5.0	50	2.7	1.4	0.22	500	5.8	5
6.0	98	3.5	2.0	0.28	367	8.0	6
9.0	220	5.3	3.0	0.54	368	12.0	9
12.0	390	7.0	4.0	0.63	369	16.0	12
18.0	880	10.5	6.0	0.91	368	24.0	18
26.5	1,560	14.2	8.0	1.37	450	32.0	26
Sensitive Coil							
5.0	100	2.6	1.4	0.23	250	7.5	5
6.0	200	3.4	2.0	0.28	180	10.0	6
9.0	400	4.85	3.0	0.55	203	15.0	9
12.0	850	7.0	4.0	0.64	169	20.0	12
18.0	1,600	9.8	6.0	0.92	203	30.0	18
26.5	3,300	14.0	8.0	1.4	213	40.0	26

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Microwave Switching, Hermetically Sealed, DPDT
MW4 & MW4HP Models 4 GHz. Switching (Continued)



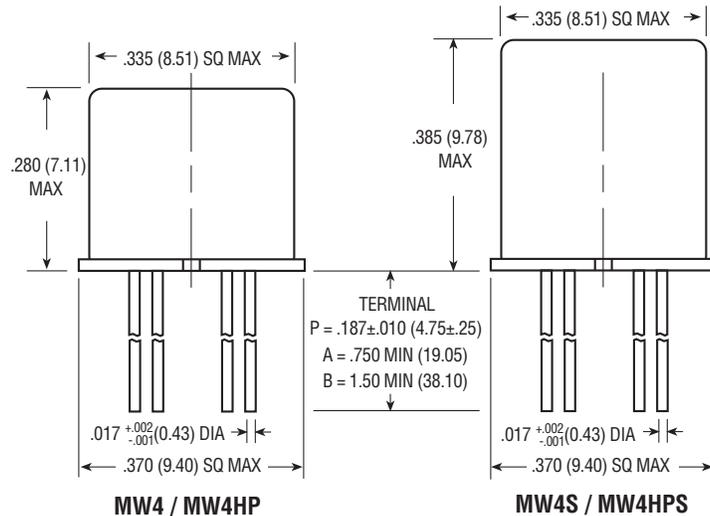
Test Conditions

Test Board — 0.031" double sided copper clad, PTFE based laminate.
Connections — Relay header is soldered to ground plane. Relay terminals are soldered to through holes. SMA connectors are soldered to circuit traces.

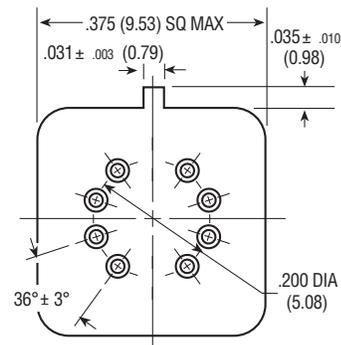
Temperature — Room ambient.
Signal Strength — 0 dBm.

Notes:
 1. Unused terminals were terminated with 50 ohm impedance load.
 2. All readings are typical.

Enclosures

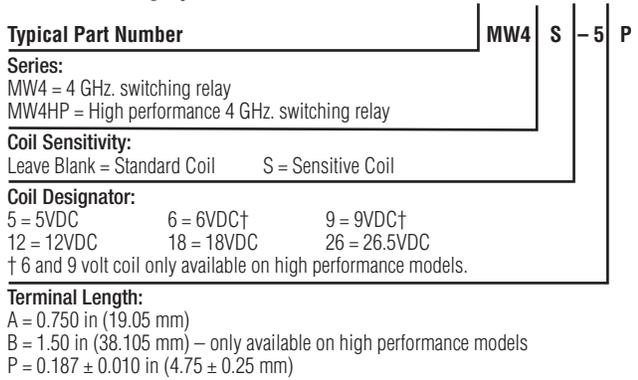


Header

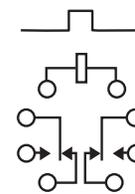


Header and Terminal Finish:
Gold plated

Part Numbering System



Wiring Diagram



Terminal View