

Module Specifications

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HP 34901A, 34902A, 34908A, 34903A, 34904A

General	Multiplexer			Actuator	Matrix
	34901A	34902A	34908A	34903A	34904A
Number of Channels	20+2	16	40	20	4x8
	2/4 wire	2/4 wire	1 wire	SPDT	2 wire
Connects to Internal DMM	Yes	Yes	Yes	No	No
Scanning Speed	60 ch/s	250 ch/s	60 ch/s		
Open/Close Speed	120/s	120/s	70/s	120/s	120/s
Maximum Input					
Voltage (dc, ac rms)	300 V	300 V	300 V	300 V	300 V
Current (dc, ac rms)	1 A	50 mA	1 A	1 A	1 A
Power (W, VA)	50 W	2 W	50 W	50 W	50 W
Isolation (ch-ch, ch-earth) dc, ac rms	300 V	300 V	300 V	300 V	300 V
DC Characteristics					
Offset Voltage ^[1]	< 3 μ V	< 6 μ V	< 3 μ V	< 3 μ V	< 3 μ V
Initial Closed Channel R ^[1]	< 1 Ω	< 1 Ω	< 1 Ω	< 0.2 Ω	< 1 Ω
Isolation (ch-ch, ch-earth)	> 10 G Ω	> 10 G Ω	> 10 G Ω	> 10 G Ω	> 10 G Ω
AC Characteristics					
Bandwidth	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz
Ch-Ch Cross Talk (dB) ^[2] 10 MHz	-45	-45	-18 ^[3]	-45	-33
Capacitance HI to LO	< 50 pF	< 50 pF	< 50 pF	< 10 pF	< 50 pF
Capacitance LO to Earth	< 80 pF	< 80 pF	< 80 pF	< 80 pF	< 80 pF
Volt-Hertz Limit	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸
Other					
T/C Cold Junction Accuracy ^[1] (typical)	0.8 °C	0.8 °C	0.8 °C		
Switch Life No Load (typical)	100M	100M	100M	100M	100M
Switch Life Rated Load (typical) ^[4]	100k	100k	100k	100k	100k
Temperature Operating	All Modules – 0 °C to 55 °C				
Temperature Storage	All Modules – -20 °C to 70 °C				
Humidity (non-condensing)	All Modules – 40 °C / 80% R.H.				

[1] Errors included in the DMM measurement accuracy specifications

[2] 50 Ω source, 50 Ω load

[3] Isolation within channel 1 to 20 or 21 to 40 banks is -40 dB

[4] Applies to resistive loads only